Joint Center for Housing Studies

Harvard University

The Role of Housing as a Component of Household Wealth

Zhu Xiao Di

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Abstract

No understanding of household wealth is complete without considering housing's role in it. This paper examines various roles housing plays as a component of household wealth and explores how housing affects the distribution of total household wealth. It discusses the recent growth in wealth and inequalities in its distribution. Specifically, the paper explores five roles of housing in the creation and distribution of household wealth: as "equalizer," "accumulator," "cultivator," "protector," and "double-edged sword."

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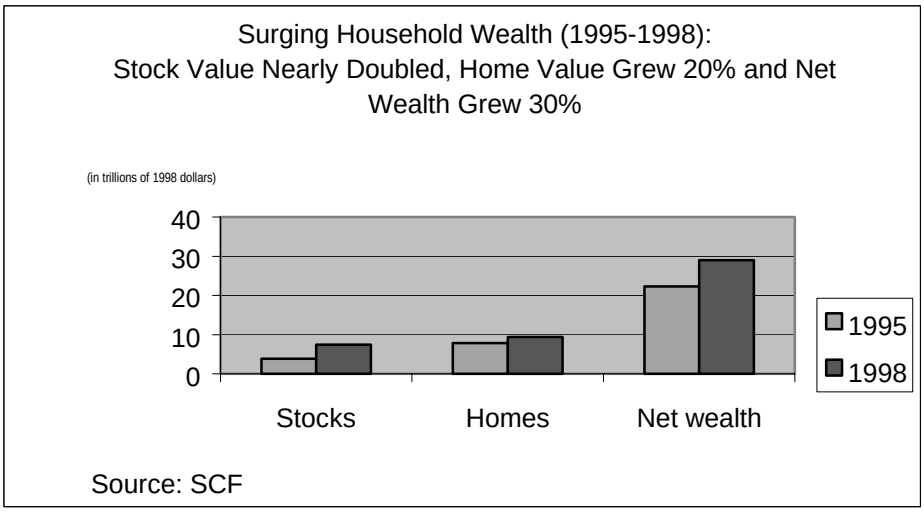
I. Introduction

The total net wealth of American households rose dramatically between 1995 and 1998, from $22.3 trillion to $29 trillion, a thirty percent rise, according to the 1998 Survey of Consumer Finances (SCF), released in early 2000 by the Federal Reserve Board. The most significant gain came from the booming stock market: the value of stocks owned by households nearly doubled, from $3.8 trillion to $7.4 trillion. The renewed appreciation in house prices, however, also played an important role in the surge in household wealth: the value of primary residences climbed twenty percent, from $7.8 trillion to $9.4 trillion (See Figure 1).[1]

Figure 1



This paper explores the relationship between housing and household wealth. Any such study encounters two challenges: measuring household wealth and tracing the role of housing in making or forming household wealth. Any understanding of household wealth is incomplete without considering housing's role in it.

Social science researchers have long recognized that household wealth is a far more relevant and important factor than family income for measuring social and economic inequality. Yet, most work to date has used household income rather than household wealth as the key variable. This is because income data have been collected consistently

and fairly accurately for a long time. For example, every year since 1947 the Census Bureau has conducted the Current Population Survey (CPS), which provides detailed information on individual and household earnings and income.

Unlike income no annual household survey measures the complete spectrum of household wealth. The Consumer Expenditure Survey (CE) administered by the Bureau of Labor Statistics only measures household wealth as the sum of financial and real estate assets (excluding business properties), less total liabilities, while the Panel Study of Income Dynamics (PSID) conducted at University of Michigan excludes pension and social security wealth.[2] The SCF survey has been done only every three years since 1983, and its small sample size (less than 5,000) often prevents the data in it from being analyzed further. The Census Bureau has administered the Survey of Income and Program Participation (SIPP) since 1984, except for a few years in the late 1990s. As its name indicates, the SIPP is used to track entry into and exit from participation in various government social programs, and it therefore excludes a huge amount of wealth in the richest households. None of these surveys provide the same kind of convenient, accurate, or even consistent information on wealth that the CPS data do on income. For a more detailed discussion of both the advantages and disadvantages of these surveys, see "Appendix: Methodological Notes on Data Issues in the Measurement of Household Wealth."

The crux of the problem in accurately measuring household wealth is that it is even more unequally distributed than household income because wealth is more heavily concentrated in a tiny fraction of the entire population. Unless surveys or other types of data collection are especially designed to include the wealthiest group, they cannot avoid missing a substantial amount of wealth. In addition, households are even more reluctant to accurately report their assets and liabilities than their income. As a result, estimates of household wealth distribution are likely to be biased and inaccurate.

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[1] All figures in this paper are adjusted for inflation to 1998 dollars using the SCF inflation adjusting factors, unless stated otherwise.

[2] Erik Hurst et al. (1998), "The Wealth Dynamics of American Families, 1984-94," *Brookings Papers on Economic Activity*, Washington, Issue 1, 1998, pp. 267-337.

Because the SCF data capture more household wealth than any other surveys, it is widely regarded as the best current profile of the distribution of wealth.[3] Even those who have used the SIPP data have recommended using the SCF for certain purposes. Oliver and Shapiro, for example, acknowledged that "SCF reports, which oversample the very rich, may provide data better suited to the task of accurately charting distributional inequalities in America."[4] Therefore, we chose the SCF as the major data source for this paper.

However, for the following two reasons we must point out that our examination of household wealth may still underestimate the inequality in wealth distribution. First, although the SCF does seek out wealthy households, none of the *Forbes* 400 wealthiest individuals are included in its sample. These people possessed $740 billion in net wealth in 1998,[5] which amounts to 2.6 percent of the total household net wealth accounted for by the 1998 SCF. In other words, nearly three percent of American household net wealth was not even included in the SCF's measurement of American household net wealth. Second, a comparison with the SIPP data indicates that the SCF data underestimate the percentage of households with no net wealth at all.

The analyses presented in this paper are based on the current version of the publicly accessible SCF data on the web as of March 10, 2000. We utilize a set of definitions, including the net wealth definition, suggested by the Federal Reserve Board (see the SAS program provided in their codebook to the SCF survey). We also utilized a separate SAS program provided by the Federal Reserve Board staff to define stocks as the Board does, although some of their publications have used other ways to define stocks. Great caution must be exercised in any effort to combine findings from this analysis with those of other studies that used earlier versions of the SCF data.

This paper frames the issue about the role of housing as a component of household wealth in a few related but separable perspectives as follows:

a) housing as an "equalizer" in household wealth distribution;
b) housing as an "accumulator" of household wealth;

[3] Holloway, A. (1991), "The Role of Homeownership and Home Price Appreciation in the Accumulation and Distribution of Household Sector Wealth," *Business Economics*, April, pp. 38-44.
[4] Melvin L. Oliver & Thomas M. Shapiro, *Black Wealth, White Wealth*, Routledge, 1997, p. 57.
[5] http://www.bog.frb.fed.us/pubs/oss/oss2/papers/concent.1.pdf, as of August 2, 2000.

c) housing as a "cultivator" of household wealth;

d) housing as a "protector" of household wealth; and

e) housing as a "double-edged sword" for household wealth.

This framework not only provides a better understanding of housing and its importance for household wealth, but also a deeper insight into wealth itself and its distribution among American households.

II. Growing Wealth and the Inequality in Its Distribution

Growth in wealth between 1995 and 1998 was an extension, or perhaps a renewal, of the previous great growth period in the late 1980s. Because of the recession in the early 1990s, aggregate American household net wealth in 1995 had only returned to its 1989 level of about $22 trillion.

The composition of net wealth, however, changed substantially between 1989 and 1995. On the one hand, since the housing market had not yet fully recovered from the recession, the total value of homes depreciated from $8 trillion in 1989 to $7.8 trillion in 1995. The value of other real estate, both residential and non-residential, dropped even more, from $4.3 trillion in 1989 to $2.9 trillion in 1995. On the other hand, the value of stocks rose from $2.2 trillion in 1989 to $3.8 trillion in 1995. In other words, the depreciated value of homes and other real estate, a $1.6 trillion loss, was exactly compensated for by the increased value of stocks held by American households, a $1.6 trillion gain.

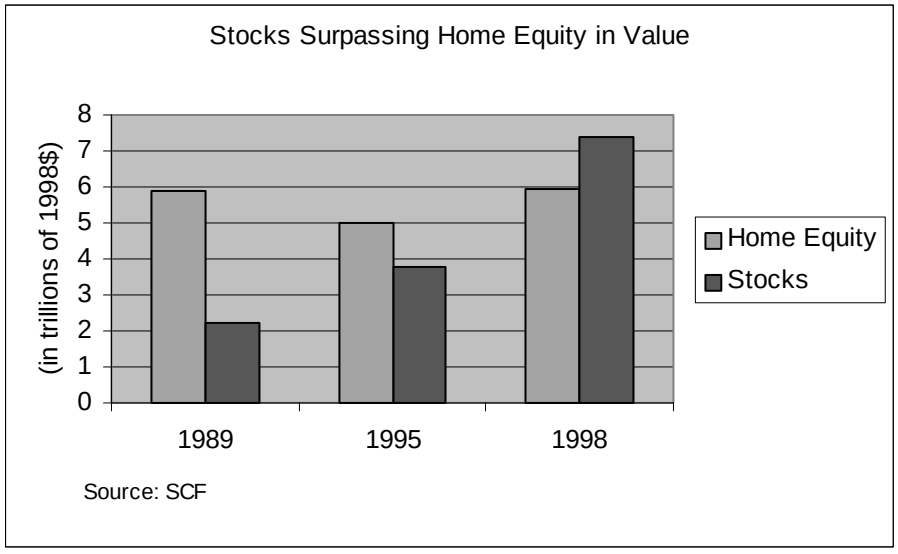
Indeed, from 1989 to 1998 the value of stocks held by households experienced faster and longer growth and more than tripled to $7.4 trillion. The percentage of households owning stocks also increased from 31.7 percent in 1989 to 40.4 and 48.5 percent in 1995 and 1998, respectively. Clearly, in recent years, stocks have become a more and more important component of household wealth.

The growing value of residential properties held by households between 1995 and 1998 did not fully manifest itself in the amount of home equity because many homeowners took on more debt. The average outstanding mortgage of owner households

rose from $36,000 in 1989 to $44,000 in 1995 and $51,000 in 1998. Total home equity actually fell from $5.87 trillion in 1989 to $5 trillion in 1995 as appreciation fell off and borrowing against home equity increased. Despite the deepening of mortgage debt, rising home prices and the addition of new units drove total home equity up again to $5.94 trillion in 1998.

Meanwhile, stock values went straight up and surpassed home equity as a major component of household wealth. Growth rates for stock values set an amazing record of seventy-three percent and ninety-five percent for two consecutive three-year periods. By 1998, more than a quarter of the $29 trillion household net wealth was in stocks ($7.4 trillion). For the first time, the stocks held by American households became the dominant share of household net wealth, surpassing home equity by $1.5 trillion (see Figure 2).

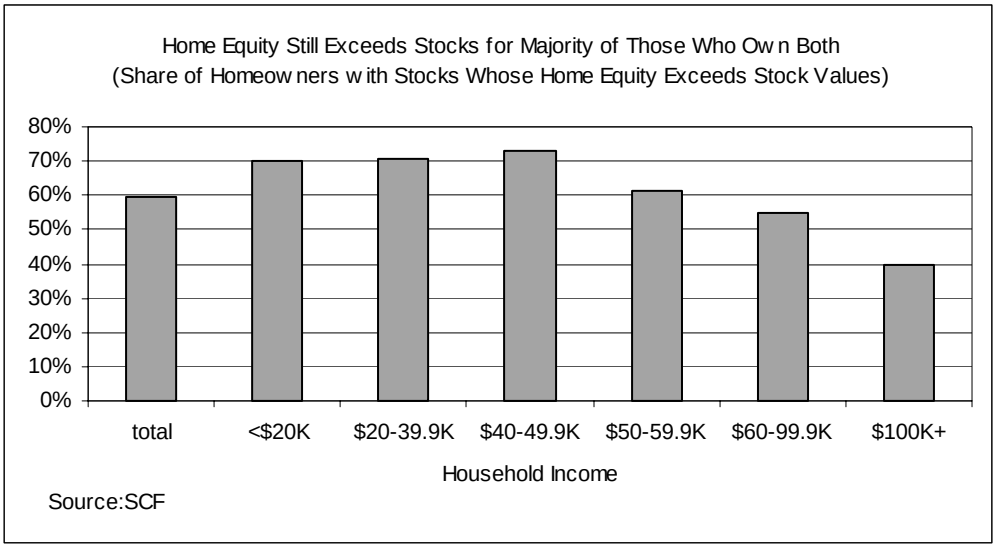
Figure 2



Home equity still remains the cornerstone of most households' wealth for two reasons. Firstly, as of 1998 about two thirds of American households owned their homes, most with mortgages, while less than half of all households owned stocks. Secondly, sixty percent of those who own both stocks and homes still have more value in home equity than in stocks. Indeed, a majority of homeowners have more wealth in home equity than in stocks, except for those with annual incomes of $100,000 or more. Even

among those higher-income households, forty percent have more wealth in home equity than in stocks (see Figure 3).

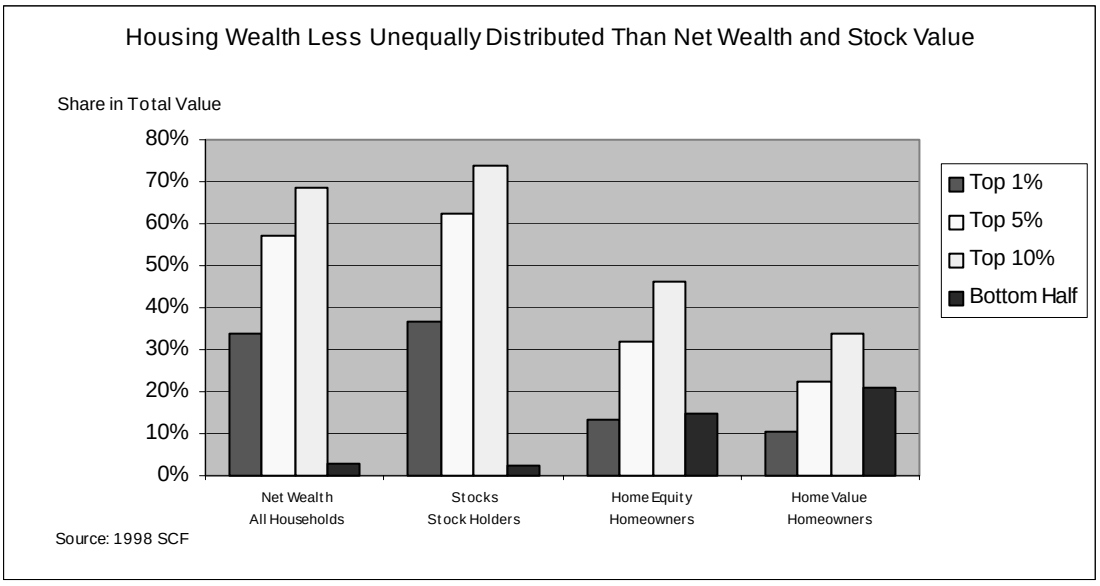
Figure 3



This underscores the importance of examining how American household wealth and its different components are distributed. In 1998, the top one percent of households held one third (33.8%) of the entire household net worth, while the bottom half only had three percent of the total wealth—less than one tenth of that held by the top one percent. The distribution of stock wealth was even more uneven: the top one percent of stock holders held thirty-seven percent of the stock value while the aggregate stock value held by the bottom half of all stockholders amounted to a meager 2.6 percent.

It was homes which curbed this inequality in the distribution of household wealth and that helped create a marginally more balanced distribution. The bottom half of homeowners enjoyed a total amount of home equity slightly greater than the top one percent and housing value that was twice that of the top one percent (see Figure 4).

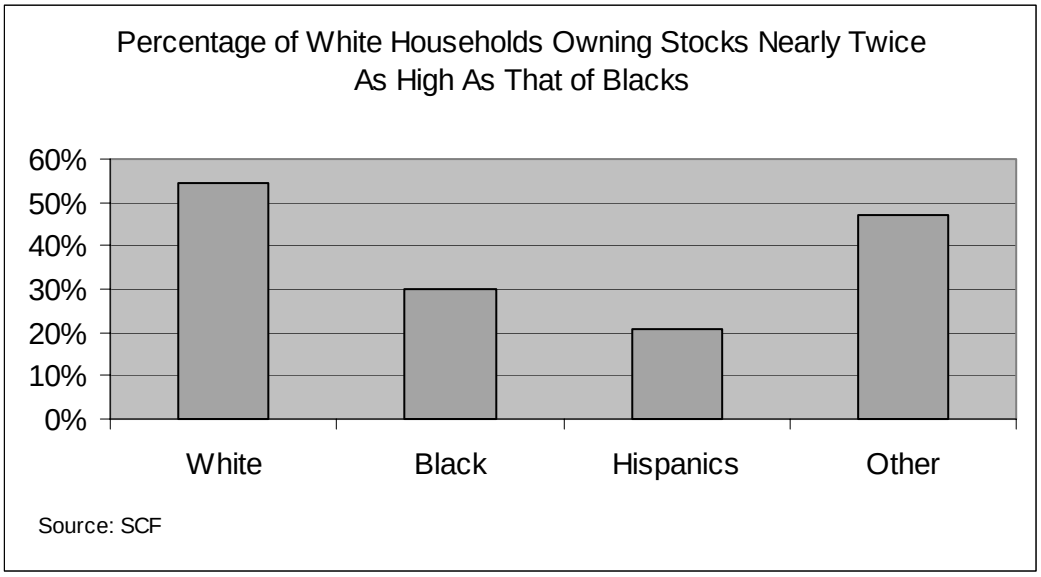
Figure 4



The inequality in the distribution of household net wealth also has a clear racial/ethnic bias. In 1998, the median net wealth of white households was six times that of black households, ten times that of Hispanics, and twice that of other minorities. Because the Hispanic category in the data may include some whites, the wealth of minorities may have actually fallen even further behind whites. While whites headed 77.7 percent of households in the SCF sample, white households held 92.1 percent of the nation's aggregate household net wealth. On the other hand, blacks and Hispanics accounted for 11.9 and 7.2 percent of all households but only held 2.7 and 2.2 percent of the net wealth, respectively.

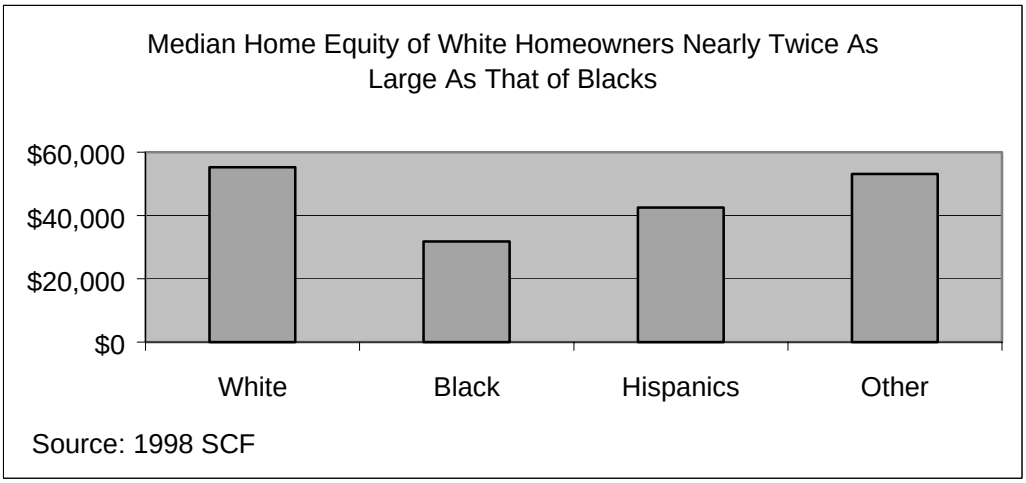
Part of this gap between whites and minorities can be attributed to differences in stock holding. While 54.4 percent of white households owned stocks, only 30.1 percent of blacks and twenty percent of Hispanics did. The stock ownership rate for Asians and other minorities also lagged behind whites at 46.9% (see Figure 5).

Figure 5



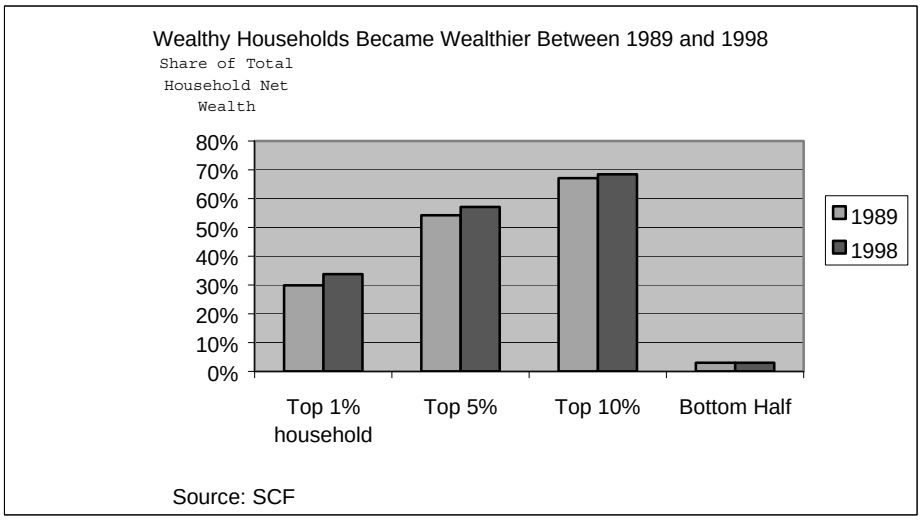
Stock ownership, however, does not explain all the differences. Minorities also had lower homeownership rates and median values for their home equity. A large gap in median home equity separated white and black homeowners, with that for black households less than sixty percent that of whites (see Figure 6). The gap in homeownership rates, as measured by the 1998 SCF, was 25.5% between whites and blacks and 27.7% between whites and Hispanics.

Figure 6



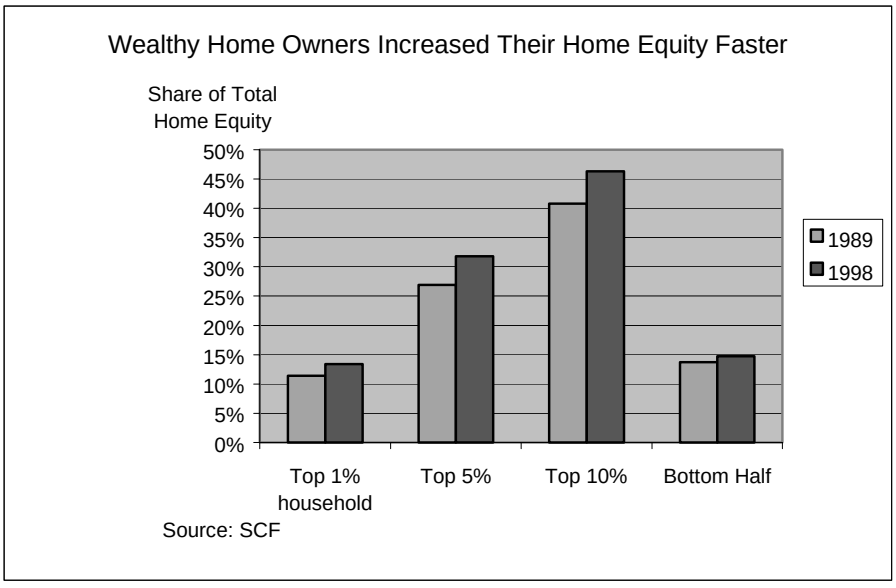
It is especially noteworthy that inequality in the distribution of wealth seems to be growing. Between 1989 and 1998, while the bottom half of all households continued to hold the same share of entire household net wealth (3%), the top ten percent of the wealthier households increased their share (see Figure 7).

Figure 7



The pattern of growing inequality between 1989 and 1998 also occurred in home equity. The ten percent of homeowners with the largest amount of home equity increased their share of total home equity by a larger margin than did the bottom half of homeowners (see Figure 8).

Figure 8



A dollar-to-dollar comparison at an individual level further underscores the extent of the uneven distribution of wealth. In 1998, the least rich of the wealthiest twenty-five percent of households had nearly $200,000 more net wealth than the least poor of the poorest twenty-five percent of households. Given a difference of only $142,000 in 1989, this means the gap grew by forty percent. Similarly, in 1998, the least rich of the wealthiest one percent of households had $3.7 million more than the median household, whereas in 1989 the difference was only $2.3 million. Thus the gap increased by $1.4 million, or sixty-one percent.

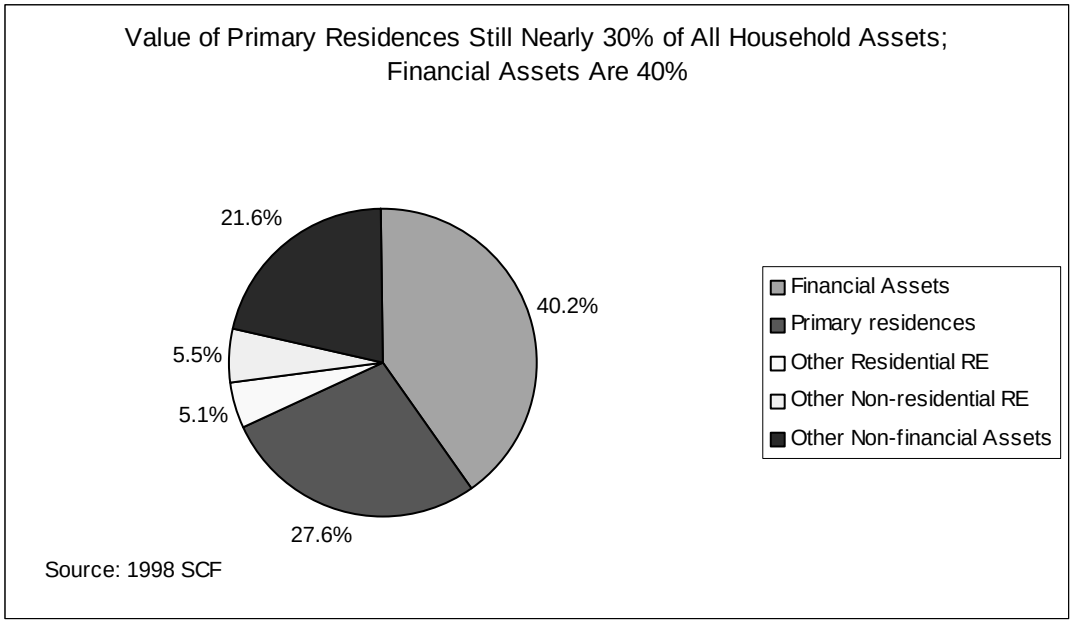
Comparisons of the changes in wealth distribution between whites and blacks using the SCF yield misleading estimates because due to sampling problems the SCF mistakenly shows the share of minority households declining during the 1989 to 1998 period. As a result, the estimated median net wealth of black households it gives went up nearly three times while the proportion of aggregate net wealth held by black households went down.

III. Housing as a Component of Household Wealth

While American households had a net wealth of $29 trillion in 1998, their total assets (without netting out debt) amounted to $34.2 trillion. Due to the booming stock market, financial assets were 40.2 percent of that total. At the same time, thanks to renewed appreciation in house prices and additions to the housing stock, primary residences remained a large slice of the whole (27.6%), amounting to $9.4 trillion. Other residential and non-residential real estate formed another 5.1 and 5.5 percent of the total assets, respectively (see Figure 9).

It is remarkable that homeowners had almost all (nearly 95%) of these assets, $32.4 out of $34.2 trillion. This does not mean that owning homes brought all this wealth to homeowners; nor does it suggest that homeownership is the best, or even a good, investment tool. It simply reveals the enormous gap in household assets that exists

Figure 9



between homeowners and renters. And this difference persists even after controlling for the head of the household's age, race and ethnicity, and annual household income (see Figure 10). This striking finding strongly suggests that those most able and inclined to accumulate wealth almost invariably own their homes rather than living in rental housing.

By 1998, for example, a senior household head who did not yet own a home had a fifty percent chance of having only $6,200 or more as their household net wealth. A homeowner at that age would have a fifty percent chance of having $170,000 or more. Again, it is not homeownership per se that has made all the difference. But someone who does not own a home probably has never been able to own anything of more value. Moreover, even if investing in a home created a smaller return than alternative investments, given the tendency to pay off mortgage debt over time the average elderly owner is left with significant home equity.

Figure 10

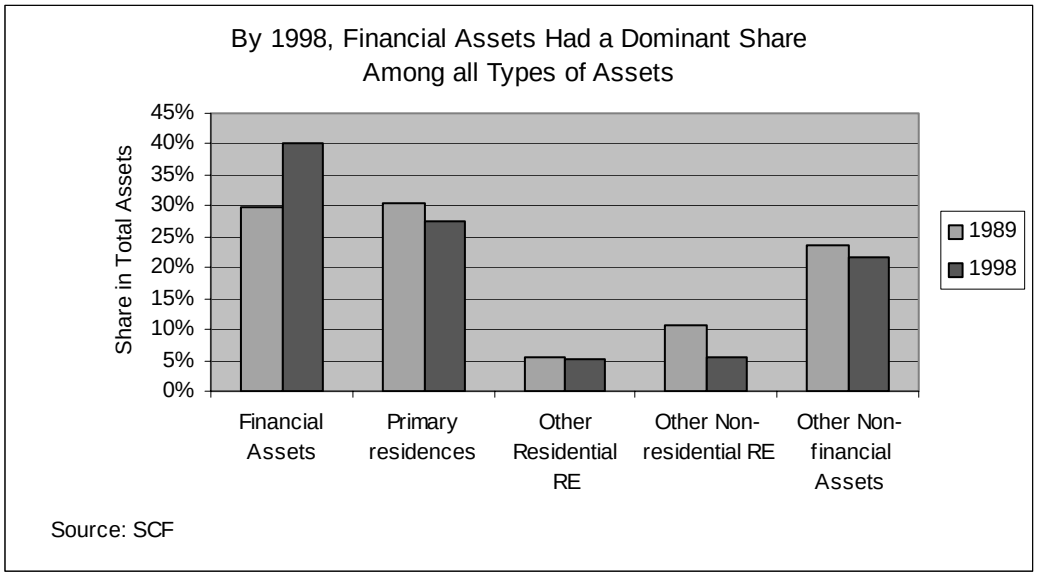
Disparity in Household Net Wealth Between Home Owners and Renters

	Owners Median Net Wealth	Renters Median Net Wealth
Total	132,130	4,200
Age		
Under 35	40,649	2,600
35-64	145,100	5,480
65 and Over	169,750	6,220
Race/Ethnicity		
White	148,920	5,800
Black	67,280	1,661
Hispanic	70,000	2,000
Other	163,800	7,760
Income		
Under $20,000	70,100	1,000
$20,000-49,999	104,650	8,050
$50,000 and Over	238,500	51,300

Source: 1998 SCF

Back in 1989, primary residences and other real estate assets represented a relatively larger share of total household assets. During the following decade, financial assets clearly outperformed all other types of assets and became the lion's share of household assets (see Figure 11).

Figure 11



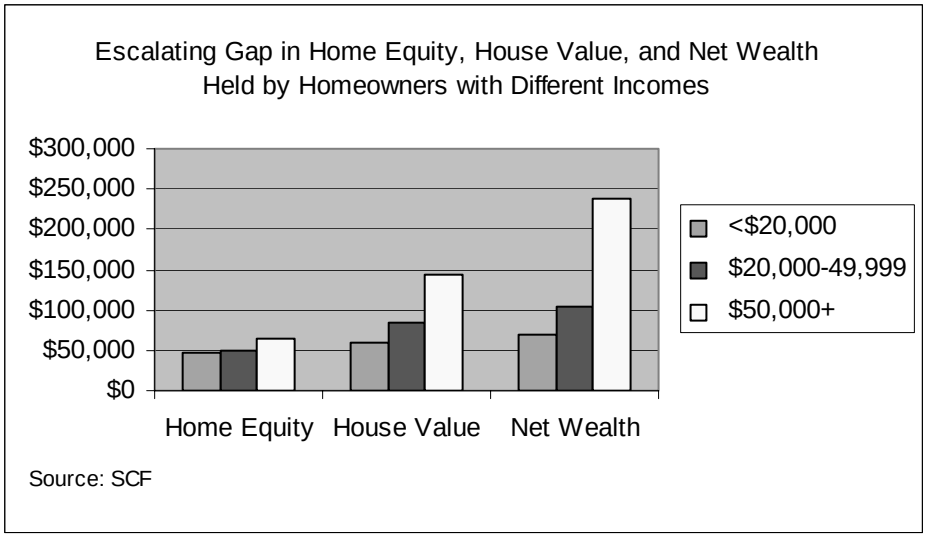
However, housing has played a special role in the growth of wealth and has benefited more people, particularly minorities and low-income households. While less than half of all households (48.5%) held stocks in 1998, two-thirds (66.3 percent) of all households owned their homes. Particularly for minority and low-income households, home equity has been a dominant component of household net wealth. In 1998, for half of black homeowners, home equity accounted for fifty-seven percent or more of their net wealth. For half of Hispanic homeowners, the share was even higher at seventy-one percent or more. Among half of white homeowners home equity contributed only forty percent or less of their net wealth. Among homeowners with incomes under $20,000 in 1998, half held seventy-one percent or more of their net household wealth in home equity. By comparison, among homeowners with incomes of $50,000 to $60,000, half-held thirty-eight percent or less of their net wealth in home equity.

The role of housing in the composition of household wealth can be characterized and summarized by five related but separable perspectives: "equalizer," "accumulator," "cultivator," "protector," and "double-edged sword."

Housing As the "Equalizer" in the Distribution of Household Wealth

Housing wealth is much more evenly distributed than household net wealth. Looking at a neighbor with a bigger house can give one pause to reflect on the inequality in the distribution of wealth. But it is what we don't see when we look only at a wealthy person's home that really contributes to wealth disparity. The fact is that if that person's house is worth 2.5 times as much as yours, that person's household net wealth is very likely 3.5 times as much as yours. While there is a forty percent difference in median home equity between owners with annual incomes of $50,000 or more and those with annual incomes less than $20,000, the difference in median net wealth between the groups is 340 percent (see Figure 12).

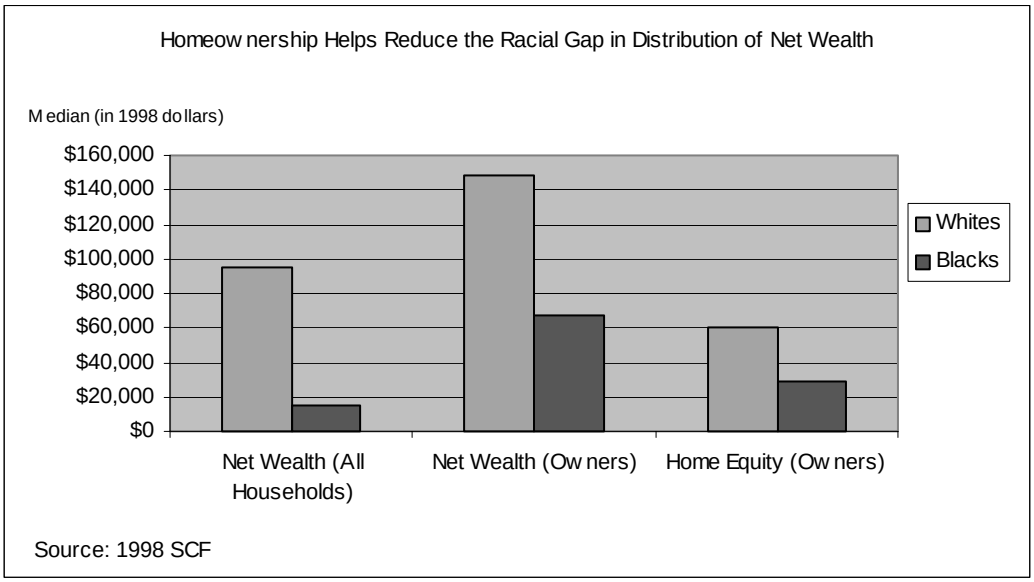
Figure 12



And these are just gaps between higher and lower-income *homeowners*. When we look at all households instead of all homeowners, the effect of homeownership as an "equalizer" is even larger. Compare, for example, the medians for whites and blacks in terms of net wealth, house value, and home equity. In 1998, while the median home equity of white

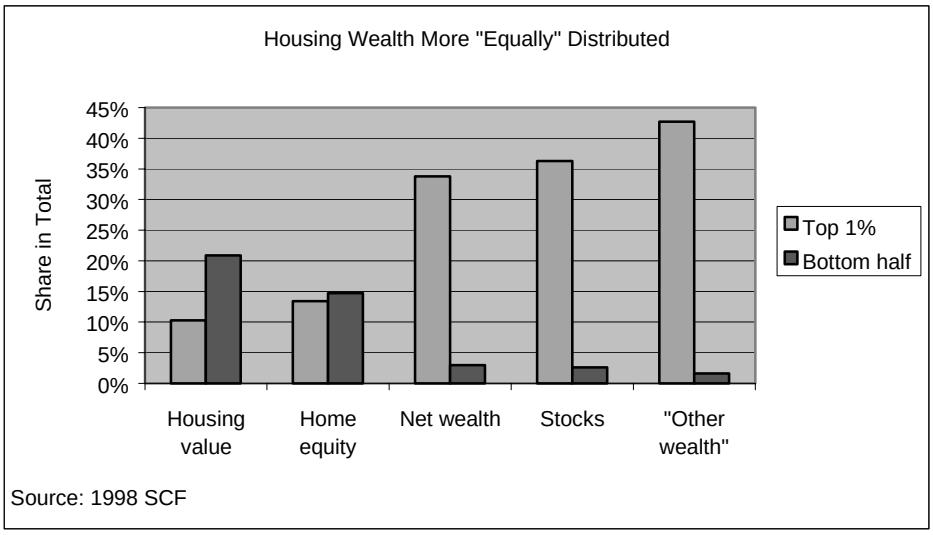
homeowners was twice that of black homeowners, the difference in median house value was even larger. The median net wealth of all white households, not just homeowners, was six times that of black households (see Figure 13).

Figure 13



While housing wealth, both in terms of housing value and home equity, is more equally distributed than stock wealth, the rest of household wealth, i.e. the "other wealth" that includes bonds, investment real estate, businesses, and durable goods, is less so. As Figure 14 shows, the share of total value possessed by the top one percent of households owning each type of wealth climbs dramatically from housing wealth to stocks and "other wealth," while the share possessed by the bottom half drops (see Figure 14).

Figure 14



Earlier studies have also found that homeownership makes an especially important contribution to the wealth of low-income and minority families, thus making the distribution of wealth more equal than it would otherwise be. In 1983, for example, owner-occupied housing was found to be more equitably distributed than any other capital asset, except for automobiles.[6]

Finally, we must point out that it is not home equity but, instead, the value of homes with mortgage financing that turns out to be the most "equally" distributed wealth. This means that less wealthy households benefit more through financial leverage and enjoy better "homes" relative to their income than do more wealthy households.

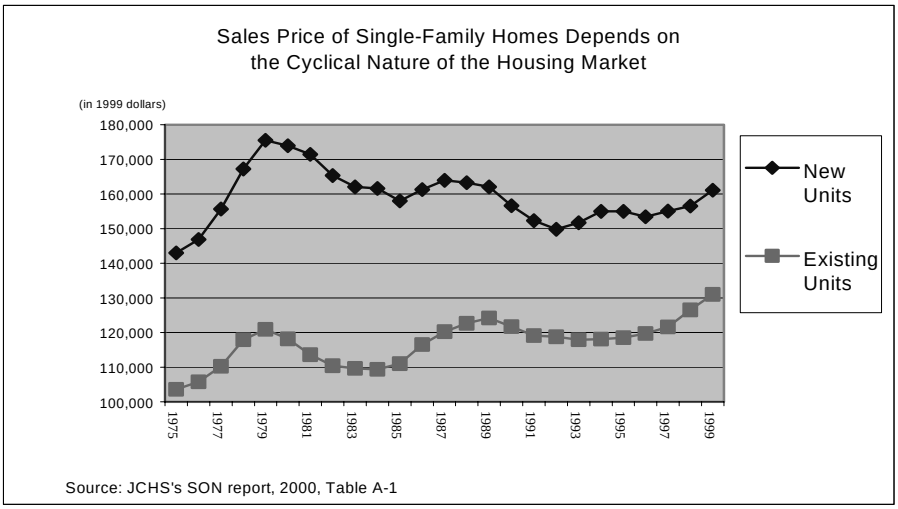
Housing as an "Accumulator" of Household Wealth

The housing market is strongly cyclical, and these cycles occur in the sales of both new units and existing homes, as Figure 14 shows. The sales of existing housing units, which comprise the lion's share of the housing stock, reflect the long-term trend of housing stock appreciating, depreciating, and appreciating again. This upward trend

[6] Holloway, A. (1991) "The Role of Homeownership and Home Price Appreciation in the Accumulation and Distribution of Household Sector Wealth," *Business Economics*, April, pp. 38-44.

demonstrates that homes function as an "accumulator" of household wealth for the home owner, although the long-term inflation-adjusted appreciation rate of home values was only twenty-six percent over twenty-five years (see Figure 15).

Figure 15



An earlier study compared different investment tools and concluded that the rate of return on homeownership proved to be a competitive investment between 1947 and 1982. During that period, the annual compound rate of return was 7.4 percent on residential property, compared to eleven percent on common stocks, four percent on US Government securities and 7.5 percent on the total market composite.[7] Historical data also show that between 1960 and 1989 the aggregate value of owner-occupied real estate increased more rapidly than other tangible and financial assets (4.1% vs. 3.3% and 3.3%, respectively).[8] The 1970s are known as a decade when home appreciation increased much faster than inflation, with a large variation from state to state. A recent estimate by a mortgage banker put home price appreciation between 1970 and 2000 in the range of

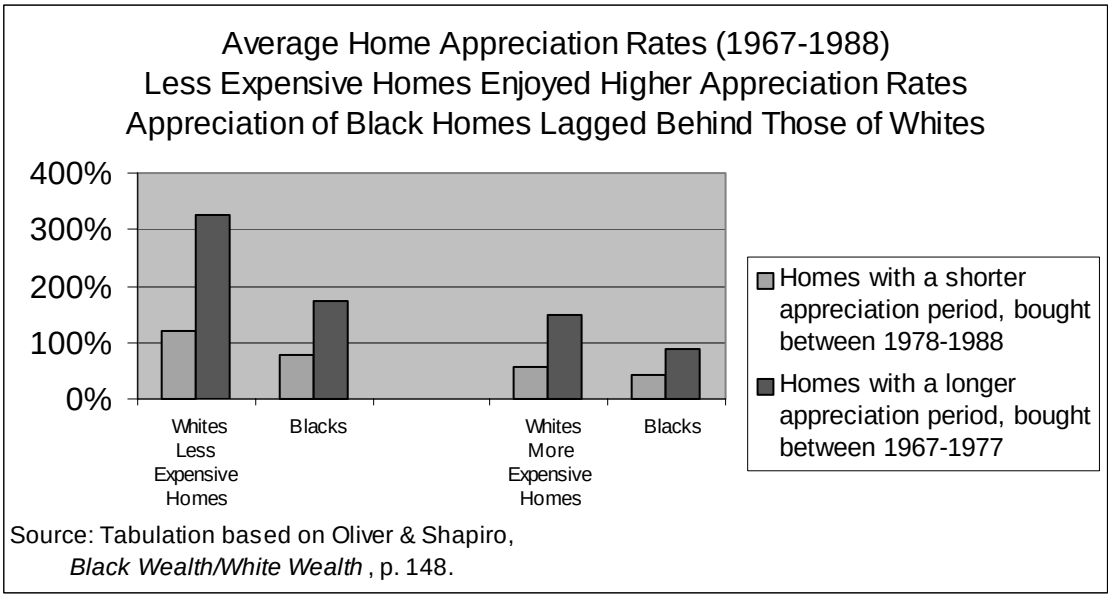
[7] Ibbotson, R. and Siegel, L. (1984) "Real Estate Returns: A Comparison with Other Investments," *Journal of the American Real Estate and Urban Economics Association*. 12, 3, pp.219-242. Cited in Michael Stegman, "Home Ownership and Family Wealth in the United States," Chapter 5 of *Housing and Family Wealth*, edited by Ray Forrest and Alan Murie. Routledge, 1995.

[8] Holloway, A. (1991) "The Role of Homeownership and Home Price Appreciation in the Accumulation and Distribution of Household Sector Wealth," *Business Economics*, April, pp. 38-44.

five to ten percent per year, depending upon where people live.[9] Home appreciation rates during the past two decades were much more moderate. The most recent official estimate by the Office of Housing Enterprise Oversight (OFHEO) is that the value of a single family home in the United States grew by 138% over the period 1980 to March 2000, representing an annualized rate of 4.2% over the past twenty-one years.[10]

Of course, not every home appreciated at the same rate. A study by Oliver and Shapiro found that the appreciation rate between 1967 and 1988 varied significantly between black and white homeowners, and between more expensive and less expensive homes.[11] (Figure 16).

Figure 16



Oliver and Shapiro found black homeowners benefited less from appreciation, both in terms of appreciation rate and dollar amount. An earlier study found that in 1980 houses owned by black couples were substantially less valuable than those of white couples with similar social economic characteristics.[12] Meanwhile, findings by Oliver and Shapiro also

[9] John M. Robbins Jr., "The Privilege of Homeownership," *Mortgage Banking*, Washington, Aug 2000.
[10] Cited from William N. Goetzmann and Mathew Spiegel, "The Policy Implications of Portfolio Choice in the Underserved Mortgage Markets," Symposium on Low-Income Homeownership as an Asset-Building Strategy, Joint Center for Housing Studies of Harvard University, November 14-15, 2000.
[11] Melvin L. Oliver & Thomas M. Shapiro, *Black Wealth, White Wealth*, Routledge, 1997.
[12] James E. Long and Steven B. Caudill (1992) "Racial Differences in Homeownership and Housing Wealth, 1970-1986," *Economic Inquiry*, Vol. XXX, January 1992, 83-100.

indicate that less expensive homes enjoyed twice as high an appreciation rate, although the absolute amount of appreciation was smaller.

In an even earlier study, Pollakowski, Stegman and Rohe found that during the period 1974-1983 in the four out of five metropolitan areas in their sample, lower-valued dwellings appreciated at least as much as did higher-valued ones.[13] Our analysis based on the American Housing Survey (AHS) not only confirms that less expensive single-family houses had higher appreciation rates during the 1985-1995 period, but those units owned by low-income owners enjoyed better appreciation, even in terms of capital gains. We compared single-family houses that changed ownership during the 1984-85 period and again in the 1994-95 period. The values of these houses, as reported by recent movers, are more reliable and accurate than for other owners because they are based on a recent sale. Even after controlling for repair and remodeling expenses, the above finding holds true. And even at the bottom end of the market, namely the five percent of the cheapest asset or units owned by extremely low-income households, the findings have the same pattern (see Figure 17).

At first blush, our finding that low-income homeowners gained more in home appreciation may seem to contradict Oliver and Shapiro's finding that homes of blacks appreciated less than those of whites. But a recent study by Quercia et. al. shows that it can be simultaneously true that appreciation rates in poor areas are at least as high as those in other areas while rates in black concentrated areas appear to be lower than those in other areas.[14] It is not possible to confirm this using the AHS because sample sizes for recent minority movers are too small. One distinction between Quercia's and our study and that of Oliver and Shapiro is that we looked at units with repeated sales whereas Oliver and Shapiro looked at all occupied units.

[13] Pollakowski, H., Stegman, M. and Rohe, W. (1991) "Rates of Return on Housing of Low- and moderate-income Homeowners," *AREUEA Journal* 19,3, pp. 417-425.

[14] Roberto G. Quercia, George W. McCarthy, Rhonda M. Ryznar, and Ayse Can Talen, "Spatio-Temporal Measurement of House Price Appreciation in Underserved Areas," Journal of Housing Research, Vol. 11, Issue 1, 2000, pp. 1-28.

Figure 17

Less Expensive Single-Family Houses Enjoyed Higher Appreciation Rates but Less Capital Gains;
Single-Family Houses Owned by Low-Income Families Enjoyed Both Higher Appreciation Rates and Capital Gains

	Mean Housing Value		Appreciation Rate	Capital Gains
Households	1985	1995		
House value<=median	$42,850	$72,922	70.2%	$30,072
House value>median	$118,109	$158,124	33.9%	$40,015
(R&R expense subtracted)				
Households	1985	1995		
House value<=median	$42,850	$63,191	47.5%	$20,341
House value>median	$118,109	$140,452	18.9%	$22,343
Households	1985	1995		
Income<80%median	$61,286	$96,785	57.9%	$35,499
Income=80%median+	$94,898	$129,250	36.2%	$34,352
(R&R expense subtracted)				
Households	1985	1995		
Income<80%median	$61,286	$82,015	33.8%	$20,729
Income=80%median+	$94,898	$114,550	20.7%	$19,652
(At further lower end)				
	Mean Housing Value		Appreciation Rate	Capital Gains
Households	1985	1995		
House value<=bottom5%	$12,786	$38,459	200.8%	$25,673
House value>bottom5%	$91,936	$127,348	38.5%	$35,412
(R&R expense subtracted)				
Households	1985	1995		
House value<=bottom5%	$12,786	$28,516	123.0%	$15,730
House value>bottom5%	$91,936	$112,625	22.5%	$20,689
Households	1985	1995		
Income<30%median	$48,316	$89,720	85.7%	$41,404
Income=30%median+	$92,282	$126,516	37.1%	$34,234
(R&R expense subtracted)				
Households	1985	1995		
Income<30%median	$48,316	$77,193	59.8%	$28,877
Income=30%median+	$92,282	$111,734	21.1%	$19,452

Source: AHS

A recent study by Belsky and Duda of repeated sales data in four metropolitan areas concluded that "owners of low-cost homes were less likely to purchase at the top of the market and owners of high-cost homes more likely to do so."[15] They found that "people purchasing homes that were initially in the price ranges that low-income households could afford experienced significantly greater price appreciation and significantly lower risks of losses upon resale."[16] This suggests that homeownership not only can help homeowners accumulate household wealth through home appreciation, it may especially benefit low-income homeowners if they cautiously choose the timing of buying and selling in the cyclical housing market.

Housing As a "Cultivator" of Household Wealth

Housing can also play a role as a "cultivator" of household wealth. When people borrow against their home equity to finance investments, business, and education, each of these types of spending may "cultivate" the future growth of household net wealth.

The strong appeal of borrowing against home equity has spawned a range of loan options. Homeowners can refinance their mortgages using a "cash-out" option, which allows them to renegotiate the original loan and borrow more money. Meanwhile, standard home-equity loans are essentially second mortgages, usually allowing homeowners to borrow a total of as much as eighty percent of the home's value but more recently as much as 125 percent. Home-equity lines of credit permit homeowners to borrow up to a certain amount of money and be charged interest only on the amount borrowed. And "interest-only" mortgages can be used to extend the repayment period indefinitely. These loans provide continuing access to inexpensive mortgage debt with its tax advantages, but borrowers must earn acceptable returns on the principal they are not paying off in order to gain any investment advantage. This can have adverse effects on lower-income borrowers who obtained subprime second mortgages; through higher interest rates and fees they may lose wealth in the process.

[15] Eric Belsky and Mark Duda, "Asset Appreciation, Timing of Purchase and Sales, and Returns to Low-Income Homeownership," Symposium on Low-Income Homeownership as an Asset-Building Strategy, Joint Center for Housing Studies of Harvard University, November 14-15, 2000.
[16] Ibid.

Borrowing additional money against their homes has grown more popular among home owners. The popularity of home equity loans has, in fact, skyrocketed since 1986, when Congress phased out tax deductions for most consumer loans, with the notable exception of home equity loans. The Consumer Bankers Association's 1999 Home Equity Lending Study found that "new loan volume grew thirty-nine percent in the year ending last June 30—though a twenty-three percent runoff lowered actual growth to sixteen percent. The volume of closed-end home equity loan dollars committed jumped 28.6 percent, and home equity line dollars rose 17.6 percent."[17]

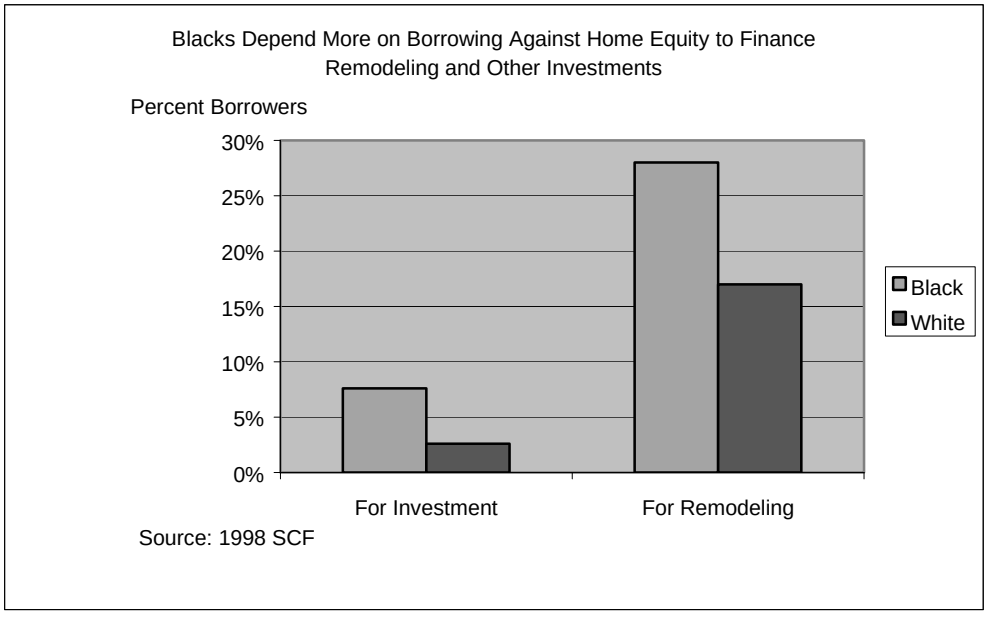
Homeowners can use the available money wisely to cultivate their future household wealth. For example, as will be discussed later, both home equity loans and home equity lines of credit can be good ways to pay for remodeling.[18] Also, because many home equity loans have lower interest rates than the current federally subsidized Stafford Loans (8.25% in 1997), they can be a better student financial aid strategy.[19]

According to the 1998 SCF, 67.9 million out of 102.6 million households (66.3%) were homeowners. Among them, 25.7 million homeowners did not have outstanding mortgages, and 24.9 million owners were still paying their first mortgage. Among the rest of the 17.3 million homeowners, some had a "refinance or rollover of an earlier loan," some "borrowed additional money on home equity," and some "did both." In other words, some refinanced without additional money (61%), some took out home equity loans (17%), and some refinanced with additional money (22%). Those in the last two categories were asked the purposes of the additional money they borrowed on home equity. Half a million borrowers used the money for businesses, stocks, and other investments. Nearly three million homeowners borrowed the additional money to remodel, creating a reinvestment in their homes that adds to their value. Finally, about half a million borrowers used the money for medical or education bills. The money spent on education is also a type of long-term investment, as it increases the household's future income.

[17] "Home Equity's Growth Curve," *USBanker*, New York, Feb. 2000, p. 12.
[18] Elizabeth Razzi, "The Best Way to Pay for Remodeling," *Kiplinger's Personal Finance Magazine*, Washington, Aug 1999.
[19] Pat Ordovensky, "Home Equity Loan May Be Best Student Aid Strategy," *USA Today*, Nov 12, 1997.

The most remarkable aspect of borrowing against home equity is that it is more common among blacks than whites. Perhaps this is because blacks have less access to wealth to finance consumption or other channels of financial leverage to cultivate the future growth of their household wealth. Among those 17.3 million homeowners discussed above, twenty-five percent of blacks took home equity loans and forty percent refinanced with additional money, compared to seventeen and twenty-two percent of whites, respectively. The difference between blacks and whites is even larger among those who borrow on home equity to cultivate future wealth through investment and remodeling, underscoring the relative importance of home equity borrowing for black homeowners (see Figure 18).

Figure 18



In addition to home equity loans, according to the 1998 SCF, 5.6 million homeowners had outstanding borrowing through home equity lines of credit. That represents 8.2 percent of all homeowners and nearly twice as much as the number of households having outstanding home equity loans. Although whites are more likely than blacks (8.6% vs. 5.9%) to use home equity lines of credit, among the 5.6 million borrowers using home equity lines of credit, blacks are more likely to use the money for remodeling (73.9% blacks vs. 31.8% whites), once again underscoring the importance of such borrowing to black homeowners to fix up their homes and grow their house values.

Housing As a "Protector" of Household Wealth

A fixed-rate mortgage is the surest protection against increasing housing costs. Homeownership also can therefore play a role as a "protector" of household wealth. By fixing housing costs it can allow owners to save and invest more over time.

While it is easy to argue that homeownership helps stabilize housing costs, it is much more complicated and difficult to demonstrate that homeownership helps lower housing costs. In many cases, it does not. The holding period is a critical factor because of transaction cost. Often one must own a home for several years before the cost of ownership equals or is lower than that of renting. The cyclical nature of the real estate market is another very important factor. Buying high and selling low can cost a homeowner dearly.

For decades, professionals have provided advice and services for potential home buyers to help them make better decisions on housing tenure. As early as 1988, the Mortgage Bankers Association offered a spreadsheet model demonstrating annualized after-tax return on home equity based on input assumptions of the length of holding period, percentage of down payment, and projected annual rate of appreciation.[20] Ten years later, the Canada Mortgage and Housing Corporation (CMHC) offered advice based on the same logic but with a more sophisticated software package called the Buy or Rent Decision Model. Experiments with the software reveal a handy rule of thumb: the

[20] Richard W. Peach, "The Investment Returns to Homeownership," *Mortgage Banking*, October 1988.

0.6 percent rule. If you can rent a home for anything less than 0.6 percent of its purchase price, you are likely to be further ahead as a renter. If your rent is above that 0.6 percent level, the balance shifts in favor of owning, unless you are planning to move around a lot.[21] Free websites with software that helps people make a choice between owning and renting now abound.

The literature does suggest that, on average, the capital gains on owner-occupied housing approximately matched inflation during the 1960-89 period. But home equity as a share of net wealth increased during periods of accelerating inflation, such as 1972-74 and 1976-79, and decreased during periods of decelerating inflation, such as 1974-75 and 1980-86. Therefore, homeownership has been viewed as an effective hedge against inflation.[22]

Homeownership can protect most homeowners against inflation in the long run because the entire housing cost of a renter, that is his/her rent is subject to inflation while a homeowner with a fixed-rate mortgage only has the home insurance and local property tax part of his/her housing cost subject to inflation. This protects a homeowner especially well when the inflation rate is high.

Housing As a "Double-edged Sword"

Finally, housing is a "double-edged sword" in relation to household wealth. While it can be an "equalizer," an "accumulator," a "cultivator," and a "protector," it can also be a "wealth trap." How? First, the cost of homeownership could prevent a homeowner from taking advantage of investment opportunities, for example, during a bull market when stock value increases dramatically.

Second, the cyclical nature of the housing market could easily cause homeowners to lose money by buying and/or selling at the wrong time. Between 1989 and 1995, the aggregate housing value actually depreciated from eight trillion dollars to 7.8 trillion dollars despite the addition of millions of new housing units to the stock. On average, a person who bought in 1989 and sold in 1995, would have lost money instead of enjoying any appreciation after a short but bitter taste of homeownership.

[21] Andrew Wahl, "Home Truths," *Canadian Business*, Toronto, Jul 31-Aug 14, 1998.
[22] Holloway, A. (1991) "The Role of Homeownership and Home Price Appreciation in the Accumulation and Distribution of Household Sector Wealth," *Business Economics*, April, pp. 38-44.

Third, as the real estate motto says, "location, location, and location." Segregated local housing markets may force some buyers to purchase their homes in undesirable neighborhoods that enjoy less real estate appreciation than other areas; and, in fact, houses there may not appreciate at all but actually lose value. Although housing serves as an "equalizer" in the distribution of household wealth in general, and low-priced property may, on average, have an even higher appreciation rate, as discussed above, it can also hurt some less fortunate homeowners as a "double-edged sword."[23]

Fourth, the growing trend of home equity borrowing is also creating problems for some homeowners, especially predatory lending, which occurs mostly in the subprime lending market and targets low-income and minority families. Some lenders have even offered some homeowners 125 percent home equity loans that exceed the appraised value of their homes. Also, according to Franklin Raines, Chairman and CEO of Fannie Mae, some low-income families short on cash have been urged to refinance repeatedly, sometimes every few months. These homeowners who kept flipping their loans ended up paying extra fees and costs at closing but never escaped their burden of debt.[24] A study by Freddie Mac in 1996 suggested that ten to thirty-five percent of subprime loans actually could have been served in the prime market at lower cost.[25] A recent study listed five more abusive practices in addition to "flipping," namely, "pressure tactics" to make borrowers feel too late to back out of the loan, "obscuring information," "upselling" from a bail check voucher to a home-equity loan, "loan consolidation" that makes a previously unsecured debt now secured by the borrower's home, and abusive "collection" tactics to prevent borrowers from seeking recourse.[26]

Fifth, housing wealth can also contribute to a steep drop in the savings rate. Some homeowners may view the unrealized gain on their home as a nest egg, to be tapped later

[23] The literature does point to one specific reason why very low-income homeowners and especially minority low-income homeowners may see a lower appreciation rate for their homes if they purchased their units from the public housing sector or through a government regulated program. Congress was reluctant to approve a large-scale sell-off of the social housing stock and imposed severe resale restrictions. These restrictions could severely slow equity buildup and adversely affect wealth accumulation. See Michael Stegman, "Home Ownership and Family Wealth in the United States," Chapter 5 of *Housing and Family Wealth*, edited by Ray Forrest and Alan Murie. Routledge, 1995, p. 100.

[24] Franklin D. Raines, "Equality in Home Ownership," *Vital Speeches of the Day*, New York, Jun 15, 1999.

[25] Freddie Mac. 1996. "Automated Underwriting Report: Making Mortgage Lending Simpler and Fairer for America's Families." *Freddie Mac*. September.

[26] Deborah Goldstein, 1999. "Understanding Predatory lending: Moving Toward a Common Definition and Workable Solutions," Joint Center for Housing Studies Working Paper Series, W99-11, pp. 14-15.

for large expenses or retirement. According to Karl Case, a professor of economics at Wellesley College, "They're certainly spending more, saving less."[27] If these homeowners did not spend wisely to cultivate the growth of their wealth or at least keep part of the value through durable goods, it could make a deep dent in their net wealth.

Finally, elderly households that are equity rich but cash poor may fail to tap their equity to finance consumption. A study using the 1990 SIPP data showed that over six million homeowners could increase their monthly income by at least twenty percent by using a reverse mortgage. Furthermore, a reverse mortgage would allow over 1.4 million poor elderly persons to raise their incomes above the poverty line.[28] Venti and Wise found that a reverse annuity mortgage would substantially affect the income only of the single elderly who are very old—whose life expectancy is short. However, if the transfer were in the form of a lump-sum payment rather than an annuity, the payment would increase the liquid wealth of most elderly families by a large fraction.[29] Of course, risks are associated with liquidating wealth in this way; elderly homeowners could be hurt by an imprudent cash out through a reverse mortgage.

IV. Conclusions

A better understanding of housing comes through the perspective of household wealth. For two reasons, home equity remains a cornerstone of wealth for most households, even though the national aggregate stock value surpassed total home equity in 1998. First, about two-thirds of American households owned their homes while less than half of the households had stocks. Second, the majority (60%) of those who owned both stocks and homes still had more value in home equity than in stocks. Indeed, these households had more wealth in home equity than in stocks, except for those with an annual income of $100,000 or more. And even among those higher-income households, 40 percent had more wealth in home equity than in stocks.

[27] Kathleen Madigan, "The Stock Market Isn't the Only Cash Machine," *Business Week*, March 13, 2000.
[28] Christopher J. Mayer, Katerina V. Simons, "Reverse Mortgages and the Liquidity of Housing Wealth," *Journal of the American Real Estate and Urban Economics Association*, Summer 1994.

Racial differences in housing and household wealth are also notable. Home equity is especially important for minority households. While the median white household net wealth was six times of that of blacks in 1998, the median home equity of a white homeowner was only twice that of a black homeowner. Black homeowners were nearly twice as likely to have borrowed against their home equity to fund business, education, remodeling of their homes, or investment in stocks, for they generally had less access to other resources than did white homeowners.

Inequalities in the distribution of household net wealth manifest clear racial lines. While 77.7 percent of households were headed by whites, 92.1 percent of the nation's aggregate household net wealth was held by white households. On the other hand, the 11.9 percent black and 7.2 percent Hispanic households only held 2.7 and 2.2 percent of the total net wealth, respectively.

Housing wealth was much more evenly distributed than net wealth or any other type of wealth. While the top one percent of households had ten times more net wealth in total than the bottom half of households, half of the homeowners on the poor end, at least in total, enjoyed as much home equity and twice as much home value as the top 1 percent of homeowners on the rich end.

Growing wealth between 1989 and 1998 brought with it growing inequality in wealth distribution. While the bottom half of all households retained the same share of entire household net wealth (3%), the top ten percent of the wealthiest households increased their share. In 1998, the least rich of the wealthiest one percent of households had $3.7 million more in net wealth than the median household had. Back in 1989, the difference was only $2.3 million. In other words, the gap increased aixty percent ($1.4 million).

Remarkably, housing wealth actually contributed as a counter balance to this growing inequality in the distribution of wealth. The AHS data show that less expensive single-family houses enjoyed higher appreciation rates although less capital gains during the 1985 to 1995 period, even after controlling for repair and remodeling expenses. Meanwhile, single-family houses owned by low-income or even extremely low-income

[29] Steven F. Venti and David A. Wise, "Aging and the Income Value of Housing Wealth," *Journal of Public Economics*, Amsterdam, April 1991.

families enjoyed both higher appreciation rates and capital gains, where “low-income” is defined as less than 80% of the area median and “extremely low-income” is defined as less than 30% of the area median income.

Finally, almost all household assets, $32.4 out of $34.2 trillion in 1998, were in the hands of homeowners. It was not homeownership that brought about all this wealth, but homeownership may be the first and most important step in many people’s accumulation of wealth. A typical senior homeowner has $170,000 in household net wealth, compared with only $6,200 for an elderly renter. The huge gap in household net wealth between homeowners and renters existed in each age, race, and income group. In other words, no matter what your other characteristics, if you have not managed to own your home, you probably have not achieved much wealth.

Note: The primary data source used in this paper is the SCF data collected by the Federal Reserve Board. Because any discussion of household wealth is extremely sensitive to the data source being used, readers are strongly advised to read the Appendix: Methodological Notes on Data Issues in the Measurement of Household Wealth. Great caution must be used in attempting to combine any findings presented in this paper with other studies or to generate new conclusions based on those findings.

Appendix

Methodological Notes on Data Issues in the Measurement of Household Wealth

This is an extended discussion of issues and difficulties involved with the measurement of household wealth. This paper aims to be as inclusive as possible in measuring household wealth in order to provide an accurate picture of inequalities in its distribution. Because the PSID data exclude pension and social security wealth, the following discussion focuses primarily on the SCF and SIPP data.

The PSID data do, however, have a unique advantage in so far as they provide a longer history of the sampled households. Conducted since 1968 by the Survey Research Center of the Institute for Social Research at the University of Michigan, this longitudinal study of a representative sample has collected information about more than 50,000 individuals spanning as much as 28 years of their lives.[30] Therefore, it may shed more light on cross-generation wealth accumulation and inheritance, which certainly plays an important role in the distribution of housing and household net wealth.

The Survey of Income and Program Participation (SIPP) is a field survey conducted by the Bureau of the Census using a representative sample. It is a longitudinal survey. Almost every year a new panel is introduced and the same households are interviewed every four months for over two years.

The SIPP survey has a larger sample size than the SCF: over 11,000 households. This enables researchers to slice the data into smaller social groups for comparisons. Because SIPP is a panel survey, it also contains historical information for each household that allows researchers to capture the social and economic profile of a household over an extended period of time. The major drawback of using the SIPP data is that it understates the magnitude of wealth inequality, primarily because household wealth is extremely skewed and the very rich (the so-called upper tail of the distribution) are considerably underrepresented in its sample.

The Survey of Consumer Finances (SCF) by the Federal Reserve Board uses stratified samples, based typically on income tax returns, which oversample the rich. As a *Federal Reserve Bulletin* article explicitly explained, "the SCF employs a dual-frame

[30] Dalton Conley, *Being Black, Living in the Red*, University of California Press, 1999, p. 17.

sample design consisting of both a standard, geographically based random sample and a special oversample of relatively wealthy families."[31]

While the SCF measures household wealth distribution better than the SIPP, the SCF numbers still underestimate the inequality of wealth distribution for two reasons. First, as mentioned in the paper, the SCF explicitly excludes the *Forbes* 400 wealthiest individuals from its sample, although the survey has good coverage of the population below that level.[32] Second, unlike the SIPP, the SCF may have less coverage of the poorest population. For example, in the 1988 SIPP, twenty percent of households had either no or negative net wealth,[33] compared to only eleven percent in the 1989 SCF. If we could add to the top the *Forbes* 400 wealthiest individuals, who possessed $740 billion in 1998,[34] and add to the bottom the nearly 10 percent of additional poor households without any net wealth at all, as indicated in the SIPP data, then the true distribution of household net wealth would be even more unequal than that which we present in this paper.

To give a sense of how much difference the choice of data sources makes in estimating wealth concentration, it is instructive to compare their Gini coefficients. The Gini coefficient is a standard statistical measure or indicator used to summarize the degree of inequality or concentration of income, wealth, or anything else of value. It ranges from 0 (exact equality) to 1 (one person or household or unit of observation owns everything). The higher the Gini coefficient, the greater the inequality. The table below, taken from a study by Wolff, reports the Gini coefficient of various individual surveys conducted in the 1980s. Clearly the measured concentration is substantially higher in the SCF data than in the SIPP data. Thus the SCF data provide a more accurate picture of the inequality of wealth in America than the SIPP data do.

[31] Arthur B. Kennickell, et., "Results from the 1998 Survey of Consumer Finances," *Federal Reserve Bulletin*, p. 2.
[32] http://www.bog.frb.fed.us/pubs/oss/oss2/papers/concent.1.pdf, as of August 2, 2000.
[33] Melvin L. Oliver & Thomas M. Shapiro, *Black Wealth, White Wealth*, Routledge, 1997, p. 69.
[34] http://www.bog.frb.fed.us/pubs/oss/oss2/papers/concent.1.pdf, as of August 2, 2000.

Gini Coefficient of Household Wealth Distribution

1983 SCF	0.80
1984 SIPP	0.69
1989 SCF	0.84
1988 SIPP	0.69[35]

It is perhaps even more instructive to compare the SCF and the SIPP in a more intuitive way. Comparing numbers from Wolff's study, based on the 1984 SIPP data, the top 1.9 percent of households possessed 26 percent of all household net wealth. This degree of wealth inequality was dwarfed by the estimates based on the 1983 SCF data: the top 1 percent held 34.5 percent of the nation's household net wealth.[36]

As noted in the paper, one major disadvantage of using the SCF data is its small sample size: less than 5,000 households in each survey. This limits the possibility of comparing wealth distribution among different social groups. The second limitation of the SCF is that it is not a panel sample and therefore provides little historical information about each household that might reveal trends.

Another practical problem in using the SCF data is that it is revised frequently, and some of the revisions are quite substantial. Some of the revisions may have reflected procedural changes in the administration of the survey. For example, the 1989 SCF was conducted by the Survey Research Center at the University of Michigan, however, since 1992 the SCF has been conducted by the National Opinion Research Center at the University of Chicago (NORC). This may explain why the numbers in the 1992 SCF were substantially revised later on. For example, in the 1994 publication of the 1992

[35] Edward N. Wolff, *Top Heavy: A Study of the Increasing Inequality of Wealth in America*, The Twentieth Century Fund Press, 1995, p. 71.
[36] Edward N. Wolff, "Methodological Issues in Household Wealth Estimation," *Journal of Econometrics* 43 (1990) 179-195.

SCF, the mean family net worth was $220,000 in 1992 dollars,[37] but in a 1997 publication, that number was revised to only $200,500 in 1995 dollars.[38] The true difference in real or constant dollars is certainly even larger. The official explanation for such a difference is sketchy: "Any differences between figures for 1992 reported here and those published earlier in the *Federal Reserve Bulletin* are attributable to additional statistical processing of the data."[39] Because of concerns about its reliability, we decided not to use the 1992 SCF data at all in our analysis.

Other technical changes and updates create difficulties reconciling analyses based on the most recently updated SCF data with those in previous Federal Reserve publications. When the data source is updated, researchers have to struggle to reconcile these data with previous analyses. For example, they recently suggested that users should employ variable "x42001" instead of variable "x42000" for weighting. This literally changes every number in the previous analyses.

Most importantly, there is no consensus on the definition of household wealth even among researchers who use the SCF data as their primary data source. The Federal Reserve Board provides a SAS program to calculate the net wealth of each household, but it states that this is only a reference, as one way to calculate household wealth. Researchers may come up with their own definitions. Without knowing each researcher's specific method of defining household wealth, it is practically impossible to replicate and update any previous studies.

For example, Wolff claims that by 1983 the top one percent of households had 34.5 percent of the nation's household net wealth and by 1989 they had 39 percent of all household wealth.[40] Yet, using the most current version of different years of the SCF data accessible from their web sites and using the definition of net wealth provided by the Federal Reserve Board, our analysis reveals quite different numbers: by 1989, the top one

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[37] Arthur B. Kennickell, etc., Changes in Family Finances from 1989 to 1992: Evidence from the Survey of Consumer Finances, *Federal Reserve Bulletin*, January 1994, p. 865.
http://www.bog.frb.fed.us/pubs/oss/oss2/92/bull1094.pdf, as of August 2, 2000.

[38] Arthur B. Kennickell, etc., Family Finances in the U.S.: Recent Evidence from the Survey of Consumer Finances, *Federal Reserve Bulletin*, January 1997, p. 6.
http://www.bog.frb.fed.us/pubs/oss/oss2/95/bull01972.pdf, as of August 2, 2000.

[39] Ibid., p. 2.

[40] Edward N. Wolff, *Top Heavy: A Study of the Increasing Inequality of Wealth in America*, The Twentieth Century Fund Press, 1995, p. 10.

percent of households had thirty percent of the nation's household net wealth and held thirty-four percent by 1998.[41]

Share of Top 1% in Total Net Wealth of All Households

Year	Wolff Study	Our Analysis
1983	34%	
1989	39%	30%
1998		34%

Source: SCF

Part of this difference could be due to updates and revisions of the data, but most likely it results from different definitions of wealth used in the analysis. Others have noted that in Wolff's studies on wealth "Consumer durables such as automobiles, furniture and so on are excluded 'since these items are not easily marketed or their resale value typically far understates the value of their consumption services to the household.'"[42]

No wonder the Gini coefficient reported in Wolff's study is so different from those listed below, which we recently obtained from Federal Reserve staff:

1983 0.777
1989 0.787
1992 0.781
1995 0.785
1998 0.794

None of these coefficients reaches the level of 0.8 that Wolff reported. Because of this difference, we want to alert our readers that none of the numbers we present in this paper can simply be added as quick updates to the results of Wolff's previous studies, even though we both used the SCF surveys as our data sources.

[41] These percentages have been confirmed by the Federal Reserve staff.
[42] Chuck Collins, et., "Shifting Fortunes, The Perils of the Growing American Wealth Gap," www.stw.org/html/shifting_fortunes_report.html, as of Wed. 29, Mar. 2000.

Despite this difference, all the Gini coefficients in the SCF data are consistently higher than those in the SIPP data, which adds to the evidence that the SCF data provide a more accurate picture of the unequal distribution of household wealth in America. And this further legitimizes our decision to use the SCF data for our analysis.