Economic Policy Institute

Briefing Paper

1660 L Street, NW • Suite 1200 • Washington, D.C. 20036 • 202/775-8810

The Rich Get Increasingly Richer: Latest Data on Household Wealth During the 1980s

By Edward N. Wolff

Introduction

Reports of rising income inequality during the 1980s have recently appeared more frequently in the press and mass media. According to one report released by the Congressional Budget Office earlier this year, the top one percent of income recipients accounted for a staggering 77 percent of the before-tax real income growth of American families between 1977 and 1989 and 60 percent of the after-tax real income gains. This paper finds a similar trend occurred for household wealth.

- U.S. wealth concentration in 1989 was more extreme than that of any time since 1929.
- Between 1983 and 1989 the top one half of one percent of the wealthiest families received 55 percent of the total increase in real household wealth. The only other time in the twentieth century with a similar increase in the concentration of household wealth was from 1922 to 1929.
- The proportion of U.S. families with zero or negative financial wealth (net wealth exclusive of home equity) increased sharply from 25 percent in 1983 to 29 percent in 1989. That is, excluding home equity, one in four Americans were — on net — debtors in 1983, and the fraction of debtors increased to almost 30 percent by 1989.

- Including home equity, 19 percent of Americans had zero or negative net worth in 1989.
- The average wealth holdings of the lower-middle and bottom classes (in terms of wealth) actually declined in real terms from 1983 to 1989.
- Seventy percent of the growth in wealth over the 1983-1989 period was attributable to the appreciation of existing wealth and the remaining 30 percent to personal savings.

This paper examines the trends in wealth holding and the concentration of wealth over the 1983 to 1989 period and the policy implications of these findings. It does this through a two-part approach: 1. by examining the causes of rising wealth inequality and how this inequality differs by age and by race, and 2. by analyzing the composition of wealth and the savings behavior of households.

Why Wealth?

Most studies use income to measure family well-being. But, families receiving the same income can experience different levels of economic well-being depending on their assets such as housing and consumer durables. Thus, although related, income and wealth have different definitions: wealth refers to the net value of assets (e.g., ownership of stock, bonds, real estate, etc.) less debt held at one time, whereas income refers to a flow of dollars (e.g., wages and salaries, interest received, etc.) over a set period, usually a year.

While income and wealth are by no means identical, a study that focused on income would capture some differences in the distribution of wealth. This is because wealth can create certain forms of income — such as interest from savings accounts and bonds, dividends from stock shares, and rent from real estate.’

However, many forms of wealth, such as owner-occupied housing, produce no corresponding income flow. Rather, wealth can provide the stability to ensure a family's well-being through meeting a family's needs for housing and transportation, by providing the resources necessary to weather setbacks such as illness or unemployment, and by providing for a family's consumption needs in excess of income (Steuerle 1984, Greenwood 1987 and Radner and Vaughan 1987). So, a more complete understanding of the growth in inequality in the 1980s must include discussing the distribution of wealth.

What has Happened to Average Wealth Holdings?

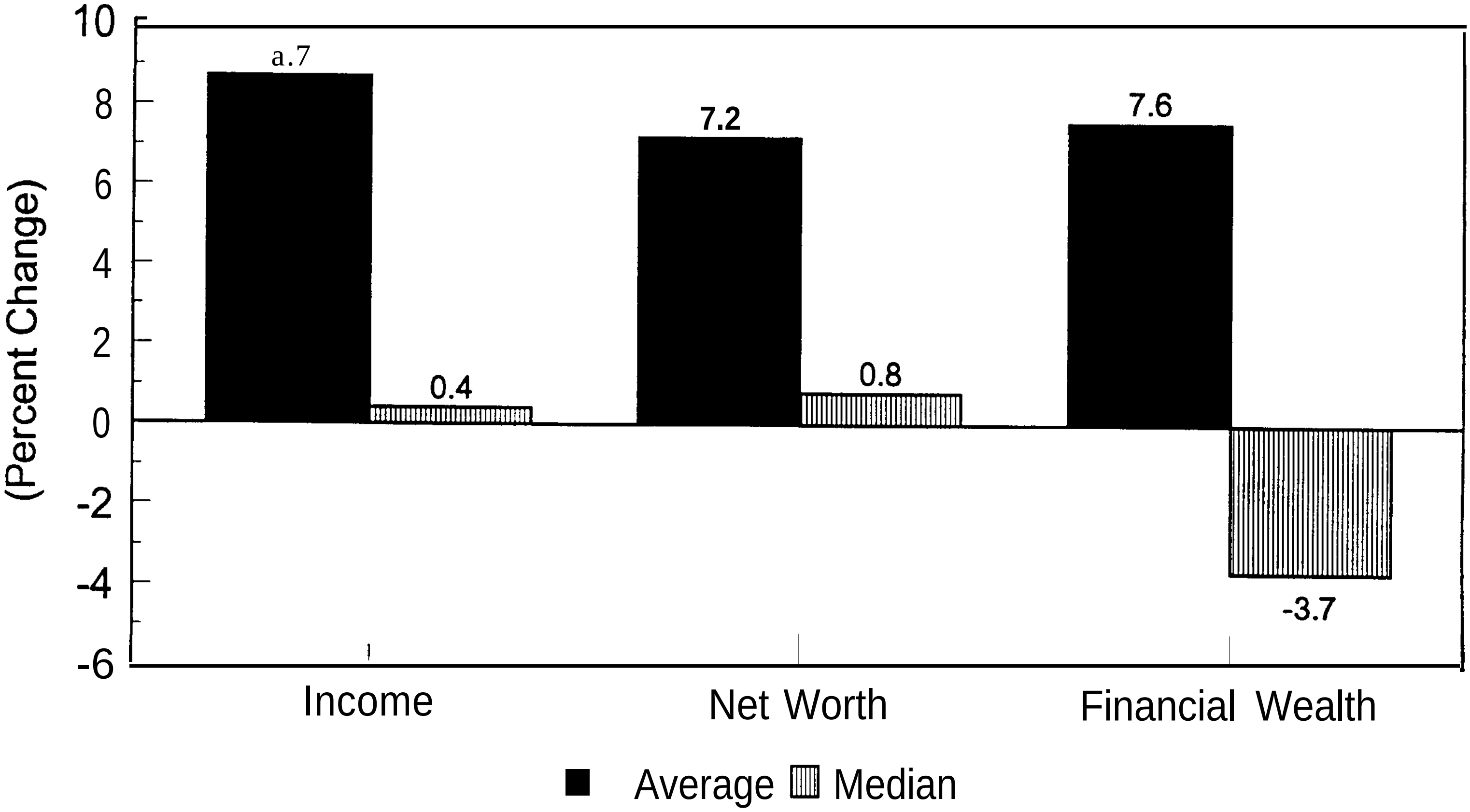
From 1983 to 1989, one of the longest periods of economic expansion since World War II, median family income (the income of the family that ranks in the middle of the income distribution) remained almost unchanged in real terms (see **Table 1** and Figure 1). This finding shows slower growth than found in some studies, but is consistent with the national accounts data (see Appendix II). Average family income (total family income divided by the number of families), on the other hand, grew by 8.7 percent in real terms. However, because the median stayed the same-half the families were below the same income in both years-the increase in average family income means that the sum of family income increased despite the bottom half not making income gains. So, this is consistent with rising income inequality since it implies that the upper-income classes received most of the income gains.

Table 1
Changes in Average Family Wealth and Income, 19834989
(In 1989 dollars)

	Averaae			Median		
	1983	1989	Percent Chanae	1983	1989	Percent Chanae
I. Income:	$33,400	$36,300	8.7%	$24,300	$24,400	0.4%
II. Net Worth:	161,700	173,300	7.2	41,500	41,900	0.8
III. Financial Wealth:	117,400	126,300	7.6	9,000	8,600	-3.7

Sources: Author's calculations from 1983 and 1989 Survey of Consumer Finances.

Figure 1
Percentage Change in Average and Median
Net Wealth, 1983-I 989



The average net worth of families grew from $161,700 to $173,300, or by 7.2 percent in real terms, about the same as income from 1983 to 1989. This is equivalent to an annual growth rate of 1.2 percent, about the same as historical standards. In 1962, for example, average net worth was $110,200 (in 1989 dollars), and the **average** annual growth rate between 1962 and 1983 **was** 1.3 percent. Between 1983 and 1989, median net worth grew much slower than average wealth, 0.8 percent over the six years. This result also implies that the upper-wealth classes enjoyed a disproportionate share of the total wealth increase over the period.

The third row in Table 1 examines financial wealth which is defined as net worth minus net equity in owner-occupied housing, where net equity is the difference between the value of the property and the outstanding mortgage debt on the property. Financial wealth is a more "liquid" idea than fungible wealth (assets that have a clear market value-like stocks, bonds and homes), since one's home is difficult to convert into cash in the short term. It thus reflects the resources that may be directly available for consumption or various forms of investments. Average financial wealth grew slightly faster than marketable assets, reflecting the increased importance of bank deposits, financial assets and equities in the total household portfolio. Median financial wealth, on the other hand, actually declined in real terms, by 3.7 percent, over the period. Thus, the typical family *had less* liquidity in 1989 than in 1983.

Rising Wealth Inequality in the 1980s

Table 2 and **Table 3 (also see Figure 2)**, show the large expansion of wealth inequality that occurred between 1983 and 1989. The most telling finding is that the share *of the top one half of one percent (the "super-rich"? increased by an almost unprecedented* **4.6** *percentage points over this period*. In 1989, this small fraction of families owned *30.8* percent of total wealth compared to *26.2* percent in 1983. How big was this increase? One indicator of the magnitude of this change can be calculated by looking at the percentage increase in the average wealth of families in the top one half of one percent in the two years. As shown in Table 3, their average wealth grew from 8.5 million dollars (in 1989 dollars) to 10.7 million, or by 26 percent. In contrast the average wealth of all households increased by only 7 percent. Therefore, the average wealth of this group grew almost four times as rapidly as total average household wealth.

A second indicator of the magnitude of this increase is that 55 percent of the total increase in real household wealth between 1983 and 1989 accrued to the top one half of one percent of families (for methodological details see Table 3 and the footnote to the table). A third indicator is that, according to previous calculations, the only other time during the twentieth century with a similar increase in the concentration of household wealth was from 1922 to 1929 (see Wolff and Marley 1989 for details). However, the increase in inequality of the 1920s was buoyed primarily by the excessive increase in stock values that eventually hastened the Great Depression of the 1930s.

Table 2
Gini Coefficient and Percentage Shares of Total Wealth and Income Holders By Percentile Group and Fifths, 1983 and 1989

I. Shares of Top Wealth (Income) Holders

		Percentage Share of Wealth (Income) Held by:						
Year	Gini Coefficient	Top 0.5%	Next 0.5%	Next 4.0%	Next 5.0%	Next 10.0%	Bottom 80.0%	All
A. Net Worth								
1962	0.81	25.2%	8.2%	21.6%	12.4%	14.3%	18.3%	100.0%
1983	0.80	26.2	7.8	22.1	12.1	13.3	18.5	100.0
1989	0.84	30.8	6.9	21.6	11.5	12.8	16.4	loo.0
B. Family Income								
1983	0.48	9.1%	3.7%	13.3%	8.3%	17.5%	48.1%	100.0%
1989	0.52	13.4	3.0	13.3	10.4	15.2	44.5	100.0
C. Financial Net Wealth								
1983	0.89	33.9%	8.9%	25.1%	12.3%	11.0%	8.7%	100.0%
1989	0.94	39.9	8.3	24.3	11.4	10.5	5.7	100.0

II. Shares of Total Wealth (Income) by Fifths

Year	Top	Upper Middle	Middle	Lower Middle	Bottom	All
A. Net Worth						
1962	81.7%	12.9%	5.2%	0.8%	-0.5%	100.0%
1983	81.5	12.5	5.2	1.1	-0.3	100.0
1989	83.6	12.3	4.9	0.8	-1.7	100.0
B. Family Income						
1983	51.9%	21.7%	14.1%	8.7%	3.7%	100.0%
1989	55.5	20.7	13.2	7.6	3.1	100.0
C. Financial Net Wealth						
1983	91.3%	8.5%	1.1%	-0.1%	-0.8%	100.0%
1989	94.3	7.0	1.5	0.1	-2.9	100.0

Sources: Author's calculations from 1962 Survey of Financial Characteristics of Consumers; 1983 and 1989 Survey of Consumer Finances. Percentage shares of net worth are based on ranking of families by net worth; percentage shares of family income are based on ranking of families by income; and percentage shares of financial wealth are based on ranking of families by financial wealth.

Table 3
Average and Total Net Worth by Percentile and Fifths, 1983 and 1989
(In 1989 dollars)

I. By Percentile Group

A. Average Net Worth (thousands)

Year	All	Top 0.5%	Next 0.5%	Next 9.0%	Next 10.0%	Bottom 80.0%
1983	$162	$8,481	$2,436	$619	$212	$38
1989	173	10,677	2,376	638	222	35
Actual Change	12	2,196	-60	19	10	-3
Percent Change	7.2%	25.9%	-2.4%	3.0%	4.7%	-6.0%

B. Total Net Worth (billions)

Year	All	Top 0.5%	Next 0.5%	Next 9.0%	Next 10.0%	Bottom 80.0%
1983	13,568	3,558	1,022	4,677	1,779	2,533
1989	16,121	4,966	1,105	5,343	2,066	2,641
Actual Change	2,552	1,408	83	666	287	107

Percent of Total Real Wealth Increase Accruina to Each Group, 1983-89[1]:

	All	Top 0.5%	Next 0.5%	Next 9.0%	Next 10.0%	Bottom 80.0%
	100%	55%	3%	26%	11%	4%

II. By Fifths

A. Average Net Worth (thousands)

		Fifths				
Year	All	Top	Upper Middle	Middle	Lower Middle	Bottom
1983	$162	S658	$102	$42	$10	s-2
1989	173	725	107	42	7	-14
Actual Change	12	67	5	0	-3	-12
Percent Change	7.2%	10.2%	5.2%	0.3%	-27.3%	--

B. Total Net Worth (billions)

Year	All	Top	Upper Middle	Middle	Lower Middle	Bottom
1983	13,568	11,035	1,706	708	160	-41
1989	16,121	13,480	1,990	787	129	-266
Actual Change	2,552	2,445	285	79	-31	-225

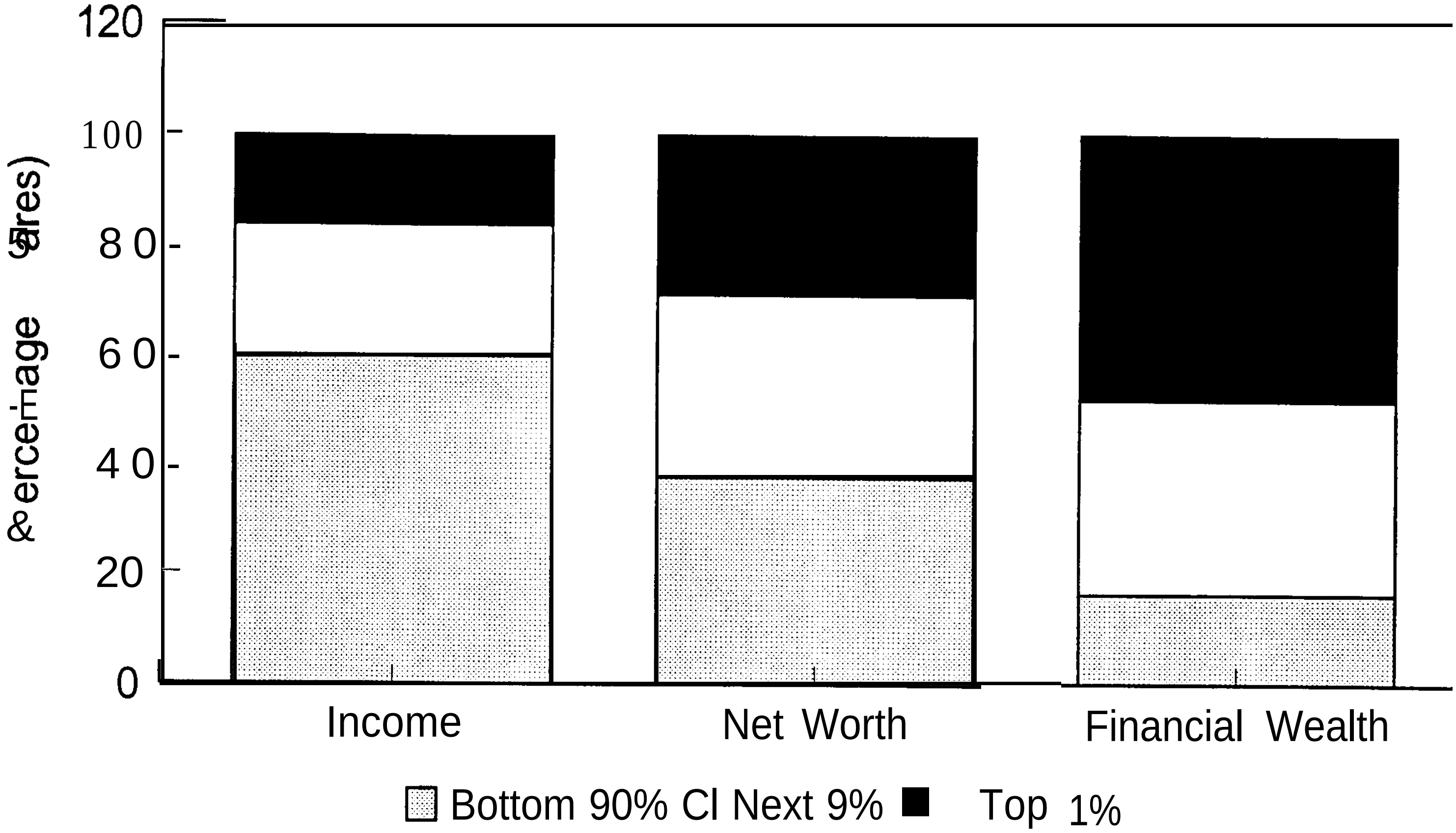
Percent of Total Real Wealth Increase Accruina to Each Group, 1983-89:

	All	Top	Upper Middle	Middle	Lower Middle	Bottom
	100%	96%	11%	3%	-1%	-9%

Sources: Author's calculations from 1983 and 1989 Survey of Consumer Finances.

[1]The computation was performed as follows: The total increase of household wealth in 1989 dollars was first calculated at $2.6 trillion. Next, the total increase in wealth of each percentile and quintile group was likewise calculated. The increased wealth of each group was then divided by $2.6 trillion to obtain the proportion of total real wealth growth accruing to that group. It should be noted that the families found in each group (such as the top one half percent) may be different in 1983 and 1989.

Figure 2
Percentage Shares of Total Wealth and Income, 1989



Based on the data in Table 2, the share of the next half of a percent (the "very rich") declined somewhat from 1983 to 1989 to seven percent, and the share of the next nine percent (the "rich") also declined somewhat, from 34.2 percent of total wealth to 33.1 percent. An examination of the shares held by each 20 percent-one fifth-of the population ranked in order of wealth reveals that the bottom two fifths sustained most of the loss in wealth share (from 0.8 percent of total wealth in 1983 to -0.9 percent in 1989). The lowest fifth had negative net worth on average (their debts outweighed their assets). This was true in both 1983 and 1989. Another indicator of overall inequality, the so-called "Gini coefficient," also showed a sizable increase over the period, from 0.80 to 0.84.

Data are also presented for 1962. The estimated inequality figures for 1962 and 1983 are very similar. The Gini coefficient was 0.81 in 1962 and 0.80 in 1983; the share of the top one percent of wealth holders was 33.4 percent in 1962 and 34.0 percent in 1983; and the share of the top five percent was 55.0 percent in 1962 and 56.1 percent in 1983.

This does not mean that there was no change in inequality between 1962 and 1983. Indeed, results reported in Wolff (1992) suggest that wealth concentration, while remaining somewhat constant between 1962 and 1973, fell sharply between 1973 and 1976. The main reason for the decline in concentration was the sharp drop in the value of corporate stock held by the top wealth holders. The subsequent rise in stock values, particularly in the early 1980s, meant that by 1983 the level of wealth concentration had returned to its 1962 level. Still, what is particularly remarkable is the further increase in wealth inequality during the late 1980s. In fact, U.S. wealth concentration in 1989 far exceeded the level of any time since 1929.

Comparable results on income distribution based on the 1983 and 1989 Survey of Consumer Finances (SCF) are shown in Panel I-B of Table 2, where families are ranked in terms of income instead of wealth, to calculate the percentile shares. These data confirm that the concentration of income has also increased between 1983 and 1989. As with wealth shares, most of the relative income gain accrued to the top half of one percent of income recipients, whose share grew by 4.3 percentage points. The share of the next half of a percent of income recipients actually declined somewhat, while the share of the next nine percent grew by 2.1 percentage points. The share of the upper-middle income fifth in Panel II-B remained somewhat unchanged, while the share of the bottom three-fifths declined by a total of 2.6 percentage points. The Gini coefficient also showed an increase, from 0.48 to 0.52.

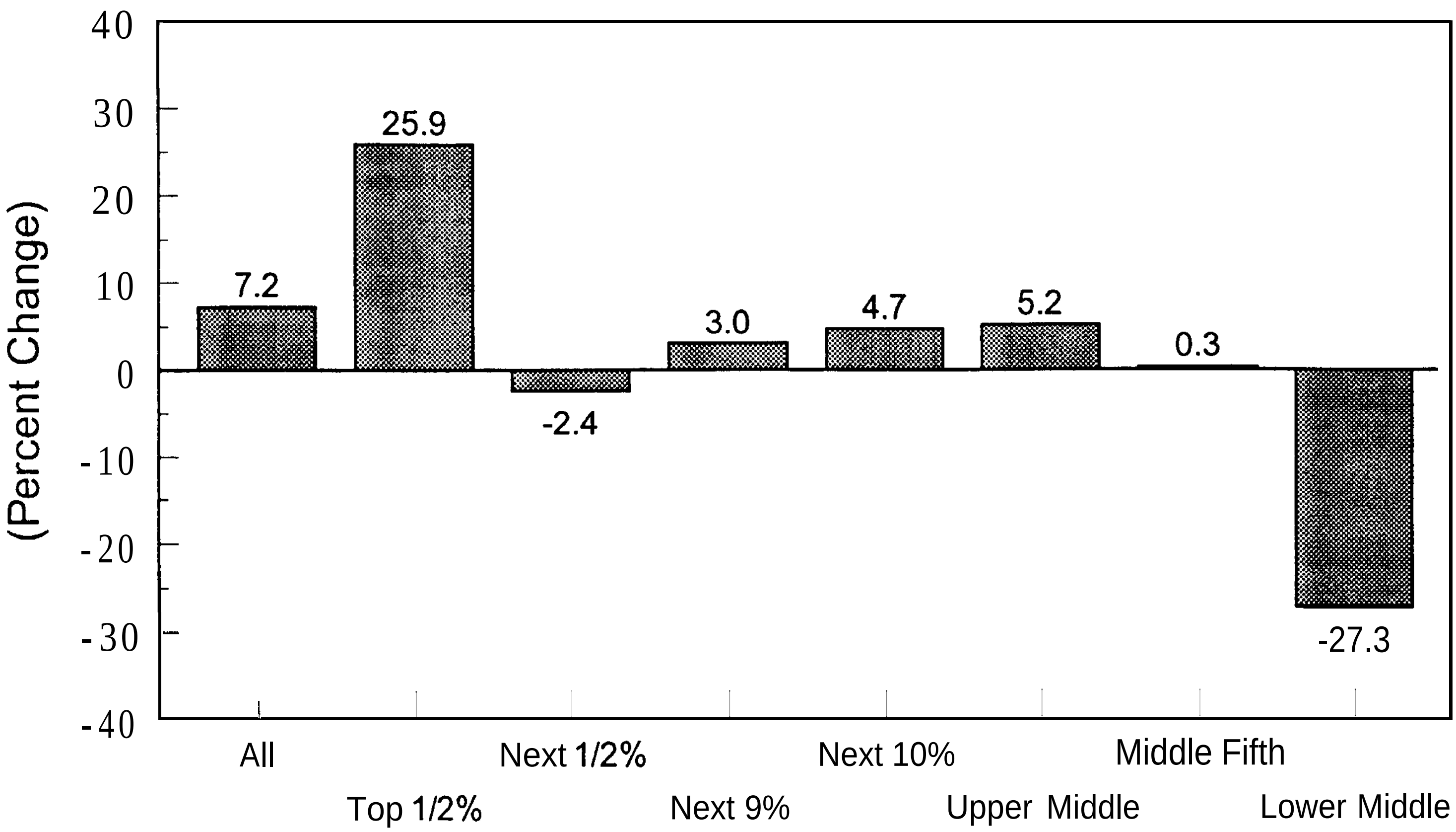
However, it is also illuminating to contrast the relative level of income and net worth inequality. Wealth is distributed much more unequally than income. The share of the top one percent of wealth holders in 1989 was 37.7 percent, while that for the top one percent of income recipients was 16.4 percent. The top fifth of wealth holders owned over 80 percent of total household wealth but the top fifth of income recipients accounted for only a little over half of total family income. The Gini coefficient for net worth in 1989 was 0.84, compared to 0.52 for income.

If not for household equity, wealth would be distributed more unequally. Financial wealth, defined as net worth less the equity in owner-occupied housing, is distributed even more unequally than total household wealth. In 1989, *the top one* percent *of* families as *ranked by financial* wealth *owned* 48.2 *percent of* total *financial wealth,* in contrast to a 38 percent share of total net worth among the top one percent of net worth holders (also compare the Gini coefficients of 0.84 for total net worth and 0.94 for financial wealth in 1989). Also, *the* concentration *of financial wealth* increased *euen more sharply* than *the* concentration *of net worth*. The share of the top one half of one percent of financial wealth holders increased by 6 percentage points, from 33.9 percent of total financial wealth to 39.9 percent. The shares of all other groups declined. Indeed, due primarily to rising household non-mortgage debt, *the share of the* bottom 80 percent *of financial* wealth holders *plummeted from* 8.7 percent *to* 5.7 percent. In fact, the proportion of U.S. families with zero or negative financial wealth increased from 25 percent in 1983 to 29 percent in 1989.

Another way of highlighting the changing distribution of wealth is to look at average wealth holdings for the different groups. As we saw above, the average wealth of American families grew by 7.2 percent from 1983 to 1989. The results shown in Table 3 (also see **Figure** 3) show a staggering increase of the wealth of the super-rich, from an average of 8.5 million dollars (in 1989 dollars) in 1983 to 10.7 million in 1989, an increase of 26 percent. In contrast, the *average wealth holdings of the lower-middle and bottom classes actually declined in real terms:* from $10,000 to $7,000 for the lower-middle (the lower-middle class in terms of wealth) and from -$2,000 to -$14,000 for the bottom fifth (the bottom class in terms of wealth). These trends also largely reflect the growing indebtedness of American families, particularly those at the middle and bottom of the distribution. The wealth of the middle (wealth) class remained unchanged, and that of the upper-middle class increased slightly.

The redistribution of wealth toward the wealthy is even more obvious looking at the proportion of the total increase in real household wealth between 1983 and 1989 accruing to each percentile group (Table 3). This is calculated by computing the increase in total wealth of each percentile group and dividing this figure by the total increase in household wealth, If a group's wealth share remains constant over time, then the percentage of the total wealth growth received by that group will equal its share of total wealth. If a group's share of total wealth increases (decreases) over time, then it will receive a percentage of the total wealth gain greater (less) than its

Figure 3
The Percentage Growth in Average Wealth
by Percentile Group, 1983-l 989



share in either year. However, it should be noted that in the calculations shown in Table 3, the families found in each group (say the top fifth) may be different in 1983 and 1989.[2]

The total wealth of American households (in 1989 dollars) grew from 13.57 trillion dollars in 1983 to 16.12 trillion dollars in 1989. As shown above, of this 2.55 trillion dollar increase, over half (55 percent) accrued to the top one half of one percent of families. The top one percent together accounted for 58 percent of the wealth growth. Only the top three-fifths showed a positive wealth increase. The lower-middle and bottom fifths collectively accounted for a loss of 256 billion dollars of wealth. A similar calculation using the income data provided in the two SCF files reveals that 40.5 percent of the total real income gain between 1983 and 1989 accrued to the top one percent of income recipients. This is still substantial, though less than the proportional gain among the top one percent of wealth holders.[3]

Causes of Rising Inequality

Most of the variation in wealth inequality can be accounted for by three factors: (i) income inequality,* (ii) stock prices, and (iii) housing prices. The rationale is as follows: as already discussed, households accumulate wealth from savings out of income, the appreciation (capital gains) of assets the household already owns, and gifts and transfers. We would therefore expect that the more unequal the distribution of income is, the more unequal will be the distribution of savings out of income and therefore the more unequal the distribution of household wealth. This is a direct, or positively sloped relationship. As we shall see below, owner-occupied housing is the main asset of the middle class, whereas stocks are owned almost exclusively by rich households. As a result, a (relative) increase in stock prices will increase the concentration of household wealth, whereas a (relative) increase in housing prices will cause wealth to be more equally distributed. This is also a positive relationship.

A straightforward regression — an equation to estimate the wealth inequality index (WLTH) using income inequality (INC), and the ratio of stock prices (the Standard and Poor index) to housing prices (RATIO) as predictors — with 20 data points (N) between 1922 and 1989 (details on sources and methods can be obtained from the author) yields:

$$\mathrm{WLTH} = \underset{(1.7)}{5.52} + \underset{(4.0)}{1.31}\ \mathrm{INC} + \underset{(2.3)}{1.49}\ \mathrm{RATIO}, \quad R^2 = 0.58,\ N = 20,$$

with t-ratios (a number used to decide the statistical significance of the coefficients in the equation) shown in parentheses. The equation says that an increase of one in income inequality leads to an increase of 1.31 in the wealth inequality index, and that an increase of one in the ratio of stock prices to housing prices increases wealth inequality by 1.49. Both income inequality and the stock price ratio have effects that are statistically significant (i.e., different from zero-no effect) and have the expected positive sign. The ability of the equation to predict wealth inequality is quite good, even for this simple model. Fifty-eight percent of the variance in wealth inequality is explained by the equation as is shown by R^2 equalling 0.58.

Income inequality, as discussed above, rose substantially between 1983 and 1989. According to the Standard and Poor 500 Index, the average share value almost exactly doubled over this period (in nominal terms). In contrast, house prices grew by 32 percent (in nominal terms).[5] The stock to house price ratio accordingly increased by 52 percent. So, according to the regression results reported above, about three-fifths of the rising wealth inequality between 1983 and 1989 is attributable to increasing income inequality and the remaining two-fifths to the increase of stock prices relative to housing prices.

Wealth and Income Inequality

An examination of average wealth holdings by income class provides a clear view of how income inequality is related to wealth inequality. Results shown in **Table 4** are reported for 1983 and 1989. In 1989, the average net worth of the lowest income class (under $10,000 of annual income) was $21,800. The ratio of their average net worth to the total average wealth of the country was only 0.13. The net worth of the next two lowest-income groups was also considerably below the overall average of the country, while that of income class $30,000-49,999 was three-fourths of the complete average. But, the average wealth of the top income group was $556,000, 3.21 times the average for the country. Indeed, this income class, which comprised only 20 percent of families in 1989, owned 64 percent of all household wealth.

Changes between 1983 and 1989 are also telling. The biggest loss in wealth was sustained by the lowest-income class, whose ratio of average net worth to total average wealth fell from 0.19 to 0.13. The next three income classes largely held their own in terms of wealth, while the net worth of the upper-income group declined relative to the overall average.

The medians show a somewhat bleaker picture of the fortunes of the lowest-income group. In 1989, the median wealth of this group was $2,100, only 0.05 of the median wealth of all families. In contrast, the median wealth of the top income class

Table 4
Average and Median Net Worth by Family Income Class, 1983 and 1989
(In thousands of 1989 dollars)

Annual Family Income (1989 Dollars)	Percent of Families 1983	Percent of Families 1989	1983 Net Worth	1983 Ratio to Overall	1989 Net Worth	1989 Ratio to Overall
I. Average Net Worth						
Less than $10,000	19%	19%	$30.7	0.19	$21.8	0.13
$10,000 - 19,999	23	21	55.2	0.34	71.6	0.41
$20,000 - 29,999	19	18	73.5	0.45	82.7	0.48
$30,000 - 49,999	23	22	111.8	0.69	130.4	0.75
$50,000 and more	17	20	565.0	3.49	555.8	3.21
All	100%	100%	$161.7	1.00	$173.3	1.00
II. Median Net Worth						
Less than $10,000	19%	19%	$3.7	0.09	$2.1	0.05
$10,000 - 19,999	23	21	18.8	0.45	24.5	0.58
$20,000 - 29,999	19	18	35.8	0.86	33.4	0.80
$30,000 - 49,999	23	22	65.8	1.58	62.6	1.49
$50,000 and more	17	20	171.1	4.12	167.9	4.01
All	100%	100%	$41.5	1.00	$41.9	1.00

Sources: Author's calculations from 1983 and 1989 Survey of Consumer Finances.

was $167,900, four times the overall median. However, the results also show that except for one income group, median wealth declined relative to the overall median between 1983 and 1989. This result suggests a rising inequality (dispersion) of wealth within each of these income groups between 1983 and 1989.[6]

Wealth Holdings by Age Group

Which age groups hold the predominant shares of household wealth? For the three years shown in **Table 5** (also see Figure **4**), 1962, 1983 and 1989, the cross-sectional data generally follow the predicted hump-shaped pattern of the life-cycle

Table 5
Ratio of Average Household Net Worth by Age of Family Head To the Overall Average, 1962, 1983 and 1989

	Year		
	1962	1983	1989
All	1.00	1.00	1.00
Under 35	0.27	0.20	0.29
35-44	0.75	0.70	0.73
45-54	1.02	1.52	1.52
55-64	1.59	1.67	1.58
65-74	1.67	1.95	1.59
75 and over	1.36	1.06	1.22
Under 45	0.50	0.40	0.50
45-69	1.35	1.74	1.59
70 and over	1.46	1.22	1.29
Under 65	0.87	0.85	0.88
65 & Over	1.56	1.62	1.43

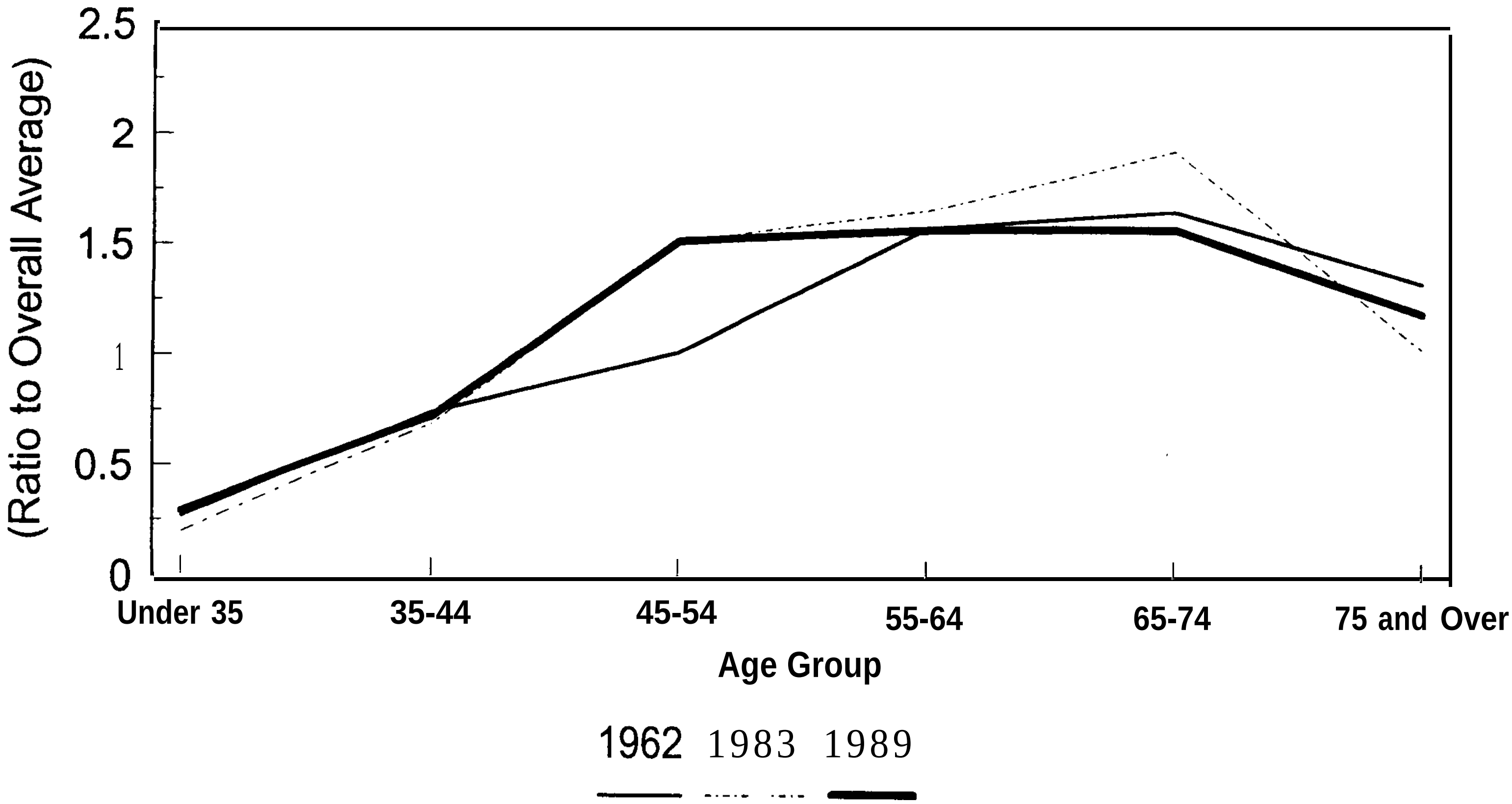
Source: Author's calculations from 1962 Survey of Financial Characteristics of Consumers; 1983 and 1989 Survey of Consumer Finances.

model (see Modigiliani and Brumberg 1954). Average wealth increased with age up through age 65 or 70 and then declined among older age groups.

Despite the similarity in the overall pattern in the "age-wealth profiles," between 1962 and 1983, see below, there was a sharp shift in the relative holdings of wealth by age group. The wealth of younger age groups fell in relative terms between 1962 and 1983. The average wealth of households under 35 declined from 27 percent of the total average to 20 percent. The corresponding figures for households under 45 were 50 percent in 1962 and 40 percent in 1983. The wealth of families 70 years and older also declined in relative terms, from 46 percent above average in 1962 to 22 percent above average in 1983.

The big winners over the two decades were families between 45 and 69 in age. Their average wealth increased from 35 percent to a staggering 74 percent above average. All told, they accounted for 60 percent of total wealth in 1962 and 66

Figure 4
Ratio of Average Wealth by Age Group To Overall Average, 1962, 1983 and 1989



percent in 1983. Over the two decades, the resulting age-wealth profile thus became more pronounced, with the peak higher (2.38 compared to 1.82) and occurring for an older age group (65-69 compared to the 55-59 age bracket).

There was only a moderate change in the relative wealth status of elderly (65 and over) Americans between 1962 and 1983. In fact, the average wealth of the elderly was 56 percent higher than the average American in 1962 and 62 percent higher in 1983. (The average net worth of those under 65 slipped slightly from 13 percent to 15 percent below average.)

Have these trends continued through the 1980s? The results reported for 1989 suggest not. Indeed, if anything, there has been a partial reversal to the age-wealth relation of the early 1960s. The average wealth of families under 45 grew from 40 percent of average in 1983 to 50 percent of average, the same relative level as in 1962.

The relative wealth holdings of the next two age groups, 45-54 and 55-64 generally remained unchanged. The biggest loss occurred for the 65-74 year-old age class, whose wealth fell from 95 percent above average to 59 percent. Altogether, the relative wealth of age group 45-69 declined from 74 percent over average to 59 percent, still above its 1962 position.

The wealth of families 70 and over gained slightly, from 22 to 29 percent above average, though still below its 1962 level.

Racial Differences in Household Wealth

As shown in **Table 6,** according to the Current ***Population Reports*** data, the relative gap in income between black and white households remained almost unchanged between 1967 and 1989 (the trend is almost identical for family incomes).[7] The ratio of average incomes remained at 0.63, and the ratio of median incomes remained virtually unchanged at 0.58. Were trends similar for household wealth?

An examination of the homeownership rate reveals that it almost doubled among non-white families between 1940 (24 percent) and 1980 (44 percent). Indeed, the ratio of homeownership rates between non-whites and whites also increased, from 0.52 in 1940 to 0.64 in **1985,** reaching parity with relative income levels of that year (results are similar from the SCF data). However, increases in non-white homeownership rates, in both relative and absolute terms, were confined to the 1940s and the 1960s. Since 1970, there has been no increase in the homeownership rate among black families.

Non-white families also made substantial gains on whites in terms of net worth between the early 1960s and the early 1980s. However, according to the SCF data, the gap widened again during the 1980s, with the ratio of average wealth falling from 0.24 in 1983 to 0.19 in 1989 and the ratio of median wealth from 0.09 to 0.07. Moreover, the wealth of non-white families averaged only 0.19 that of white families in 1989, compared to 0.63 for income, and the ratio of median net worth was only 0.07, reflecting the large number of non-white families with zero net worth.[8]

More detail on relative wealth holdings is provided in **Table 7** for 1989 based on the SCF data. Panel I shows, even among non-white and white families of the same income level, white families held considerably more wealth. The gap was smallest for

Table 6
Ratio of Household Income and Wealth
Between Non-Whites and Whites, 1940 - 1989

Year	Ratio of Average	Ratio of Medians
I. Household Income		
Current Population Reports[a]		
1967	0.63	0.58
1983	0.62	0.57
1989	0.63	0.59
II. Homeownership Rates		
A. Census of Population[b]		
1940	0.52	
1950	0.61	
1960	0.60	
1970	0.64	
1980	0.65	
1985	0.64	
B. Federal Reserve Board Survev Data"		
1983	0.62	
1989	0.63	
III. Net Worth		
Federal Reserve Board Survev Data"		
1962	**0.13**	0.04
1983	0.24	0.09
1989	0.19	0.07

Source: "U.S. Bureau of the Census (1990), Table 2, pp. 21-22. Ratio is between black and white households; Hispanic households are excluded from this table.

[b]Calculations based on U.S. Bureau of the Census (1989), p. 706. Ratio is between whites and non-whites. Hispanic families may be classified in either group.

"Author's calculations from 1962 Survey of Financial Characteristics of Consumers; 1983 and 1989 Survey of Consumer Finances. Hispanics are classified as non-whites.

Table 7
Average Net Worth by Race And Household Characteristics, 1989
(In thousands of dollars)

Household Group	Whites	Non-Whites	Ratio
All	$226.0	$41.9	$0.19
I. Income Class (1989 Dollars)			
Less than $10,000	$35.7	$5.4	$0.15
$10,000 - 19,999	87.1	14.0	0.16
$20,000 - 29,999	95.7	42.8	0.45
$30,000 - 49,999	153.7	39.3	0.26
$50,000 and more	604.1	215.2	0.36
II. Aae Class			
Under 35	$117.5	$8.2	$0.07
35-44	159.0	53.4	0.34
45-54	211.5	75.8	0.36
55-64	425.6	97.3	0.23
65-74	331.9	69.5	0.21
75 and over	176.1	20.5	0.12
III. Household Type			
Married Couples	$276.5	$72.7	$0.26
Single, Male Head	114.9	22.8	0.20
Single, Female Head	147.3	18.2	0.12

Sources: Author's calculations from 1989 Survey of Consumer Finances. Hispanics are classified as non-whites.

middle-income families ($20-30,000 of income), but particularly wide for poor and lower-middle income families (under $20,000). Another dimension is provided by age group (Panel II). Here too, white families of every age group were richer than their non-white counterparts. Still, what is particularly striking is that, except for the youngest age group (families under 35), the wealth gap widened with age (greater for older families). A breakdown by household types (Panel III) shows that the wealth gap between non-whites and whites was smallest among married couples and highest among female-headed households.

What may explain the much larger wealth gap between races than the income gap and what may account for the particular pattern in wealth gaps observed by family income, age and family type? There are two plausible explanations. The first is that, as I have argued elsewhere (see Greenwood and Wolff 1991). intergenerational transfers play a crucial role in household wealth accumulation. Besides, as we will see in the last section, savings by themselves cannot lead to the accumulation of much wealth. Capital appreciation of existing wealth plays a much more important role.

The much larger wealth of white families relative to income than non-whites may then be attributable, in part, to the fact that they have received bequests and inheritances from their parents and enjoyed capital gains on these transfers. This also would account for the widening gap in racial wealth holdings with age, since most inheritances are received by families in their 40s and 50s. Though today's non-white families are much closer in terms of income to white families than their parent's generation was, their very low relative wealth holdings reflect to a large extent the lower economic status of their parents and grandparents. If this is so, then it may take several generations for the racial wealth gap to narrow to the level of the income gap.[9]

The second explanation of the large gap in wealth holdings between races is that credit restrictions may be much greater for poor, non-white families than for white families. This may be so for credit cards, consumer loans, and most importantly, access to home mortgages (so-called "redlining"). Unfair credit restraints may explain the greater wealth gap between low-income non-whites and whites and among female-headed households.

The Composition of Wealth and the Sources of Wealth Growth

The portfolio composition of household wealth shows the forms in which households save. This composition can affect wealth inequality (see below), but, the composition of household wealth also gives us clues as to the motivation of household savers. Understanding the motivation of household savings decisions is key to designing policies aimed at increasing personal savings. It is also important for policymakers to understand the events (like retirement or major illness) that households try to prepare themselves for with their personal resources. For instance, do households save for direct consumption — as, for example, in the form of housing and automobiles; or, do familiež@žR ¼¼¼¼¼ ANNUAL RATES VERSUS the form of demand deposits (e.g., checking accounts) or time and savings deposits (e.g., savings accounts); or, do they save for retirement — as in insurance plans, Individual Retirement Accounts (IRAs) or the like?

Many people believe that housing (more specifically, owner-occupied housing) is by far the most important asset in the household portfolio. The results shown in **Table 8,** based on three Federal Reserve Board surveys, indicate that homes are the most important asset in the household portfolio. But, in no year was its gross value more than a third of total assets, and its net value more than one quarter. In 1989, gross housing value accounted for 32.0 percent of gross assets, and net equity in owner-occupied housing — that is, the value of the house minus any outstanding mortgage — 22.8 percent. Demand deposits and time deposits (including money market funds), amounted to 17.0 percent. Real estate, other than owner-occupied housing, comprised 14.8 percent, and unincorporated business equity 18.2 percent of total assets. Corporate stock amounted to 7.3 percent, bonds to 3.6 percent, and trust equity to 1.9 percent. Debt as a proportion of gross assets was 15.9 percent, and the debt-equity ratio (the ratio of total household debt to net worth) was very high, at 18.9 percent (see Table 10).

There have been some important changes in the composition of household wealth since 1962, the first date shown in this table. Gross housing wealth as a proportion of gross assets increased from 25.6 percent in 1962 to 32.0 percent in 1989. However, net housing equity, while increasing from 18.5 to 22.3 percent

Table 8
Composition of Aggregate Household Wealth, 1962, 1983 and 1989
(Percent of gross assets)

Year	Gross House Value	Other Real Estate	Business Equity	Deposits	Bonds	Stocks	Trusts	Sum	Total Debt	Net Home Equity
1962	25.6%	6.2%	15.2%	19.3%	7.6%	19.5%	4.6%	98.0%	13.8%	18.5%
1983	29.8	14.7	18.6	18.7	4.1	8.9	2.6	97.4	13.0	22.3
1989	32.0	14.8	18.2	17.0	3.6	7.3	1.9	94.8	15.9	22.8

Source: Author's calculations from 1962 Survey of Financial Characteristics of Consumers; 1983 and 1989 Survey of Consumer Finances.

Key:

Gross House Value: Gross value of owner-occupied housing.
Other Real Estate: Gross value of other real estate.
Business Equity: Net equity in unincorporated farm and non-farm businesses.
Deposits: Cash, currency, demand deposits, time deposits, money market funds, cash surrender value of insurance and pension plans, and IRAs.
Bonds: Financial securities, including corporate bonds, government bonds, open-market paper, and notes.
Stocks: Corporate stock, including mutual funds.
Trusts: Net equity in personal trusts and estates.
Total Debt: Mortgage, installment, consumer, and other debt.
Net Home Equity: Gross value of owner-occupied housing less home mortgage debt (split proportionally between owner-occupied housing and other real estate for 1962 and 1983).

The asset components do not sum to 100.0 percent because of miscellaneous assets.

between 1962 and 1983, grew more slowly, to only 22.8 percent in 1989. The difference between the two series is attributable to the changing magnitude of mortgage debt on homeowner's property, which declined from 28 percent of the gross value of housing in 1962 to 25 percent in 1983 and then increased to 28 percent in 1989.

Another indicator of the changing importance of owner-occupied housing is the homeownership rate. Based on census data compiled by the U.S. Bureau of the Census (see their 1989 publication), the proportion of families owning their home increased from 55.0 percent in 1950 to a peak of 64.6 percent in 1975, but subsequently declined slightly to 64.4 percent in 1980 and then more substantially to 63.5 percent in 1985 (results not shown).

Other (non-home) real estate grew rapidly between 1962 and 1989, from 6.2 to 14.8 percent of total assets. This trend was in large part attributable to rising land values. Unincorporated business equity also increased as a share of gross wealth, from 15.2 percent in 1962 to 18.2 percent in 1989. Total deposits, including checking and savings accounts, money market funds, certificates of deposits (CDs), life insurance cash surrender value, and pension accounts, remained somewhat steady at approximately 19.3 percent of total assets in 1962 and 1983 and then fell to 17.0 percent in 1989. Financial securities (bonds) declined in importance in the household portfolio, from 7.6 percent in 1962 to 3.6 percent in 1989. The share of corporate stocks shares in total assets fell sharply from almost 20 percent in 1962 to 8.9 percent in 1983 and then declined further to 7.3 percent in 1989. The share of trust equity in total assets also fell considerably between 1962 and 1989.

Generally, between 1962 and 1989, there was a major shift in household holdings, out of financial assets and equities (deposits, bonds, stocks and trusts), from 51 percent of gross wealth to 29.8 percent, and a corresponding increase in real estate and unincorporated business equity, from 47 percent to 65.0 percent. Moreover, between 1983 and 1989, the indebtedness of American households surged, increasing from 15 percent of <u>net worth</u> to 19 percent. This was led largely by (total) mortgage debt, which increased from 10.2 to 12.7 percent of total assets.

Wealth Inequality and the Composition of Wealth

A look at the difference in the assets held by more wealthy versus less wealthy families shows how the changes in the relative price of assets can affect wealth inequality. Some assets are more concentrated in the hands of the rich and others are more dispersed among families of different wealth levels. **Table 9** shows the proportion of total assets held by different wealth classes in the United States in 1989. I have divided the assets into two groups: those held primarily by the rich and those more dispersed in the population.

The super rich (the top one half of one percent of owners of wealth) held 29 percent of all outstanding stock owned by households, 41 percent of bonds, almost half the value of unincorporated business, and about one-third of non-home real estate. The top 10 percent of households accounted for over 80 percent of stock shares and non-home real estate, and close to 90 percent of bonds, trusts and business equity.

In contrast, owner-occupied housing, life insurance and liquid assets were more evenly distributed among households. The bottom 90 percent of families accounted for almost two-thirds of the value of owner-occupied housing, over half of life insurance cash value, and over 40 percent of liquid assets. Debt was probably the most evenly distributed component of household wealth. The bottom 90 percent were responsible for over 70 percent of the indebtedness of American households.

Table 10 presents a different slice of the same issue, showing the proportion of the total assets of each wealth class held in different asset types. Perhaps, somewhat surprisingly, over half of the wealth of the super rich in 1989 was in unincorporated business equity and investment real estate, while only 23.9 percent took the form of stocks, bonds and trusts. This suggests that today's very wealthy are largely the "entrepreneurial rich," who have made their money through building up their businesses and investing in real estate. The "rentier class," those who live off stocks and securities, appear less important today as a sub-class of the very wealthy.

Not surprisingly, the importance of owner-occupied housing as a form of wealth increases as household wealth declines. Among the middle and upper- middle wealth classes, gross housing value comprised two-thirds of gross assets, and net home equity accounted for almost 40 percent of total assets. For the bottom 40 percent,

Table 9
Selected Holdings of Assets by Family Wealth level, 1989
(Percent of total assets held by each group)

Asset Type	Super Rich (Top 0.5%)	Very Rich (Next 0.5%)	Rich (90-99%)	Rest (0-90%)	Total
I. Assets Held Primarilv bv the Wealthv					
Stocks	28.7%	14.2%	43.5%	13.7%	100.0%
Bonds	40.9	10.4	35.9	12.8	100.0
Business	48.0	9.1	33.3	9.6	100.0
Trusts	24.6	27.1	34.9	13.4	100.0
Non-Home Real Estate	32.1	a.5	39.8	19.6	100.0
II. Assets and Liabilities Held Primarilv bv the Non-Wealthy					
Principal Residence	4.7%	3.0%	26.8%	65.6%	100.0%
Life Insurance	10.9	5.7	28.2	55.1	100.0
Liquid Assets[a]	13.1	7.8	37.2	41.8	100.0
Total Debt	7.9	2.4	19.3	70.4	100.0

Families are classified into wealth class on the basis of their net worth. Source: Author's calculations from 1989 Survey of Consumer Finances.

[a]Includes demand deposits, savings and time deposits, money market funds, certificates of deposit, and IRA and Keogh accounts.

Table 10
Composition of Household Wealth by Wealth Class, 1989

	Percent of Gross Assets							Ratio of Debt to:	
Group	Gross House Value	Other Real Est. & Bus. Equity	Deposits"	Bonds	Trusts and Stocks	Total Debt	Net Home Equity	Net Worth	Family Inc.
All	32.0%	33.0%	17.0%	3.6%	9.2%	15.9%	22.8%	18.9%	87.8%
Wealth Class (percentile level)									
Top 1/2%	6.1%	54.5%	9.0%	10.8%	13.1%	6.9%	5.4%	5.9%	80.2%
Next 1/2%	15.2	42.5	17.3	4.1	16.3	5.9	13.2	5.2	75.3
90 - 99%	29.1	32.6	18.7	3.0	11.7	11.6	23.4	9.9	88.4
80 - 90%	59.0	13.4	18.8	1.3	5.0	11.2	50.2	17.0	82.0
40 - 80%	66.2	13.5	17.9	1.0	2.8	35.2	39.7	40.0	91.3
Bottom 40%	56.7	9.4	19.4	2.0	2.7	129.0	12.8	_	94.4

Source: Author's calculations from 1989 Survey of Consumer Finances,

Families are classified into weaith class on the basis of their net worth and into age class on the basis of the family head. Miscellaneous assets are not included. Miscellaneous assets are excluded from this table. Source: Author's calculations from 1989 Survey of Consumer Finances.

"Includes demand deposits, savings and time deposits, money market funds, certificates of deposit, life Insurance cash surrender value, and IRA, Keogh, and other pension accounts.

gross house value accounted for over half their total assets, but net home equity for only 12.8 percent — a reflection of their large mortgage debt. Deposits and other liquid assets were also more important in the household portfolio of the lower and middle wealth classes than the rich.

Non-home real estate and business equity, financial securities, and trusts and stocks all declined as a share of household assets in tandem with the wealth level of the household. For the middle and upper-middle wealth classes (middle and upper-middle fifths), these assets comprised only 14 percent of gross assets, and among the bottom 40 percent, only 18 percent. The relative indebtedness of households was much greater for poorer ones than richer ones. The debt-equity ratio (debt as a proportion of net worth) varies from six percent for the super-rich to 40 percent for the middle and upper-middle wealth classes.” Among the bottom two-fifths, household debt was *greater* than the total value of assets. In *fact, almost* 20 percent *of all U.S. households had zero or negative net worth and almost 30 percent had zero or negative financial net worth*, Thus, in 1989 many U.S. households had no liquidity to support themselves in the event of difficult economic times, occasioned by unemployment, catastrophic illness or disability, or marital dissolution.

Relative Importance of Savings and Capital Gains

Policies aimed at increasing personal savings must also be informed by whether the accumulation process is dominated by saving out of income or by increases in the value of assets already held. In previous analysis, conducted by Daphne Greenwood and Edward Wolff (1991), initial wealth holdings in **1962,** as reported in the 1962 Survey of Financial Characteristics of Consumers (SFCC), were updated to 1983 based on savings rates, computed from Consumer Expenditure Survey data, and capital gains by individual asset type. That study found that over the 1962 to 1983 period, 75 percent of the growth of overall household wealth arose from capital gains (appreciation) of existing wealth and the remaining 25 percent from savings (income less consumption expenditures).

I update the analysis here for the 1983-1989 period. Household savings rates were computed from the National Income and Product Accounts. According to these data, savings as a percent of *personal disposable income* averaged 5.8 percent over these years. However, savings as a percent of household wealth averaged only 1.1 percent. Over the six year period, personal savings increased household wealth by 7 percent.

Capital gains were then estimated for each asset type shown in Table 11 (see Greenwood and Wolff 199 1 for sources and methods). Though house values were sluggish over this period, increasing only six percent in real terms (nominal increase less the rate of inflation as measured by the Consumer Price Index (CPI)), stocks increased by 62 percent in real terms, bonds by 56 percent, and time deposits, money market funds, and CDs by an average of 25 percent. Also, household debt depreciated by 20 percent in real tern-is. Altogether, capital gains on existing wealth in 1983 would have caused wealth to increase by 15 percent in real terms.[11] Thus, about 70 percent of the growth in wealth over the 1983-1989 period was attributable to the appreciation of existing wealth and the remaining 30 percent to personal savings.

The moral of the story is clear. The 1980s was a decade that saw great increases in wealth occasioned by capital gains. Those who had wealth at the beginning of the 1980s enjoyed considerable gains over the decade. For those without wealth, savings alone was not sufficient to amass significant amounts of wealth holdings.

Asset holdings by Age

It is also important for the policymaker to remember that wealth accumulation, and the assets held by households, may vary with the age of the household. Policies that may encourage one type of saving over another may have different effects because of the age of the head of the household. The preceding results were based on the average composition of household wealth for all households in the country. Differences are also interesting by age class (see Table 11). The gross value of owner-occupied housing was most important as a component of household wealth for families in the 35-54 age group, comprising about 40 percent of gross assets. On the other hand, net home equity shows little variation by age class for households under 65, comprising 2 1.6 percent of gross assets on average. But, for elderly families (65

Table 11
Composition of Household Wealth by Age Class, 1989

Group	Gross House Value	Other Real Est. & Bus. Equity	Deposits[a]	Bonds	Trusts and Stocks	Total Debt	Net Home Equity	Ratio of Debt to: Net Worth	Ratio of Debt to: Family Inc.
	Percent of Gross Assets								
All	32.0%	33.0%	17.0%	3.6%	9.2%	15.9%	22.8%	18.9%	87.8%
Age Class									
Under 35	34.4%	43.0%	7.8%	0.0%	11.3%	20.1%	20.4%	52.2%	96.4%
35-44	40.6	36.1	11.7	1.5	4.3	31.9	20.4	44.5	124.2
45-54	39.0	29.2	20.2	2.3	6.1	20.0	26.9	18.5	91.6
55-64	23.8	41.0	18.2	3.5	10.5	7.4	20.7	11.3	80.3
65-74	29.7	22.1	21.2	5.8	13.5	5.6	28.6	4.0	37.9
75 & over	28.2	12.6	26.2	14.2	15.9	6.6	26.6	2.1	20.0
Under 65	34.0%	38.1%	13.7%	2.3%	8.1%	20.0%	21.6%	26.0%	101.7%
65 & Over	29.3	19.6	22.1	8.5	14.2	5.9	28.1	3.3	31.9

Families are classified into wealth class on the basis of their net worth and into age class on the basis of the family head. Miscellaneous assets are not included. Miscellaneous assets are excluded from this table. Source: Author's calculations from 1989 Survey of Consumer Finances.

[a] Includes demand deposits, savings and time deposits, money market funds, certificates of deposit, life insurance cash surrender value, and IRA, Keogh, and other pension accounts.

and over), it accounted for 28.1 percent, reflecting their lower mortgage indebtedness. Deposits and liquid assets also made up a larger share of the assets of the elderly than the non-elderly (22.1 versus 13.7 percent). In contrast, the value of non-home real estate and business equity was considerably more important for families under 65, accounting for 38.1 percent of their gross assets compared to 19.6 percent for the elderly.

Financial securities (bonds) systematically increased in importance with age as a component of the household portfolio, as did stocks and trust equity (except the youngest age group). Together, these assets comprised 10.4 percent of the assets of families under 65 and 22.7 percent of those of the elderly. Debt had a similar pattern, declining as a percent of gross assets with age. Indebtedness peaked for families in age group 35-44, at 44.5 percent of net worth and 124 percent of income. For elderly families, the corresponding proportions were 3.3 percent for net worth and 31.9 percent for income.

Conclusion

Between 1983 and 1989, while median family income stagnated in real terms, median wealth grew by an anemic 0.8 percent. Average family income grew by nine percent and average wealth by 7 percent. These results imply rising inequality in both income and wealth. Average financial wealth (net worth less the equity in owner-occupied housing) grew faster than net worth, while median financial wealth actually declined in real terms, reflecting the reduced liquidity of the average family in 1989 compared to 1983.

A comparison of 1983 and 1989 data reveals a sharp increase in wealth inequality over the period. The most significant finding is that the share of the top one half of one percent (the "super-rich") increased by almost five percentage points, from 26 percent of total household wealth to 31 percent. Further, of the 2.6 trillion dollar increase in family wealth between 1983 and 1989 (from 13.6 to 16.1 trillion dollars), 55 percent accrued to the top one half of one percent of families, and 96 percent to the top 20 percent.

The big losers over the period in both relative and absolute terms were the bottom two fifths (the lower-middle and bottom wealth classes), whose collective share of wealth fell from 0.8 to -0.9 percent. Their average wealth also declined in real terms, from $10,000 to $7,000 for the lower-middle wealth class and from -$2,000 to -$14,000 for the bottom wealth class, and collectively they accounted for a loss of 256 billion dollars of wealth. About 60 percent of the rising wealth inequality between 1983 and 1989 is attributable to increasing income inequality and the remaining 40 percent to the increase of stock prices relative to housing prices.

Also, between 1983 and 1989, the indebtedness of American households surged, increasing from **15** percent of net worth to almost 19 percent. In 1989, 19 percent of all U.S. households had zero or negative net worth (up from 15 percent in 19831, and 29 percent had zero or negative financial net worth (up from 25 percent in 1983). Thus, in 1989 a substantial proportion of U.S. households found themselves extremely vulnerable to hard economic times.

Non-white families did not gain on whites in terms of income during the 1980s but managed to persevere, But, there was a significant deterioration in their relative wealth holdings over the decade. Moreover, the wealth of non-white families averaged only 19 percent that of white families in 1989, compared to 63 percent for income.

In addition, the 1980s were a time where capital gains on existing wealth played the major role in wealth growth and personal savings a subsidiary one. This helps to explain why the rich got much richer over this period, and the poor and middle class fell further behind. For example, based on estimates of asset prices and household savings rates computed from the national income and product accounts, capital gains accounted for a 15 percent increase in real household wealth over the 1983-1989 period, while personal savings led to a 7 percent growth. The former was led by rapid gains in stocks, financial securities, and liquid assets, and a 20 percent depreciation in outstanding debt.

Finally, the tremendous increase of wealth of the super-rich may portend an even more unbalanced polity in the future. Because wealth, particularly financial wealth, can confer enormous political power on a family, the tremendous wealth holdings of the super rich and the very rich may exacerbate the tilt of political power toward these groups. The increasing shift of wealth toward the upper-wealth groups may further disenfranchise the middle and lower classes from the political process.

October, 1992

Appendix I

The Measurement of Wealth

Measure of Net Worth:
Definitions

Total assets are defined as the sum of:

(1) the gross value of owner-occupied housing:
(2) other real estate owned by the family:
(3) cash and demand deposits:
(4) time and savings deposits, certificates of deposit, and money market accounts:
(5) government bonds, corporate bonds, foreign bonds, and other financial securities:
(6) the cash surrender value of life insurance plans;
(7) the cash surrender value of pension plans, including IRAs and Keogh plans:
(8) corporate stock, including mutual funds:
(9) net equity in unincorporated businesses, and
(10) equity in trust funds.

Total liabilities are the sum of:

(1) mortgage debt,
(2) consumer debt, and
(3) other debt.

In this study the terms wealth and net worth represent the current value of all marketable or fungible assets (such as bank accounts, bonds, stocks, and unincorporated businesses) less the current value of debts. Wealth is thus the difference in value between total assets and total liabilities or debt.

This measure of wealth is used because this paper is primarily interested in wealth as a store of value and therefore a source of potential consumption. This definition excludes two kinds of assets that are sometimes included in broader concepts of wealth: consumer durables[12] and retirement wealth[13] (see Appendix III).

The analysis reported here is based primarily on the 1983 and the 1989 Survey of Consumer Finances (SCF). The Federal Reserve Board sponsored the taking of both surveys, and their principal objective was to obtain information on household wealth holdings. Both samples include larger shares of high-income families than are in the population, allowing a more accurate picture of the wealthiest families, and ask detailed questions regarding assets and liabilities of the respondents. In both cases, I performed imputations for missing values. The 1983 data have been aligned to national balance sheet totals for that year (see Wolff 1987 for details). The 1989 survey data have not been adjusted, except for corporate stock holdings, which appear to be severely underreported and have been adjusted upward (see Appendix II for a comparison of the 1989 SCF data with corresponding national balance sheet totals and details on the adjustment procedure).[14]

Where appropriate, comparisons are also made with the 1962 Survey of Financial Characteristics of Consumers (SFCC). The Federal Reserve Board also sponsored the 1962 SFCC, which is comparable in scope and coverage with the 1983 and 1989 SCF. The 1962 data have been adjusted to align with the national balance sheet totals (see Wolff **1987** for details).

Also, where pertinent, 1962 and 1983 wealth figures are reported in 1989 dollars. The 1962 and 1983 figures are adjusted by using the Consumer Price Index (which increased by 311 percent from 1962 to 1989 and by 24.5 percent from 1983 to 1989).

Appendix II

Comparison of the 1989 Survey of Consumer Finances (SCF) Data with the National Balance Sheets

Appendix Table 1 shows a comparison of estimates of total household wealth by component, computed from the 1989 SCF with the estimates of total household wealth drawn from the Federal Reserve Board Flow of Funds. The comparisons are approximate for three reasons. First, the categorization of assets in the two sources is somewhat different. Second, the Flow of Funds data refer to a sector including not only households but personal trusts and nonprofit organizations. The assets included in personal trusts are included in a separate trust fund category in the SCF. However, there is no corresponding data on nonprofit organizations in the 1989 SCF. Third, the Flow of Funds data for the household sector is not computed directly from administrative or banking records but is calculated as a residual of total national wealth less holdings of businesses, the government sector, financial institutions and foreign holdings.

With these qualifications in mind, it is still useful to compare the two sources to obtain an approximate gauge of the degree of coverage of the 1989 Survey of Consumer Finances. Total owner-occupied housing reported in the SCF exceeds that of the Flow of Funds by 31 percent. This is not surprising because housing value is based on current market value in the SCF (as estimated by the owners), whereas in the Flow of Funds, it is based on the use of the Perpetual Inventory Method for valuing structures and a separate estimate for land values. The value of unincorporated business equity is also higher in the SCF. The reasons are similar. Respondents in the SCF estimate the current market value of their holdings, whereas the Flow of Funds uses, in part, net investment flows to update its value each year. In contrast, the 1989 SCF totals fall short of the Flow of Funds with regard to financial assets. Checking accounts computed from the SCF amount to only 42 percent of the Flow of Funds total, though the latter also includes outstanding currency and cash. Thrift and other accounts amount to 79 percent of the Flow of

Funds total: and bonds and securities 64 percent. The most glaring discrepancy arises with regard to stock holdings: the SCF total is only 37 *percent* of the Flow of Funds total. I will comment on this more below. Total life insurance holdings are quite close between the two sources.

On the liability side, outstanding mortgage debt totals are remarkably close between the two sources. On the other hand, other debt reported in the SCF is only about half the total computed by the Flow of Funds. Since mortgage debt is the major component of total debt, the estimates of total debt in the two sources are fairly close.

If we exclude pension reserves and consumer durables — assets included in the Flow of Funds but not directly in the SCF — then total assets estimated from the two sources are rather close, with the SCF estimate 17 percent higher. The reason is that the SCF is considerably higher in tangible assets but considerably lower in financial assets. Estimated total net worth from the SCF is 28 percent higher than the corresponding figure from the Flow of Funds, because total debt in the SCF is lower than that from the Flow of Funds.

Reconciliation of Corporate Stock Holdings. As noted above, the most glaring problem appears to be corporate stock holdings. These appear to be severely underreported in the 1989 SCF. Indeed, a comparison with the 1983 SCF indicates that household holdings of corporate stock and mutual funds actually declined in *current dollar values* between 1983 and 1989, from 1.04 trillion dollars to 0.96 trillion dollars. Since the average share value more than doubled in value over this period, this must mean that families divested themselves of stock holdings at an incredible rate. Moreover, in 1983, the SCF estimate of total household stock holdings was 73 percent of the Flow of Funds total, compared to 37 percent in 1989 (see Appendix Table 2).

However, there are three other sources that might help account for the discrepancy. First, as noted above, nonprofit institutions are included in the Flow of Funds data on the household sector. Richard Ruggles and Nancy Ruggles (1982) were able to obtain a separate breakdown of stock holdings by households alone on the basis of Flow of Fund data. For 1980, they found the household stock holdings amounted to 86 percent of the total of the conglomerate household, personal trust and nonprofit sector. Though it is likely that nonprofit institution wealth increased relative to household wealth over the 1980s, it is unlikely that it could account for much of the discrepancy between the 1989 SCF and Flow of Fund totals. (It should be noted that pension reserves are tabulated separately in the Flow of Funds, so its growth could not contribute to the discrepancy).

Second, in the Flow of Funds, stocks held in personal trust accounts are counted as part of the stock holdings of the sector, whereas in the SCF they are treated as part of trust funds. Thus, if personal trust accounts increased substantially during the 1983-1989 period, this might account for part of the discrepancy. In fact, on the basis of the 1983 and 1989 SCF data, total trust equity increased by 47 percent (in nominal terms) and, on the basis of the Flow of Funds data, total stock holdings grew by 84 percent. On the basis of a comparison of Flow of Funds data and the Ruggles and Ruggles (1982) data for 1979, it was determined that 81 percent of the holdings of trust accounts consisted of corporate stock shares and the remaining 19 percent of financial securities. I distribute the holdings of trust funds in these proportions over their respective asset components for both 1983 and 1989 in Panel B. The results indicate that including the stock portion of trust funds in the stock category in the SCF data reduces the discrepancy between the SCF estimate and the Flow of Funds estimate, from 73 percent to 91 percent in 1983 and from 37 percent to 51 percent in 1989.

Third, in the SCF, stocks held in retirement accounts are counted as part of the retirement wealth category, whereas in the Flow of Funds data, they are counted in the stock category. It should be noted that retirement assets include not only IRAs, Keogh accounts, and other individual retirement accounts but also the cash surrender value of company pension plans which allow for current withdrawal of funds by the employee. To be consistent with the Flow of Funds, only the stocks held in individual retirement accounts should be allocated to the stock category, since the Flow of Funds counts pension reserves of companies in a separate category. It is very difficult to say what proportion of retirement assets should be included in the stock category in the SCF data. However, Panel C does indicate an over three-fold increase in the value of retirement accounts between 1983 and 1989, so that part of the remaining discrepancy in the 1989 stock figures may be attributable to an increased proportion of stocks held in individual retirement accounts.

Panel D tries to shed some light on this issue by providing consolidated totals for all accounts (except demand deposits), stocks, and financial securities, since all these assets may also be included in trust accounts and retirement accounts. A comparison with corresponding Flow of Funds data indicates that the 1989 discrepancy of 66 percent, is not too far off from the 1983 discrepancy of 74 percent.

Since any adjustment is bound to be arbitrary, I assume that half of all retirement assets are held in individual accounts and half of these consist of stocks. Thus, the appropriate comparison is to add one fourth of the value of retirement accounts to the value of stocks and the allocated portion of trust funds. This adjustment is shown in Panel E. The discrepancy between the SCF stock estimate and the Flow of Funds estimate has now been reduced to 63 percent. My choice of an adjustment factor for stock holdings in the SCF is that figure that will bring the ratio of SCF stock holdings to the Flow of Funds estimate up to 91 percent (the corresponding figure for the 1983 data). The computed adjustment factor is 1.445.

Appendix III

The Role of Retirement Wealth

Considerable attention about the effects of the social security system on household inequality was raised in a 1976 paper by Martin Feldstein. Using the 1962 SFCC, he found that when social security wealth, defined as the present value of the discounted stream of future social security benefits, was included in the household portfolio, household wealth inequality was found to decline by about 30 percent.

A comparison of the 1962 SFCC and the 1983 SCF also reveal the growing importance of social security wealth. Without retirement wealth, measured wealth inequality is almost identical in the two years — Gini coefficients of 0.805 and 0.800, and a share of the top percentile of 33.4 percent and 34.0 percent, respectively. With social security wealth included in the household portfolio, measured inequality is lower in each year but, more importantly, it is found to decline between the two years, from a Gini coefficient of 0.663 to 0.637 and with the share of the top percentile falling from 23.9 to 21.3 percent. The difference in the two years reflects the growing relative size of social security wealth in total household wealth.

Though social security wealth has a substantial equalizing effect on inequality, private pension wealth, defined in analogous fashion, has had only a modest effect on inequality. When pension wealth by itself is added to fungible household wealth, the Gini coefficient for 1962 decreased from 0.805 to 0.772 and that for 1983 from 0.800 to 0.757. With the addition of both social security and pension wealth to the household portfolio, the Gini coefficient declined from 0.586 in 1962 to 0.572 in 1983, and the share of the top one percent from 21.9 percent to 19.0 percent.

At this point, the 1989 data are too incomplete to give a full picture of the effects of social security and pension wealth on wealth distribution for that year. However, there appear to be two offsetting factors. First, according to preliminary calculations, social security wealth has continued to expand relative to marketable household assets between 1983 and 1989. Whereas the latter grew by 16 percent, the former has increased by 20 percent. Second, as shown in a recent paper by David Bloom and Richard Freeman (1992), pension coverage of the current workforce underwent a significant decline between 1979 and 1988 (from 9 1 to 86 percent for all plans and from 87 to 70 percent for defined benefit plans). The combined effect of expanding social security wealth and declining private pension coverage between 1983 and 1989 is that the increase in inequality we saw in marketable assets may be reduced slightly when retirement wealth is added to the household portfolio.

Appendix Table 1

Comparison of the 1989 SCF-Based Estimates and Aggregate Balance Sheet Estimates of Total Household Wealth by Component

(In billions of current dollars)

	1989 SCF[a]	FRB FOF[b]	Ratio
Principal Residence”	6,109.6	4,661.1	1.31
Other Real Estate and Land	2699.3		
Unincorp. Business Equity	3,344.3	2.630.5	1.27
Vehicles	739.0		
Consumer Durables		1,933.8	
Checking Accounts[d]	206.0	492.9	0.42
Thrift and Other Accounts[e]	2,242.7	2,833.4	0.79
Bonds & Financial Securities	1,147.1	1,791.5	0.64
Stocks, Mutual Funds	964.2	2.613.1	0.37
Trusts	454.6		
Life Insurance’	308.4	351.8	0.88
Pension Fund Reserves		2,857.5	
Miscellaneous Assets[g]	818.7	252.4	
Total Assets	19.033.5	20.4 18.0	
Mortgage Debt[h]	2,371.3	2,475.1	0.96
Other Debt[i]	606.0	1,145.4	0.53
Total Debt	2,977.2	3,620.4	0.82
Net Worth	16,056.3	16,797.6	
Assets Excluding Pension Reserves. Consumer Durables			
Total Assets	18,294.5	15,626.7	1.17
Net Worth	15,317.3	12,006.3	1.28

[a] Based on computations from the 1989 Survey of Consumer Finances (SCF). Results are based on the average of so-called model-based and design-based weights. See Arthur Kennickell and Louise Woodburn (1992) for details on the weighting methodology.

[b] Source: Board of Governors of the Federal Reserve System, “Balance sheets for the U.S. Economy, 1945-89,” Washington, D.C., October 1990, p. 24. Results are based on the Flow of Funds (FOF) and are for the sector: Households, Personal Trusts, and Nonprofit Organizations.

[c] The SCF category includes mobile homes and farm houses. The FOF category includes owner-occupied housing only.

[d] The FOF category also includes cash and currency.

[e] Includes savings accounts, money market funds and certificates of deposits. The SCF category also includes IRAs, Keogh plans, and other retirement accounts.

[f] The SCF category refers to the cash surrender value (CSV) of life insurance plans; the FOF category is the total reserves of life insurance companies.

[g] Includes assets tied up in gold, royalties, jewelry, furs, as well as loans to friends, relatives, and family business.

[h] Includes home equity loans, mortgages or notes outstanding on real estate already sold: and mortgages on other property.

[i] Includes credit card debt: consumer loans: amount family owes to its business: margin account debt: and life insurance loans.

Appendix Table 2

Reconciliation of the SCF and Flow of Funds Estimates of
Total Stock Holdings, 1983 and 1989

(Billions of current dollars)

	Year	RR"	SCF[b]	FOF[c]	Ratio
A. Total Holdings of Stocks					
	1980	995.1		1,164.5	0.86
	1983		1,041.1	1,422.0	0.73
	1989		964.15	2,613.1	0.37
B. Total Holdings of Stocks. Including Allocated Portion of Trusts[d]					
	1983		1,291.7	1,422.0	0.91
	1989		1,332.3	2,613.1	0.51
C. Total Retirement Accounts					
	1983		396.0		
	1989		1,240.3		
D. Total Holdings of Time. Thrift. Savings, Retirement, and Other accounts; Bonds and Financial Securities: stocks, and Trusts.					
	1983		2,920.9	3,952.8	0.74
	1989		4,808.4	7,238.1	0.66
E. Total Stocks, Including Allocated Portion of Trusts and One-Fourth of Retirement Accounts.					
	1989		1.642.4	2,613.1	0.63

F. Stock Adiustment Factor [to match 1983 ratio of .91] 1.445

[a] Results are based on Ruggles and Ruggles (1982), Table 2.40, for the household sector only.

[b] Based on computations from the 1983 and 1989 Survey of Consumer Finances (SCF). Results for 1989 are based on the average of so-called model-based and design-based weights.

[c] Source: Board of Governors of the Federal Reserve System, "Balance Sheets for the U.S. Economy, 1945-89," Washington, D.C., October 1990, p. 24. Results are based on the Flow of Funds (FOF) and are for the sector: Households, Personal Trusts and Nonprofit Organizations.

[d] Eighty-one percent of the holdings of trust accounts are allocated to corporate stock shares and the remaining 19 percent to financial securities. See the text for details.

Endnotes

1. Moreover, asset income is generally not well reported. Income statistics in the United States are generally based on census data (the Current Population Survey, primarily). Although coverage of wage and salary income is relatively good, these data typically substantially understate property income such as dividends, interest and rent. In some years, reported income is less than half of what the national income and product accounts indicate it should be. It is therefore inadequate to use conventional income data to capture the distribution of asset income in this country.

2. To perform the calculation for the same set of families in the two years, it would be necessary to have so-called panel data, which provide information on the wealth holdings of each family in both **1983** and 1989. The Federal Reserve Board will release such panel data in the near future.

3. My finding that the top one percent of income recipients received 41 percent of the total income gain is considerably lower than the 77 percent share of family income growth between 1977 and 1989 reported by the Congressional Budget Office (CBO), as noted in the Introduction above. There are two major reasons for the difference. First, I use a different time period, 1983-1989. Second, in the CBO report, realized capital gains are included in the measure of family income, whereas they are excluded in the calculations performed here.

4. This factor is problematic, since part of income derives from wealth (i.e., property income). It would, of course, be better to use earnings inequality, but a series for the full period is not readily available.

5. The result is based on the sale price of existing one-family homes sold. The source is the Statistical *Abstract of the United States, 1991.*

6. The results also show a "declining middle" of the income distribution over this six-year period. The percent of families with incomes of $50,000 or more increased over the period. The proportion in the income range from $10,000 to $49,999 fell, while that in the under $10,000 range remained unchanged.

7. Please note that three different sources of data are used in Table 6. In the Current *Population Report* data, statistics are provided for white and black households, excluding Hispanic households. In the SCF data, statistics are provided for white and non-white families. Hispanics are classified as non-white. In the Bureau of the Census data, statistics are given for white and non-white families: Hispanic families may fall into either group.

8. According to data released by the Bureau of the Census from its Survey of Income and Program Participation (SIPP) data set, the ratio of mean net worth between white and non-white families remained constant at 23 percent in 1984 and 1988, while the ratio of median net worth rose slightly, from nine to

10 percent. Why the difference in results? I suspect that the main reason is that SIPP is a representative sample, while the SCF is a stratified sample, which over samples the rich. Moreover, the SIPP file "top-codes" wealth values (that is, has an open-ended category for wealth variables, such as $100,000 or more). As a result, the SCF provides much better information on large wealth holdings than the SIPP file. As I reported above, the major gains in household wealth during the 1980s fell into the hands of the rich, a group which is likely to have a very small percentage of non-white households. This explanation would be consistent with the declining ratio of wealth holdings between non-white and white families.

9. A precise calculation of the catch-up period is difficult to make since it would entail an "overlapping generation" simulation model, with data on income, savings rates, mortality rates, marital patterns, birth rates, and bequest and inter vivos transfer patterns by race and age over, at minimum, a 100-year period.

10. However, interestingly, debt as a proportion of family income appears to show very little variation by wealth class.

11. Together, savings and capital gains accounted for a 22 percent real increase of household wealth, compared to an actual real increase of 19 percent. The discrepancy is due to statistical error.

12. Consumer durables include automobiles, televisions, furniture, household appliances and the like. Although these items provide consumption services directly to the household, they are not easily marketed. In fact, the resale value of these items typically far understates the value of their consumption services to the household.

13. Retirement wealth consists of pension and social security "wealth." Pension wealth is defined as the present value of the future stream of pension benefits a worker will receive following retirement. Social security wealth is defined in analogous fashion as the present value of social security benefits received following retirement. As is apparent from these definitions, these forms of wealth are not fungible or marketable, since individuals cannot convert these assets into cash. The exceptions are certain forms of pension plans that allow workers to convert their accumulated pension contributions into cash at any point in time (their so-called "cash surrender value"), and IRA and Keogh plans, that are also currently convertible to cash. These forms of retirement wealth are included in the concept of net worth used here. Because social security and pension wealth have received considerable attention in the literature, we comment about them further below.

14. Computations for 1989 are based on the September, 1992, public release version and use the average of two design-based weights (variable numbers X40125 and X40131). See Kennickell and Woodburn (1992) for details on the weighting procedures used.

Bibliography

Bloom, David E. and Richard B. Freeman. The Fall in Private Pension Coverage in the United States," American Economic Review *Papers* and Proceedings, Vol. 82, No. 2, May 1992, pp. 539-45.

Feldstein, Martin S. "Social Security and the Distribution of Wealth." Journal of the American Statistical Association, Vol. 71, December 1976, pp. 800-07.

Board of Governors of the Federal Reserve System. "Balance Sheets for the U.S. Economy, 1945-89." Washington, DC, October 1990.

Greenwood, Daphne T. "Age, Income, and Household Size: Their Relation to Wealth Distribution in the United States." In E. Wolff ed., International Comparisons of the Distribution of Household Wealth. New York: Oxford University Press, 1987.

Greenwood, Daphne T. and Edward N. Wolff. "Changes in Wealth in the United States, 1962-83: Savings, Capital Gains, Inheritance, and Lifetime Transfers." *Journal* of Population Economics, forthcoming, November, 199 1.

Kennickell, Arthur B. and R. Louise Woodburn. "Estimation of Household Net Worth Using Model-Based and Design-Based Weights: Evidence from the 1989 Survey of Consumer Finances." Federal Reserve Board, April 1992.

Modigliani, Franco and Richard Brumberg. "Utility Analysis and the Consumption Function: An Interpretation of Cross-Section Data." In K. Kurihara, ed., *Post-* Keynesian Economics. New Brunswick, NJ: Rutgers University Press, 1954.

Radner, Daniel B. and Denton R. Vaughan. Wealth, Income, and the Economic Status of Aged Households." In E. Wolff ed., *International* Comparisons of *the* Distribution of Household Wealth. New York: Oxford University Press, 1987.

Ruggles, Richard and Nancy Ruggles. "Integrated Economic Accounts for the United States, 1947-1980." *Survey* of Current Business, Vol. 62, May 1982, pp. l-53.

Steuerle, C. Eugene. "Realized Income and Wealth for Owners of Closely Held Farms and Businesses: A Comparison." *Public Finance Quarterly*, Vol. 12, October 1984, pp. 407-24.

U.S. Bureau of the Census. Statistical Abstract of the United States: *1989*, 109th Edition, Washington, DC, 1989.

U.S. Bureau of the Census, Current Population Reports, Series P-60, No. 168. Money Income and Poverty Status in the United States: 1989. U.S. Government Printing Office, Washington, DC, 1990.

Wolff, Edward N. "Estimates of Household Wealth Inequality in the United States, 1962-83." *Review of Income and Wealth,* Vol. 33, September, 1987, pp. 231-56.

Wolff, Edward N. "Changing Inequality of Wealth." *American Economic Review Papers and Proceedings*, Vol. 82, No. 2, May 1992, pp. 552-58.

Wolff, Edward N. and Marcia Marley. "Long-Term Trends in U.S. Wealth Inequality: Methodological Issues and Results." In R. Lipsey and H. Tice, eds., *The* Measurement *of Saving, Investment, and Wealth,* Studies of Income and Wealth, Vol. 52, Chicago University Press, 1989.