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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, 7)

The distribution of wealth in the United States is more highly skewed than the distribution of income (Caner and Wolff 2004; Miller-Adams 2003; Oliver and Shapiro 1990, 1995). Nowhere is this clearer than in the case of homeowners and renters. Those who own their homes typically have about 20 to 40 times more net wealth than those who rent (Di 2003, 10).

Although home equity plays a role in this growing disparity, it does not fully explain why renters hold fewer assets than homeowners. Even excluding home equity, renters are more than twice as likely to be asset-poor as are homeowners[1] (Caner & 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, 155).

We know little about the relationship between housing tenure and the wealth of low- and moderate-income (LMI) households 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 helps to fill this information gap. We explore wealth differences across a sample of LMI homeowners and renters. In particular, we examine the effects of social, demographic, and economic variables on the likelihood of holding various assets and debts and the role that housing tenure plays in this relationship.

Our sample consists of LMI households who bought homes with mortgages originated by lenders who participated in Self-Help Ventures Fund's (Self-Help's) Community Advantage Program (CAP) and a comparable sample of LMI renters.[2] CAP is a collaboration between Self-Help, a leading community development financial institution, and Fannie Mae. The program is supported by the Ford Foundation. The primary data are from in-home interviews conducted with sample households during the fourth quarter

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 CAP data differ in several ways from that in the Survey of Consumer Finances (SCF), which is the dataset of choice for most national studies of family wealth and assets. First, SCF data are cross-sectional, which precludes analysis of changes in wealth over time for particular households. CAP, in contrast, includes panel data, which allow us to examine the impact of homeownership on the wealth of individual LMI households over time. Second, the CAP LMI sample consists of nonelderly, working-age households (of interest to housing policymakers), while a significant portion of the SCF low-income sample consists of only older, nonworking households.

of 2005. Our sample is representative of the more than 28,000 LMI households that purchased homes as part of CAP.[3]

Although our net worth data are as of December 31, 2005, we are able to extend our analysis of home values to the first quarter of 2006 to 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. Although these estimates of paper gains and losses are just that, they are derived from the same models that Fannie Mae uses for internal asset valuation purposes.

This paper has two main sections. In the first part, we explore the wealth of LMI renter and owner households, employing regression analysis to model the likelihood of panel members' holding various assets and debts. In this analysis, we pay special attention to the influence of homeownership, race and ethnicity, and certain background and attitudinal variables on household asset and debt holdings. The second section of our paper concentrates on the owners in the CAP panel, analyzing how homeownership has affected the wealth of this group of LMI first-time homebuyers. The paper concludes with a brief discussion of the policy considerations flowing from our analysis.

Table 1: Overview of CAP Owners and Renters*

	Owners	Renters
Age of HH Head		
20 - 29	31%	26%
30 - 39	37%	25%
40 - 49	21%	30%
50 - 59	11%	19%
Race of HH Head		
Non-Hispanic White	67%	44%
Black	15%	36%
Hispanic	14%	15%
Other	4%	4%
Sex of HH Head		
Male	53%	29%
Female	47%	71%
Annual HH Income		
Less than $10,000	2%	25%
$10,000 - $20,000	7%	26%
$20,000 - $30,000	17%	23%
$30,000 - $40,000	24%	13%
$40,000 - $50,000	19%	8%
$50,000+	32%	6%
Education		
Less than High School	6%	16%
High School Diploma	62%	66%
Bachelor's Degree	24%	13%
Grad. or Professional Degree	8%	6%
N	*849*	*836*

**Numbers may not add to 100 percent due to rounding.*
HH = household.

Although we make no claims that the CAP population is broadly representative of all LMI families, our findings provide important insights for policymakers. CAP loans were originated under lender-crafted affordable mortgage programs stimulated by the Community Reinvestment Act (CRA); these feature customized loan guidelines that are tailored to meet lenders' CRA goals as well as local market needs. Our findings therefore

3 There are statistically significant racial differences between our sample of 849 owners and the more than 28,000 owners in the CAP data set. In particular, blacks, Hispanics, and those classified as "other" are underrepresented among our 849 owners. The larger data set is 18 percent black, 10 percent "other," and 20 percent Hispanic. Our subsample is 15 percent black, 4 percent "other," and 14 percent Hispanic.

inform policymakers about the potential benefits of such lending and are particularly important in light of current trends in the mortgage market. In an industry that was originally characterized as failing to serve lower-income and minority households and more recently has been seen as flooding that market with unaffordable adjustable rate products, CAP stands out for having helped nearly 50,000 LMI and minority households build wealth through sustainable homeownership. Further, all CAP mortgages are fixed-rate, and a substantial portion were made to LMI families with imperfect credit histories. This makes our findings even more important for policymakers in these tumultuous economic times.

The Composition of Household Portfolios

We begin with a consideration of LMI owner and renter households' wealth portfolios.[4] Our analysis is both descriptive and analytical. We first describe the distribution and level of assets and debts held by owners and renters. We then model the propensity of households to hold a particular class of assets or debts, looking specifically at the influence of housing tenure, race and ethnicity, and background and attitudinal variables on portfolio composition. First, however, we give a brief overview of the CAP program and panel participants to situate the analysis.

The Community Advantage Program

As indicated earlier, the data for this analysis were gathered as part of Self-Help's Community Advantage Program.[5] The goal of CAP is to provide evidence to lenders, policymakers, 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 safety and soundness of their practices. The Center for Community Capitalism, a research center based at the University of North Carolina at Chapel Hill, is undertaking in-depth, long-term research on CAP to evaluate the performance of these loans and the social and wealth impacts of homeownership for low- and moderate-income borrowers.[6]

The evaluation includes a six-year series of annual interviews with a panel of CAP borrowers. In an attempt to isolate the effects of homeownership, we also fielded a panel of renters. Because of considerable differences in income and demographic composition, we cannot make meaningful comparisons between our owner and renter panels; we use our renter panel most powerfully in our modeling of asset and debt holdings, where we can control for these differences. Therefore, in the following, we describe differences between the

4 We restrict our analysis of the portfolios of low- and moderate-income households to 1,685 owner and renter households where the head of household is age 20–59. In this group of 1,685, we will analyze equity and house price appreciation for our 849 sample owners. We also conduct analysis of equity and house price appreciation for more than 20,000 homeowners in the greater CAP loan database.

5 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, nontraditional 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.

6 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.

Table 2: Asset and Debt Holdings of CAP Panel Owners and Renters

	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	$7,500	98.6	$12,000	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*	

panels without attributing causality to any differences we find.

The CAP Panel

Just who are CAP owners and renters and how do these groups compare?[7] CAP owners are somewhat younger than their renter counterparts, with 68 percent of owner heads of household under the age of 40 compared with 51 percent of renter heads of household (Table 1).[8] CAP owners are also better educated than their renter counterparts, with 32 percent of owner heads of household having at least an undergraduate degree compared with 19 percent of renters. The renter households have lower incomes than the owners: 51 percent of renters have annual incomes under $20,000 while only 9 percent of owners have the same. CAP owner heads of household are more likely to be white than their renter counterparts (67 percent versus 44 percent), are less likely to be female (47 percent versus 71 percent of renters) and are less likely to be divorced, widowed, or separated than their renter counterparts (20 percent versus 28 percent of renters). In addition, CAP owners are more likely than their renter counterparts to have children, with 60 percent of owners reporting at least one child in the home (as opposed to 54 percent of renters).

Given the disparities between the owners and renters panels (which we control for in the logistic regression), it makes little sense to compare the asset and debt holdings of CAP owners and renters. However, to situate the findings presented in the subsequent logistic regression analysis, this section provides a snapshot of the wealth holdings of all of the households interviewed for this study (total sample =1,685 households).

The most commonly owned assets, held by 90 percent of all households, are transaction accounts (checking and savings) and certificates of deposit (CDs) (Table 2). Although the median amount held in these types of

7 See Appendix A for an explanation of how these two samples were drawn.

8 For owner households, the person interviewed for the study is the person who holds the home loan or, in the case of a jointly held loan, the person whose name appears first on the loan. For renter households, the person whose name appears first on the lease is the person interviewed for the study.

accounts is $700, 25 percent of participant households have less than $200 in the bank and 10 percent have no more than $75 in the bank (data not shown in table). Motor vehicles are the second most commonly held asset, with 89 percent of participant households reporting owning at least one vehicle; the median resale value of these vehicles is $7,500. Although vehicles are commonly thought to constitute the greatest source of wealth for renter households, in fact 20 percent of participating renter households do not own a motor vehicle (as opposed to only 1 percent of CAP owner households). Further, the median resale value of owners' vehicles is $12,000 while for renters' vehicles, it is only $4,000.

The LMI households in our study 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 investments held is only $2,000. 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. Interviewees are more likely to own land than any other type of real estate, with more than 5 percent of the 1,685 interviewees reporting owning land. An additional 2 percent report owning a timeshare while 1 percent report owning a vacation home.

Turning to the debt side of the household ledger, 85 percent of the households who report holding credit or charge cards carry debt on these cards, with a median unpaid balance of $2,000. Although 25 percent of card holders owe $300 or less on their credit and charge cards, at the upper end of the range, 25 percent owe $5,000 or more on their cards (with the top 10 percent of cardholders carrying $10,000 or more on their cards). Thirty-five percent of interviewed households are also paying off installment debt, the bulk of which is in the form of student loans. The median level of installment debt is $6,600, with 25 percent of interviewees owing $18,000 or more on their installment loans and the top 10 percent owing a minimum of $35,000.

Logistic Regression Analysis: Empirical Results

We now turn to modeling the asset and debt holdings of our participant households. For this analysis, we specified eight binary logistic regression models to help us identify the factors that influence household decisions to invest and to incur different forms of debt (see Table 3 for details on the eight models). For example, the first model examines the influence of various factors on the likelihood that a household holds checking or savings accounts or certificates of deposit. Each model tests the effects of factors, i.e. *independent predictors*, that are thought to influence financial decisions (see Table 4 for descriptions of these variables). These predictors are categorized into three general types: 1) demographic, because research confirms that life-cycle and related socioeconomic attributes influence asset and debt holdings (Gouskova and Stafford 2002; Haurin, Hendershott, and Wachter 1996; Hurst, Luoh, and Stafford 1998; Juster, Smith, and Stafford 1999); 2) tenure, because much of the descriptive literature on wealth finds a significant difference in the asset holdings of owners and renters (Boehm and Schlottman 2004; Caner and Wolff 2004; Haveman and Wolff 2001, 2004);[9] and 3) a small set of attitudinal and behavioral variables related to financial literacy, attitudes toward money, and the onset of an urgent credit crisis, all thought to influence financial behavior (Chiteji and Stafford 1999; Rhine, Toussaint-Comeau, Hogarth, and Greene 2001; Schooley and Worden 1996; Stegman, Rocha, and Davis 2005). We focus below on the role that three factors in particular—housing tenure, race and ethnicity, and attitudes and upbringing—play in savings, investment, and borrowing decisions.

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

Table 3: Binary Logistic Regression Dependent Variables

ASSETS

Variable Name	*Definition*
Transaction accounts + 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.

Homeownership Matters

Overall, our analysis suggests that homeownership is important to certain, but not all, financial decisions. Holding other potential influences equal, low- and moderate-income homeowners are more likely than renters to have bank accounts, to hold cash value life insurance, and to own other real property. However, homeowners are less likely than renters to hold miscellaneous assets.[10] On the debt side of the balance sheet, homeowners are more likely than renters to carry credit card debt and to have outstanding miscellaneous debts, such as debt against cash value life insurance, debt for an unexpected emergency, or any other debt greater than $500 (Tables 5a and 5b). We find no independent influence of homeownership on households' holding of stocks, mutual funds, or bonds.

On the use of financial services, our findings align consistently with much past research (Caskey 1994, 1997;

10 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? Panel members were more likely to report being owed $1,000 or more than they were to report the expectation of proceeds or the holding of precious goods. Of all those reporting holding miscellaneous assets, 75 percent reported being owed money, while only 33 percent reported the expectation of proceeds or the holding of precious goods. (These figures do not add up to 100 percent because some panel members reported holding both types of miscellaneous assets.)

Table 4: Binary Logistic Regression Independent Variables

Independent Variable	*Measures*
Age	20-29 (reference); 30-39; 40-49; 50-59[a]
Household status	Currently married/partnered (reference); never married male; never married female; widowed/divorced/separated
Race/Ethnicity	Non-Hispanic white (reference); black; Hispanic; other[b]
Education	<High school diploma; hold high school diploma (reference); hold bachelors degree; hold graduate or professional degree[c]
Income	<$10K; $10K-$20K (reference); $20K-$30K; $30K-$40K; $40K-$50K; >$50K[d]
Employment	Unemployed (reference); employed or retired[e]
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."[f]

[a] *Age at the time the interview was conducted.*

[b] *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.*

[c] *Level of educational attainment at the time the interview was conducted.*

[d] *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.*

[e] *"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.*

[f] *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.*

Caskey, Duran, and Solo 2004; Hogarth and O'Donnell 2000): homeowners are more likely than renters to hold bank accounts. 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).[11] Other things being equal, CAP LMI homeowners are five times more likely to hold checking accounts, savings accounts, and CDs than their renter counterparts. Although approximately 19 percent of all renters are unbanked, 18 percent of all black renters and approximately 30 percent of all Hispanic renters have no relationship with a bank. Further, unbanked renters are concentrated in the lowest income categories: 30 percent of renters with incomes below $10,000 have no bank accounts; the same is true for 22 percent of renters with incomes between $10,000 and $20,000. The median account balance of renters is just $375 compared with $1,400 for owners. In addition, 25 percent of owners have at least $3,250 in the bank, and 10 percent of owners have at least $7,900. These figures compare with $1,125 and $3,375,

11 In particular, homeowners, those with higher incomes, and employed/retired households are significantly more likely to have bank accounts. In addition, education, financial upbringing, and the number of children in the home also affect whether a household holds bank accounts.

Table 5a: Wealth and Assets Logistic Regression Analysis

Assets

	Trans+CDs		Investments		Insurance		Prop. Holding		Misc. Assets	
	Coef.	**OR**	**Coef.**	**OR**	**Coef.**	**OR**	**Coef.**	**OR**	**Coef.**	**OR**
Intercept	0.65		-2.86		-2.41		-3.55		-2.56	
30-39	0.54*	1.72*	-0.04	0.96	0.13	1.14	0.67*	1.95*	0.09	1.09
40-49	0.26	1.29	0.04	1.05	0.33	1.39	0.48	1.61	0.15	1.16
50-59	0.31	1.36	-0.15	0.86	0.81*	2.25*	0.9*	2.45*	0.32	1.38
Never married male	0.56	0.56	0.28	1.32	-0.23	0.8	-0.35	0.7	0.47	1.61
Never married female	0.12	1.12	0.03	1.04	-0.29	0.75	-0.81*	0.45*	0.08	1.08
Widowed/Divor./Separ.	-0.33	0.72	-0.35	0.71	-0.43*	0.65*	-0.49	0.61	0.03	1.03
Black	-0.1	0.91	-0.26	0.77	0.97*	2.63*	0.38	1.47	0.06	1.06
Hispanic	-0.42	0.66	-0.82*	0.44*	-0.77*	0.46*	0.83*	2.29*	0.66*	1.93*
Other	0.24	1.27	-0.54	0.59	-0.01	0.99	-0.24	0.79	-0.18	0.83
Less than high school	-0.44	0.64	-1.17*	0.31*	-0.01	0.99	-0.18	0.83	-0.87*	0.42*
BA, no grad. degree	2.05*	7.8*	0.26	1.3	0.1	1.11	0.21	1.24	-0.17	0.85
Grad. degree	2.04*	7.66*	0.55*	1.73*	0.07	1.07	-0.19	0.83	0.11	1.12
Less than $10,000	-0.39	0.68	-0.51	0.6	-0.4	0.67	0.02	1.02	0.22	1.25
$20,000-$29,999	0.03	1.03	0.42	1.52	-0.04	0.96	0.58	1.79	0.49	1.63
$30,000-$39,999	0.34	1.4	0.58*	1.78*	-0.1	0.9	0.48	1.61	0.53	1.69
$40,000-$49,999	1.64*	5.18*	0.98*	2.67*	-0.07	0.93	0.63	1.89	0.78*	2.19*
$50,000 or more	1.5*	4.47*	1.2*	3.33*	-0.16	0.85	1.24*	3.45*	1.18*	3.25*
Employed/Retired	0.76*	2.13*	1.02*	2.79*	0.56	1.75	0	1	0.23	1.26
Number of children	-0.19*	0.83*	-0.02	0.98	-0.05	0.95	-0.17	0.85	0	1
Owners	1.62*	5.07*	0.27	1.32	0.7*	2.01*	0.48*	1.62*	-0.4*	0.67*
Upbring.: Parents had trans. accounts	0.6*	1.83*	0.74*	2.09*	0.19	1.21	0.23	1.25	0.32	1.38
Upbring.: D/K if parents had trans. accounts	0.38	1.46	-0.34	0.71	-0.44	0.64	-0.45	0.64	-0.04	0.96
Financial State: Bill collector contact	0.24	1.28	-0.54*	0.58*	-0.19	0.83	-0.25	0.78	0.06	1.07
Attitudes: "Got money, might as well spend it"	-0.09	0.92	-0.24*	0.79*	-0.17*	0.85*	-0.02	0.98	-0.14	0.87
Chi-Square	301.31		311.75		103.43		90.12		51.18	
Df	24		24		24		24		24	
N	1,680		1,680		1,680		1,680		1,680	

*Coef. = coefficient; OR = odds ratio; * statistically significant at p < .05*

respectively, for the top 25 percent and top 10 percent of renters.

In contrast, tenure is not a significant factor in holding investments among CAP participants. Holding other variables constant, CAP owners and renters are equally likely to own stocks, bonds, and mutual funds.

Table 5b: Wealth and Assets Logistic Regression Analysis

Debts

	Inst. Debts		Credit card		Misc. Debts	
	Coef.	**OR**	**Coef.**	**OR**	**Coef.**	**OR**
Intercept	-0.8		0.22		-1.43	
30-39	-0.37*	0.69*	0.04	1.04	-0.22	0.8
40-49	-0.82*	0.44*	0.73*	2.08*	-0.13	0.88
50-59	-1.23*	0.29*	0.16	1.17	0.06	1.06
Never married male	-0.4	0.67	-0.15	0.86	-0.48	0.62
Never married female	-0.09	0.91	0.46	1.58	-0.17	0.85
Widowed/Divor./Separ.	0.14	1.15	0.06	1.07	-0.03	0.97
Black	0.24	1.27	0.19	1.21	-0.51*	0.6*
Hispanic	-0.18	0.83	0.14	1.15	-0.45*	0.64*
Other	0.36	1.44	0.25	1.29	-0.01	0.99
Less than high school	-0.67*	0.51*	-0.33	0.72	-0.02	0.98
BA, no grad. degree	0.98*	2.67*	-0.3	0.74	-0.07	0.93
Grad. degree	0.86*	2.37*	-0.95*	0.39*	-0.53*	0.59*
Less than $10,000	0.13	1.14	-0.25	0.78	0.09	1.1
$20,000-$29,999	0.26	1.29	-0.11	0.9	-0.15	0.86
$30,000-$39,999	0.18	1.2	0.36	1.43	-0.1	0.91
$40,000-$49,999	0.36	1.44	-0.12	0.88	0.15	1.16
$50,000 or more	0.51*	1.66*	-0.27	0.76	0.24	1.27
Employed/Retired	0.11	1.11	0.75*	2.13*	0.16	1.17
Number of children	0.08	1.09	-0.01	0.99	-0.03	0.97
Owners	-0.21	0.81	0.54*	1.72*	2.33*	10.29*
Upbring.: Parents had trans. accounts	0.39*	1.47*	0.4	1.5	0.29	1.34
Upbring.: D/K if parents had trans. accounts	0.09	1.09	0.53	1.71	0.18	1.2
Financial State: Bill collector contact	0.18	1.2	0.25	1.29	1.1*	2.99*
Attitudes: "Got money, might as well spend it"	-0.12*	0.89*	0.04	1.04	0	1
Chi-Square	213.77		52.2		504.57	
Df	24		24		24	
N	1,680		1,054		1,680	

*Coef. = coefficient; OR = odds ratio; * statistically significant at p < .05*

These findings are in contrast to prior research showing such a link.[12] Hu (2003, 127), for example, found that "homeownership crowds out stock market participation," (i.e. owning a home makes individuals less

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.

likely to invest in equities), and Cocco (2004, 564-565) likewise found that the "crowding out effect is larger for [those households with] lower financial net-worth." However, we do find disparities between the two groups when analyzing the level of investments. Although 50 percent of the owners who hold investments have at least $3,000 in the market, 50 percent of their renter counterparts have only $1,200 in stocks, bonds, and mutual funds. These disparities become less noticeable for those with the greatest investments: the top quartile of owner-investors have at least $9,000 in the stock market compared with $7,600 for the top quartile of renter-investors, while the top 10 percent of owner- and renter-investors have at least $20,500 and $20,000, respectively, in investments.

Homeownership, on the other hand, does influence the likelihood of holding cash value life insurance. The Survey of Consumer Finances (SCF) 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 et al. 2006, A17). Our model confirms the role of age, but we also find that tenure exerts an independent effect on the decision to hold cash value insurance, with CAP homeowners twice as likely to hold cash value life insurance as renters, controlling for all other predictors. The median cash value of owners' insurance ($4,000) is also greater than that of renters' insurance ($1,000). Furthermore, 79 percent of CAP owners hold either term life insurance, cash value life insurance, or both, compared with the 44 percent of renters. This disparity suggests that owners are more likely than renters to take steps to protect their survivors in the event of death, and this action might be spurred by the desire to safeguard the household's most valuable asset, their home.

The 2004 SCF reveals that whites, higher-income households, households headed by older individuals, and homeowners are more likely to own property other than a primary residence (including equity in nonresidential property) (Bucks et al. 2006).[13] Our findings concur. CAP owners are 62 percent more likely than their renter counterparts to hold such property.[14] Given the low levels of income in the CAP combined sample, we were surprised to find that approximately 13 percent of owners and 6 percent of renters report holding property other than their primary residence. As noted earlier, land is the predominant type of property held. Of the owners who report holding real property, 52 percent hold land. The same is true for 76 percent of the renters who report holding real property. As with most assets, owners' property holdings are worth more than renters' property holdings, with a median value of $30,000 for owner households and $20,500 for renter households.

"Miscellaneous assets" is a catchall for both financial and nonfinancial assets. This class of assets includes personal debt of $1,000 or more owed to the respondent, expectation of future proceeds from a lawsuit or estate, and artwork, antiques, precious metals, oil and gas leases, futures contracts, or royalties. Within the broader population, higher-income groups, younger individuals, and homeowners more often hold miscellaneous assets.[15] However, among our LMI households, the likelihood that they hold such assets is influenced by income, education, race and ethnicity, and tenure. Interestingly, homeownership reduces

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

14 In addition, our model reveals that for LMI households, income and age have significant effects on the likelihood that households hold property other than the primary residence; marital status and race-ethnicity are also significant (although our findings by race-ethnicity are somewhat different from those revealed by SCF; see next section for a full explanation).

15 Bucks et al. (2006) 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 nonfinancial assets" (artwork, jewelry, precious metals, antiques, hobby equipment, and collectibles) was higher amongst non–Hispanic whites and homeowners.

the likelihood of holding miscellaneous assets. Controlling for other predictors, CAP homeowners are 33 percent less likely than their renter counterparts to hold miscellaneous assets. The key to this finding is that, all things equal, owners are 52 percent less likely than renters to be owed more than $1,000 by anyone.[16] This suggests that renters could be forgoing the opportunity to become owners by lending to others the funds they might put toward a down payment on a home of their own. The majority of renters who have loaned $1,000 or more are white (44 percent), followed by blacks (29 percent) and Hispanics (20 percent). Further, these renters are not necessarily among the wealthiest in our sample: 35 percent of those who are owed $1,000 or more have household incomes under $20,000 per year, while 56 percent earn less than $30,000 per year.

We now turn to the influence of tenure on debt, beginning with an analysis of installment debts, which include outstanding student loans for the householder or for children in the home and debt on major consumer durables.[17] Thirty-five percent of our combined owner/renter sample carries some installment debt, with 76 percent of these respondents holding outstanding student loans for themselves, 5 percent holding such obligations for their children, and 28 percent having debt from purchases of major consumer durables.[18] Past research suggests that both demographic and attitudinal factors are associated with installment debt (Baum and O'Malley 2003; Chien and Devaney 2001). Although we found five predictors to be significant to the likelihood of holding installment debt, tenure was not one of these. [19] All things equal, owners and renters are equally likely to carry such debt. However, we do find that owners carry more installment debt than renters, with a median of $8,000 for owners and $5,200 for renters. Owners have an installment debt interquartile range[20] of $2,500 to $20,000 while for renters, the interquartile range is $1,500 to $16,000.

The majority of CAP participants hold credit and charge cards, and 85 percent of these individuals report carrying monthly balances on these accounts. CAP owners (82 percent) are more likely than renters (44 percent) to hold credit and charge cards and are more likely to carry debt on these cards. Eighty-seven percent of owner cardholders carry debt on their cards compared with 81 percent of renters. It is not surprising, therefore, that tenure is a significant factor in the logistic model concerning credit and charge card debt.[21] CAP homeowners are 72 percent more likely than renters to carry credit or charge card debt, with owners carrying a median debt of $2,850 compared with $800 for renters. These differences hold at all levels for owners and renters, with the bottom 25 percent of owners owing up to $600 on their credit and

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

17 This debt is not carried on credit or charge cards, which will be discussed next.

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

19 In modeling installment debt among CAP's participants, five predictors were significant: age, education, income, financial upbringing, and attitudes toward spending. The influence of financial upbringing and attitudes toward spending will be discussed in a later section.

20 The "interquartile range" is a measure of statistical dispersion that is equal to the difference between the 75th percentile and the 25th percentile datapoints. Since 25 percent of the data are less than or equal to the first quartile and 25 percent are greater than or equal to the third quartile, the interquartile range is expected to include about half of the data. Since owners have an installment debt interquartile range of $2,500 to $20,000, 25 percent of owners have installment debt levels of under $2,500, 25 percent of owners have installment debt levels greater than $20,000, and the middle 50 percent of owners have installment debt levels of between $2,500 and $20,000.

21 The likelihood of LMI households' carrying credit card debt is influenced by four predictors: tenure, employment, age, and education. We were surprised that income levels had no effect on holding credit card debt. Our initial suspicion was that interaction effects between age and income were causing income to appear insignificant. To test whether this was the case, we ran the model and excluded age; however in this revised model, income remained insignificant.

charge cards (compared with $180 for renters) and the top quartile of owners owing a minimum of $7,000 on their plastic (compared with a minimum of $3,000 for renters).

Miscellaneous debt includes debt against cash value life insurance, debt for an unexpected emergency, or any other outstanding debt greater than $500. Housing tenure influences the likelihood of carrying miscellaneous debt, with CAP owners 10 times more likely than comparably situated renters to carry miscellaneous debt. [22] Among 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). Although CAP owners and renters are equally likely to owe money on an unexpected emergency (approximately 8 percent of owners and 7 percent of renters report such debt), owners are far more likely than renters to report owing at least $500 to family, friends, or some other informal lender. Nearly three-fourths (73 percent) of owners, but only 22 percent of renters, answered yes to the question asking whether they owed more than $500 to a relative, a friend, a coworker, a business or someone else. Although we do not know how owners spent this borrowed money, the high incidence of such debt could be associated with the money required for a down payment or for home repairs after purchase.

Our final question concerns homeownership's effect on households' adjusted net worth.[23] To examine this, we constructed an ordinary least squares (OLS) regression analysis in which the dependent variable was household net worth (see Table 6 for details), and the independent variables (the factors that may affect net worth) were identical to those used in the binary logistic regression analysis (Table 3). Our sample for this analysis was the 1,403 owners and renters (83 percent of our total sample) who reported the value of their various assets and debts in our in-home survey.[24] Our findings reveal that tenure not only affects the likelihood of one's holding assets and debt, but it also affects one's overall level of wealth. Other things equal, owning a home increases one's adjusted net worth by almost $37,000.

Race and Ethnicity Matter

Much of the recent research on wealth disparities in the United States looks at the role of race and ethnicity in such disparities (Chiteji and Stafford 1999; Lui, Robles, Leondar-Wright, Brewer, and Adamson 2006; Oliver and Shapiro 1995; Shapiro 2004). We too examine the effects that race and ethnicity have on the asset and debt holdings of our sample of LMI households.

Other things being equal, low- and moderate-income blacks are no more or less likely than their non–Hispanic white counterparts to have various bank accounts, to hold investments, to own real property other

22 Three other variables are significant in the model: race and ethnicity, current financial state, and education. The influence of race and ethnicity and current financial state will be considered in a subsequent section .

23 We use 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 items concern debt, our analysis overstates net worth. Adjusted net worth is calculated as follows: the sum of the value of (checking accounts, savings accounts, CDs, savings bonds, other bonds, stocks, mutual funds, IRAs, cash value life insurance, accounts receivable [i.e. loans to friends and family], any other miscellaneous financial or nonfinancial assets, equity in a principal residence, other real property owned, and vehicles owned) minus the value of (student loans for respondent or children, balance on credit and charge cards, loans against cash value life insurance, accounts payable [i.e. money due to friends and family], money owed for an emergency, installment debt for major purchases, and any other miscellaneous debt over $500). Following our initial reference to adjusted net worth, for convenience, we use the term "net worth" throughout the remainder of the paper.

24 Although many of our owners and renters reported holding various assets and debts, where they did not then report the value of these holdings, we were unable to construct for them a measure of adjusted net worth.

than the primary residence, or to hold miscellaneous assets. However, we do find that the value of each of these holdings is often less than that held by their white counterparts. Although our analysis reveals that blacks are more likely than whites to hold cash value life insurance, the cash value of that insurance is less than that of their white counterparts. LMI Hispanic households, are less likely than non–Hispanic whites to hold investments and insurance and more likely than whites to own property and hold miscellaneous assets, after controlling for other demographic variables, tenure, and attitudes/upbringing (see Table 3 for descriptions of these variables).

On the debt side of the balance sheet, blacks and Hispanics are less likely than non–Hispanic whites to carry miscellaneous debt. Those whose race is classified as "other" (i.e., those who identified as American Indian/Aleut/Eskimo, Asian/Pacific Islander, and anyone who chose to be classified as "other") do not differ significantly from non–Hispanic whites in the likelihood that they will carry any type of asset or debt.

Despite descriptive analysis revealing that a greater percentage of Hispanic renters are unbanked, multivariate analysis reveals that, all things being equal, blacks, Hispanics, and those categorized as "other" are neither more nor less likely than non–Hispanic whites to hold transaction accounts and CDs. There are racial and ethnic disparities in the *level* of bank holdings of participant households, however. Although the median white household has $975 in the bank, the median black household has $400. Similarly, although the top 25 percent of white households have at least $2,750 in the bank and the top 10 percent have more than $6,650, the parallel figures for black households are $1,425 and $3,750, respectively. (Hispanic households and households classified as "other" generally fall between whites and blacks in the value of their transaction accounts and CDs.)

We find racial and ethnic disparities in the likelihood that LMI households own investments. Hispanics are 56 percent less likely to hold stocks, bonds, and mutual funds than non–Hispanic whites. In fact, just 2 percent of Hispanics hold stocks (compared with 12 percent of whites, 6 percent of blacks, and 7 percent of "other" households). Three percent of Hispanics hold bonds compared with 11 percent of whites and 6 percent of both blacks and "others." Finally, 4 percent of Hispanics hold mutual funds compared with 10 percent of whites.[25] These results are consistent with Coleman (2003, 50), who found that Hispanic households are significantly more risk averse than non–Hispanic whites, with a higher percentage indicating they were "unwilling to take any risk in exchange for investment returns." Analysis also reveals stark racial and ethnic disparities in investment holdings. Although 20 percent of all interviewed households hold investments of some form, the rate is 28 percent for non–Hispanic white households but only 8 percent for Hispanic households.

When it comes to the dollar value of investments, the differences are reversed. The interquartile range for whites is between $1,000 and $9,000 while for Hispanics it is even wider, from $1,000 to $12,000. Further, there is only a $50 difference between the level of investments held by the top 10 percent of whites and Hispanics ($20,050 or more versus $20,000 or more, respectively). The investment holdings of blacks are somewhat lower, with the bottom quartile of blacks holding no more than $750 in investments, and 75 percent of black investors having no more than $4,500 in stocks, bonds, or mutual funds. Again, this compares with 75 percent of white investors having up to $9,000 in investments and 75 percent of Hispanic investors having up to $12,000 in stocks, bonds, and mutual funds. However, the top 10 percent of black investment holders fare about as well as their white and Hispanic counterparts, with this group holding at

25 In their holding of mutual funds, Hispanics fare slightly better than blacks and those classified as "other"; only 3 percent of each of these groups holds mutual funds.

least $19,000 in investments.

As in the analysis on investments, race and ethnicity affect the likelihood of LMI households' holding cash value life insurance. All things equal, Hispanics are less than half as likely as whites to hold cash value life insurance. Blacks, on the other hand, were 2.6 times more likely than whites to hold cash value life insurance. This result is consistent with prior research that black households "demonstrate a distinct preference [over whites] 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, 357). Despite blacks being more likely than whites (and by logical extension, more likely than Hispanics) to hold cash value life insurance, the value of the insurance they hold is less. The median value is $2,000, while for whites it is $4,000. The top 25 percent of whites hold at least $13,000 in cash value life insurance while the same group of blacks hold a minimum of $5,000.

Despite the fact that Hispanics are significantly less likely to hold investments, we find that they are more than twice as likely as non–Hispanic whites to hold property other than a primary residence. Thirteen percent of all Hispanics hold real property compared with 9 percent of all whites, 8 percent of all blacks, and 6 percent of all those classified as "other." Hispanic renters (12 percent) are much more likely than their white renter counterparts (5 percent) to own such property. The rates for Hispanic and white owners are more comparable: 14 percent and 12 percent, respectively. As noted above, land dominates the property holdings of these non-primary holdings. Nearly two-thirds (64 percent) of black, 57 percent of white, and 55 percent of Hispanic property holders own land. There are also racial and ethnic disparities in the value of the property held. The median value for whites is $30,000; for blacks, it is $20,000; for Hispanics, it is $25,000, and for "other" racial-ethnic groups, it is $10,000.

The final asset variable is miscellaneous assets. Here, racial-ethnic variables were significant, with Hispanics 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 $40,000 per year. Although we cannot definitively explain this disproportionately high prevalence among Hispanics, it may be related to their helping to support extended family, both in the United States and abroad. Although there is an extensive literature on remittances among Hispanics (see de La Garza 2002 for an excellent overview), we have seen no reference to more formal financial support of family members with an explicit understanding of a repayment obligation (which it would have to be to be counted as a miscellaneous asset).

Moving to the debt side of the balance sheet, our regression analysis finds no effect of race-ethnicity on installment or credit card debt. However, descriptive analysis reveals interesting findings, which we share here. Our descriptive results show that Hispanics owe less than other groups. The median owed on their installment debts is $3,100, while for whites it is $7,000, for blacks it is $6,600, and for those categorized as "other," it is $6,600. The bottom quartile of Hispanics owes less than $940 in installment debt, while the bottom quartile of whites owes up to $2,000, the bottom quartile of blacks owes up to $2,500, and the bottom quartile of other groups owes up to $2,850. Likewise, whites and those classified as "other" carry greater levels of credit card debt than blacks and Hispanics. The median level of credit card debt for whites is $2,000, while 25 percent of whites owe more than $6,000 on their credit cards, and the top 10 percent of whites owes more than $12,000. Those of "other" race-ethnicities have a median credit card debt of $2,250, while 25 percent of these interviewees owe $6,500 or more on their credit and charge cards, and the top 10 percent owes more than $12,500. Black and Hispanics owe a median of $1,035 and $1,100, respectively. Ten percent of black households owe more than $8,000 on their credit cards, while the top 10 percent of Hispanic households owe a minimum of $10,000 on their charge accounts.

The final item on the debt side of the household ledger is miscellaneous debts. The logistic regression analysis reveals that, all things equal, Hispanics are 36 percent less likely and blacks are 40 percent less likely than non–Hispanic whites to have miscellaneous debts. Below the median levels, blacks carry somewhat more miscellaneous debt than other racial-ethnic groups. While the lowest quartile of whites, Hispanics, and others have $500 or less in miscellaneous debt, the bottom 25 percent of blacks have up to $950 in such debt. The median level is also higher for blacks than for other groups: $1,500 versus $1,350 for whites, $1,000 for Hispanics, and $1,250 for all others. However, above the median these differences shift, with "other" race-ethnicities holding the most debt. The top 25 percent of these individuals have at least $2,500 in miscellaneous debt (the figure for the top quartile of blacks and whites is $2,000 while for Hispanics it is $1,850). The top 10 percent of other race-ethnicities have at least $4,250 in such debt, while the figure is $3,000 for whites, blacks, and Hispanics.[26]

The OLS model on the effect of demographic, tenure, and attitudinal/background variables on adjusted net worth (Table 6) reveals an interesting finding concerning race. Holding all else constant, we find no statistically significant difference between the net worth of black and white households, nor do we find a significant difference between the net worth of "other" and white households. However, we find a statistically significant difference between white and Hispanic households, with Hispanics $20,000 *wealthier* than their white counterparts. As we discuss later in the paper, this difference in wealth can be explained largely by what we call the "California effect," that is, the Hispanic owners in the CAP panel tend to reside in those states with the greatest home price appreciation, and this appreciation has been a tremendous driver of household wealth. When we isolate CAP owners from their renter counterparts and run the same OLS regression model for the net worth of each group, a statistically significant difference remains between the adjusted net worth of Hispanic and non–Hispanic white owners (with Hispanics having about $39,100 more than whites), but there is no significant difference between the wealth of Hispanic and non–Hispanic white renters.

Attitudes, Upbringing, and Current Financial State Matter

Finally, we examine the effect that financial upbringing, current financial state, and attitudes toward money have on the asset and debt holdings of LMI owners and renters. Although researchers have analyzed the relationship between upbringing and asset and debt holdings (Caskey 1994; Hogarth, Anguelov, and Lee 2005; Stegman, Quercia, and Davis 2005), we expand this work by focusing in addition on the influence of attitudes toward money.

Financial upbringing (measured by whether interviewees' parents held transaction accounts) was a significant factor explaining differences in three of our models: models of transaction accounts/CDs, investments, and installment debt. Consistent with Stegman, Rocha, and Davis (2005), we find a relationship between

26 At the suggestion of an anonymous reviewer, we tested for any interaction between the race-ethnicity and the tenure variables on the likelihood of households' holding different assets and debts (i.e., we tested whether owning a home has a greater effect on the likelihood of holding assets or debts for black, Hispanic, and "other" households than for white households). We did this by constructing seven new models using CAP owners as the sample. The models focused on the likelihood of owners of different race-ethnicities holding investments, life insurance, property other than the primary residence, miscellaneous assets, installment debt, credit card debt, and miscellaneous debt (it was impossible to construct an eighth model, for transaction accounts/CDs, because nearly all owners hold such accounts and this made the model invalid). In only three models were the combined race-ethnicity/tenure variables significant. First, both Hispanic and "other" owners are less likely than white owners to hold investments, Hispanics being about half as likely and "other" owners being about one-third as likely. Second, black owners are more than two-and-one-half times more likely than white owners to hold cash-value life insurance. Finally, black homeowners are about one-half as likely as white homeowners to hold miscellaneous debts.

the banking status of children and their parents.[27] Controlling for demographic variables and tenure, financial upbringing is positively related to one's banking status, with adult householders whose parents held bank accounts being 83 percent more likely to hold such accounts themselves. Those whose parents held bank accounts also tend to hold more money in their accounts (median balances of $900 versus $375) than those whose parents held no accounts. Financial upbringing was also significant in investment holdings. Having a parent who had a transaction account nearly doubled the likelihood that one would hold investments. Finally, financial upbringing affected whether one held installment debts. Those whose parents held bank accounts were 47 percent more likely to hold such debt. This somewhat surprising finding is elucidated more later.

Table 6: OLS Multiple Regression Analysis of Adjusted Net Worth

Variables	*B*
Intercept	-8,862.61
30-39	15,591.00**
40-49	13,909.00**
50-59	19,691.00**
Never married male	14,263.00*
Never married female	-4,999.64
Widowed/Divor./Separ.	-5,774.51
Black	4,665.26
Hispanic	20,187.00**
Other	-2,517.48
Less than high school	-7,241.83
BA, no grad. degree	2,759.24
Grad. degree	-9,914.60
Less than $10,000	-1,695.67
$20,000-$29,999	4,469.08
$30,000-$39,999	2,461.32
$40,000-$49,999	16,414.00**
$50,000 or more	34,078.00**
Employed/Retired	-880.68
Number of children	1,892.65
Owners	36,897.00**
Upbring: Parents had trans. accounts	-1,152.97
Upbring: D/K if parents had trans. accounts	-7,150.70
Financial State: Bill collector contact	-5,846.60
Attitudes: "Got money, might as well spend it"	-376.08
Adjusted R-Squared	.24
N	*1,399*

** $p < .05$, ** $p < .01$*

A consumer credit crisis (measured by whether a bill collector had called the household since the previous CAP interview[28]) is negatively correlated with holding investment instruments and is positively correlated with having miscellaneous debts. Specifically, households who have been contacted by a bill collector are only 58 percent as likely to hold stocks, bonds, or mutual funds as those not contacted. On the debt side of the ledger, these individuals are almost three times more likely to carry miscellaneous debts, suggesting that households in financial straits are forced to use all of the resources at their disposal to make ends meet.

Finally, a more carefree attitude toward spending is negatively related to holding investment instruments,

27 Related to the finding that financial upbringing predicts banking status, research has 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) find that individuals with medium- to long-term planning horizons were substantially more likely to have bank accounts.

28 The gap between interviews was typically 14 months for renters and 20 months for owners.

cash value life insurance, and installment debts. 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. Specifically, on a five-point scale, for each one point increase in agreement with this statement, the likelihood of holding stocks, bonds, and mutual funds decreases by 21 percent.[29] Each one point increase in strength of agreement with this statement was also associated with a 15 percent decrease in the likelihood of holding cash value life insurance. Somewhat surprising at first was the finding that increased agreement with the statement made households *less* likely to carry installment debt; in this case, for each shift in agreement, households were 11 percent less likely to carry installment debts.

We were surprised at first to find that those whose parents held transaction accounts are *more* likely to carry installment debt and those with a more carefree attitude toward spending are *less* likely to carry installment debt. These findings make more sense, however, when one considers that the bulk of installment debt is accounted for by student loans, which can be thought of as an investment in the future rather than as debt undertaken to meet immediate wants or needs. When interpreted in this light, those who are more likely to use their money to 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.

The Wealth-building Effects of Homeownership for LMI Owners

We now turn to the wealth-building effects of homeownership for CAP low- and moderate-income homebuyers. 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 2000-2001 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.

Nationwide from 1993 to 2003, home purchase loans made to Hispanics grew almost six times faster than those made to whites, four times faster than those made to Asians, and twice as fast as those made to blacks. At the same time, loans doubled among LMI buyers, while loans to higher income borrowers rose by 88 percent. Mortgage lending to underserved populations is on the rise not only 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). Ninety percent of the country's projected population growth through

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.

2050 will consist of minorities.

From 1995 to 2005, the number of homeowners increased by 12.5 million, and minorities accounted for just under one-half of that increase (Joint Center for Housing Studies, 2006a). The 12 million black and Hispanic households expected to enter the home purchase 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 submarket forged in the fires of federal anti-redlining mandates, are a critical component of the mortgage industry's core business. Homeownership policies must recognize and build on 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, it was a staggering $7.6 trillion, which translates to an average equity per homeowner of $104,000 (Fannie Mae 2004). 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. In 2002, among homeowners who also hold stocks, 66 percent 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 pushed home equity levels even higher, to more than $11 trillion at the end of 2005 (Joint Center for Housing Studies 2006a). As the Joint Center for Housing Studies (2007, 12) recently reported, "Home equity as a share of household wealth rose from 17 percent in 2001 to 20 percent in 2006, despite cash-out refinances of nearly $1.2 billion."

Home equity has been particularly important to the lowest-income households, those earning in the bottom quintile. For homeowners in this group, 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 with 48 percent for owners in the middle quintile and 26 percent for those in the highest quintile (Belsky and Calder 2004). For moderate-income, black, and Hispanic households, home equity represented more than one-half of their net wealth (Consumer Federation of America 2003).

The recent rise in black homeownership and a narrowing of the wealth gap over time are not necessarily causally related, but the correlation is impressive all the same. From 1989 to 2001, the ratio of median household wealth among blacks compared with that of all U.S. households rose from about 9 percent to 22 percent, while the rate of homeownership among blacks climbed from 42 percent to 48 percent during a roughly comparable period. In dollar terms, the net wealth of the typical black 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 Role of Housing Wealth for CAP Homeowners

As of December 2005, the median adjusted net worth[30] of CAP owners was $29,081, with 60 percent of this wealth accounted for by home equity[31] (Table 7). In this section, we examine how home values have

30 As a reminder, in this paper, we use the term adjusted net worth (see note 23).

31 The sample size for this analysis is 791 rather than 849 owners owing to missing home value data points. As of March

Table 7: Median Wealth of CAP Panel Owners and Renters, as of December 2005

	Total population	Owners	Renters
Adjusted Net Worth*	$9,399	$29,081	$2,000
Adjusted Net Worth minus Home Equity	$4,750	$11,500	$2,000
Liquid Assets**	$1,875	$3,263	$900
N	*1403*	*645*	*758*

**Due to limitations in the data, "adjusted net worth" does not account for vehicle debt or debt on property other than primary residence (see note 23).*

***Sample sizes for "liquid assets" is 636 owners, 630 renters.*

changed since purchase and the impacts of the softening housing market on wealth.[32]

As indicated earlier, virtually all CAP home loans are part of the broad class of CRA-type mortgages featuring a menu of liberalized underwriting guidelines, including low down payments. The median origination equity for all buyers was just $1,125 on a median-priced house of $80,300**.** As of March 2006, (appreciated) median home equity for all CAP panel owners was $15,133—a little lower for whites ($13,792), a little higher for blacks ($16,060), and much higher for Hispanics ($26,672) (Table 8). Further analysis of the differences in equity at origination suggests that the race or ethnicity of the buyer is not an important driver of these differences.[33]

2006, 304 (38 percent) of our 791 CAP owners had paid off their CAP loans in full, generally by refinancing the loan. At the point at which the CAP loan is paid off, Self-Help stops receiving payment information on these loans. However, the Center for Community Capitalism is still able to submit information on these properties to Fannie Mae to receive a current valuation of the property's worth. We calculate equity for those owners who paid in full and still own the home as follows: (the valuation of the home at March 2006) – (the balance of the loan at the point at which the loan was paid off + any additional borrowing against the home as reported by the owner in the 2005 interview). Although this formula will not give us an exact calculation of equity (given that the owner may have paid off some principal on the new loan), we feel comfortable that our estimate of equity for these paid-in-full loans is accurate given that the bulk of equity earned during the first few years of a loan is due to increase in property value rather than decrease in principal. Thirty-three of the 791 CAP owners paid off their loans in full and subsequently moved away from their CAP home. For 31 of this small subset of owners, equity is calculated as: (the price that the home sold for) – (the outstanding balance at the time of sale). We did not have information on the home sale price for the remaining two owners; for these two cases, equity was calculated as (the mark-to-market valuation of the home at the point closest to the date of sale) – (the outstanding balance at the time of sale).

32 Although many empirical studies of house price dynamics use commercially available property sales data to generate price change information, we use a proprietary valuation model to estimate current market values. As part of its participation in the CAP partnership, Fannie Mae provided current market-value estimates in December 2005 and March 2006 from its automated valuation model (AVM) for all properties in the CAP. Fannie Mae's AVM model consists of three individual models that independently estimate property values based on repeat sales data, property characteristics, and tax assessments, respectively. Fannie Mae then uses a value reconciliation model to compute a best-value estimate in the case of multiple model predictions where valuations vary. This aggregation of independent estimates also allows the AVM system to rank order prediction accuracy at the property level. (Scores are grouped into five buckets that categorize the confidence level of predictions, where each successive bucket is characterized by a flatter and more widely dispersed distribution. Because of substantially higher mean and median rate and variance of price appreciation for the least reliable confidence category, we chose to omit those loans from our analysis.) Each of these models depends both on Fannie Mae's own proprietary loan data as well as public tax record and purchased deed data, and each has been tested out of sample in ongoing Fannie Mae research efforts. Because of its use in risk management, AVM is also examined annually by Fannie Mae's regulator, the Office of Federal Housing Enterprise Oversight (OFHEO), which has consistently awarded high grades in regulatory audits.

33 Table 8 shows a stark disparity between the origination equity (calculated as the lesser of the purchase price or the appraisal

Table 8: 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	$1,125	$200	$2,350	$1,975	0
Current Equity	$15,133	$13,792	$16,060	$26,672	$13,148
N	*791**	*524*	*119*	*116*	*32*

**Sample size is 791 rather than 849 due to missing home value data points.*

It is quite unusual for minority homeowners to have experienced greater paper gains in housing wealth than white buyers. In our panel, this finding stems from the geographic distribution of our homeowners, what we referred to earlier as the "California effect." The median growth in home value experienced by all 791 households between date of purchase and March 2006 was $12,100, or 17 percent of original value.[34] The driving factor in appreciation was geographic market. Properties in states with low appreciation rates, notably North Carolina, Oklahoma, and Ohio, experienced median changes in value below 20 percent, while those in the higher appreciation states—California, Arizona, Florida, and Virginia—experienced value increases of 70 percent and greater. The majority (81 percent) of the overall panel lived in the three low appreciation states while less than 10 percent lived in the four states with high appreciation. The Hispanic owners, however, were more evenly distributed, with only 28 percent living in the three low-appreciation states and another 28 percent living in the four high-appreciation states. As a result of the disparities between these markets, the Hispanic owners realized about double the appreciation of those in other racial and ethnic categories. These higher rates have translated into substantially greater absolute amounts of wealth creation. While the median CAP home value rose by 17 percent over the homeownership period, the median increase enjoyed by Hispanic homeowners was 28 percent (Table 9).

The CAP portfolio consists of nonconforming affordable housing loans; about 14 percent of our sample

value minus loan at origination) of whites ($200) and that of blacks ($2,350) and Hispanics ($1,975). We were curious about which factors were driving this difference. We constructed an OLS regression analysis using as our sample over 25,000 loans from the greater CAP portfolio. The dependent variable was loan-to-value at origination (OLTV), where "value" was the lesser of the purchase price or appraisal value. We divided the independent variables into two groups: those that differ "between programs," such as state where the home was located and originating lender, and those that differ "within programs," such as whether the borrower was a first-time homebuyer, the year of origination, borrower's credit score, borrower's age, borrower's sex, borrower's race, borrower's income, a dummy for whether the appraisal value was less than the purchase price, whether the home was in a rural or urban setting, and year the home was built. Four models were constructed, one that included only "between program" factors, one that incorporated only "within program" factors, one that considered all factors, and finally a nested model that included all factors except for race. Our results show that "between program" factors (i.e. state within which home was located and lender) are more than twice as important as drivers of OLTV than "within program" factors. Specifically, the "between program" factors account for 31 percent of the variability in OLTV and the "within program" factors account for only 13 percent. When all factors are combined into one model, the independent variables account for approximately 36 percent of the variability in OLTV. Race is significant in both the within-program model and the full model including all independent variables. However, in the restricted model (in which race is excluded from the model that incorporates all independent variables), the adjusted R-squared drops only slightly, from .36 to .358. We conclude, therefore, that the impact of race on OLTV, while significant, is not substantial.

34 Home value appreciation is calculated as the difference between estimated market value of the property as of March 2006 and the original value of the property. For original value, we use the lesser of sales price or appraised value at the time of home purchase. Sample size is 791 rather than 849 due to missing home value data points.

Table 9: House Appreciation by Race for CAP Panel Owners, as of March 2006

	Total	White	Black	Hispanic	Other
Median Change in Value ($)	$12,100	$11,800	$10,300	$21,900	$11,050
Median Change in Value (%)	17.0	17.0	13.0	27.9	15.6
Median Annual Appreciation Rate	4.0	3.9	3.0	7.4	3.8
% with Depreciation	1.0%	0.2%	5.0%	0.9%	0.0%
N	*791*	*524*	*119*	*116*	*32*

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

homebuyers either had no established credit score or a credit score of less than 620 at time of purchase. [35] Thus, we are able to track the homeownership experience of a group of LMI borrowers who are generally either shut out of the homeownership market or relegated to the high-priced subprime market where predatory lending is common. Although we have reported on the loan performance and default experiences of these households elsewhere (Quercia, Stegman, Davis, and Stein 2002), here we report on the wealth gains for these marginally qualified home buyers. The median equity gain since purchase for those with no credit score and for those with scores less than 620 is $11,116 and $12,327, respectively, with total current equity somewhat higher owing to the original low down payments (Table 10). These equity levels are important not only from a wealth standpoint; they also provide a cushion against a serious default problem. Credit-impaired LMI homeowners who face a possible foreclosure have options, including pre-foreclosure sales, that can either enable them to retain their home or exit with some wealth. According to Ding, Quercia, and Ratcliffe (2007), for a group of 1,689 60-day delinquent loans from the CAP portfolio, only one-fourth went to REO or foreclosure after at least 21 months, while the other 75 percent were resolved in some way.[36]

Accumulated home equity is in part 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, those buying homes in 1999 have a median current home equity of $22,644, which is significantly greater than that for more recent buyers, although 1999 buyers are experiencing a slower average annual appreciation rate than later buyers (Tables 11 and 12). For all owners, home values since purchase have risen by a median of $12,100—more for the earliest purchasers

Table 10: 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 *(N = 791)*

	No Score	< 620	620-660	660-720	720+
Median Origination Equity	$2,060	$1,500	$1,500	$500	$1,000
Median Current Equity	$15,276	$12,852	$15,497	$14,355	$16,756
Median Equity Gain	$11,116	$12,327	$13,211	$13,117	$14,571
N	*10*	*103*	*168*	*291*	*219*

35 That is, loans that do not meet Fannie Mae's underwriting criteria for loan purchase.

36 These loans come from the more than 20,000 CAP homes bought between 1999 and 2003.

Table 11: 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
Median Origination Equity	$1,125	$0	$2,450	$2,265	$0	$1,375
Median Current Equity	$15,133	$22,644	$20,700	$18,928	$13,533	$13,649
Median Equity Gain	$13,283	$22,644	$15,495	$16,367	$12,553	$10,847
N	*791*	*3*	*58*	*194*	*466*	*70*

Table 12: House Appreciation for CAP Panel Owners by Year of Origination, as of March 31, 2006

	Total	1999	2000	2001	2002	2003
Change in Value ($)	$12,100	$18,500	$16,050	$14,800	$11,150	$8,900
Change in Value (%)	17.0%	17.8%	19.3%	20.6%	15.1%	12.2%
Annual Appreciation Rate	4.0%	2.7%	3.4%	3.9%	4.1%	4.0%
% that Fell in Value from Origination	1.0%	0.0%	0.0%	0.0%	1.7%	0.0%
N	*791*	*3*	*58*	*194*	*466*	*70*

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

($18,500) and less for the more recent purchasers ($8,900 for 2003 purchases). This translates into an average compound annual increase in value of 4 percent for the entire panel.

What About the Housing Bust?

Given recent declines in home prices and the current turmoil in the affordable mortgage market, we pause now to consider the fate of CAP owners as of the second quarter of 2007. Here we examine the effects of recent volatility in both the housing and mortgage markets on CAP owners' home price appreciation and loan performance. Because we do not need interview data for this analysis, we extend our investigation to the larger set of over 28,000 CAP loans in the Self-Help portfolio.

Although research is mixed on whether lower-value homes experience less price volatility than higher-priced homes over a given cycle, our analysis reveals that CAP owners are faring well in the current housing environment. For all CAP loans originated between 1994 and 2005, fewer than 2 percent of the underlying homes had lost value as of the second quarter 2007. This figure held steady from the first quarter 2007. Analysis of loans in the CAP portfolio originated between 1999 and 2003 reveals healthy annual price appreciation and equity gains, with the greatest annual rate of price gain linked to homes bought in 2001 and the greatest annual rate of equity gain earned by those who bought in 2003 (Table 13).

How is CAP's historical book of business performing in today's volatile environment? By March of 2007, CAP's 90-day-or-greater delinquency rate for active mortgages was slightly more than 2 percent. This delinquency rate was well under the 8 percent of subprime loans that were more than 90 days delinquent in the Mortgage Bankers Association series. It was also less than the 5 percent of FHA loans that reported

delinquencies of greater than 90 days in the same period (Self-Help 2007).

Table 13: Annual Price and Equity Appreciation by Year of Origination, as of June 30, 2007 *(N=19,356)*

	Total	1999	2000	2001	2002	2003
Median Price Appreciation*	4.5%	3.8%	4.1%	6.5%	4.7%	3.8%
Median Equity Appreciation*	46.2%	33.8%	38.5%	49.5%	60.8%	71.9%

**Compounded monthly.*

Returning to our panel owners, since they bought their homes, about 1 percent experienced an absolute decline in home value. Significantly, blacks have fared worse than other CAP owners, with 5 percent of black owners experiencing a decline in home value since purchase (Table 9). However, we do not attribute this disparity to racial differences. Rather, geography plays an important role, with only 9 percent of black homeowners living in the states with the highest levels of price appreciation and 86 percent of black homeowners living in the six states with the lowest levels of house price appreciation. [37]

While the modest declines experienced by whites and blacks do not threaten accumulated equity from two to five years of appreciated home values, depending on how long the down cycle lasts and how market trends interact with previous decisions to borrow against accumulated equity, a percentage of CAP owners could face trouble in the foreseeable future.

Is There a Positive Side to Negative Equity?

As of March 2006, only 1 percent of panel members' homes had depreciated in value over the homeownership period, but almost 7 percent of owners had negative equity in their homes.[38] The group with negative equity included 8 percent of white, 5 percent of black, 4 percent of Hispanic, and 3 percent of "other" households (Table 14). These rates of negative equity—surprising given the lack of house value depreciation—are explained by the accumulation of post-purchase, mortgage-related debt from refinancings that extracted cash from equity, second mortgages, and home equity lines of credit (HELOCs). Of the 215 CAP owners (27 percent of all owners) who refinanced their first mortgage, 78 percent chose a cash-out refinancing, which increased their mortgage debt. In addition, 11 percent of all CAP owners borrowed money on a home equity line of credit, while 7 percent of owners obtained a second mortgage after they bought their home (Table 15).

Not everyone who borrowed against their home ended up with negative equity. Among the 255 owners who reported taking on post-purchase housing debt of some kind, 155 reported the amount they borrowed against their home. Of this subgroup, 34 percent had pushed themselves into negative equity through this borrowing.[39] These owners borrowed between 105 and 896 percent of their potential equity (i.e., the

37 The five states with the highest levels of home price appreciation are California, Florida, Virginia, Arizona, and Illinois. The six states with the lowest levels of home price appreciation are North Carolina, Texas, Oklahoma, Ohio, South Carolina, and Georgia.

38 Here we return to examination of the 849 owners in our panel. We do so because our analysis of negative equity requires data gathered during in-home interviews.

39 Of all those who had negative equity as of March 2006, 92 percent (48 homeowners) had negative equity from post-purchase borrowing against their homes. In two cases (4 percent), the homes had depreciated in value, and two other homeowners

difference between their home value and the outstanding loan amount as of March 2006), with the majority borrowing less than twice the amount of their equity. Did these individuals push themselves into negative equity because they had little equity in their homes in the first place or did they end up with negative equity because they borrowed large amounts against their homes? We find that the owners who depleted their equity did so because of lower equity levels in the first place. Some 71 percent of those who depleted their equity had pre-borrowing equity levels of less than 20 percent of the home's value, while only 34 percent of those whose borrowing did not deplete their equity had similarly low levels of equity. In fact, 40 percent of those who maintained positive equity after borrowing against their homes had pre-borrowing equity levels greater than 30 percent of their home's value, while only 6 percent of those who exhausted their equity could boast the same.

Table 14: Percent of Panel Owners with Negative Equity as of March 31, 2006 *(N=791)*

	Total	White	Black	Hispanic	Other
% CAP panel with Negative Equity as of 1st Qtr 2006	6.57	7.63	5.04	4.31	3.13

Why are CAP owners borrowing against their homes? Are they borrowing and using the money in ways that merely shift resources around their balance sheets (for example, borrowing to pay off other debt) or are they borrowing and using the money in ways that convert their overall net worth (for example, using the money for goods that are consumed immediately)? It turns out that the majority of those who have borrowed against their homes have done so to pay off other debts, thereby leaving their wealth picture relatively unchanged. Of the 100 homeowners who told us how they used the funds derived from a HELOC, cash-out refinance, or a second mortgage, 64 percent reported they paid down credit card or some other form of debt.[40] Although this borrowing might not alter a household's balance sheet, it might change a household's monthly expenses or annual income. A better interest rate might lower monthly debt payments and the deductibility of interest on housing loans (below the equity limit, at any rate) might reduce a household's taxable income. The flip side, however, is that amortizing credit card debt over 30 years ultimately makes

Table 15: Post-Purchase Mortgage-Related Debt by Race/Ethnicity, CAP Panel Owners

Debt Type	*White*	*Black*	*Hispanic*	*Other*	*Total percent*	*N*
Refinanced	27.7%	23.5%	34.5%	12.9%	27.4%	*215*
Percent of Refi. w/ Cash Out	86.7%	89.3%	72.5%	100%	78.1%	*168*
Second Mortgage	7.5%	10.1%	5.2%	3.2%	7.4%	*58*
HELOC	12.2%	5.0%	13.8%	3.2%	11.0%	*86*
Total CAP Owners who increased post-purchase mortgage debt					32.5%	*255*

N = 784 (seven movers excluded)

(4 percent) reported selling their homes at a loss.

40 Of course, depending on what goods were paid for by credit card, it might be the case that CAP borrowers are using their post-purchase housing debt funds to pay for goods that are consumed immediately, thereby lowering their overall wealth. Because some households carried more than one type of debt and because each household could report multiple uses for the funds they borrowed, the figures in the next few paragraphs add to more than 100 percent.

it substantially more expensive even if the interest rate is lower. In addition, borrowing against the home subjects the homeowner to the possibility of default and foreclosure in the event that he or she cannot meet the new higher mortgage payments.

The second most frequently cited use of these funds is for home improvements or repairs. Nearly one-half (48 percent) of households reported using the money in this way. Eleven percent of owners borrowed against their homes to purchase or lease a vehicle, an investment in physical capital given that it enables households to get to and from work and to meet their basic needs, such as shopping for food or visiting a doctor. Another 2 percent of households borrowed against their primary residence to finance the purchase of another property. Borrowers also used funds to invest in human capital, with 8 percent reporting they used the money for their own or a child's education, and 5 percent reporting that they used the funds for medical costs. In each of these instances, while owners' balance sheets may look worse in the short-run, borrowers are using their post-purchase housing funds in a way that might improve their income or wealth position in the long run.

Finally, we come to those owners who borrowed against their homes and did not improve their long-term wealth or income potential. These are the 4 percent of owners who spent the funds on items that were consumed immediately, such as Christmas gifts, trips abroad, or vacation expenses.

One final point regarding negative equity concerns those CAP owners who began their tenure with negative equity. Interestingly, 344 of CAP 791 owners (44 percent) had original loan-to-value ratios of between 100 and 103, meaning that they entered the homeownership process with either no or negative equity. By March 2006, 93 percent of these owners had built up some equity; the other 7 percent remained in negative equity only because of post-purchase borrowing on their homes. This means that all of the CAP owners who started with either no or negative equity saw their homes appreciate in value, and between home price appreciation and paying down their mortgages, each of these owners had the potential to move into a situation of positive home equity.

Clearly, negative home equity seriously erodes net worth. CAP owners with negative equity have a median adjusted net worth of $1,134, dramatically lower than those with positive equity, whose median adjusted net worth is $30,001 (Table 16). Notably, there is little difference in the liquidity constraints of the two groups; at the median, owners with positive equity have $3,150 in liquid assets and those with negative equity have

Table 16: Median Wealth of CAP Panel Owners, as of March 2006

	Total population	Owners	Owners with positive equity	Owners with negative equity
Adjusted Net Worth*	$9,075	$28,558	$30,001	$1,134
Adjusted Net Worth minus Home Equity	$4,750	$11,500	$11,200	$14,913
Liquid Assets**	$1,875	$3,263	$3,150	$4,463
N	*1403*	*645*	*597*	*38*

**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 636 owners*

$4,463.[41] Levels of non-home equity wealth are also similar for the two groups: $11,200 for those with positive equity and $14,913 for those without. Of greater concern than the issue of its effect on net worth is the effect that post-purchase home-related borrowing might have on monthly mortgage payments. CAP buyers were given generous loan terms to make their homes affordable. If borrowers are increasing their monthly mortgage payments by borrowing at higher rates of interest or by simply taking on more debt than they can afford, their risk of default increases. Although we hope that participants' post-purchase borrowing is done at low rates of interest (and this might be the case for the majority of post-purchase borrowers given that 64 percent have credit scores above 660; Table 17), whether or not this is the case is of serious concern and warrants further study.

Table 17: Credit Score at Origination for Those Who Subsequently Borrowed Against Their Homes

	Percent of Borrowers				
	No Score	<620	620-660	660-720	720+
Owners who refinanced *(N=215)*	1.9%	7.9%	23.7%	40.9%	25.6%
Owners with any post-purchase borrowing *(N=255)*	2.4%	10.2%	23.1%	40.4%	23.9%

Conclusion

We conclude with a discussion of the relevance of our empirical findings for homeownership policy and more generally for policies aimed at increasing the wealth of LMI households. To place our work in a broader perspective, we also offer a brief discussion of our increasingly "unbalanced" national housing policy that, in seeking to achieve record gains in the homeownership rate, has ignored the rental sector and has thereby exacerbated the problems of millions of American families.

Overall, the more than 20,000 CAP homes bought between 1999 and 2003 enjoyed an average annual capital gain, on paper, of 7.42 percent of the original house value through the end of March 2006. This is slightly below the national house price appreciation index, which rose by an average of 8.5 percent per year, but more than three times the average annual rise in the Dow Jones Index (2.51 percent) and more than twice the average rate on a six-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 who had positive equity in their homes from day one, the median annual rate of return on initial equity was a whopping 45 percent, with black owners gaining 39 percent per year; Hispanics, 70 percent; and whites, 42 percent (Table 18).[42] CAP's more than 20,000 buyers also experienced an average annual return on initial down payment of 53 percent, with black buyers experiencing a return of 42 percent per year; whites, a return of 50 percent per year; and Hispanics, a return of 73 percent per year.[43]

41 Liquid wealth is the sum of the following easily monetized assets: checking accounts, savings accounts, CDs, savings bonds, other bonds, stocks, mutual funds, IRAs, cash value life insurance, accounts receivable (i.e., loans to friends and family), and any other miscellaneous asset.

42 These returns are calculated for the 80 percent of owners who began with positive equity.

43 These returns are calculated for 20,015 owners. For owners with an initial loan-to-value ratio of less than 100, down payment was set at the value of the home at time of purchase minus the original loan balance. For owners with a loan-to-value ratio of 100 to 103, a $500 down payment was assumed.

Table 18: Equity Growth Rate by Race of All CAP Homes, as of March 31, 2006

	Total	White	Black	Hispanic	Other
Median Current Equity ($)	$24,754	$20,482	$19,145	$127,424	$29,360
Median Change in Equity ($)	$20,327	$17,601	$15,306	$120,883	$23,353
Median Annual Equity Growth Rate*	44.6%	41.5%	39.1%	70.4%	49.2%
N	*20,015*	*10,537*	*3,610*	*4,193*	*1,675*

** The equity growth rate is compounded monthly for those loans with positive original equity (N=16,030)*

These large leveraged (paper) gains support continued policy efforts to narrow the 20 percentage point gap in ownership rates between whites and minorities. This is particularly important because of evidence suggesting that for low-income households, over time "non-housing wealth accumulation is at best minor and, for minority families, often negative" (Boehm and Schlottmann 2004, 33). This proposition puts us somewhat at odds with Oliver and Shapiro (1995), who view housing equity as a solid source of intergenerational wealth but not as good a source of stored wealth for the current generation. As they argue, "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" (59). As we have shown, however, homeowners can borrow against their accumulated equity with relative ease in order to finance a wide range of human capital and other needs. How judiciously and responsibly they do so is another question, and this brings us to our discussion of policies aimed at building and preserving the wealth of LMI households.

One can draw competing conclusions from our findings concerning the indebtedness of CAP owners. Our analysis reveals that CAP owners are 72 percent more likely than their renter counterparts to carry credit and charge card debt, with the median owner carrying more than three times the debt of the median renter. In addition, we find that CAP owners are over ten times more likely than their renter counterparts to have borrowed against their cash value life insurance, owe money for an unexpected emergency, or have any other outstanding debt greater than $500. Although we cannot say at this point whether CAP owners entered homeownership with these debts or accumulated them after purchasing their home, unquestionably, there is a strong correlation between owners' having obtained a prime mortgage and their having access to and participating in mainstream credit markets.[44] The good news is that this access may reduce LMI owners' potential reliance on high-cost check cashers, payday lenders, rent-to-own vendors, and other issuers of expensive credit. However, our analysis also reveals that about one in three CAP owners have borrowed against their home equity, and that one-third of these borrowers put themselves into negative equity; we were troubled to learn that some 64 percent of those using a cash-out refinancing, second mortgage, or home equity line of credit had used the funds to pay down other debt, including higher cost credit card debt. It is clear that some of CAP owners are using their equity to help manage their overall debt load. Although this transfer of funds can leave households' wealth picture unchanged, it puts their homes at risk in the event of an economic reversal, and this reduces owners' security of tenure.

Several policy recommendations flow from these findings. Although we know of no legislation that would prohibit cash-out refinancing (nor would we support such a measure), we do support proposed changes

44 We will have more insight into the relationship between homeownership and the accrual of debt once the final wave of CAP panel interviews is conducted in 2008.

to the credit industry such as those put forth by Senators Menendez (D-NJ), Feinstein (D-CA), Dodd (D-CT), and Akaka (D-HI), and Congresspersons Slaughter (D-NY), Meek (D-FL), Udall (D-CO), and Price (D-NC) that would ban universal default, limit fees, protect younger borrowers, and make consumer credit markets more transparent (U.S. Congress House 2005a, b, c; 2006; U.S. Congress Senate 2005a, b, c; 2006).[45] These changes to the credit and charge card industry might make such borrowing less expensive and less likely to spiral out of control, and would thereby reduce the need of LMI owners to use their homes to finance these debts.

However, these relatively modest changes in consumer credit practices would do little to address the reasons why CAP families borrow against their home equity. Notably, 8 percent did so to finance their own or a child's education. When we consider also that approximately 35 percent of interviewed households are paying off installment debts, the bulk of which are in the form of student loans, and that 25 percent of those with installment debts owe $18,000 or more on these loans, it becomes clear that LMI homeowners would be greatly helped by increased federal support for higher education. Such support has failed to keep pace with the costs of a college education. According to stakeholders interviewed by Wasley (2006), the maximum Pell Grant now "covers only 33 percent of the average total cost of attending a public four-year institution, including room and board and other expenses above tuition." Increasing federal assistance to better mirror the actual costs of a college degree would reduce the need for LMI households to borrow against their homes to improve their lives.

A further reason CAP participants are borrowing against their equity is to cover medical costs. Our analysis revealed that 5 percent of post-purchase borrowers used the funds to finance such expenses. As research has shown, a health crisis can have devastating effects on any household. Warren and Tyagi (2003) note that nearly nine in ten families with children cite just three reasons for their bankruptcies: job loss, family breakup, and medical problems (81). Low- and moderate-income households, who are more likely to be un- or underinsured and who are less likely to have significant savings in the bank, are susceptible to the financial shock of a sudden serious illness. Of course, it does not take a health crisis to render health care beyond the reach of American families. As abundant reports in the news have demonstrated, LMI Americans can find the cost of prescription medications prohibitive, forcing them to choose between financial hardship and poor health. To address all of these problems and to help prevent LMI homeowners from putting their homes at risk through post-purchase borrowing, we urge policy makers and legislators to undertake serious and lasting reform of the health care system so that all Americans can afford to meet their health care needs.

Another recommendation that stems from our analysis is increasing financial literacy. This is not a new idea. Financial education has been shown to stimulate savings behavior (Bernheim and Garrett 2003; Lusardi 2004), has been pinpointed as a likely means to help households manage their finances overall, especially in decisions concerning credit, saving, and investment (Hilgert, Hogarth, and Beverly 2003), and has been shown to reduce the likelihood of default (Ding et al. 2007).[46] Our findings support the need for financial education. Our analysis revealed that blacks were more likely than whites to put their money into

45 "Universal default" is when a late payment on one account is used as a reason to increase interest rates on unrelated accounts.

46 Using a sample of residential mortgages made to low- to moderate-income borrowers, Ding et al. (2007) examined the impact of proactive, post-purchase counseling on moderately delinquent mortgages. They found that well-timed, situation-appropriate counseling, even over the phone, effectively increases the curing probability of delinquent borrowers; in particular, they found that the probability of curing in six months is 18 percent higher for borrowers who receive counseling immediately after they enter a 60-day delinquency than it is for borrowers who do not receive such counseling.

cash-value life insurance and that Hispanics were less likely than whites to hold investments. Our findings supported those of Coleman (2003) who determined that Hispanics are significantly more risk averse than non-Hispanic whites and also the findings of Plath and Stevenson (2000), who found that blacks demonstrate a preference for safety and security in their investment choices. While investment portfolios need to balance risk and return, if we are concerned with decreasing race-based wealth disparities, then it is crucial to promote greater use among blacks and Hispanics of a wider range of lucrative investments as a way to put them on a more equal financial footing with whites. Financial education is one likely means to achieving this end, and we encourage government at all levels to assist with the expansion of financial literacy initiatives offered by employers, credit unions, community-based organizations, and schools.

The second reason we are calling for the continuation and expansion of financial education stems from our finding on installment debt. Our analysis reveals that those whose parents held bank accounts are more likely to carry installment debt (which consists mainly of student loans) and those with a more carefree attitude toward spending are less likely to carry installment debt. We interpreted this finding to mean that those who use their money to satisfy immediate wants and needs may be less likely to invest in items with a longer-term pay off, such as education. Similarly, those who are reared in financially savvier homes might be more likely to use money for long-term returns rather than to meet immediate wants and needs. Clearly being reared in a financially astute household and having more conservative attitudes toward spending have a positive effect on finances. We believe that financial education might instill the same attitudes and practices that the more sophisticated LMI participants picked up in the home.

Perhaps in light of the surge of defaults in the subprime market, due in large part to "exploding" ARMs and other unaffordable mortgage products, the most significant policy implication of our work is the continuing importance of affordable, fixed-rate mortgages for aspiring LMI homeowners. CAP provides an example of how lenders might be encouraged to issue such loans, that is, through the creation of programs that lower some of the supposed risk of lending to LMI households. Given that CAP's 90-day-or-greater delinquency rate in March 2007 was about one-quarter the rate for subprime loans in the Mortgage Bankers Association series, we believe that a program that helps underwrite a portion of the transaction costs and perceived risk of CRA-type mortgage backed securities would be more cost-effective than existing down payment assistance programs.[47] These types of programs may be even more important during periods of rising interest rates, when originating lenders are less able to absorb the higher guarantee fees and still sell their portfolios in the secondary market without experiencing a loss (Stegman 2007, 173).

Stegman (2007) has discussed elsewhere his preference for helping people save for a down payment over zero-down-payment mortgages, down payment grants, or gifts from unrelated third parties (each of which, research suggests, results in higher borrower delinquencies, and in the case of the latter, inflated housing prices). Helping working families save for a home has significant precedent in federal policy. In the last 30 years, the federal government has attempted at least four times to create special-purpose savings accounts to help low- and moderate-income households achieve homeownership (Stegman 2007, 170). The concept of matched savings to help the poor build wealth was given new currency by Michael Sherraden, whose 1991 book led to the proliferation of nearly 500 Individual Development Account (IDA) programs, all with broad bipartisan support, and about 15,000 matched savings accounts across the country. Empirical assessments of these pilots have shown that, contrary to conventional wisdom, poor people can and do save in response to positive incentives such as the opportunity to have their deposits matched from outside sources.

47 In March, 2007, CAP's 90-day+ delinquency rate was about 2 percent. This compares with 8 percent for subprime loans, 5 percent for FHA loans, and less than 1 percent for prime loans (Self-Help 2007).

A legislative proposal, the Savings for Working Families Act (SWFA), has the potential to institutionalize and dramatically expand public funding for IDAs. SWFA would authorize a national program of 900,000 IDAs, each of which would provide individuals with a dollar for dollar match of up to $500 per year for four years. Financial institutions would provide the match, for which they would receive a tax credit of $50 per IDA account. SWFA also proposes making $20 million available for nonprofit organizations to provide financial education to LMI savers, a proposition we wholeheartedly endorse (CFED n.d.). The SWFA would work well in conjunction with local programs aimed at increasing the use of the Earned Income Tax Credit (EITC) among working poor families. It would also complement the funding made available through the growing number of state EITC initiatives. In 2005 alone, more than 21 million low-income working families received EITC refunds totaling $39 billion. If just one-third of these refunds were channeled into homeownership savings accounts (more likely now that the IRS allows beneficiaries to deposit electronically their refundable tax credit into two separate accounts), even a low one-to-one match rate would generate $26 billion in down payments for housing (Stegman 2007, 171).

The viability of matched savings accounts as a low-income homeownership policy is supported by recent research that reveals a disproportionately large impact of small savings grants on lower-income households' home buying behavior. According to Herbert and Tsen (2007, 170), households with just $1,000 in liquid wealth are 41 percent more likely than households with no liquid wealth to purchase a home, while for every $1,000 increase in liquid financial assets (between $1,000 and $5,000), the probability of homeownership increases by only 5 percent. Because even low down payment loans can require more than a $1,000 down payment, Herbert and Tsen suggest that having some initial positive liquid assets may stimulate families to save more regularly. Because of this, even modest government efforts to help families clear this initial savings hurdle may prove to be more cost-effective than down payment grant programs.

We close with some reflections on how drastically housing policy has shifted during the past 15 years toward the promotion of homeownership. Such a shift overlooks the fact that one-third of all families rent their homes and apartments, and that this group includes millions who have no other practical choices. While Democratic and Republican administrations alike have adopted national homeownership goals and aspirations, neither party has paid much attention to renters beyond viewing them as future homeowners. This bipartisan consensus is partly political—given the popular support for homeownership—and partly an astute recognition of the likelihood that a confluence of favorable demographic shifts, macroeconomic trends, and mortgage product innovation would significantly boost rates of homeownership with minimal financial input from the government. However, with severe market corrections now underway, the results of this "government as cheerleader" approach are becoming evident.

Not all families want to own a home. Not all families have the financial capacity to buy a home. As rental markets tighten and as rents increase relative to wages, it is becoming more difficult for aspiring homeowners to save for a down payment. Policymakers must pay more attention to trends in rental markets across the country, even if their primary goal is to extend homeownership opportunities to more working families. Although many LMI American families rent—two-thirds of all lower-income families live in privately owned rental properties—for many, renting is neither cheap nor a matter of choice. Indeed, some 70 percent of the nation's 7 million lowest-income renters pay more than half their incomes for housing, leaving very little to cover their immediate basic needs, let alone to save for their future (Joint Center for Housing Studies 2006b, 1).

Yet the rental market, a vital part of a healthy housing sector, has eroded. In 2006, Harvard's Joint Center for Housing Studies (2006b) reported that the United States lost a net 1 million affordable rental homes

during the previous decade. For every new low-cost unit built, two were razed, abandoned, or turned into condominiums and high-end rentals. Preserving affordable rental housing should become a top federal housing policy priority. This issue has become increasingly important for state and local governments, but there is also much the federal government could do to retain properties in the assisted inventory whose long-term subsidy contracts are expiring (General Accountability Office 2007, 3-4). Although this is not the place for an analysis of proposals to address rental policies, suffice it to say there are some excellent proposals circulating in Congress to address these issues. These include H.R. 2895, a national housing trust fund bill, which would produce, rehabilitate and preserve 1.5 million housing units over the next 10 years; it is anticipated that the trust fund will be used mainly for rental housing and that at least 75 percent of the funds will be put toward housing that is affordable to extremely low-income households (National Low Income Housing Coalition 2007). The trust fund would be capitalized mainly with revenues from Fannie Mae and Freddie Mac (U.S. Congress House 2007).

As tempting as it is for successive administrations to set their sites on achieving new homeownership records, policymakers must begin to stress quality and sustainability over quantity, and housing policy must recognize the importance of rental housing in the lives of millions of Americans. Finally, the regulatory system needs to catch up with capital market innovations. Rather than focusing on *who's in charge*, for example preempting state and local consumer protection laws, federal financial regulators should use their authorities to rid the market of abusive lending practices and irresponsible mortgage products, and Congress should find ways to discipline the behavior of mortgage providers whose capital comes from Wall Street rather than from regulated depositories.

Appendix A: Sampling Methods

The owner wave 1 survey was administered between 2001 and 2004, with the majority of survey conducted in 2003. The sample included 3,690 owners drawn from the universe of homeowners participating in CAP. To be eligible for inclusion in the owners' panel sample, a loan must have a first payment date of November 1, 1999 or later. The sampling was conducted between 1999 and 2003, and took place in several "draws." (The number of CAP loans purchased from January 2000 through December 2003 was about 22,000.) The owner wave 2 survey was completed with 2,571 of the original 3,690 households. The owner wave 3 survey, from which we draw the data for this paper, was completed with 1,284 of the 1,656 households deemed eligible for the wave 3 interview. For all surveys, owner respondents are identified as the first person on the mortgage application. Interviewers contacted respondents by phone or in person and requested to speak with the person whose name appears on the mortgage application.

The goal for the renter sample was to complete approximately 1,500 interviews of low-income renters who lived in the same areas as the CAP owners. We particularly wanted a geographic match to neutralize the impacts of local market conditions on homeowner outcomes, especially with respect to financial impacts of homeownership. We also wanted to assess how renters differ from homeowners who live in the same areas. To select the low-income renter panel, we limited our search to the 30 metropolitan areas with the largest number of outstanding CAP loans, starting with the subset of CAP owners in those areas who had participated in the owner wave 1 survey. We then looked for "matching" renters, that is, those living in the same neighborhood as a CAP owner. We defined "neighborhood," ideally, as the same census block group. If we found too few qualified renters in a particular census block group, we extended the search to the census tract. If we found insufficient potential renters in the census tract, we extended the neighborhood to a four-mile radius around the CAP owner.

The potential renter survey respondents were identified from a database created and maintained by Genesys. We sampled 15,935 households to ultimately locate 1,651 qualified, matching low-income renter panel participants. Data collection for the renter wave 1 survey spanned from October 2003 to April 2004. After some additional screening of ineligible surveys and a rematching of owner wave 2 respondents to renter wave 1 respondents, our sample totaled 1,530 low-income renters. Not all owners had a matching renter, and some had more than one, so the data sets are not a one-to-one match. However, the low-income renter sample does represent low-income renters from the same neighborhoods (as defined herein) as the CAP owner panel. The renter wave 2 survey, from which we draw the data for this paper, was administered to 1,158 of the original 1,530 renter households. To be eligible for participation in the low-income renter sample, a respondent must be the person who signed the rental lease and paid the rent and met CAP income limits.

Appendix B: Readying Data for Use in the Analysis

For owners, the original wealth and assets data set consisted of 1,284 respondents who completed their survey in the fall of 2006. We conducted both a phone and an in-home interview with each owner. Although 1,284 owners participated in the in-home interview, only 1,068 of these also completed the phone interview; we removed 216 owner respondents because they did not complete the phone interview. For renters, the original wealth and assets data set consisted of 1,158 respondents who completed their survey in fall 2006. We removed 98 renters from the data set because they had become homeowners before the wave 2 renters survey was administered, leaving us with 1,060 renters. We made the decision to remove these respondents from the renters' pool because at the time the wealth and assets survey was administered, these renters were already homeowners; therefore, the picture of their wealth offered by the survey was that of new homeowners' wealth and assets (i.e., we have no snapshot of the wealth of these individuals when they actually were renters). We made the decision not to shift these new owners into the owners' pool because these are not CAP homeowners.

Thus, the starting point for this paper is the 1,068 owners who completed both the in-home and phone wave 3 owners surveys and the 1,060 renters who completed the wave 2 renters survey while they were still renters. The data were cleaned in the following way: (1) we determined which variables were important for inclusion in the analysis, and (2) we removed any case with a missing/don't know/refused response on these important variables. Cases missing values on any of the following variables were removed from the analysis: age, marital status, sex, education, race, income, savings in last 12 months, filed for bankruptcy, vehicle information, credit and charge card information, information on debt from other major purchases, information on unexpected expenses, homeownership/mortgage information, information on refinance, second mortgage, or home equity line of credit, information on ownership of land, vacation home, timeshare, apartment building, commercial property, or investment property, information on student loans, information on stocks, mutual funds, or bonds, bank account and CD information, life insurance information, and information on miscellaneous assets and debts. Following these steps, the wealth and assets data set contained 895 owners and 946 renters.

Next, we restricted our sample to those owners and renters age 20—59 at the time of their in-home interview. This reduced our samples to 852 owners and 837 renters. We then examined cases identified as extreme outliers on all of our wealth and asset variables. We examined more than 200 cases in depth (that is, their overall financial picture was compiled and considered) to assess whether the outlier amount was reasonable, a misreporting error, or a coding error. We removed three owners and one renter, bringing the final sample sizes to 849 owners and 836 renters.

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