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RESEARCH INSTITUTE FOR HOUSING AMERICA **SPECIAL REPORT**

The Distribution of Wealth Since the Great Recession

John C. Weicher
Director, Center for Housing and Financial Markets
Hudson Institute

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About the Author

John C. Weicher is a senior fellow and director of the Center for Housing and Financial Markets at the Hudson Institute in Washington, D.C. From 2001 to 2005 he served as Assistant Secretary for Housing and FHA Commissioner at the U.S. Department of Housing and Urban Development. He previously served as Assistant Secretary for Policy Development and Research at HUD, and as Chief Economist at both HUD and the Office of Management and Budget.

His previous research on wealth has been published in the *Review of the Federal Reserve Bank of St. Louis, The Public Interest, The Wall Street Journal,* and most recently in *United States Income, Wealth, Consumption, and Inequality,* edited by Diana Furchtgott-Roth and published in the International Policy Exchange Series of Oxford University Press.

He was President of the American Real Estate and Urban Economics Association in 1982 and received the Association's George Bloom Award for Career Achievement in 1993. He holds an A.B. in English from the University of Michigan and a Ph.D. in economics from the University of Chicago. He is the author, co-author or editor of sixteen books or monographs, and the author of numerous popular and scholarly articles.

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Executive Summary

Two things have happened to the wealth of American households since the Great Recession started in 2007. First, the distribution became much more unequal; second, the wealth of the typical family dropped sharply, and, at least through 2016, did not recover. These changes are largely due to the sharp drop in homeownership. From 2007 to 2015, the homeownership rate fell by four and one-half percentage points — over six million families. The proportional decline was similar for all large racial and ethnic categories: White, Black, Hispanic, and "other" (mostly Asian). For the 60 percent of us who comprise the broad middle class, the equity in our homes is still our most valuable asset, and this is true for those of us whose net worth is around $50,000 on up to those of us who are millionaires; but as of 2016 we were typically 30 percent poorer than we were in 2007.

The best source of information on the wealth of individual households is the triennial Survey of Consumer Finances, conducted for the Federal Reserve Board. In late 2007, the typical family's net worth was about $140,000 (measured in 2016 dollars), and 90 percent of middle-wealth Americans owned their own homes. In late 2016, the typical family was worth about $97,000, and 84 percent of the families in the middle were homeowners. Rich families saw a much smaller decline. U.S., Census data show that the homeownership rate has not reached its previous peak. Indeed, it is no higher than it was in 1995.

The public focus has recently been on extremely rich households, which certainly have a very substantial share of total wealth. Their wealth consists mainly of businesses which they personally own and actively manage, and stock in publicly traded corporations. For most members of the broad middle class, the equity in their homes and the assets in their retirement accounts together are about two-thirds of their net worth. They are building their wealth with the goals of improving their current standard of living and having enough to support a comfortable way of life when they retire. Since the Great Recession, they have had difficulty achieving these objectives. House prices fell from 2007 to 2012, reducing both the value of their homes and their equity in their homes. In 2007, fewer than one-half of one percent of middle-wealth homeowners owed more on their mortgages than their homes were worth; in 2010, four percent of middle-wealth owners were underwater, and about five percent of the 2007 homeowners were no longer owners. House prices did not bottom out until 2012.

The typical household experienced some increase in wealth from 2016 to 2019. Census data show that the homeownership rate bottomed out during 2016 and then rose through the beginning of this year, nationally and for each major demographic group, although as mentioned it has not returned to its 2007 level. Home values have also risen by six percent annually during these last three years, according to the Federal Housing Finance Agency (FHFA) price index. Both the Dow Jones Industrial Average and the Standard and Poor's 500 Index rose by about 13 percent annually between the end of 2016 and the end of 2019. Census survey data show that real median household income finally moved above the 2007 level in 2016 and rose by about nine percent between 2016 and 2019 for the population as a whole. In addition, the median income of each major demographic group rose above its previous cyclical peak in 2015 or 2016 and continued to rise through 2019. Most of this growth occurred in 2019. The Federal Reserve's new measure of net worth per household (the Distributional Financial Accounts) shows a 15 percent increase from 2016 to 2019, although the increase is concentrated in the top 10 percent of all households. These calculations all suggest that the families in the middle had greater wealth at the end of 2019 than they had at the end of 2016, but none are based on data for individual households, and they do not necessarily imply either that the typical family has regained

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its 2007 net worth or that the distribution of wealth has become more equal.

This year, however, has been different due to the economic effects of COVID-19. Virtually none of the available data, except of course the stock market indices and in some important respects the housing market data, take the coronavirus pandemic into account. While both the S&P 500 and the NASDAQ recovered to set new records during the summer of 2020 and the Dow Jones Industrial Average came close to doing the same, all three have fluctuated markedly, sometimes dramatically, since the beginning of the year. At the same time, home sales and home prices have generally continued to rise, partly at least buoyed by the low interest rates that have been intended to support the economy during the pandemic. Housing starts began to rise late last year, fell back during the winter and spring, and then rose again during the summer.

Recent housing policies based on the lessons learned from the Great Recession and the steady increase in homeowner equity in the last decade suggest that homeowners are less at risk of foreclosures than in past crises. Together with evolving demographic trends and recent robust housing starts and homeownership rates, the potential to build wealth may increase going forward.

Furthermore, the SECURE Act that expands individual retirement accounts for part-time workers may help individuals employed in the growing “gig” economy build wealth as the economy recovers.

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Introduction

The distribution of wealth has attracted increasing attention, especially in the course of the current political campaign. Several candidates and commentators offered proposals to tax the wealth of rich individuals, in addition to the century-old income tax. These proposals have attracted attention in large part because the distribution of wealth is much more unequal than the distribution of income and may be becoming more unequal. Wealth is, however, much more difficult to measure than income.

Until relatively recently, estimates of the distribution of wealth, or the concentration of wealth among the rich, have been based on data sources which exclude the wealth of most individuals, such as the estate tax returns of deceased individuals for whom tax returns had to be filed because they were rich. From these tax returns, analysts have estimated the wealth of living rich households and also of living households who were not rich.[1]

In 1983 the Federal Reserve Board began to sponsor a survey of household wealth among living households, the Survey of Consumer Finances. The SCF has been conducted every three years since then. It is by far the best source of data on the wealth of American households and is the data source for this analysis. Because the focus is on the distribution of wealth since the Great Recession, the analysis begins with the 2007 survey, which was conducted just as the economic expansion that began in 2001 was reaching its peak. It concludes with the 2016 survey, which reports a large increase in total household wealth for the first time since the 2007 survey. The analysis concludes with a discussion of the changes since 2016, using other sources.

Since its beginning, the SCF has surveyed samples of several thousand households, with an extensive set of questions on assets and liabilities. The questionnaire has been remarkably consistent over time, and the Federal Reserve's analysts have developed consistent techniques for weighting the observations to represent the universe of American households, beginning with 1989. An important feature of the SCF is that it combines two samples. One sample is chosen randomly from the population; it is termed the "area-probability sample" because it is geographically based. The other is a sample of households that are expected to have high wealth; it is termed the "list sample" because it is drawn from a list of households based on their income tax returns, developed in cooperation with the Internal Revenue Service. Because wealth is concentrated among a relatively small number of households, a purely random sample of households will produce little information about a substantial fraction of total household wealth. The high-wealth sample is intended to give reasonably equal sampling probabilities to all dollars of wealth, rather than to all households.

Participation is voluntary; in 2016 and the other surveys since the Great Recession about three-quarters of the respondents were from the area-probability sample. Each household is asked several hundred questions about its assets and its liabilities and is also asked about its income and its demographic characteristics, such as the age and educational attainment of the head of the household. Interviews can be time-consuming. In recent surveys, the median length of an interview was about 90 minutes, but some interviews required substantially longer than three hours. About two-thirds of the households in the area-probability sample completed the interviews, compared to one-third of the list sample, and about one-sixth for those in the list sample most likely to be the wealthiest families.[2]

While the SCF has a large sample of high wealth households, it excludes the Forbes 400, the annual list of the Americans with the highest wealth published by *Forbes* magazine

1. See for example the summary in Piketty (2014, especially pp. 347–350), and Saez (2020), who both discuss wealth inequality in the U.S. going back to the early 20th century.

2. Bricker et al, "Changes in U.S. Family Finances from 2013 to 2016: Evidence from the Survey of Consumer Finances," *Federal Reserve Bulletin,* Vol. 103, No. 3 (September 2017), available at: https://www.federalreserve.gov/publications/2017-September-changes-in-us-family-finances-from-2013-to-2016.htm. Similar statements appear in each of the *Bulletin* articles about the other surveys since 2007.

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since 1982. The Forbes 400 is compiled by Forbes staff from interviews with individuals who are considered possible candidates for the list and with other individuals who may have relevant information about candidates, and is also based on research into relevant documents and news stories.[3] It differs methodologically from the SCF, which is based on interviews with households who are willing to participate in the survey; members of the Forbes 400 are identified by Forbes whether or not they are willing to provide information on their wealth.

The SCF has some limitations, all for good reasons. It is not a panel survey; it does not interview any household more than once. Given the length of the survey and the time required for wealthy households to complete it, it is likely that few households with significant net worth would be willing to participate in the survey a second time.

There is no geographic information; respondents' place of residence is not reported. This also preserves anonymity for well-to-do households. Some of the richest households in the survey have a weight between two and four, meaning that in the judgment of the analysts there are no more than two or three households in the United States with similar demographic and economic characteristics. If that is the case, or even if there are a few such households, an enterprising reporter might be able to identify a particular rich household and write a long and detailed article about that household's wealth. In such a situation, the response rate for well-to-do households might well drop to zero.

This is also an important reason for excluding any household that is identified as one of the Forbes 400. It may seem contradictory that a survey of American household wealth does not include the richest households in America, but households who know that they are likely to be included and identified in print may be willing to cooperate with Forbes, but very unwilling to answer very detailed questions about their assets and liabilities in a voluntary survey. There is in fact very little, if any, overlap between the SCF and the Forbes 400. More than 23,000 households were interviewed during the four surveys since 2007; at most five were reported as having net worth above the Forbes 400 cutoff in the years of those surveys, and of these no more than one or two may have net worth of $100 million or more above the cutoff; the others may be at or very slightly above the cutoff.[4]

Recently Federal Reserve analysts have created wealth concentration estimates including the Forbes 400 for the Surveys of Consumer Finances dating back to 1989. They found increases in the share of the richest one percent of Americans ranging from 0.8 to 1.6 percentage points from a base of 30 to 39 percent when the Forbes 400 were included. The average increase was 1.3 percent. The analysts concluded that the exclusion of the Forbes 400 results in a relatively modest change in the concentration of wealth.[5] Exclusion also does not affect the pattern of survey-to-survey changes in the distribution of wealth since 1989, including the period since the Great Recession.

THE POOR, THE RICH, AND THE BROAD MIDDLE CLASS

The classification of households by their position in the wealth distribution, with a focus on the households with a high net worth, is a common approach to describing the distribution of wealth, because wealth is so concentrated. Another categorization is to divide households into quartiles, giving more or less equal attention to households across the distribution. This approach invites attention to the distribution of individual assets and debts, such as holdings of stocks or bonds, mortgages on owner-occupied homes, and student loans. Sometimes "rich" is measured subjectively, which is not inherently unreasonable, but can result in a wide range of criteria. A 2019 survey by Charles Schwab found that respondents considered themselves wealthy if their net worth was $2.3 million, but the subset who said they were already rich considered themselves wealthy once their net worth was about $700,000. By the higher criterion, five percent of households are rich; by the lower, about 16 percent are. At the same time, another 2019 survey, from YouGov, found that people needed "to earn just $100,000 a year to be rich" — an example of the common confusion between wealth and income. By this criterion, 24 percent of households are rich (LaPonsie, 2020).

This analysis uses a different system. It divides households into three very unequal groups, based on the composition of their wealth portfolios: the least wealthy 30 percent, the most wealthy 10 percent, and the very large 60 percent in between. For the least wealthy, their most important asset — the asset that constitutes the largest share of their net worth — is their car; for the most wealthy, it is the business that they own and typically actively manage; for the broad middle class, it is their home. The same consistency extends to their next most important assets: for the least wealthy, the home they own and their retirement accounts are about equal, even though a minority are homeowners; for the rich, their stock in publicly traded corporations is second; for those in between, it is their retirement accounts. The same pattern holds within these groups. Most households in any one of these groups have broadly similar portfolios, whether

3. Jennifer Wang, "Forbes 400 Methodology: How We Crunch the Numbers," October 2, 2019, available at: https://www.forbes.com/sites/jenniferwang/2019/10/02/forbes-400-methodology-how-we-crunch-the-numbers/#3704acc51715.

4. The Forbes 400 reports net worth as $1.0 billion or $1.3 billion, for example, and appears to be treating them as minimum figures rather than rounding from $950 million or $1.25 billion. See Miller (2017) for examples.

5. Bricker, Jesse, Peter Hansen and Alice Henriques Volz, "Wealth concentration in the U.S. after augmenting the upper tail of the survey of consumer finances," *Economics Letters* 184, No. 108659 (November 2019), Elsevier B.V., available at https://doi.org/10.1016/jeconlet.2019.108659.

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they are at the bottom or the top of the group in terms of their total net worth. When each group is itself split into thirds, their cars are the most important asset for the poorest third of the poor, the "richest" of the poor, and those in between, for example, and similarly for the wealthiest and for middle-wealth households. The holdings of the different groups are also consistent from one survey to the next, at least since the start of the Great Recession through 2016. There were certainly changes in the composition of portfolios during that decade, but the general pattern was stable.

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Basic Concepts: Wealth and Income

In any analysis of the distribution of wealth, it is necessary to make clear the distinction between *wealth* and *income.* Indeed, it is essential. The terms are often used interchangeably, and often used inaccurately even by people who write about them and make a living teaching about them.

The basic distinction is that wealth is a stock and income is a flow. Wealth is the value of a stock of assets at a given point of time, such as the last day of the year. For a particular household, wealth is the value of the total assets it owns, minus the value of its total liabilities, the amount of its debts. Wealth is synonymous with net worth. Income is the money that households receive over a given period of time, reported most commonly for a calendar year.[6]

THE COMPONENTS OF HOUSEHOLD WEALTH

Wealth includes:

- the value of a home, minus the amount owed on the mortgage or home equity line of credit.
- the value of the cars owned by the household, minus the amount owed on any car loans.
- the value of any rental housing or commercial property owned by the household, minus the mortgages on those properties.
- the value of businesses owned directly by the household — proprietorships, partnerships, independent professional practices in law or medicine, farms, and stock in closely-held corporations which are not publicly traded — minus any debts owed by the business.
- any stocks or bonds, and any mutual funds.
- the balances in checking and savings accounts.
- the cash value of whole life insurance policies.
- the present value of IRAs, Keogh plans, and other retirement savings accounts.

On the liability side, net worth takes account of any installment debt, such as student loans, credit card balances or other consumer debt, in addition to the mortgages on homes and other property, auto loans and business debt mentioned above.

There are a number of common exclusions from wealth measures, some of them quite important for a family's wellbeing. Wealth seldom includes the value of consumer durables, such as furniture or appliances, even though it includes the debt incurred to purchase them. Wealth also typically excludes the present value of any pension benefits or Social Security payments that the household expects to receive in the future. These present values can certainly be quite large, but they are also difficult to quantify.[7]

Table 1 lists the components of net worth, both assets and liabilities, and their relative importance for American households since the start of the Great Recession, calculated as averages from the data for the individual Surveys of Consumer Finances. By far the largest component is the equity that Americans have in the homes we own, even taking account of the outstanding principal balances on home mortgages and home equity lines of credit, and even taking account of the decline in homeownership from 2007 to 2016, both for the population as a whole and for almost every racial and ethnic group tracked by the Census Bureau. The excep-

6. Most income takes the form of money, but it can also take non-pecuniary forms: the desirability of living in a particular place or a pleasant climate, for example — clearly worth something, but not easily measured and not counted in most practical discussions and most measures of income.

7. The 1983 Survey of Consumer Finances calculated the present value of expected future Social Security benefits for households including workers who were at least 40 years old and not yet retired. This proved to be difficult, and the 1989 and later surveys did not report data for these categories. Private defined-benefit pensions were also included in the 1983 wealth calculations but excluded in the analyses of later surveys (Kennickell and Shack-Marquez, 1992).

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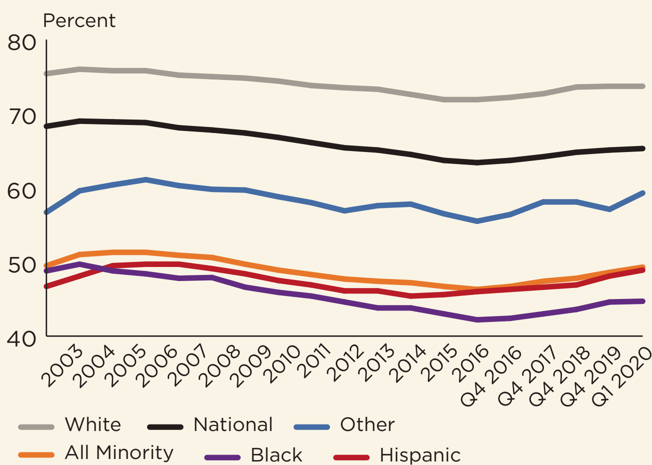
tion is the Hispanic population, for whom homeownership bottomed out in the first quarter of 2015. The national rate reached its lowest point in the second quarter of 2016; each of the other groups did so sometime during the first three quarters of that year. Figure 1 shows the homeownership rate for the nation and for each racial and ethnic group reported by the Census since 2003, except households of two or more races.[8]

Equity in owner-occupied homes has amounted to about 29 percent of net worth, on average, over the surveys between 2007 and 2016. Certainly, not all households are homeowners; the homeownership rate for the 10 survey years since 1989 averaged about 66 percent. But home equity represents about 35 percent of the net worth of those households that do own homes. The second largest asset is publicly-traded common stock, predominantly held in retirement accounts, and also including directly owned stocks and stock held within mutual funds, trusts, or annuities; the total value of stock held in any of these forms amounted to 23 percent of household wealth. The value of unincorporated and closely-held business is the third largest category. Transaction accounts — including checking, savings, money market and call accounts — are the most widely held asset, with about 92 percent of households having at least one, and about 86 percent of those households having checking accounts. Vehicles are the second most widely held asset. Although the values of individual accounts or vehicles are not large, in the aggregate these assets accounted for over eight percent of net worth.

Figure 1. Homeownership Rate by Race and Ethnicity, 2003–2020



Source: U.S. Census Bureau

Table 1. The Composition of Household Wealth, 2007–2016

Category	Average Share of Total Household Wealth
Total Wealth	100.0%
Total Assets	116.8%
Total Liabilities	-16.8%
Assets:	
Owner-occupied homes	41.0%
Unincorporated business	21.8%
Retirement accounts	16.8%
Mutual funds	8.0%
Stocks (directly owned)	6.8%
Transaction accounts	5.6%
Investment real estate	4.2%
Automobiles and other vehicles	3.5%
Trusts and other managed assets	3.3%
Bonds	1.6%
CDs	1.2%
Whole life insurance	1.2%
Other assets	1.7%
Liabilities:	
Mortgages/home equity loans	-12.3%
Automobile loans	–0.9%
Mortgages on investment real estate	–1.6%
Consumer debt (including credit card balances)	–0.6%
Education debt	–0.9%
Miscellaneous liabilities (including business loans)	–0.5%
Exclusions (not calculated)	
Consumer durables	—
Present value of future pensions	—
Present value of Social Security benefits	—
Addendum :	
Equity in owner-occupied homes	28.7%
Equity in automobiles	2.6%
Equity in non-residential real estate	2.6%
Equity in businesses	21.7%
Total stock owned, directly or indirectly*	23.4%

Source: Calculated from 2007–2016 Surveys of Consumer Finances

* Includes stock owned within mutual funds, retirement accounts, and other managed accounts (e.g., trusts), as well as stock that is directly owned

8. The Census Bureau classifies households first as to whether they are Hispanic or not; the latter category is then divided into white alone, Black alone, other races alone (predominantly Asian American but also including American Indians and Alaska natives, and Hawaiian and Pacific Islanders; and those of two or more races.

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This is not the common perception about the composition of wealth. Journalists, businessmen, and citizens, in my experience, tend to equate "wealth" with "stocks and bonds." They think in terms of financial assets and tend to ignore real assets or minimize their significance. Some economic analysts also give primacy to financial assets in describing the distribution of wealth (Wolff, 1994). But financial assets have consistently amounted to less than half of all household wealth, averaging about 42 percent since 2007.

HOUSEHOLD INCOME

Different categories matter for wealth and for income. Income information is collected by several federal agencies. The Bureau of Economic Analysis calculates total personal income as part of the National Income and Product Accounts. These are published in six broad categories and a number of subcategories.[9] The broad categories are:

- Employee compensation
- Income of proprietors
- Rental income
- Income from assets
- Transfer payments
- Contributions to government social income programs (an offset to income received)[10]

"Income from assets" includes both "dividend income" and "interest income," which is a useful subdivision in describing the distribution of wealth.

The largest component of income is income from employment — wages and salaries, etc. Over the 2007–2016 period, wages and salaries amounted to about 63 percent of all personal income, on average, as reported in the National Income and Product Accounts and shown in Table 2. There is no counterpart to this category in the wealth statistics. The same is true for transfer payments, which averaged 17 percent annually over the period.

Table 2. The Components of Household Income, 2007–2016

Component	Average Share of Personal Income
Compensation of employees (wages and salaries)	62.7%
Proprietors' income (independent business)	8.9%
Rental income of persons with capital consumption adjustment	3.4%
Personal income receipts (interest)	9.8%
Personal income receipts (dividends)	5.9%
Personal current transfer receipts	17.0%
Less: Contributions for government social insurance	-7.6%

Source: Federal Reserve Bank of St. Louis, "FRED Economic Data, Table 2.1: Personal Income and Its Disposition: Quarterly," available at https://fred.stlouisfed.org/release/tables?eid=4083&rid=53

The converse is true for home equity, the largest component of household wealth. There is no income generated by households' equity in their homes, and thus no counterpart to home equity in the income received by households. In addition, one of the mostly widely-held assets — automobiles, trucks, and other vehicles, owned by 86 percent of American households — also yields no income. The value of cars and other vehicles amounts to about three percent of household net worth, even after taking account of the principal balances owed on loans to purchase them.

It is possible to create measures of human capital from income data, making use of wage, salary, and self-employment income, and economists have made such estimates for some purposes, such as serving as expert witnesses in wrongful death lawsuits, for example. Similarly, it is possible to impute the annual rental value of owner-occupied homes and include that in a broader concept of income. Such imputations are included in the Consumer Price Index (CPI) produced by the Bureau of Labor Statistics (BLS). "Imputed rent" is the rent which homeowners would receive if they chose to move out of their home and rent it to someone else:

> **"To see why imputed rent is a real form of income, consider two homeowners living in identical houses. Suppose they trade houses, each living in the other's. They now pay rent to each other because … [each] is now the other's landlord. If they pay identical rent, it would appear that it all cancels out, except that each now has rental income to report on her taxes. In principle, that rental income is there even when one lives in one's own home." (Bartlett, 2013)[11]**

9. The data are published in the National Income and Product Accounts, Table 2.1, "Personal Income and its Disposition," available at: https://apps.bea.gov/iTable/iTable.cfm?reqid=19&step=2#reqid=19&step=2&isuri=1&1921=survey

10. The Census Bureau collects information on income from a large sample of households, as part of the American Community Survey. A group of eight questions about income are asked of each person in a household. (These categories of income comprise question #47 on the ACS, available at: https://www2.census.gov/programs-surveys/acs/methodology/questionnaires/2015/quest15.pdf). The data for the ACS are available year by year since 2000.

11. Milton Friedman used a similar example in his teaching: two women who took in each other's washing, paid each other for doing so, and then went back to each doing her own. He eventually found a real-world example, where the women then both filed for unemployment compensation.

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The CPI calculates imputed rent by collecting information on the rents actually paid for rental housing and using them to estimate the rental value of similar homes, which are in fact occupied by their owner. As stated by BLS, "The most efficient way to measure the price of the shelter service owner occupants receive from their homes is to estimate the rent that the residence would command." (U.S. Bureau of Labor Statistics, n.d.)[12]

Imputed rent is also used in the National Income and Product Accounts produced by the Bureau of Economic Analysis, in discussions of "tax expenditures" in the federal budget each year (U.S. Government, 2019), and in budget analyses by the Congressional Budget Office (Ozanne, 2012). A few countries employ such imputations in the definition of taxable income in their tax codes, albeit at very low values for the imputed rents or very low tax rates. These countries include Belgium, Iceland, Luxemburg, the Netherlands, Slovenia, and Switzerland (Bentley, 2018; see also Merz, 1977).

For that matter, it is also possible to impute the annual rental value of cars and other vehicles. But calculations of these imputed values of these economic concepts are not included in the statistics on household income produced by the BEA and the statistics on household wealth in the SCF.

To summarize, 74 percent of the income people receive has no corresponding component in their wealth (69 percent omitting contributions for government social insurance from both the numerator and denominator), and 30 percent of the wealth people own does not generate income. Rising or falling house prices will directly change the wealth of about two-thirds of American households and may possibly affect the distribution of wealth. They will not affect the distribution of income. Similarly, rising, stagnant, or falling wages are likely to affect wealth only gradually, as they affect household savings. It is therefore not automatic that mean or median income or wealth will change to the same extent over time, or even that they will change in the same direction over time. This is especially plausible over short periods of time, such as the three years between consecutive Surveys of Consumer Finances, but it can occur over longer periods as well.

For example, between 2007 and 2010 median household income (adjusted for inflation) declined by 2 percent, while median household wealth dropped by 40 percent; also, real median household income in 2016 exceeded the 2007 level — finally — while median household wealth in 2016 was still 30 percent lower than it had been nine years earlier (Semega, et al., 2020).

The practical consequences of these differences in measurement will be evident in the remainder of this analysis.

12. Accessed September 12, 2016. The document is not dated; the most recent information cited is for December 2008.

The basic points to keep in mind are, first, that income and wealth are different concepts and have different components, and second, that trends in the distributions of income and wealth can move in opposite directions.

SOME ASSET CATEGORIES WORTH ATTENTION

The SCF asks about dozens of assets and liabilities, and the possible answers total in the hundreds. The Federal Reserve analysts publish a paper describing the results of each survey in the *Federal Reserve Bulletin,* and in these articles classify some 16 asset categories and eight liability categories. They also publish a set of tables tracking the totals for these categories for each survey back to 1989, in total and for various groups in the population, and have used them in various SCF working papers and other articles. These "Bulletin" categories are the basic framework used in this analysis. For some purposes, however, some of the asset categories are worth more detailed discussion, making use of more detailed data. This section discusses four such categories.

Transaction Accounts

The most commonly held asset is a transaction account, owned by about 93 percent of the households in any of the four surveys. The most commonly held transaction account is a checking account, owned by about 90 percent of the households with a transaction account. Checking accounts do not, however, have a particularly large share of the total amount in transaction accounts — only about 20 to 25 percent. Both savings accounts and money market accounts have larger shares. For about 35 percent of households with checking accounts, their checking account is the only transaction account they have; these are mostly households with a rather low net worth. There are a few households, however, which report having seven-figure checking accounts, and no other type of transaction account.

Vehicles

The second most commonly held asset is a "vehicle," owned by about 86 percent of all households. The SCF asks households whether they own more than 20 different kinds of vehicles (the most recent addition to the list is "horse and carriage"); these are all classified simply as "vehicles" in the *Bulletin* list, and grouped into nine categories in the codebook and the detailed data. By far the most important of the seven categories is "cars." Of the households that own at least one "vehicle," 95 percent own a car. The second most common vehicle is a pickup truck, owned by almost 30 percent of the households that own a vehicle. Nothing else — no other category — is owned by as many as five percent of all households.

Cars are by no means the most expensive type of vehicle, but they account for 73 percent of the value of all vehicles; pickup trucks account for another 15 percent (these figures

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are net of any outstanding loans). The most expensive vehicles are in the category of "Airplane/Helicopter/Boat/Glider/Hot Air Balloon," which have an average value of about $21,000 per vehicle and an average value of about $24,000 per household owning at least one such vehicle. The vehicles in this category account for about six percent of the total value of all vehicles. The total value of all vehicles is about $2.3 trillion in each of the four surveys. None of the other categories has a total value of as much as $100 billion in any survey, or as large as a three percent share of the total value of all vehicles.

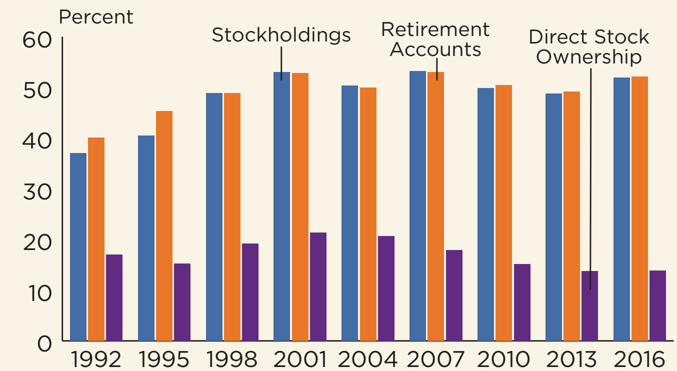
In this analysis, "vehicle" often means "car," to all intents and purposes.

Stockholdings

As shown in the Addendum to Table 1, the ownership of publicly traded stock is the second largest asset category in terms of total value, exceeded only by homeowners' equity. (Ownership of corporations whose stock is not publicly traded, as well as proprietorships, partnerships, and professional practices such as law and medicine, are all included in the separate category of "business.") Stock ownership is listed in the Addendum, however, because stock can be owned both directly and indirectly: as shares in the stock of Company X, but also as assets in accounts that can include other assets. During 2007–2016, about 15 percent of American households owned stock directly, and they owned less than 30 percent of all the stock owned by American households. The other 70 percent was owned indirectly, in any of the seven categories reported separately by the SCF. These categories include: IRAs and Keoghs; thrift savings plans; the plans of future pensions; the plans of current pensions; mutual funds; trusts; and annuities. In the interview process, the SCF asks first about the ownership of retirement accounts, mutual funds, trusts and annuities, and then about the extent to which these accounts hold stock.

Retirement accounts have grown steadily in importance since they were authorized in the Retirement Income Security Act of 1974 and extended to all full-time working taxpayers in 1981, to the point that they have become the most common way to own stocks. The first SCF in 1983 reported that they were about as important as direct stock ownership. About 17 percent of all households held IRA or Keogh accounts, with a median value of $4,000 (including other assets besides stocks); about 19 percent owned stocks directly, also with a median value of $4,000 (Avery et al., 1984, Table 13). From 1992 to 2016, there was substantial growth in retirement accounts and in stock ownership (both direct and indirect), and the patterns of growth were correlated, as shown in Figure 2. Over the same period, the correlation between stock ownership and direct stock ownership was much weaker.

Figure 2. Proportion of Households with Stockholdings and Retirement Accounts, 1992–2016



Source: Calculated from 1992–2016 Surveys of Consumer Finances

By 2007, 53 percent of all households had retirement accounts, more than those who owned stocks directly (18 percent), who owned mutual funds (11 percent), or who owned trusts or annuities (both about five percent). These proportions did not change much between 2007 and 2016, except that fewer households directly owned stocks. In 2016, 89 percent of the households that owned stocks owned them through retirement accounts, compared to 19 percent who owned stocks through mutual funds, 14 percent who owned stocks directly, and eight percent who owned them in trusts or annuities.

This analysis makes use of both total stockholdings, direct and indirect, and the account categories in which both stocks and other assets can be included within the same account. The choice depends on which classification seems more useful for a specific purpose. Total stockholdings are usually more meaningful for measuring the extent to which a household's portfolio consists primarily of business assets, as identified above, while total assets in retirement accounts is a more informative concept in assessing the extent to which households have the primary goal of saving for a comfortable standard of living when they retire.

The SCF uses the term "equity" for the total value of both directly and indirectly owned stock. This analysis uses the term "stockholdings," largely because "equity" can also refer to homeowners' equity or the value of a vehicle net of any outstanding loan balance.

Student Debt

Another rapidly-growing component of household wealth, this one on the liability side, is student debt. In 1989, the SCF reported that about nine percent of American households owed money on loans they had taken out to attend college. These 8.3 million households owed a total of $85

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billion, an average of just over $10,000. By 2007, more than twice as many households — 17.6 million, over 15 percent of all households — had student debt, and their total debt was about $440 billion, an average of about $25,000. All these figures have increased steadily since the start of the Great Recession; by 2016, there were 28.1 million households with student debt, 22 percent of all households, who owed a total of about $960 billion, an average of over $34,000.

Most student debt is owned by households that are not well-to-do, for the good reason that they are young. They have not had many years in the labor force, and therefore not many years to build up their assets and pay down their debts. In 2016, almost exactly half of the households with student loans were in the lowest wealth group, even though that group was only 30 percent of all households, and these low wealth households owed almost 60 percent of all student debt. It is also the case that most households with student debt are headed by a young man or woman; the median age of these debtors is in the mid-30s. It was 38 in 2016, and 35 to 37 in the surveys between 2007 and 2013. It was 34 in 1989.

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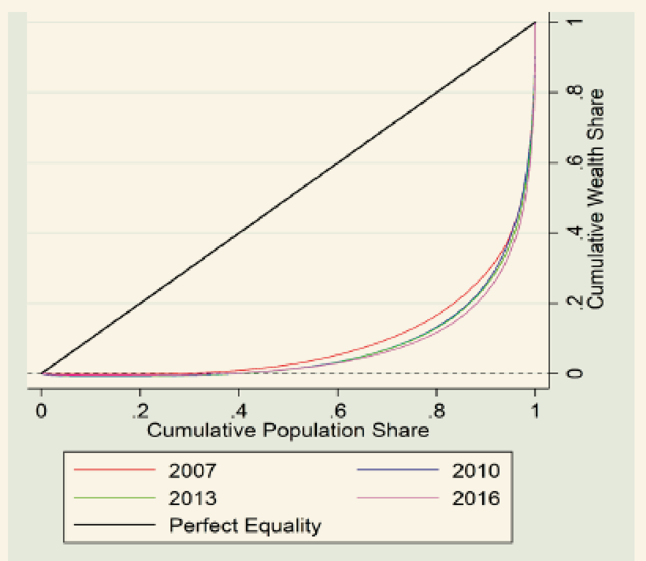
Measuring Inequality

The distribution of economic well-being is commonly measured in two different ways: measures describing the entire distribution, and measures describing the concentration at one end of the distribution, typically the high end. Measuring the distribution of wealth introduces some particular complications.

THE GINI COEFFICIENT AND THE LORENZ CURVE

The most common quantitative measure of the entire distribution of income or wealth is the Gini coefficient. The Census Bureau publishes Gini coefficients for the distributions of household income and family income each year as part of its annual report on income and poverty, and has been doing so since 1967 (Semega, et al., 2020).[13]

Figure 3. Relative Lorenz Curves for 2007–2016



Source: Calculated from 2007–2016 Surveys of Consumer Finances

In calculating a Gini coefficient for income or wealth, households are ranked from the lowest income or wealth to the highest. The cumulative share of total income or wealth is measured against the cumulative share of the population. Figure 3 illustrates this ranking. The cumulative share of population is measured along the horizontal axis, from the poorest to the richest; the corresponding cumulative share of income or wealth is measured along the vertical axis. A perfectly equal distribution is shown by the "line of equality," a (45-degree) straight line from the origin at the lower left corner to the opposite point at the upper right corner; each point on the line represents a percentage of the total number of households and the corresponding percentage of total wealth — the "poorest" 20 percent of households having exactly 20 percent of the total wealth in the society, for example. Unlike most figures, the vertical axis is on the right side of the diagram, rather than the left.

The actual distribution of wealth is measured by the cumulative share of total wealth for each particular share of total population — the poorest five percent of households having a total of one percent of the total wealth in the society, and so on. The line connecting these points is known as the Lorenz Curve. The Gini coefficient is calculated as the area between the line of equality and the Lorenz Curve, divided by the total area under the line of equality.[14]

The Gini coefficient has a range of 0 to 1. If the distribution of wealth is perfectly equal, the coefficient is zero; if all the wealth in the society is owned by a single household, the coefficient is unity. The greater the concentration of wealth, the closes the Gini coefficient is to unity. As Table 3 shows, the distribution became more unequal during and since the Great Recession.

13. The data are collected as part of the Current Population Survey in March of the next year. Gini coefficients have been calculated by the Census Bureau back to 1947 and are included for all past years in each subsequent year's report.

14. A useful discussion which includes a balanced consideration of the strengths and limitations of the Gini coefficient, with examples, is Lamb (2012)

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Table 3. The Changing Distribution of Wealth, 2007–2016

Year	Gini Coefficient
2007	0.816
2010	0.846
2013	0.849
2016	0.860

Source: Calculated from 2007–2016 Surveys of Consumer Finances

Figure 3 shows the Lorenz curves for the four SCF surveys during and since the Great Recession. All four start at the origin and then dip below the horizontal axis, because a fraction of households have negative net worth (ranging between 7.75 percent and 11.5 percent). When the range of households with zero net worth is reached, the curve is horizontal, and then begins to curve upward. Income can be zero, but not negative, which can complicate the comparison of measured inequality between income and wealth.

The Lorenz curves are almost superimposed on each other at both the low and high ends of the distribution, but between about the 40th and the 90th percentiles, the distribution is noticeably most equal in 2007, and somewhat less noticeably least equal in 2016. Throughout the distribution, it is extremely difficult to discern any difference between 2010 and 2013.

The differences can be seen much more clearly in Figures 4 and 5, which magnify the Lorenz curves at the low and high ends, respectively. In Figure 4, it is clear that the distribution was more equal in 2007 throughout the least wealthy 50 percent of the population, and least equal in 2010, shortly after the Great Recession. The distribution became slightly more equal for the lower half of the population in 2013 and again very slightly more equal in 2016. Around the middle of the distribution, the Lorenz curves for 2010, 2013, and 2016 become virtually indistinguishable. By the 50th percentile, however, the curves have crossed, and the Lorenz curve for 2016 is — very slightly — the closest to the curve for 2007.

Figure 5 magnifies the high end of the distribution, the wealthiest 15 percent. The curves show a different situation. The distribution among these households is again most equal in 2007 — closest to a straight line — but the curves for 2007 and 2010 are virtually indistinguishable for the wealthiest five percent. The distribution is least equal in 2016; the richest five percent have a higher share of net worth than they do in any of the previous three surveys.

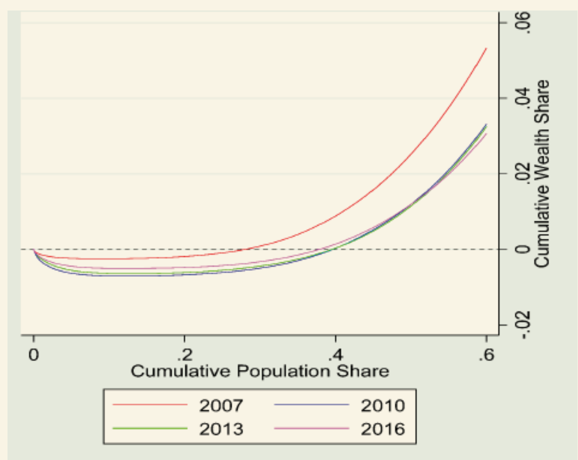
These figures indicate that a number of different distributions can have very similar Gini coefficients. The coefficients for 2010 and 2013 are the same to two significant digits, but the lower 40 percent of the population was slightly wealthier in 2013, and the wealthiest 15 percent received a larger share of the total wealth from the earliest survey in 2007 to the latest survey in 2016. There is no clear basis for saying that one is "better" than the other.

CONCENTRATION RATIOS

Measures of concentration have become more common in recent years, for several reasons. The share of wealth held by the richest one percent or ten percent of all households — or the poorest half — is much easier to calculate than a Gini coefficient and certainly intuitively much easier to understand. In addition, since the ownership of wealth is highly skewed, compared to income, the share held by the richest one percent or the richest ten percent attracts attention and stimulates discussions of economic policy.[15]

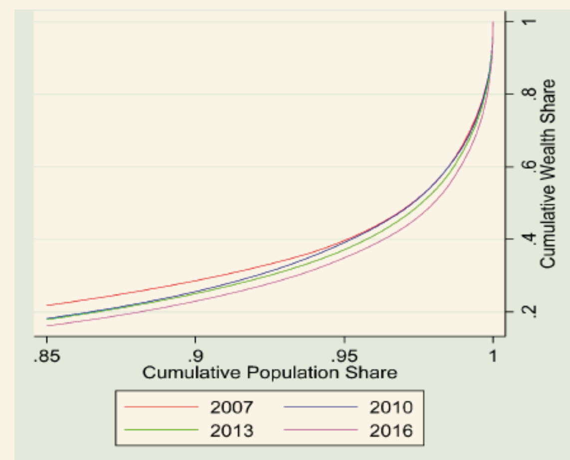
15. The Gini coefficients (as in Table 3) are positively correlated with each of the three concentration ratios reported in Table 4 over the period 1989–2013; the correlation coefficients are at least 0.6 (Weicher, 2016). With only nine observations, however, there is no point to measuring the significance of the relationships.

Figure 4. Relative Lorenz Curves, 2007–2016, for the Poorest 60% of the Sample



Source: Calculated from 2007–2016 Surveys of Consumer Finances

Figure 5. Relative Lorenz Curves, 2007–2016 for the Wealthiest 15% of the Sample



Source: Calculated from 2007–2016 Surveys of Consumer Finances

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Table 4. **The Increasing Concentration of Wealth, 2007–2016**

Category	2007	2010	2013	2016
Richest 1%	33.6%	34.1%	35.5%	38.5%
Richest 5%	60.3%	60.9%	63.9%	65.1%
Richest 10%	71.4%	74.4%	75.0%	77.1%
Difference Between Richest 1% and Richest 5%	26.8%	26.8%	28.4%	26.6%
Difference Between Richest 5% and Richest 10%	11.1%	13.5%	11.1%	12.0%

Source: Calculated from 2007–2016 Surveys of Consumer Finances

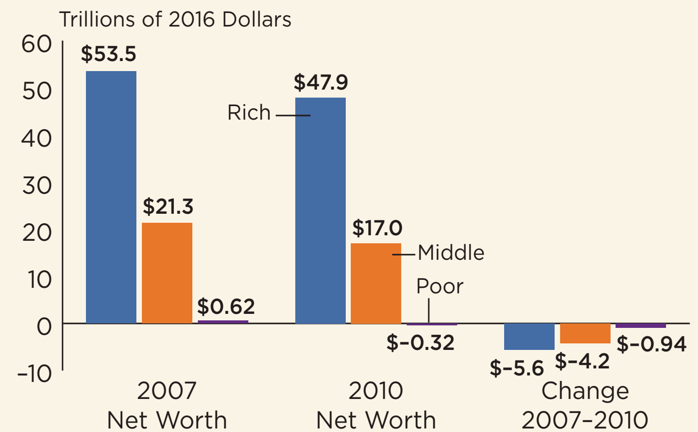
The main limitations of concentration ratios are twofold. If wealth is increasing over time for the society as a whole, the *amount* of wealth belonging to any particular group or to all groups may be increasing — "a rising tide raises all boats," in President Kennedy's famous statement — while the share for any or all groups within the society may not change. Changes in the share of total income or net worth held by "the wealthy" necessarily correspond to changes in the opposite direction for the rest of the population, but not necessarily for any particular subset of that population; for example an increase in the share of "the wealthy" may be offset by an decrease in the share of "the poor," or alternatively the share of "the middle class." Conversely changes may occur between these groups without any changes for the share held by the rich. Nor is there anything inherently significant in any particular concentration ratio: the highest one percent, five percent, ten percent, or any other share.

During the 15 years before the Great Recession, for example — between 1992 and 2007 — the rich got richer but the poor did not get poorer. In 1992, the total real wealth for the lower half of U.S. families was about $860 billion; in 2007, their total real wealth was about $1.6 trillion (both measured in 2007 dollars). Per household, their average wealth increased from $18,000 to $28,000. But while their total wealth almost doubled, their share did not increase. They held 3.3 percent of total net worth in 1992, compared to 2.5 percent in 2007.[16]

The SCF provides information about all households, not only about the wealthy. It can therefore be used to measure the total amount of wealth and the average wealth for all households, and also the shares held by particular groups.

Table 4 reports the changes in the overall distribution of wealth and in the share held by the richest households since the start of the Great Recession, by several criteria: the richest one percent, the richest five percent, and the richest 10 percent, and also for the households between these cutoffs: between one percent and five percent, and between five percent and 10 percent. The concentration ratios increased from each survey to the next for all three measures of concentration. The changes in the shares do not follow the same patterns between the surveys, however, and as a result the differences shown in the last two lines fluctuate in a narrow range between 2007 and 2016, and are generally similar from one survey to the next.

Figure 6. **2007–2010 Changes in Total Wealth by Group**



Source: Calculated from 2007 and 2010 Surveys of Consumer Finances

Because the 2007 SCF happened to coincide with the cyclical peak that occurred in December and it became clear during 2008 and early 2009 that the economy had turned an unusually sharp corner, the Federal Reserve conducted a follow-up survey of the households that had been interviewed in 2007. In a report on the changes between 2007 and 2009, Federal Reserve analyst Arthur Kennickell noted that "the share of the wealthiest one percent of households has shown no significant change since 1995," in comparison to 2007; and added that between 2007 and 2009 the share of total wealth owned by the richest one percent of households had declined by four percentage points, from 33 percent of total wealth to 29 percent (Kennickell 2012, pp.

16. Kennickell (2009) reports the total wealth and the share of wealth for different groups from the richest one percent to the bottom half, in Figures A3a (for 2007) and A3f (for 1992).

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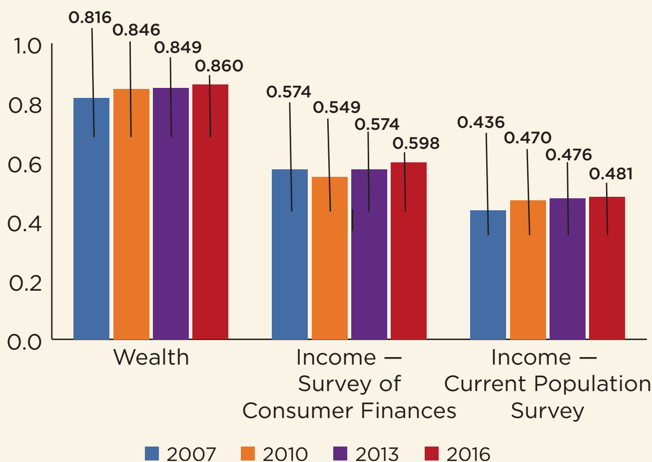
13–15).[17] When the 2010 SCF was completed and the data published, however, it was clear that the pattern over the full three years between surveys had changed in a different manner. As shown in Figure 6, the rich had indeed become poorer, but so had the poor and the people in between. The rich had been less affected, however. The top 10 percent had lost a smaller share of their 2007 wealth than the remainder of the population — between 10 and 11 percent of their net worth, $5.6 trillion out of $53.5 trillion. The remaining 90 percent of households lost about 23 percent of their net worth, $5.1 trillion out of $21.4 trillion. Indeed, the remaining 90 percent had lost not just a larger share of their net worth than the richest 10 percent, but almost the same *amount.* Further, the shares of wealth owned by the richest one percent, five percent, and ten percent all continued to rise during both the downturn at the start of the Great Recession and the subsequent weak recovery.

WEALTH INEQUALITY AND INCOME INEQUALITY

Traditionally, much more attention has been given to the distribution of income than to the distribution of wealth. The SCF has income data for the households in the survey, as well as net worth. The data do not follow similar patterns, either for all of the surveys since 1989 or for the surveys since the start of the Great Recession. As Table 4 and Figure 7 show, the distribution of wealth became increasingly more unequal from 2007 to 2016, with a particularly large change between 2007 and 2010. During those same three years, the distribution of income became more equal. The distribution of wealth did not significantly change between 2010 and 2013, while the distribution of income became more unequal; the Gini Coefficient for income was the same in 2007 and 2013. Both wealth and income became more unequally distributed between 2013 and 2016.

Figure 7. Gini Coefficient for Wealth and Income, 2007–2016



Source: Calculated from 2007-2016 Surveys of Consumer Finances and Current Population Surveys

There is other information on the distribution of income from the Current Population Survey (CPS), conducted annually by the Census Bureau. The CPS reports Gini coefficients for each year dating back to 1947. These data show a steady reduction in income inequality from 1947 to 1967, but a steady increase since then. Since 2007, and in fact since 1989, the SCF consistently reports a more unequal distribution of income than does the CPS. There are some technical differences between the surveys which contribute to this difference. The SCF definition of income includes realized capital gains, such as from sales of stockholdings, while the CPS does not. There are also recurring changes in the CPS sample design, particularly after each decennial census.

Both the SCF and CPS measures of income inequality are much lower than the SCF's measure of wealth inequality. The most important reason for these differences is that wealth and income have different relationships with age. Figure 8 shows these relationships for each survey from 2007 to 2016. The data are organized on the basis of three-year cohorts, to match the three-year interval between surveys. This introduces some fluctuations between cohorts, especially for net worth, but simplifies the discussion.

Young adults typically start their working lives with entry-level positions and entry-level incomes, and the net worth for most consists largely of their cars and their checking accounts, perhaps offset by student loans, car loans, and other installment debt. As they gain experience, both income and wealth typically increase, with wealth increasing more rapidly and over a longer period. Median incomes tend to peak for households with the age of the head between the late 40s and late 50s, median wealth for households whose head is about 10 years older, though some continue to add to their wealth past the traditional retirement age. The data also show the impact of the Great Recession, particularly between 2007 and 2010. Median income in 2007 peaked at about $85,000, for the 57–59 age cohort; after the downturn, it peaked at about $5,000 to $15,000 less in each survey, and the 48–50 age cohort had the highest income in each case. Similarly, median wealth peaked at about $360,000 in 2007 for the 57–59 age cohort; then during the Great Recession it peaked in the range of $250,000 to $275,000 in each of the subsequent three surveys, at an older age. The peak in net worth was consistently around four times the peak in income.

17. Arthur B. Kennickell, "Tossed and Turned: Wealth Dynamics of U.S. Households 2007-2009, *FEDS Finance and Economics Discussion Series,* No. 2011-51 (May 2012), pp. 13-15, http://www.federalreserve.gov/pubs/feds/2011/201151/201151pap.pdf. The paper was written in 2011, before the 2010 SCF data had been processed and analyzed. The decision to conduct the 2009 follow up survey was announced at a presentation by the Federal Reserve analysts at a meeting of the National Economists Club in Washington, DC, early in 2009.

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Figure 8 indicates a very strong relationship between the age of the household head and the wealth of the household during nearly a decade. In 2007, for example, after six years of economic expansion, the least wealthy group consisted largely of young households. For over half of this group, the heads of households (56 percent) were under the age of 40; over 30 percent were under the age of 30. By contrast, the heads of only 22 percent of the middle-wealth families were under the age of 40, and only six percent were under the age of 30. Among the wealthiest group, fewer than seven percent were under the age of 40 and fewer than one percent were under the age of 30. Looked at in terms of age, over half of households with the head younger than 40 were poor; over 40 percent were in the middle-wealth group, and less than seven percent were in the rich category. Over two thirds of those with the head younger than 30 were poor, and nearly all the rest were in the middle. Fewer than one percent were rich. This pattern holds for not just for the surveys since 2007, but also for the earlier surveys back to 1983, and suggests that for many households, being in the lowest wealth category is a temporary situation during their 20s and 30s.

Figure 8 also provides additional evidence for the current concern about the distribution of wealth. We have had much more information over a much longer period about the distribution of income, and perhaps have gotten used to what the data show. The measures of inequality change slowly, and to some extent change because the data collection procedures change over time, for good reason.

Figure 8a. **Median Net Wealth and Income by Age, 2007**

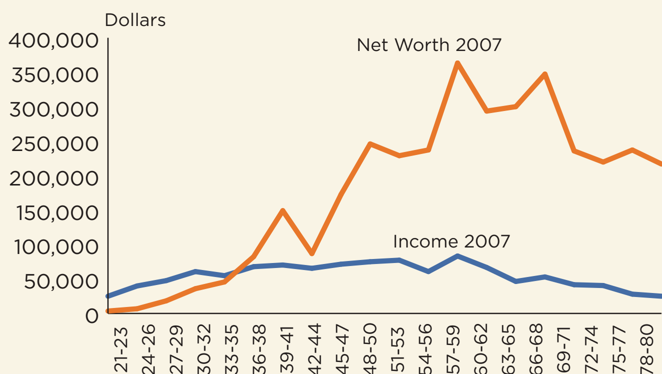


Figure 8b. **Median Net Wealth and Income by Age, 2010**

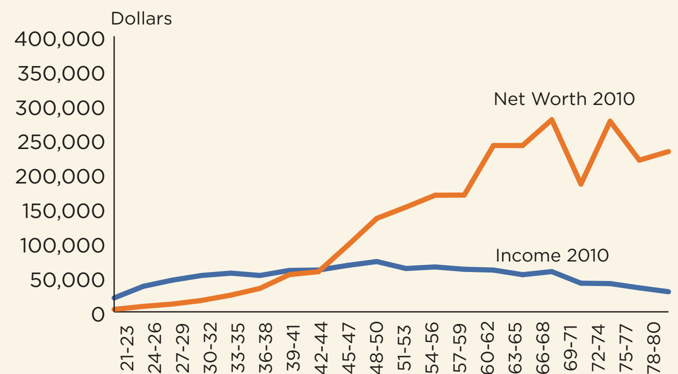


Figure 8c. **Median Net Wealth and Income by Age, 2013**

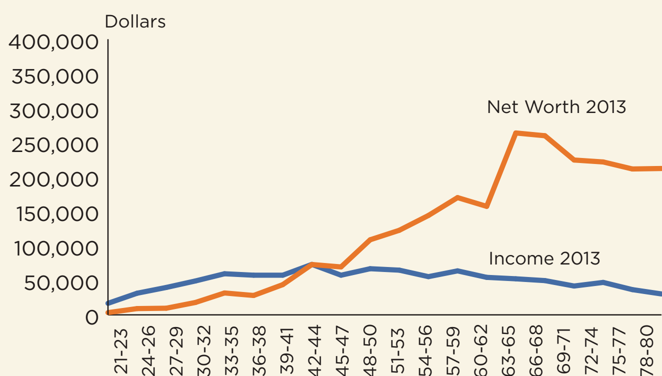
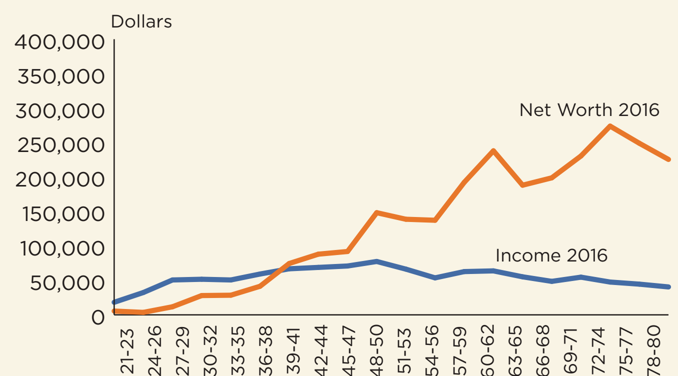


Figure 8d. **Median Net Wealth and Income by Age, 2016**



Source: Calculated from 2007–2016 Surveys of Consumer Finances

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Leading Up to the Great Recession

The 15 years before 2007 were generally prosperous. As shown in Table 5, the total net worth of American households more than doubled, in real terms. Nominal net worth nearly quadrupled. Mean family net worth doubled, and median net worth — the net worth of the family in the exact middle of the distribution — increased by two-thirds. Net worth increased at an annual rate of about six percent.

Table 5. Total and Average Wealth of American Families, 1992–2016

Survey Year	Total Wealth (Nominal Dollars, Trillions)	Total Wealth (2016 Dollars, Trillions)	Mean Family Wealth (2016 Dollars)	Median Family Wealth (2016 Dollars)
1992	$17.9	$30.1	$314,000	$83,400
1995	$21.1	$33.0	$334,000	$90,500
1998	$29.0	$42.9	$418,000	$105,800
2001	$42.3	$57.4	$539,000	$117,500
2004	$50.2	$64.0	$572,000	$118,400
2007	$64.5	$74.9	$645,000	$140,100
2010	$58.5	$64.3	$547,000	$85,100
2013	$64.7	$66.8	$545,000	$83,900
2016	$86.9	$86.9	$689,000	$97,300

Source: Calculated from 2007–2016 Surveys of Consumer Finances

The difference between the growth in mean and median net worth suggests that the distribution of wealth became more unequal during this period, and that is correct. But it is also clear that net worth increased for both rich and poor households from one survey to the next. For the less wealthy half of the population, their share of net worth declined from 3.3 percent to 2.5 percent between 1992 and 2007 at the same time that their total wealth nearly doubled, in real terms. In addition, the changes were gradual; while the distribution became more unequal between successive surveys, the difference in the Gini coefficients between surveys was not statistically significant (Kennickell, 2009).

After 2007, the change was dramatic. There were sharp drops in total wealth, average wealth, and especially median household wealth, and there was not an immediate recovery. There had been rapid recoveries after the two previous recessions of 1990–1991 and 2001, both of which lasted only eight months. The recession of 2007–2009 lasted 18 months, from December 2007 to June 2009, and the recovery was not rapid — the major reason why the period since the end of 2007 became known as the Great Recession, without much precision in public discussion as to when the Great Recession actually ended.

Housing was an especially important factor in the downturn. After rising by about 1.3 percent per annum since 1991, real house prices peaked in April 2007, as measured by the Federal Housing Finance Agency's repeat sales index (see Figure 9). In addition, housing vacancy rates, for both owner and rental housing, had been rising for several years. As shown in Figure 10, from 2000 to 2004, the vacancy rate in the owner stock (occupied and vacant for sale only) was a reasonably normal 1.7 percent. In 2007, it was 2.7 percent. The crisis in American housing and related financial markets had already started in February when HSBC and New Century reported unexpectedly large losses on their portfolios of subprime mortgages, or securities backed by subprime mortgages. These were the subjects of front-page stories in the *Wall Street Journal* on consecutive days

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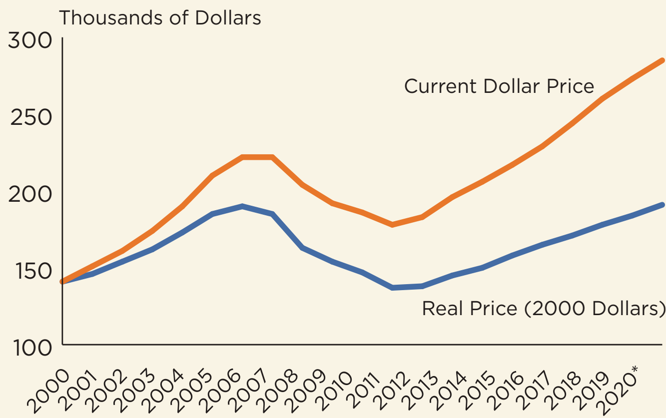
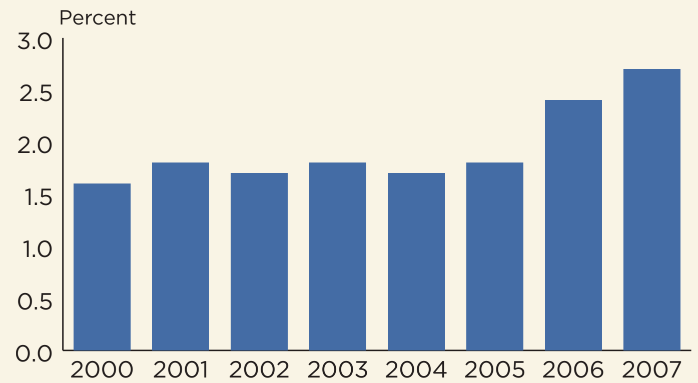
Figure 9. **Nominal and Real House Prices, 2000–2020**



* First quarter of 2020 only
Source: FHFA

Figure 10. **Vacancies in the Owner Stock, 2000–2007**



Source: U.S. Census Bureau

(Mollenkamp, 2007). From that point, subprime mortgage problems were regularly in the news. By the end of 2006, lenders had already begun to tighten their standards for subprime loans, and the financial regulators had begun to issue guidance to financial institutions on subprime mortgages, which continued through the first half of 2007. The subprime market began to shrivel.

The financial regulators issued guidance to financial institutions on subprime mortgages between October 2006 and June 2007 (Board of Governors of the Federal Reserve System 2006; Board of Governors of the Federal Reserve System 2007). The earlier guidance urged institutions to recognize that non-traditional mortgages are "untested in a stressed environment," and that they required strong risk management and capital standards and loss reserves commensurate with the risk. The later guidance expressed concern about the "heightened risks" to lenders as well as borrowers from subprime ARMs with teaser rates such as 2/28 and 3/27 loans, loans with very high or no payment or rate caps, low-doc and no-doc loans, and loans with substantial prepayment penalties, and stated that institutions should develop strong control systems in order to manage the risks.

The guidance also applied to Fannie Mae and Freddie Mac, but with a lag. Their regulator, the Office of Federal Housing Enterprise Oversight, notified them beginning in December 2006 that they were required to comply with the guidance on non-traditional mortgage product risks, but the GSEs did not agree to comply until July 2007, and even then indicated that they would continue to buy non-traditional mortgages until September 2007. Subprime mortgage lending continued for most of the year (Weicher, 2010).

In human terms, the weakening economy meant that some families were unable to make the monthly payments on their subprime mortgage, and it was unlikely they had built up much equity in their recently purchased home. As they defaulted, the lenders foreclosed, and the families lost their homes. In August 2007, the federal government began working with private lenders to help these families stay in their homes, in two ways: enabling homeowners to refinance their subprime loan into a mortgage insured by the Federal Housing Administration and carrying more favorable terms; and encouraging lenders to engage in "loss mitigation" — modifying the payments on the mortgage for a period of time, or modifying the loan itself so that the homeowner owes a smaller amount or has a lower interest rate. A common and somewhat counterproductive theme in these efforts was to make sure that only the "deserving" received assistance — those who were trying to make their mortgage payments but had run into problems beyond their control, as opposed to those who never had any particular intention to make the payments on their mortgage. Differentiating homeowners on this basis, especially a few years after they bought their homes, would not have been easy.

THE 2007 SURVEY AND THE 2009 RESURVEY

At the cyclical peak in late 2007, Americans were richer than they had been since at least 1983, and probably since 1776. The timing of the SCF was fortuitous. During 2008, however, it gradually became evident that the economy was entering a recession, even though the National Bureau of Economic Research — the private but official arbiter of cyclical economic peaks and troughs — had not declared one. Meanwhile, the Federal Reserve economists were analyzing the data that had been collected during the last half of 2007 and the first months of 2008, and writing a detailed report about household wealth as of 2007 and the changes since the previous survey in 2004. The report was published in the *Federal Reserve Bulletin* in February of 2009 (Bucks, et al., 2009); nearly all surveys since 1989 had been published at the beginning of the second year after the year of the survey — not unreasonable, given the

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large number of interviews and the detail of the data collected. The NBER's Business Cycle Dating Committee had dated the cyclical peak as December of 2007 (National Bureau of Economic Research, 2009); the determination had been announced in December of 2008, following the Committee's standard practice of waiting until sufficient data were available to be confident that a cyclical turning point had occurred, and when it had occurred (National Bureau of Economic Research, n.d.).[18]

At a presentation of the results to a meeting of the National Economists Club in Washington, D.C. around the time of publication, the Federal Reserve analysts announced that they were about to undertake a re-interview of the respondents to the 2007 survey, to see what had happened during the year since the survey was completed. This was unprecedented, although the cyclical trough of November 2001 had occurred close to the completion of data collection for the 2001 survey. The re-interviews began in July of 2009 and were completed in January 2010; the cyclical trough had occurred in June 2009, and the recovery process was not unusually strong, so most households were at or close to the bottom of the recession when they were interviewed. Almost 89 percent of the participants in the 2007 survey were re-interviewed.[19] Considering that for some households both the original respondent and the spouse or partner were deceased or living outside the U.S. by 2009, this was a major achievement.

During the Great Recession, the national homeownership rate declined from a peak of 69 percent to 67.3 percent at the trough in mid-2009, and house prices fell at a five percent annual rate, as shown in Figure 9. While this was happening, households tended to respond passively to changes in asset prices, rather than actively rearranging their portfolios, based on the evidence of the 2009 resurvey. This was certainly a reasonable decision for homeowners, if they had any expectation that house prices might begin to rise in the near future. Unfortunately, such expectations were not borne out. By 2011, house prices had fallen to their 2000 level and slightly farther, in real terms.

THE POOR IN 2007

In 2007, the total wealth of American households had been rising for 15 years and was almost two and a half times as much as it had been in 1992, totaling about $75 trillion (measured in 2016 dollars). Mean household wealth had doubled over that period (the differences between the rates of increase were due to the 20 percent increase in the number of households) and was about $645,000. Median household wealth had risen by about two-thirds.

The poorest 30 percent in 2007 consisted of almost 35 million households, whose total net worth amounted to $62 billion — an average of slightly under $1,800 per household. Their share of total household net worth was less than 0.1 percent. This is certainly low, perhaps surprisingly so, but it is worth remembering that the upper wealth limit for the poorest households was about $31,000. In addition, just over one-quarter of these poor households had a negative net worth, amounting to $184 billion in the aggregate, an average of slightly over $20,000. Another six percent reported a net worth of zero. Altogether, over 32 percent had nothing, or less. Households with negative net worth were over $20,000 in debt, on average; the poorest was about $550,000 in debt. Households with positive net worth averaged about $10,000 to the good. The total assets of these 35 million households amounted to just under $1.3 trillion, and their total liabilities to a little less than $1.24 trillion. Most of these households had little in the way of either assets or liabilities, but not all. Over ten percent had more than $100,000 in assets, but also had almost as much, or more, in the way of liabilities.

It is also worth keeping in mind that low wealth households do not necessarily have low incomes. The mean income of these low wealth households was about $36,000, and the median income was about $30,000. Over three percent reported incomes above $100,000; the highest was about $240,000.

For most, their assets consisted mainly of transaction accounts (78 percent, nearly all of whom had checking accounts) and vehicles (73 percent, nearly all of them being cars). Their other significant assets were retirement accounts (24 percent) and their homes (19 percent); no other asset was held by as many as five percent of all poor households. (Fewer than 1.5 percent owned some residential real estate, either a second home or small rental property, and about one percent owned some non-residential real estate.)

Their most important asset was their car. The SCF relies on the Kelly Blue Book value rather than the owner's estimate as the measure of market value. The total Blue Book market value was $325 billion and the loans on their cars amounted to $153 billion — a net contribution to the wealth of these poor households of $172 billion, almost three times their total net worth. Only five percent owed more than their cars were worth.

While only nineteen percent of these households were homeowners, their homes were the most important asset and the most important liability — by far — for poor households as a group. The value of their homes, as reported by the

18. National Bureau of Economic Research, "Determination of the December 2007 Peak in Economic Activity," issued December 1, 2007, available at https://www.nber.org/cycles/recessions.html; National Bureau of Economic Research, "The NBER's Business Cycle Dating Procedure," available at https://www.nber.org/cycles/recessions.html (both accessed June 24, 2020).

19. Arthur B. Kennickell, "Try, Try Again: Response and Nonresponse in the 2009 SCF Panel," *Proceedings of the Section on Survey Research Methods,* American Statistical Association, available at https://www.federalreserve.gov/econresdata/scf/files/ASA2010final.pdf.

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owners, amounted to $750 billion, about 58 percent of the total value of their assets; the combined balances on their mortgages and home equity lines of credit totaled $669 billion, about 54 percent of their debts. On average, their home value was about $114,000, they owed about $102,000, and the equity in their home was about $12,000 — about 11 percent of the value. About 10 percent were underwater. For those reporting that their home was worth more than they owed, their equity was about 13 percent of the value.

Transaction accounts were their third most important asset, amounting to $69 billion. Each of these three assets accounted for more than the total net worth of the group.

On the other side of their balance sheets, substantial fractions of poor households had substantial debts. Over 14 million (41 percent) had outstanding balances on credit cards; 11 million (32 percent) owed money on their cars or other vehicles; eight million (23 percent) had student loans; five million (16 percent) had other installment loans.

In dollars, their mortgages were their largest liability, accounting for more than half of their debts, even though fewer than one-fifth owned a home. Their second most important liability was the outstanding balance on their student loans ($196 billion); the third was the $172 billion balance on their car loans. Other large categories of debt were the balances on their credit cards ($94 billion) and their other installment loans ($78 billion).

Demographically, the poorest 30 percent were not well positioned to be wealthy, in a number of respects. They were young and had not yet had the time to build their assets; the median age among household heads was 37. More than one-third of these young low-wealth households had student loans outstanding, with an average balance over $26,000. Forty percent had attended college, of whom one-third had graduated and one-tenth had advanced degrees; another third had completed high school. Almost half were members of minority groups (48 percent).

THE RICH IN 2007

At the other end of the distribution are the rich — the top ten percent of the wealth distribution. In 2007, these households had $53.5 trillion in net worth, about 71 percent of the total $74.9 trillion wealth owned by American households. On average, their net worth was about $4.6 million. The lower limit to qualify for this classification of "rich" was $1.055 million. The richest household had almost $1.7 billion; this was the only interviewed household with net worth above the $1.3 billion minimum to qualify for the Forbes 400.

The distribution of wealth within the richest 10 percent was itself concentrated among the very rich. The richest one percent of American households had a total net worth of about $25 trillion (47 percent of the total for the top 10 percent); the richest five percent, about $45 trillion (82 percent). These households had diverse portfolios, but most of their wealth consisted of investments in businesses: either businesses which they personally owned, with a total value of $16 trillion for the rich as a whole (31 percent of their net worth), of which they actively managed $14 trillion, or stock in publicly traded companies, either directly or in the account categories described previously, amounting to $12.7 trillion (24 percent), Including non-residential real estate as a business adds $2.5 trillion (three percent) for a total of $31.2 trillion, almost 60 percent of their wealth. This concentration in business and stock ownership is stronger for the richest five percent of all households; their business investments amounted to 62 percent of their net worth, a larger share than for the richest 10 percent because of the greater importance of privately-owned business in their portfolios. The concentration was still greater for the richest one percent, for the same reason: privately-owned business was 43 percent of their net worth. One might distinguish between the richest two percent of all households and the remainder of the richest ten percent, on the basis of their concentration on privately-owned business: publicly-traded stock is more important and business ownership less so for the remainder of the households in the richest 10 percent.

Among the rich as a whole, their homes were also a significant part of their wealth. About 97 percent of rich households owned their homes, which had a total value of $10.7 trillion with outstanding mortgage debt of $2.4 trillion and total home equity of $8.3 trillion (16 percent of their net worth). Their mortgage debt represented two-thirds of their liabilities as reported in the SCF, but as mentioned the reported liabilities exclude debt on their businesses and their nonresidential real estate; the values of these assets are reported net of liabilities. The average home value was about $950,000, and the average equity in their homes slightly less than $750,000. One-half of one percent of these rich homeowners reported themselves as being underwater on their homes, by an average of $250,000.

Retirement accounts were an important financial asset for the rich, and an important way to hold publicly traded stocks. Some 85 percent of rich households had retirement accounts, more than any other financial asset except transaction accounts, with a total value of over $6 trillion and an average holding of $630,000. (These figures include both publicly traded stocks and other assets within their retirement accounts. Stockholdings were about 60 percent of the total value of retirement accounts.) The total amount in retirement accounts is larger than for any other type of account in which publicly traded stocks are held, but the average holding of those households with retirement accounts is smaller. About 42 percent owned mutual funds, with a total value of over $4 trillion and an average of $850,000, and 21 percent held other managed accounts such as trusts or annuities, totaling $1.5 trillion with an average holding of $640,000. Over half owned stocks directly,

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with a total value of $4.8 trillion and an average amount of under $800,000. The total holdings (publicly traded stocks and other assets) in these four categories were about $16.3 trillion, of which $12.7 trillion were the holdings of publicly traded stocks mentioned previously.

The demographic characteristics of the rich and the poor differ sharply. The median age of the rich was 58, two decades older; only seven percent were younger than 40. Eighty-seven percent were white, compared to 52 percent. About one-third (32 percent) were college graduates; a slightly larger share (37 percent) was split about evenly between those with M.A. degrees and those with Ph.D.'s or professional degrees. Nearly all (97 percent) had completed high school.

MIDDLE-WEALTH HOUSEHOLDS IN 2007

Between the richest 10 percent with their businesses and their stocks and the poorest 30 percent with their cars and their checking accounts is the large group of middle-wealth families with their homes and their retirement accounts. Their net worth amounted to over $21 trillion, consisting of a little less than $30 trillion in assets and a little more than $8 trillion in liabilities. This was 28.5 percent of the total wealth of American households in 2007. Their net worth was between $31,000 and $1.055 million — a very broad range. Their average net worth was $306,000; their median net worth was $229,000.

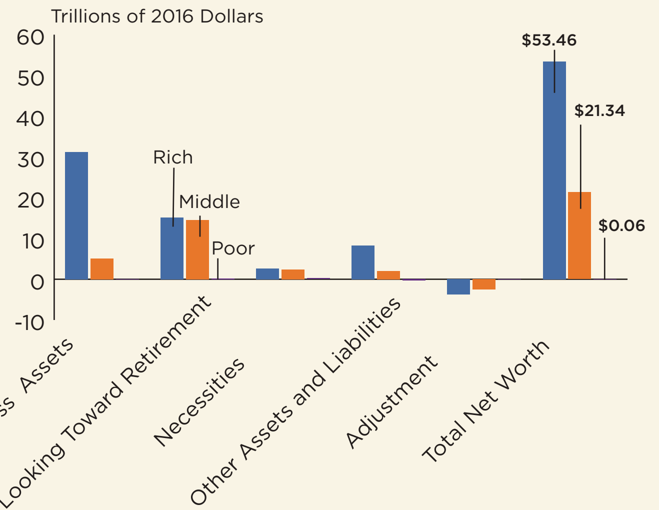
The most important asset of these households, and the asset they most commonly owned after transaction accounts and vehicles, was their home. Almost 90 percent were homeowners. Their equity in their homes was $9.7 trillion, almost half (46 percent) of their net worth. The value of their homes was $16.4 trillion, over half of their assets, and their mortgages amounted to $6.7 trillion, about 80 percent of their liabilities reported in the SCF. On average, these homeowners had equity of $157,000 in their homes. Very few were under water: 0.3 percent, less than the 1.3 percent among rich homeowners.

Their next most important asset was their retirement account. About 62 percent had IRAs or other accounts, with a total value of $3.8 trillion (over 18 percent of their total net worth and an average balance of $90,000). In addition, 27 percent owned whole life insurance, with a total cash value of about $42.5 billion, accounting for another two percent of their total net worth.

These three assets amounted to 66 percent of their wealth.

About 13 percent had privately-owned businesses, with a total net worth of about $1 trillion (five percent of their net worth), and an average value of about $120,000. Fewer than nine percent owned some nonresidential real estate, worth $600 billion (less than three percent) and having an average value of about $100,000. About 14 percent had a second home or a small rental property.

Figure 11. 2007 Portfolios of Household Wealth



Source: Calculated from 2007 Survey of Consumer Finances

Clearly, the portfolios of these three groups are very different, in broad terms. The middle-wealth families appear to be people who are building wealth with a view toward a comfortable retirement, probably in combination with Social Security and employer pensions. They do not appear to be future captains of industry. They have two-thirds of their portfolio in assets that are looking toward retirement, and one-quarter in business investments, although this may overstate the importance of business: half of their business assets are stockholdings in retirement accounts. Another ten percent consists of vehicles and transaction accounts, assets which are necessities of daily living for most households.

The richest households have almost the opposite portfolios: close to 60 percent is invested in businesses, and over one-quarter could be classified as looking toward retirement, with a smaller overlap. Their vehicles and transaction accounts were not much larger than the vehicles and transaction accounts of the middle-wealth households, about $2.5 trillion for both. For the poor, these are not merely necessities; they are the most important assets, with a total value four times the net worth of the poor households. Not many have homes or retirement accounts, and very few hold stock or own businesses. The differences between these groups are highlighted in Figure 11.[20]

Among all households in 2007, home equity amounted to $18.4 trillion, just under one quarter of their total net worth.

20. While the dollar values for the poor appear invisible in the categories of household wealth in Figure 11, they are included in the chart. However, as described in the text, they are relatively small, and are thus not easily visible. This is also the case for Figures 12–16.

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Over two-thirds of American families (68 percent) were homeowners. Considering that the richest households were heavily invested in stocks and privately-owned businesses, and the poorest households had very little wealth in any form and fewer than 20 percent owned a home, the overall importance of homeownership in 2007 was impressive.

The middle-wealth families were also families in the middle, demographically. The median age of the heads of these households was 51. Twenty percent were college graduates, and an additional ten percent had advanced degrees; 14 percent had not graduated from high school. Over 75 percent were white. A majority — 63 percent — were married, and a majority of those who were married — 54 percent — had children living at home.

In each case, these families were between the rich and the poor. Richer families were likely to be older and to have more education, and more likely to be headed by white adults, single or married. Richer families were also more likely to be married couples, although they were less likely to have children living at home. This was at least partly related to the fact that they were older.

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From 2007 to 2010: The Downturn and the Slow Start toward Recovery

Although the economy reached a trough in mid-2009, net worth continued to decline through the first eighteen months of recovery. From 2007 to 2010, total real wealth dropped by $10.5 trillion, 14 percent, completely offsetting the entire increase that had occurred between 2004 and 2007. Mean household wealth fell by slightly more than 15 percent (the difference between total and mean wealth occurring because there were about one million more households in the country by 2010). There was, however, a much steeper decline in median wealth — the wealth of the household in the middle of the distribution — amounting to 40 percent, from $140,000 in 2007 to $85,000 in 2010. The decline in median net worth was strongly influenced by a decline of $31,000 in the median home value, which was the largest for any asset category in the SCF. These changes certainly contributed to the decline in net worth, which averaged 19 percent as measured in the SCF, and was 23 percent for the household in the middle of the wealth distribution.

THE NEGATIVE NET WORTH OF THE POOR

The impact was most startling among the poor. Whereas their share of total wealth in 2007 was a mere 0.1 percent, in 2010 their wealth as a group was negative. Their assets amounted to $1.7 trillion, their debts to over $2 trillion; they owed $322 billion more than they owned. On average, they were $9,000 in debt. In 2007, almost a quarter of the poor (23 percent) had negative net worth; by 2010, that figure had risen to 37 percent, and another six percent had a net worth of zero. In the aggregate, almost 45 percent of the poor had no net worth, or less than that. The median net worth of the poor households was $773 in 2010; the richest was worth $16,000, compared to $31,000 in 2007.

A substantial part of the decline was the result of the continuing fall in home prices. The Federal Housing Finance Agency's Housing Price Index had dropped by 13 percent between the economic peak at the end of 2007 and the trough in mid-2009; by the last half of 2010, as the SCF interviews were being conducted, it had dropped by a total of 20 percent. In 2007, about 500,000 of the 6.6 million poor homeowners (eight percent) were underwater; their mortgages exceeded their equity in their homes. Three quarters of the other 6.1 million at least believed their homes were worth more than their mortgages; 1.5 million owned their homes free and clear. But in 2010, just under half of all poor homeowners (49.4 percent) had any equity in their homes. Almost as many (47.3 percent) were underwater, and the remaining 3.3 percent reported that they had zero equity. As a group, they owed $97 billion more than they believed their homes were worth. In 2007, their estimated total home value was $750 billion, and their outstanding mortgage balances and home equity lines of credit were $669 billion; their home equity amounted to a positive $81 billion.

This contrasts with their cars, which remained their most important asset. Slightly fewer owned a car, but for 97 percent of owners the Blue Book value of their cars was

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above the balance on their car loans, and their cars were worth $7,000 more than their outstanding loans, on average. Their cars had a total value of just over $300 billion (17 percent of their total assets), and they owed $110 billion (between five and six percent of their liabilities). In 2007, their cars were worth $325 billion, and their loan balances were $153 billion. On balance, cars contributed $190 billion to their net worth in 2010, a slight improvement from the $172 billion in 2007.

In other respects, poor households were worse off. As in 2007, transaction accounts were the most commonly held asset, owned by 80 percent of the poor, with a total value of $63 billion ($7 billion less than in 2007) and an average balance over $2,000 (about $500 less). In 2010, about 21 percent had retirement accounts with total holdings of $60 billion and an average of $8,200, compared to 24 percent who had retirement accounts in 2007, with total holdings of $76 billion and an average balance of $9,000.

Their debts in 2010 totaled more than $2 trillion, compared to about $1.25 trillion three years earlier. Their mortgage balances in 2010 were about as much as their combined liabilities in 2007. Student loans constituted their second largest debt, and a growing one. Almost 11 million poor households had student loans in 2010, about three million more than three years earlier, and their total student debt was now $389 billion, about twice as much as in 2007. Changes in the other major debt categories were much smaller, and not all were negative. Car loans were about 28 percent less in the aggregate than in 2007, and credit card balances about five percent. Car loans and other installment loans were both about $110 million; credit card balances about $89 billion. For the poor as a whole, the most important changes between 2007 and 2010 were the sharp drop in their home equity and the very large increase in their student loans.

Demographically, the poorest 30 percent in 2010 were generally similar to the poorest 30 percent in 2007, with the exception that the proportion who had not completed high school declined from 27 percent to 23 percent, and the proportions who had either attended or completed college increased to a corresponding extent. The median age was the same, which implies that some of those who were poor in 2007 had moved at least into the middle-wealth category, and some who were poor in 2010 had not been heads of households in 2007. This is consistent with the pattern indicated in Figure 8.

THE RICH BETWEEN 2007 AND 2010

The Great Recession affected the rich as well as the poor, but the rich were less affected. Stocks were a large share of their net worth, but unlike house prices the stock market had regained part of the loss it had incurred from late 2007 to mid-2009 during the second half of the period between the two surveys. The Dow Jones Industrial Average, for example, lost about 40 percent of its value during the downturn, but recouped almost half of that loss by the end of 2010. The continuing decline in house prices certainly affected the net worth of rich households but did not have the same importance for them as it did for the poor.

The rich households incurred about half of the total loss in wealth during those three years, but they started with more than two-thirds, and their share of the total wealth of American households increased from 71 percent in 2007 to 74 percent in 2010. Their average net worth declined from $4.6 million to $4.1 million. The least wealthy household to qualify as rich had almost exactly the same wealth in both years (down $3,000 in the three years), and the richest household to be included in the SCF was worth about $1.2 billion. The lower bound to qualify for the Fortune 400 was $1 billion, $300 million less than in 2007 but about $50 million more than in 2009 (Kroll, 2010). Only two of the households included in the SCF had a net worth above the Forbes 400 cutoff.

The richest one percent of all households in 2010 had total net worth of about $22 trillion, about 34 percent of the national total, and about the same share as in 2007 (33.4 percent). As in 2007, most of the wealth of the rich households consisted of investments in businesses which they personally owned, with a total value of $12 trillion (25 percent of their total net worth), and in most instances actively managed ($10 trillion), or in the stock of publicly traded companies, either directly or in the account categories described previously, amounting to $10.9 trillion (23 percent). Both figures were lower than in 2007: they owned $4 trillion less in closely held businesses and almost $2 trillion less in stocks owned either directly or as part of portfolios in accounts that fall into other SCF asset categories. While home prices had continued to drop since the cyclical trough in the summer of 2009, stock prices had begun to rise.

Including their holdings of non-residential real estate in the category of business adds $2.5 trillion (three percent) for a total of $31 trillion, almost 60 percent of their wealth. Non-residential real estate was one of the few asset categories with an increase in the holdings of rich households between 2007 and 2010.

Retirement accounts were the other major category with an increase. Some 88 percent of rich households had retirement accounts, more than for any other type of financial asset except transaction accounts, with a total value of $7.3 trillion — up $1.3 trillion from 2007 — and an average holding of $710,000, up from $630,000. At the same time, the value of directly owned stock declined by $1.2 trillion, and the average holding was $75,000, down 12 percent. In addition, ownership of mutual funds and managed assets such as trusts and annuities both declined modestly. Retirement accounts accounted for about $6 trillion of a total of

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$16.3 trillion in these four asset categories in 2007, and $7.3 trillion of a total of $16.4 trillion in 2010. The average retirement holding among rich households in 2010 was about $710,000, compared to $630,000 in 2007. The average in each of the other three categories was smaller in 2010 — by 30 percent, about $240,000, for stocks owned directly.

The housing situation of the rich was virtually the same in 2010 as in 2007, except that their homes were worth about 15 percent less. This almost exactly matched the 16 percent decline in the FHFA repeat-sales home price index over the same period. Their average home value was about $800,000, and the equity in their home was about $600,000; both were down about $150,000 from 2007. The total value of their homes was about $9.2 trillion, and their home equity about $6.8 trillion; both were down about $1.4 trillion. Their outstanding mortgage debt was $2.4 trillion, as it was in 2007, and it was also about two-thirds of their reported debts in both years. Their equity in 2010 represented about 14 percent of their net worth; in 2007 their equity was about 15 percent of their wealth. About 97 percent were owners in both years. More were underwater in 2010 — about 150,000 (1.3 percent), instead of about 60,000 (0.5 percent). The average deficiency was smaller, however, at $166,000 instead of $250,000.

The 2009 resurvey found a substantial minority of all households who were richer in 2009 than they had been in 2007, but the 2010 SCF found that those who were rich in 2010 were the same sort of people as those who had been rich in 2007, which was also true for the poor. The median age of the rich was 59 instead of 58, and 89 percent were white, up from 87 percent. The proportion with advanced degrees had increased, from 37 percent to 41 percent, while the proportion with bachelor's degrees had not changed.

THE FAMILIES IN THE MIDDLE

Middle-wealth households were also hurt during the Great Recession — not as much as the poor, but more than the rich. Their net worth amounted to $16.8 trillion, consisting of about $24 trillion in assets and a little more than $7 trillion in liabilities. Their net worth was down about 20 percent since 2007, and their share of total wealth was just over 26 percent, down from 28.5 percent. Their average net worth was $238,000, down about $68,000 (22 percent). Their median net worth was $153,000, down one-third from the $229,000 in 2007. Their net worth ranged from $16,000 to S1,052,000.

Their most important asset was still their home, but fewer were homeowners (85 percent, compared to just under 90 percent in 2007), and both the value of their homes and their equity in their homes were substantially less. The total value of their homes was about $12.5 trillion, down almost $4 trillion, and they owed $5.8 trillion on their mortgages or HELOCS, about 80 percent of their total liabilities as reported in the SCF. Their home equity was $6.7 trillion, down about $3 trillion in three years, and it constituted about 40 percent of their net worth, down from 46 percent. On average for all homeowners, including those with mortgages or HELOCS and those with neither, their homes were worth $209,000 in 2010, and their mortgages were $96,000. At $113,000, their equity in their homes had fallen by more than $40,000 since 2007. For the homeowners with mortgages and/or HELOCS (69 percent of all owners), their homes were worth $232,000 on average, but they owed $139,000; their equity was only about 40 percent of the value of their home. The best that could be said was that only four percent were underwater, and about 30 percent owned their homes free and clear.

Their next most important asset was their retirement account. About 59 percent had IRAs or other accounts, with a total value of $3.8 trillion and an average balance of $91,000. Both the total and the average were close to the values in 2007, but retirement assets amounted to a larger share of the total net worth for the families in the middle in 2010 than three years earlier (22 percent, compared to 18 percent). As had been true in 2007, far fewer held mutual funds or managed assets such as trusts, and far fewer owned stock directly. About 70 percent of the stockholdings of middle-wealth households were in retirement accounts. Only 15 percent owned stocks directly, and their holdings were only about 13 percent of the total stockholdings of these families. Annuities and trusts accounted for the remainder. Assets in these categories amounted to less than $1.5 trillion in total, and fewer than 25 percent of middle-wealth households owned any of them.

Home equity and retirement accounts together represented 62.6 percent of the net worth for this broad group of families in the middle. The cash value of whole life insurance policies again amounted to almost two percent of their total net worth. These households had less wealth in 2010 than in 2007, and a smaller share consisted of assets that could be considered as building toward a comfortable retirement (64.5 percent, down from 66 percent) but the sharp decline in home equity accounted for more than this smaller share. The equity in their homes was 40 percent of their net worth in 2010, down six percentage points from three years earlier; the value of their retirement accounts was 22 percent of their net worth in 2010, up four percentage points from three years earlier. They may have been trying to rebalance their portfolios in the face of a less promising outlook for their retirement. The decline in the share of their wealth devoted to assets that could support a comfortable retirement thus was about 1.5 percent, but this was driven by the fall in house prices and thus in home equity, which was not easy to offset by acquiring more of other retirement-oriented assets during the Great Recession.

Their ownership of businesses and commercial real estate was about the same as it had been in 2007, in terms of both the

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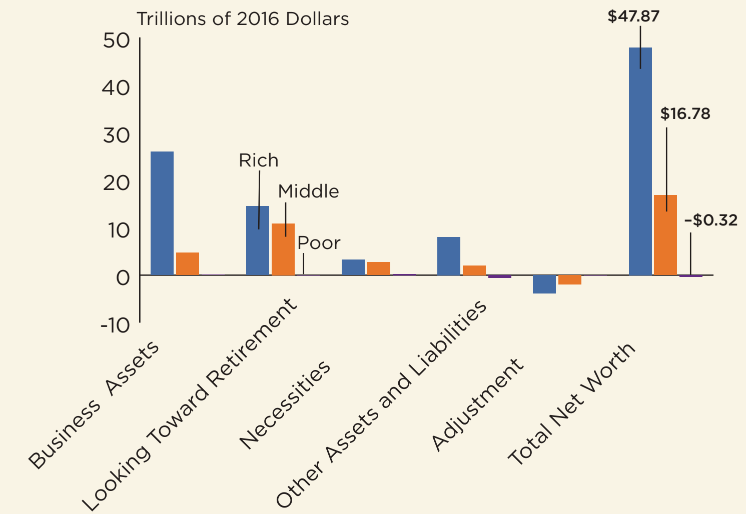
proportion who owned these assets and the average value of their holdings. About 9 million households (13 percent) owned businesses, with an average value of $117,000; about 5.3 million households (7.5 percent) owned commercial real estate, with an average value of $92,000.

They were again families in the middle, demographically. The median age of the heads of households was 52, one year older than in 2007; 70 percent were white; and there was virtually no change in their educational attainment. A majority — 65 percent — were married, and a majority of those households — 52 percent — had children living at home. As with the rich and the poor, these figures in 2010 were similar to the figures in 2007 for the middle-wealth families.

All three groups were hit hard by the Great Recession; the rich lost over $5 trillion, the middle-wealth households lost over $4 trillion, and the net worth of the poor disappeared. Both the rich and middle-wealth households were hit hardest in the largest component of their wealth. To the extent that middle-wealth households were building toward their retirement, they suffered a significant setback: $3.25 trillion of their loss was in their retirement account balances and their home equity. They were farther from being able to retire comfortably, and closer to retirement. The poor lost nearly all of their small stock of retirement assets. The rich were largely business owners and investors; they lost about 20 percent of those assets, and their business assets declined from 58 percent to 54 percent of their portfolios, despite the upturn in stock prices since mid-2009 and despite what might have been some diversification into commercial real estate. The poor suffered the biggest change in their indebtedness. For all three groups, the necessities — cars and transaction accounts — were least affected. The rich experienced a $700 billion increase in these assets, while the families in the middle and the poor had $330 billion and $14 billion less, respectively. Figure 12 shows the breakdowns for the portfolios of all three groups in 2010.

In percentage terms, both the rich and the families in the middle had smaller shares of their portfolios devoted to their most important categories of wealth. Over half the net worth of the rich was still devoted to business assets; not quite two-thirds of the net worth of the middle-wealth households was still devoted to retirement-oriented ownership of homes and retirement accounts.

Figure 12. 2010 Portfolios by Household Wealth



Source: Calculated from 2010 Survey of Consumer Finances

While all three groups suffered losses of net worth between 2007 and 2010, the losses were not equally distributed. Rich households lost 11 percent, on average; middle-wealth households lost 22 percent, on average; poor households lost more than 100 percent, on average – from a positive net worth of $1,800, to a negative net worth of about $775. In 2007, rich households had about 71 percent of total net worth; in 2010 they had about 74 percent. Middle-wealth households had the rest. The poor had 0.1 percent in 2007, less than zero in 2010. The net effect was an increase in inequality. The Gini coefficient rose by more than it had in any three years between surveys since the SCF began in 1983, and the difference was statistically significant for the first time. Wealth was more concentrated among the rich (whether measured as the richest one percent, five percent or 10 percent of the population) than in any previous survey.

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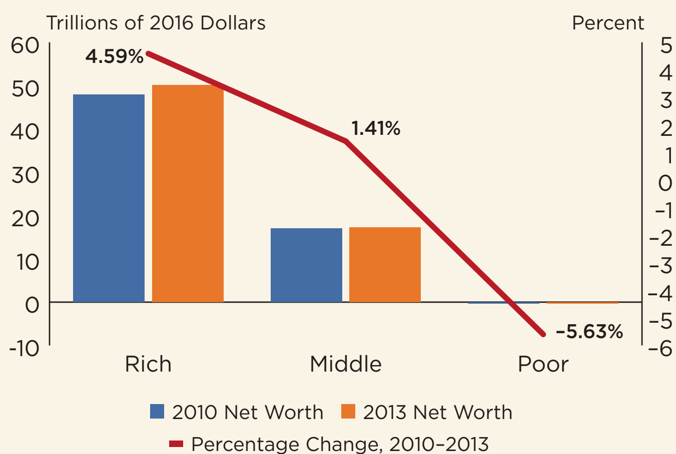
From 2010 to 2013: The Disappointingly Weak Recovery

The years from 2010 to 2013 showed little improvement. While the total net worth of Americans increased by $2.5 trillion, about four percent, from $64.3 trillion to $66.8 trillion, both mean and median net worth declined, albeit slightly and much less than during the previous three years. Mean wealth in 2013 was 0.2 percent less than in 2010, and median wealth was 1.4 percent lower. The fact that median wealth declined while total wealth increased indicated that the increase was concentrated among the richer half of the population, and this was indeed the case.

Over 90 percent of the increase accrued to the rich; the small remainder accrued to the middle-wealth households. The poor suffered a further diminution in their wealth; they had an additional $18 billion loss in 2013, a 5.6 percent increase to their $322 billion negative net worth in 2010. Figure 13 shows the changes in total net worth for the rich, middle-wealth, and poor households.

Figure 13. 2010–2013 Changes in Total Wealth by Group



Source: Calculated from 2010 and 2013 Surveys of Consumer Finances

THE POSITION OF THE POOR IN 2013: WORSE, IF ANYTHING

Certainly, there was little comfort for the poor. Their assets amounted to $1.42 trillion and their debts to $1.76 trillion. About 39 percent of poor households had negative net worth (11.5 percent of all households), compared to about 37 percent (11 percent of all households) three years earlier. An additional four percent of the poor reported a net worth of zero. The median net worth of the poor was down, from $773 to $551. Their mean net worth was also down by about $200, at -$9,200, compared to –$9,000 three years earlier.

Their most important asset was again their cars, and their financial situation with their cars was virtually identical to what it had been in 2010. About 70 percent owned a car, half with no debt on it. Of those with a loan, 11 percent owed more than the Blue Book value. The total value of their cars was $308 billion (22 percent of their total assets) and the total balance on their car loans was $120 billion (seven percent of their total liabilities). In 2010, these figures were essentially the same: $300 billion in assets and $110 billion in liabilities. Their cars contributed $190 billion to their net worth in 2010 and $188 billion in 2013. Transaction accounts were again their most commonly held asset, owned by 82 percent compared to 80 percent

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in 2010 and 78 percent in 2007. The total amount in these accounts was $58 billion, a $5 billion reduction from 2010, and the average balance was about $1,900, down from $2,000. Just under 20 percent had retirement accounts, with assets of $71 billion, a decline of $22 billion from 2010; the average balance in 2013 was $10,000, about $3,000 less than in 2010. None of these figures could have been very encouraging.

Nor was the housing market. House prices bottomed out in 2012 and were up slightly by the end of 2013 compared to the end of 2010 — one percent in real terms. The national homeownership rate had been dropping since 2007 and continued to drop; it would not begin to rise until mid-2016. The homeownership rate among the poor was 20 percent in 2013, down from 23 percent in 2010, and more of them were underwater. Some 48.4 percent of poor owners owed more on their mortgage than they thought their home was worth, and another 4.2 percent thought they had no equity in their homes. In 2010, 47.2 percent were underwater, and 2.4 percent thought they had no equity. As a group, poor homeowners in 2013 thought their homes were worth $871 billion, but their mortgages amounted to $950 billion, a deficit of $79 billion. This was perhaps somewhat better than their situation in 2010, when they thought their homes were worth $1.1 trillion but their mortgages totaled $1.2 trillion, and they were $97 billion underwater.

Their debts totaled over $1.9 billion, a modest improvement compared to the $2 trillion in 2010. Mortgages accounted for half of this amount, and student debt over 20 percent. Their student debt continued to increase ($428 billion compared to $389 billion in 2010 and $196 billion in 2007). The average student loan balance was about $35,000, almost the same as in 2010. Car loans and other installment debt were each between $110 and $120 billion, also about the same as three years earlier, and credit card balances were about $70 billion, an improvement of about $20 billion.

There was one interesting and perhaps significant demographic difference. In both 2007 and 2010, the median age of the head of a poor household was about 37 years, suggesting that the older poor households were moving into the middle-wealth group but being succeeded by newly-formed young households. In 2013, the median age was 40 years, suggesting that poor households in general were not improving their net worth position as they aged. In other respects, the proportion who were members of minority groups was slightly lower and there was a further reduction in the proportion who had not completed high school, from 23 percent in 2010 to 20 percent.

To the extent that these were in fact the same households in 2013 as in 2010, only three years older, they could not have been very encouraged with their financial position, some four and a half years after the trough of the Great Recession. It may have become more difficult for young families to move into the middle-wealth group.

THE IMPROVED POSITION OF THE RICH IN 2013

While the wealth of the poor was essentially unchanged from 2010 to 2013, the rich were noticeably better off. Their net worth was $50.1 trillion, with assets of $53.1 trillion and liabilities of $3.0 trillion. This was an increase of $2.2 trillion in net worth since 2010, and an increase from 74.4 percent to 75 percent in the share of total net worth owned by the rich. Their mean net worth was $4,085,000, up very slightly from $4,069,000 in 2010, though still about $500,000 less than in 2007; their median net worth was $1,930,000, down about six percent from $2,059,000 three years earlier. The dividing line between the middle-wealth households and the rich was $1,052,000. The richest household in the SCF had a net worth of $1.65 billion and was the only household above the $1.3 billion cutoff for the Forbes 400. The 2013 cutoff was the same as the 2007 cutoff, suggesting perhaps that the very richest households had recouped their loss since the start of the Great Recession.

The richest one percent received 68 percent of the increase in net worth that accrued to all households. Their total net worth was $23.7 trillion in 2013, an increase of $1.7 trillion from $22 trillion. They owned about 35.5 percent of total net worth, compared to 34 percent in 2010 and 33.4 percent in 2007.

Investments in business accounted for more than the total increase in net worth for the richest 10 percent of households and constituted a larger share of their net worth. The value of their privately owned businesses totaled $13 trillion, and their holdings of non-residential real estate (including rental housing properties with five or more units) were another $2 trillion. The total value of these privately held and nearly all actively managed assets was about 30 percent of the net worth of rich households in 2013.

About 92 percent of these households owned stock in publicly traded corporations, with an average holding of $1.2 million. Together, these three forms of investment in business added up to $28.2 trillion; in 2010, their total value was $25.9 trillion. The increase in business investment by the rich amounted to more than their total increase in net worth since 2010, and nearly all of the total increase in net worth for all households since 2010. Business investment constituted 56 percent of their total net worth, compared to 54 percent in 2010.

Directly owned stocks ($4.5 trillion) and stocks held in retirement accounts ($4.4 trillion) were about equally important in their portfolios. Half of them directly owned

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stocks, with an average portfolio of $725,000. About 90 percent had retirement accounts, with an average value of about $750,000 and an average value of $450,000 for the stockholdings in the account. The total assets in their retirement accounts amounted to about $8.2 trillion. Forty percent of rich households owned mutual funds, with a total value of about $4.3 trillion; nineteen percent had trusts or annuities, with a total value of $2 trillion. Stocks constituted 62 percent of the total assets of retirement accounts, mutual funds and other managed assets combined: $8.8 trillion out of $14.3 trillion.

Over 99 percent of the rich held transaction accounts, with a total value of $3 trillion and an average value of $240,000.

Although house prices began rising in 2012 and the FHFA repeat sales price index was about eight percent higher in the last half of 2013 compared to the last half of 2010, these positive developments did not appear in the home values of the rich. As in 2010, 97 percent were homeowners. The value of their homes fell by about five percent and their equity in their homes by about four percent; the equity in their homes was about 75 percent of the value. However, 44 percent of rich households owned their homes free and clear; for those with mortgages, the average home value was $785,000, and their average equity was $475,000, 60 percent of the value. (A mere 6,000 were underwater, by an average of $90,000.) For all owners, the total value of their homes was $6.6 trillion, down by $300 billion, and about 13 percent of their total net worth; their total mortgage debt was about $2.2 trillion, which constituted 70 percent of the total SCF-reported liabilities of all rich households.

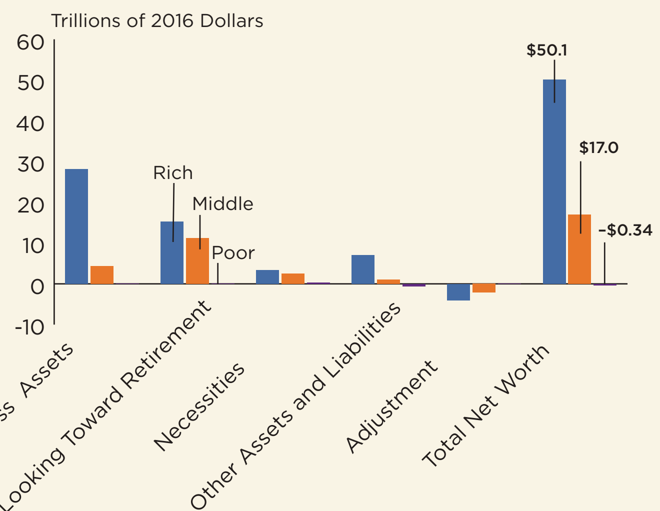
THE FAMILIES IN THE MIDDLE: HOLDING THEIR OWN

Middle-wealth families saw a small increase in their total net worth of about $240 billion, just under 10 percent of the overall total increase for all households combined. Their net worth was $17.0 trillion, with slightly less than $23.9 trillion in assets and slightly more than $6.8 trillion in debts, and their share of the national total was 25.5 percent, a reduction from the 26 percent in 2010. Their average net worth was also down slightly, from $238,000 to $232,000, despite the increase in the total; the number of households increased more rapidly than the total wealth of the group (4.1 percent compared to 1.5 percent).

Their most important asset was still their home. There were about 400,000 more middle-wealth homeowners than in 2010, but there were also three million more middle-wealth households, and as a result the proportion of homeowners continued to decline (81 percent, compared to 85 percent in 2010 and almost 90 percent in 2007). Their home equity also slipped slightly to 38 percent of their total net worth, down from 40 percent. The total value of their homes was about $11.9 trillion, down a little less than five percent; their total mortgage debt was $5.4 trillion, down almost 10 percent. The average value of their homes was $200,000, and the average equity about $109,000, both increases but both still well below their levels before the Great Recession. The average homeowner's equity position improved slightly, from 53.7 percent of their home's value to 54.6 percent. About 35 percent were free and clear owners, an improvement over the 30 percent in 2010, but 4.6 percent were underwater, compared to 4.1 percent in 2010.

The proportion with holdings of retirement accounts did not change much, but their holdings were larger. About 58 percent had IRAs or similar accounts, with a total value of $4.3 trillion and an average balance of $101,000, increases of 16 percent and 11 percent, respectively, since 2010. The average balance in 2013 was slightly higher than the average balance of $97,000 in 2007. Retirement assets were a larger share of the total net worth for the families in the middle in 2013 (25 percent). As had been true in 2007 and 2010, far fewer held mutual funds or managed assets such as trusts, and far fewer owned stock directly. Assets in these account categories amounted to less than $1.3 trillion in total, and the share of middle-wealth households having any of these accounts was less than 20 percent. Their total holdings of stock, either directly owned or held indirectly, amounted to $3.2 trillion, of which $500 billion was directly owned. Their indirectly owned stocks thus amounted to $2.7 trillion, of which $2.3 trillion was held in retirement accounts. Indirectly owned stock constituted about 85 percent of their total stockholdings, and stocks constituted over half (53 percent) of their total holdings in retirement accounts, mutual funds, and other managed accounts combined.

Figure 14. **2013 Portfolios by Household Wealth**



Source: Calculated from 2013 Survey of Consumer Finances

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Home equity, retirement accounts, and cash value life insurance combined amounted to 65.6 percent of the total wealth of middle-wealth families, one percent more than in 2010, as shown in Figure 14. (The cash value of whole life insurance policies was again almost two percent of their total net worth.) This suggests that these households were trying to gradually rearrange their portfolios as the Great Recession continued, in order to increase the share of their assets that could directly contribute to their retirement, toward the 66 percent that had been the proportion in 2007, even as their total net worth had declined by almost 20 percent. Alternatively, the increase may be coincidental; the percentage change is certainly not large.

Privately held businesses and real estate other than their homes accounted for about one-third of their other wealth — 12 percent of the total — but 10 percent or fewer of these households held these assets. The average value was about $100,000 for those owning businesses, and about $75,000 for those owning either residential or non-residential real estate. Thus for fewer than five percent of these middle-wealth households, their business or real-estate assets may have been as much as half of their net worth, and certainly some may have been able to build up the value of their holdings over time, but most middle-wealth households had none and many of those who did own businesses or real estate had holdings that were not especially valuable.

Mortgages and HELOCs on their homes amounted to $5.3 trillion, about 78 percent of their total liabilities, and debts on other residential real estate were about six percent. Most of the remainder was installment debt (about $750 billion, 11 percent of the total), or student loans (about $300 billion). On average, these households had liabilities of $93,000.

The demographic composition of middle-wealth families changed little between 2010 and 2013. The median age of the household heads was 53; there were slightly fewer whose education had ended before or when completing high school, and more with advanced degrees; and about 73 percent were white. A majority — 61 percent — were married, and a majority of those households — 53 percent — had children living at home. These percentages were quite close to the proportions in both of the previous surveys. Probably the most significant change since 2010 was that the typical middle-wealth family was (again) a year older and a year closer to retirement, compared to the previous survey.

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From 2013 to 2016: The Rich Get Richer

After the Great Recession and the weak recovery between 2007 and 2013, total wealth increased very sharply, by $20 trillion, between 2013 and 2016. This 31 percent growth was the second largest during any three-year period between surveys. It was slightly less than the 34 percent between 1998 and 2001, the last three years of the 10-year economic expansion that began in 1991, and very slightly greater than the 30 percent growth between 1995 and 1998.

A substantial share of the growth was the result of price increases for stocks and for homes. Between 2013 and 2016, the Dow Jones Industrial Average rose by about 16 percent, the S&P 500 by about 22 percent, and the FHFA repeat home sales price index by about 17 percent. The total value of common stocks as reported in the 2013 survey was about $16.4 trillion; in 2016, their total value would have been $19 or $20 trillion. The total value of owner-occupied homes as of 2013 was $21.6 trillion; in 2016 their value would have been $25.2 trillion. All of that increase would have been an increase in home equity — from $13.1 trillion to $16.7 trillion, over 27 percent. Together, the increases in the prices of stock and the equity in owner-occupied homes would have added $6.2 to $7.2 trillion to total household net worth and would have accounted for 31 to 36 percent of the $20 trillion increase.[21]

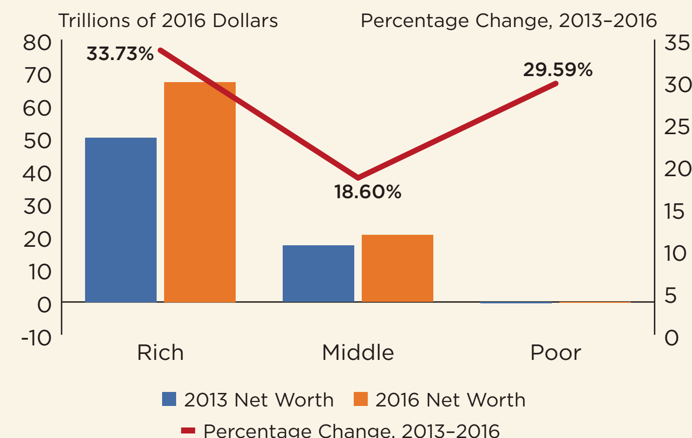
Of the $20 trillion, the rich received $16.9 trillion (85 percent); middle-wealth households received $3.2 trillion (15 percent), and the poor were $100 billion closer to having their assets equal to their debts. The richest one percent received $9.8 trillion (49 percent). Since the rich held 75 percent of total net worth in 2013 and the families in the middle held 25.5 percent, the distribution became somewhat more unequal between 2013 and 2016, and the Gini coefficient increased again.

Both mean and median wealth increased for the first time since 2007. Mean wealth rose from $545,000 to $690,000, an increase of 27 percent and also an increase of $45,000 (seven percent) above the previous high in 2007. Median wealth increased to a much smaller extent, from $83,900 to $97,300 (16 percent), and was still $42,000 below its 2007 level. The growing differential between mean and median net worth was consistent with the increase in inequality.

THE POOR IN 2016: CLOSER TO BREAKING EVEN

Overall, poor households did not receive much benefit from the increases in stock prices after 2013. They had only $40 billion in stocks, and therefore enjoyed less than a $10 billion increase, by either index. They received a much larger increase in their home equity, amounting to $148 billion, because the value of their homes had been $871 billion in

Figure 15. 2013–2016 Changes in Total Wealth by Group



Source: Calculated from 2013 and 2016 Surveys of Consumer Finances

21. Using other indices for stock and home prices and a more extended period for household interviews, the Federal Reserve analysts calculate that the price increases alone would accounted for $8.4 trillion, or 42 percent of the increase in total household net worth (Bricker et al, 2017, pp. 1-2).

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2013. As a result, there was a substantial reduction in the share of poor homeowners who were underwater. In 2013, 3.6 million poor homeowners owed more on their mortgages than they thought their homes were worth, by an average of $38,000. One-third of these households were no longer underwater by 2016, and the average amount for the two-thirds who still were underwater was $35,000. With these price changes, the average net worth of poor households would still have been negative but would have improved from –$9,200 to –$6,000.

These calculations apply to the poor households who were surveyed in 2013, on the assumption that they would each have received the 17 percent average increase in value calculated with the FHFA house price index. None of these households would have been included in the 2016 survey. That survey showed a smaller improvement during the three years. The average net worth of the households surveyed in 2016 was –$7,600, rather than the –$6,000 indicated by the changes in house prices and to a much lesser extent in stock prices. In the aggregate, their liabilities exceeded their assets by $286 billion in 2016, a reduction from the $340 billion in 2013, and there was a modest reduction in the proportion with negative net worth, from 39 percent to 37 percent. Their median net worth in the 2016 survey was $930, an improvement over the $551 in 2013 and the $773 in 2010.

While house prices increased, the homeownership rate among the poor was down sharply between the two surveys, from 20 percent to 15 percent in three years, and there were two million fewer poor owners. This is consistent with the national change. The national homeownership rate reached its low point in the second quarter of 2016, just as the SCF was starting to interview households and collect information. It was rising during the survey period but was about 1.5 percentage points lower in the last half of 2016 than it had been during the corresponding period in 2013.

The decline in homeownership among poor households had several positive aspects, however. A much smaller proportion were underwater: 18 percent, compared to the 48 percent in 2013 and the 47 percent in 2010. The number of underwater homeowners was less than one million in 2016, about one-fourth as many as in 2013. The number of homeowners with some equity in their homes had been about 3.6 million; it was 4.2 million in 2016. In the aggregate, poor homeowners had been $79 billion in the red in 2013, about –$12,000 on average; their combined equity was –$45 billion in 2016, an average of –$8,000.

In other respects, poor households were at least marginally better off in 2016. Cars remained their most important asset. They were owned by 70 percent of the poor, about as many as in 2013 (69 percent), though still less than in 2010 (73 percent). They accounted for 28 percent of the assets of poor households and 10 percent of their liabilities, and were the largest contributor to net worth, at $183 billion, also about the same as in 2013 and 2010. About five percent owed more than the Blue Book value of their cars.

Nearly all poor households — 95 percent — had one or more transaction accounts, notably more than the 80 percent or so in each of the previous three surveys. Their total account balances were $78 billion, about $2,200 on average, compared to $1,900 in 2013. Just over 20 percent had retirement accounts, with total assets of $86 trillion and an average balance of $11,000 — $1,000 more than the average in 2013 though still $3,000 less than the average in 2007. About eight percent held whole life insurance policies, with an average cash value of less than $4,000. Small numbers (three percent or fewer) owned property other than their home, or a business, much like the previous surveys.

Their debts totaled $1.5 trillion. About 40 percent of this ($580 billion) was their mortgage debt, down from 2013 because there were fewer homeowners and fewer who were underwater. Student debt was nearly as large ($560 billion), with an average balance of over $40,000. Car loans totaled $155 billion, other installment debt $96 billion, and credit card balances $60 billion. Between them, these various liabilities accounted for nearly all of the debt of poor households.

There was little if any demographic change between 2013 and 2016, but the cumulative effects of the Great Recession and the weak recovery over almost a decade had resulted in noticeable changes since 2007. The median age was 40 years, the same as in 2013 and three years older than in 2007 and 2010. The ability of young families to move up from the low-wealth group did not improve between 2013 and 2016. The proportion who were members of minority groups was 54 percent, compared to 48 percent in 2007 and 2010. The share with college and/or postgraduate degrees was 19 percent, compared to 14 percent nine years earlier, while the share who had not completed high school dropped to 20 percent, from 27 percent.

THE RICH IN 2016

The one-third increase in the net worth of the rich was enough to raise their average wealth in 2016 well above the level at the start of the Great Recession nine years earlier, but not enough to restore their median wealth to its 2007 level. Average wealth for rich households was $5.3 million in 2016, compared to $4.6 million in 2007, an increase of about 15 percent; median wealth was $2.4 million, four percent below the 2007 peak of $2.5 million. Their share of total wealth also continued to increase over each triennium; it was 71 percent in 2007, 75 percent in 2013, and 77 percent in 2016. The same was true of the share of the richest one percent; their share of total wealth increased from 33 percent in 2007 to 35.5 percent in 2016.

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The increases in the prices of stocks and homes accounted for $3.5 trillion to $4.5 trillion of their $16.9 billion increase in wealth, about 21 percent. The increase in stock prices added $2 trillion to $3 trillion; the 17 percent increase in home prices added $1.5 trillion to homeowners' equity in their homes, an increase of 23 percent. This is a smaller percentage increase in home equity for the rich than for the population as a whole, because the value of their homes constituted a smaller share of their total wealth, and their home equity was a larger share of the value of their homes (75 percent compared to 61 percent for all households).

The value of their privately-owned businesses remained the largest share of their net worth and increased slightly in importance. It was $13.0 trillion in 2013 (26 percent) and rose to $18.2 trillion in 2016 (27 percent). Consistent with the previous surveys, almost 90 percent of this amount was in actively managed businesses. The proportion of the rich who owned businesses increased from 42 percent to 44 percent, and the number of owners rose by 400,000. The value of the business or businesses owned by the average owner was about $3.3 million. The value of non-residential real estate totaled $3.3 trillion, an increase of 60 percent in three years; some of this undoubtedly resulted from a rise in property values. The average property owner's property was worth about $1,150,000. Together, these privately owned and nearly all actively managed businesses were worth $21.5 trillion, almost one-third (32 percent) of the total net worth of all rich households.

Stock in publicly owned corporations was owned by nearly as many and worth nearly as much. Some 94 percent of rich households held stock directly or indirectly, and the total value of their stockholdings was $18.6 trillion, about 28 percent of their total net worth. Just over half (51 percent) directly owned stock with a total value of $5.3 trillion. The average value of their direct stockholdings was about $880,000.

Retirement accounts were also popular; 89 percent of rich households had one or more, with a total value of $9.75 trillion (15 percent of total net worth) and an average value of about $875,000. Stockholdings in these accounts totaled $5.1 trillion. Retirement accounts were more common among rich households than mutual fund ownership (44 percent) or trusts and annuities (20 percent). They were also more important in the portfolios of rich households; total assets in mutual funds amounted to $9.1 trillion (14 percent of their net worth), and the total value of assets in trusts and annuities was $2.7 trillion (about four percent). Stocks amounted to 62 percent of the total assets in these categories, the same share as in 2013.

Literally every rich household responding to the survey had at least one transaction account (compared to 99.6 percent in 2013). The balances in these accounts totaled $3.2 trillion; the average owner's balance was over $250,000. About 100,000 more rich households were homeowners in 2016, and the average value of owners' homes increased by almost $100,000, from $742,000 to $839,000 (13 percent). The percentage who were owners, however, declined slightly, from 96.6 percent to 94.6 percent. About 41 percent of rich homeowners owned their homes free and clear; the average value of their homes was $864,000. At the other end, 0.59 percent of all rich homeowners with mortgages reported that they were underwater (0.35 percent of all rich homeowners), by an average of $237,000. Among all rich households with mortgages, the total value of their homes was about $6.5 trillion and their total equity was $4.2 trillion. The total home equity of all rich owners was almost $7.8 trillion, about 12 percent of their total net worth, and their total mortgage debt of $2.2 trillion was about 65 percent of their liabilities as reported in the SCF, a small reduction since 2013.

Ownership of other residential real estate increased. About 52 percent of rich households owned one or more such properties, with a total value of $4.9 trillion and an average value per owner of $746,000. All of these figures were above their 2013 levels. Their total equity in these properties was about $4.2 trillion, between six and seven percent of their net worth; their total outstanding debt of $650 billion was about nine percent of their liabilities.

THE MIDDLE-WEALTH HOUSEHOLDS IN 2016

Middle-wealth families experienced a similar increase in their net worth between 2013 and 2016; their average wealth increased by $35,000, from $232,000 to $267,000, the same 15 percent increase as the rich had experienced. This, however, left them $39,000 below their average in 2007, while the rich were well above their 2007 average. The same was true for median net worth: the 2016 level was $170,000, about $18,000 or 12 percent above the level of $152,000 in 2013, but $59,000 — more than 25 percent — below the 2007 level of $229,000.

While their total wealth increased by about 18 percent, their share of total net worth decreased from 25.5 percent to 23.3 percent, while the share of the rich households increased from 75 percent to 77 percent. Their assets totaled $27.4 trillion and their liabilities $7.2 trillion, the latter an increase of $400 billion.

Most of their increase resulted from the increases in the prices of stocks and owner-occupied homes. The households surveyed in 2013 owned $3.2 trillion in stocks; the price increase as measured by the DJIA implied an increase of $500 billion and the price increase as measured by the S&P 500 would have added $700 billion, had these households been resurveyed in 2016 and assuming that they had not changed their stock portfolios during the intervening three years. Their homes were worth $11.9 trillion in 2013, and the FHFA index increase of 17 percent added $1.5 trillion,

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which implies a 24 percent increase in their home equity. The number of middle-wealth households with negative home equity in the 2013 survey would have been cut in half, from 1.3 million to 630,000.

These price increases accounted for 78 percent of their total increase in net worth, again assuming no change in their holdings during the three years, compared to the 21 percent of the increase received by the rich that could be attributed to the same calculations. As in the previous surveys, the difference occurs because the total value of owner-occupied homes was a substantially larger share of the net worth of middle-wealth households, and the equity in their homes was a smaller percentage of the value.

The 2016 survey reported that the homes of middle-wealth households were certainly a larger share of their net worth than had been reported in the 2013 survey. There were 3.3 million more middle-wealth homeowners in 2016; the homeownership rate for this group rose from 81 percent to 83 percent. The proportion who owned their homes free and clear decreased slightly, from 35.1 percent to 34.7 percent, but the number increased by over 200,000 households. The proportion of owners who were underwater dropped from 4.6 percent to less than one percent, and the number who were underwater fell from 1.8 million households to about 550,000. Their home equity increased from $6.5 trillion to over $8 trillion, amounting to 40 percent of their net worth compared to 38 percent three years earlier. In this context, real estate professionals began to complain about the shortage of homes being offered for sale.

The stockholdings of middle-wealth households in 2016 were very similar to their holdings three years earlier. Their direct and indirect ownership of stock in public corporations was about $3.7 trillion, of which only $420 billion was directly owned. The remaining $3.3 trillion was owned through retirement accounts, mutual funds, trusts or annuities. About $2.7 billion was held in retirement accounts. The importance of retirement accounts is evidenced by the fact that their stockholdings in these accounts amounted to 83 percent of the stocks held indirectly and 74 percent of stocks held either indirectly or directly. The number of middle-wealth households with retirement accounts increased from 42 million to 46 million, and the share with accounts rose from 58.2 percent to 61.7 percent. The total value of their accounts rose by about $800 billion, from over $4.3 trillion to almost $5.2 trillion. This increase raised the retirement savings share of their net worth very slightly, from 25.4 percent to 25.6 percent. The average account value rose by nine percent, from $101,000 to $110,000. Stocks constituted 52 percent of the total value of all assets held in these accounts.

The average cash value of whole life insurance policies also increased by about nine percent, from $17,800 to $19,400, and at the same time the number of middle-wealth households with these policies increased by 1.1 million, about seven percent.

The overall importance of owner-occupied homes, retirement accounts, and cash value life insurance increased from 65.6 percent to 67.1 percent of the total net worth of middle-wealth households, a higher percentage than in 2007. This is consistent with the suggestion that middle-wealth households were giving primacy to investing in assets that could directly contribute to a more secure retirement — a reasonable objective, since the typical household was still not as wealthy as it had been in 2007.

About 13 percent of middle-wealth households were owners of businesses such as proprietorships, partnerships, and medical and legal practices, with a total value of $1.1 trillion — about 5.6 percent of the total value of such businesses and 5.3 percent of the total wealth of these households. They were active owners, managing 92 percent of the total value of these businesses. They were also small business owners. The average value of the business (or of all businesses they owned, if more than one) was $110,000, and the median value was $50,000.

About six percent owned non-residential property, worth $374 billion in total and $84,000 on average. These were also de facto small businesses, with a median value of $31,000.

Ownership of residential property other than owner-occupied homes was more common and these properties were more valuable. Fourteen percent of middle-wealth families owned such property, with a total value of $1.4 trillion and an average value of $134,000. Debt on these properties is reported separately in the SCF, as with owner-occupied homes and vehicles, and this amounted to $450 billion, leaving a total net worth in these properties of $950 billion and an average of value of $91,000, a little less than five percent of the total net worth of middle-wealth households.

Since these properties were commonly either rental structures with only one to four units or second homes, they were necessarily small businesses or not businesses at all. The median value, however, was $85,000, well above the medians for privately-owned businesses and non-residential properties.

Liabilities as reported in the SCF totaled $7.2 trillion, of which home mortgages and HELOCs totaled $5.5 trillion, about 76 percent of their total liabilities and about the same share as in 2013. Loans on cars and other vehicles were just under $500 billion (seven percent) and mortgages on other residential real estate about six percent. The remaining $750 billion consisted mainly of student loans ($370 billion, an increase of almost 25 percent in three years) and credit card debt ($270 billion). On average, these

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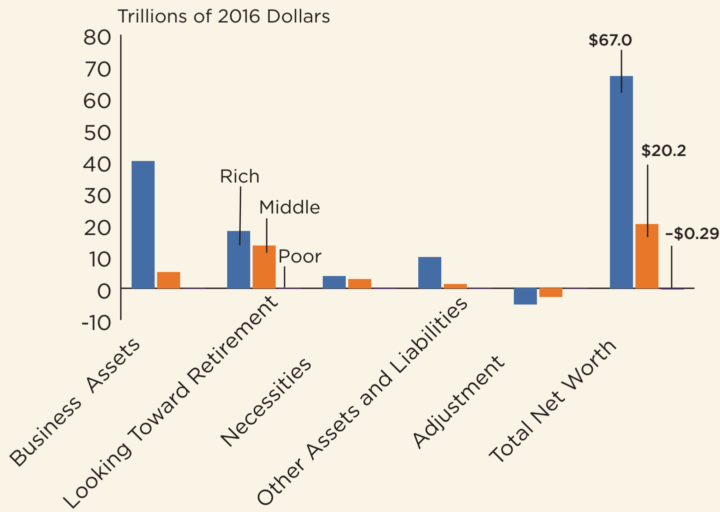
Figure 16. **2016 Portfolios by Household Wealth**



Source: Calculated from 2016 Survey of Consumer Finances

households had liabilities of $95,000, an increase of only $2,000 despite the increase in student loans.

Overall, the portfolios of middle-wealth households in 2016 were similar to their portfolios in 2007. In both years, two-thirds of their net worth consisted of assets that were important for a comfortable retirement, and in both years about one quarter of their assets were devoted to businesses — stocks in publicly traded corporations and ownership of proprietorships, partnerships, and closely held corporations. This was also true for rich households: about 60 percent of their wealth consisted of businesses they owned or owned stock in, and between 25 and 30 percent consisted of their homes, their retirement accounts, and their life insurance. The percentages for these broad asset categories are very similar in Figure 16 for 2016 compared to Figure 11 for 2007.

The most important demographic change for middle-wealth households was another one-year increase in the median household age, from 53 to 54, for the third consecutive three-year period, which at the same time put these households yet another year closer to retirement. The proportion who had college or postgraduate degrees increased to 35 percent, up from 32 percent in 2013 and 30 percent in both 2007 and 2010; the proportion who had not attended college decreased to 38 percent, compared to 42 percent in 2013 and 45 percent in 2007. The proportion who were white declined from 73 percent to 70 percent; it had been 77 percent in 2007. The proportion who were married declined for the first time, from 63 percent to 61 percent, and the proportion of married households with children at home declined from 54 percent to 50 percent, perhaps partly a result of the increase in age.

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Since 2016

A great deal has certainly happened in the American economy since the end of 2016. This chapter draws on the available information to describe the changes that have occurred, and what they suggest about recent and prospective future changes in the distribution of wealth.

FROM 2016 TO 2019: ECONOMIC GROWTH

A useful starting point is the data on prices of publicly traded stocks and owner-occupied homes since 2016. The Dow Jones Industrial Average rose by 37 percent, in real terms, between the last half of 2016 and the last half of 2019, and Standard & Poor's 500 rose by 31 percent. Both of these were much larger increases than occurred during the previous three years (16 percent and 22 percent, respectively). Either one added between $8 trillion and $9 trillion (about nine percent) to the net worth of American households. Home prices increased by 11.5 percent, somewhat less than the 13 percent increase from 2013 to 2016, which would have increased homeowners' equity by 26 percent and reduced the number of underwater households almost by half, using the 2016 survey data as the base for the calculation. Combined with the 40 percent reduction that would have occurred between 2013 and 2016, using the 2013 survey data as the basis for that calculation, the cumulative impact would have been a reduction in the number of underwater homeowners by two-thirds in six years.

At the same time that home prices were rising, homeownership was increasing. The national homeownership rate bottomed out at 62.9 percent in the second quarter of 2016, as did the rates for all of the major racial and ethnic categories reported by the Census Bureau, except for "Non-Hispanic Black alone," which reached its trough in the third quarter. From then until the fourth quarter of 2019, the homeownership rate rose to 65.1 percent, and the total number of homeowners increased from 74.8 million households to 80.7 million, an increase of 7.9 percent in 3½ years. There were corresponding increases for each of the racial and ethnic groups: 4.4 percent for white alone, non-Hispanic; 3.9 percent for Black alone, non-Hispanic; 16.9 percent for other race alone, non-Hispanic (a group that is predominantly Asian-American but also includes American Indians and Alaska Natives, and Hawaiian and Pacific Islanders); 13.3 percent for Hispanic; a startling 30.3 percent for the very small group of households of two or more races, a category added in 2003; and 11.3 percent for all minorities. The increases for Black alone and Hispanic were particularly noteworthy, because these are the largest minority groups and have the lowest homeownership rates — somewhat more than 50 percent for Hispanic households and slightly less than 50 percent for Black households. They also have low net worth.

In early 2019 the Federal Reserve produced a new series of quarterly wealth estimates for American households, "The Distributional Financial Accounts of the United States," integrating the triennial SCF with the Financial Accounts of the United States, which produces quarterly data on the aggregate balance sheets of major sectors of the economy. The Distributional Financial Accounts are created by reconciling asset and liability categories for the SCF and the Financial Accounts in an accounting framework that is consistent with both data series. This reconciliation is necessary because these data series were established at different times and for different purposes; past efforts by independent analysts to adjust the SCF to the Financial Accounts have not been consistently successful.[22]

Within this accounting framework, the Distributional Financial Accounts are intended to provide quarterly estimates of total household net worth and its distribution among four household groups (the richest one percent, the next nine percent, the next 40 percent, and finally the poorer half of all households) on a more timely basis than the SCF (Batty et al., 1999(a); Batty et al., 1999(b)). The quarterly estimates have been constructed from the third quarter of 1989 to the first quarter of 2019. They indicate that total net worth continued to increase between 2016 and the first quarter of 2019, by about 7.5 percent adjusted for inflation, although the distribution of wealth became more unequal. The share of the richest one percent increased from 30.6 percent to 31.2 percent.

22. See for example Wolff (1998) and the subsequent "Correspondence" among Weicher; Kennickell; Juster, Smith and Stafford; and Wolff (1999).

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Other data, not directly measuring net worth or any of its components, suggest that wealth increased between 2016 and 2019. Total employment increased by over six million individuals (4.3 percent) between late 2016 and late 2019, and the number unemployed decreased by about 1.7 million. The unemployment rate fell by 1.2 percent for the labor force as a whole, and fell more sharply for Black and Hispanic workers (2.0 percent and 1.7 percent respectively), to the lowest rates on record since data for these groups were first collected in the early 1970s. The rate for white workers was the lowest since the late 1960s.

Household income data since 2016 invite the same inference. The annual Census Bureau report on "Income and Poverty in the United States" for 2019 highlights the fact that real median income rose by over $4,000 between 2018 and 2019, an increase of 6.8 percent. Minority households enjoyed larger increases than white households. Real median income increased by 10.6 percent for Asian households, by 7.9 percent for Black households, and by 7.1 percent for Hispanic households, while the increase for white households was 5.9 percent. The poverty rate showed a similar pattern. The national rate dropped from 11.8 percent to 10.5 percent, with declines of two percentage points or more for every group except white households (from 8.1 percent to 7.3 percent). The Census Bureau cautions that the 2019 "Estimates reflect the implementation of an updated processing system and should be used to make comparisons to 2018 and subsequent years," but it also notes that the national poverty rate is the lowest on record over the 60 years since poverty was first measured officially, and in addition that 2019 was "the fifth consecutive annual increase in median household income for family households, and the second consecutive increase for nonfamily households" (Semega et al, 2020).

Income is not the same as wealth, as Chapter 2 explained in detail, but it is likely that these changes have created opportunities for many of the newly employed to increase their net worth by reducing their outstanding debts, most immediately credit card balances and student loans, and perhaps also to increase the amounts in their transaction accounts, to begin with.

THE CORONAVIRUS

The economic situation has certainly changed since the end of 2019. Most of the available data shows an extremely sharp decline beginning typically in February or March of this year, and after two or three months a noticeable improvement. The latest available information, as of writing, is commonly for some time during the summer.

The most widely noted information is for stock prices and unemployment. The Dow Jones Industrial Average reached an all-time high on February 12 at 29,551; it then lost 11,000 points in six weeks, but recovered 80 percent of the loss by early June and as of the end of August is within four percent of the February peak. The S&P 500 also set a record in mid-February; it then lost one-third of its value within a month, but it also has since recovered and set new records during late August. The same is true for the NASDAQ index, which has been about 20 percent above its all-time record (also set in February) for more than two months, since late June.

The unemployment rate was about 3.5 percent — an unusually low number — during the last half of 2019. It was 4.4 percent in March, and then 14.7 percent in April, before coming down to 10.2 percent in July. The actual rates since April have been consistently lower than the consensus forecasts for the month.

A number of large, well-known retailers have declared bankruptcy so far in 2020, and a much larger number of small businesses have closed, with or without declaring bankruptcy. Yelp Inc. reports that 80,000 businesses closed between March 1 and June 25 (Ngo, 2020). The largest shares of these businesses were restaurants or retailers, which together account for about 20,000. The National Federation of Independent Business publishes a monthly report on small businesses, including information about recent conditions and future expectations. Its latest report, for August, indicates that small businesses have experienced sharp drops in sales and earnings during and since the second quarter of the year (Dunkelberg and Wade, 2020; the data are calculated as three-month moving averages). NFIB also finds that only 12 percent say that "now is a good time to expand," compared to 20 percent or more each month from October 2017 to February 2020, when 26 percent felt that way. In August, NFIB issued a press release entitled, "One in Five Small Businesses Say They Will Have to Close Their Doors if Economic Conditions Don't Improve in Next Six Months" (NFIB 2020).

It is not surprising that the National Bureau of Economic Research declared in June that a cyclical peak was reached in February and the economy is now in a recession.

There is one notable exception to the pattern for the first half of the year: the housing market. Sales of both new and existing homes dropped during March and April but rebounded in May and June. Sales of new homes in August reached a seasonally adjusted annual rate of 1.1 million, the highest rate since December 2006, a year before the start of the Great Recession (U.S. Bureau of the Census, 2020). Sales of existing homes fell almost by half from January through April, but increased by 25 percent in July and a further two percent in August, also reaching the highest rate since December of 2006. Compared to the same month in 2019, sales were about nine percent higher in July and 10.5 percent higher in August. House prices show a similar pattern; they are up about five percent in the last year, adjusted for inflation. The median sales price for

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new homes was $313,000 in July, 43 percent higher than July 2019. The median sales price for existing homes was $304,000 in July, above $300,000 for the first time on record (National Association of Realtors, 2020). Construction of new homes has followed a similar pattern since January. The national homeownership rate continued to rise during the first quarter of 2020, to 63.5 percent, and the number of homeowners continued to increase. Between the last quarter of 2016 and the first quarter of 2020, the number of homeowners rose by an additional 5.3 million households, almost half of them (48 percent) members of minority groups. The most obvious explanation is the prevailing unusually low mortgage interest rates, which were low before the pandemic and have remained low since it started.

THE POSSIBLE IMPLICATIONS OF RECENT POLICY CHANGES

Besides the dramatic improvement and the pandemic, there have also been two policy changes since 2016 that may well affect the distribution of wealth in the future. These are the de facto elimination of the home mortgage interest deduction as part of the Tax Cuts and Jobs Act of 2017 for most first-time homebuyers, and the expansion of retirement accounts in the SECURE Act of 2019. They seem likely to cut in opposite directions. The mortgage interest deduction was effectively eliminated, and in its place the standard deduction was nearly doubled. Based on the experience of other industrial democracies that have relatively recently eliminated their mortgage interest deductions, it may result in delaying homeownership for younger families, and in the process making it more difficult for them to build their net worth to the extent they have been able to do so. The changes in retirement accounts are less extensive but are the latest in a series of changes that have made these accounts more widely available and liberalized the terms of investment in them. Each of these policy changes is worth discussion.

The two countries which have relatively recently eliminated their mortgage interest deductions are Denmark and the United Kingdom. Denmark changed its tax treatment of mortgage interest in 1987; the United Kingdom eliminated its deduction gradually, starting in 1974 and continuing until it was completely eliminated in 1999. They have different tax laws and different housing finance systems, but their changes in their tax laws have had similar outcomes, and the changes have been in effect long enough to provide useful information about their long-term impact.

Prior to 1987, Denmark had a large effective equivalent to the mortgage interest deduction. Its income tax was levied on total taxable income, defined as the sum of labor and capital income, minus deductions; capital income included the imputed rental income from owner-occupied housing and mortgage interest was a deduction. There were three tax brackets: 73 percent, 62 percent, and 48 percent.

In 1987, total taxable income was separated into labor income and capital income, and the latter was taxed at a much lower rate, reducing the value of the mortgage interest deduction (Gruber et al., 2017). One result was a reduction in homeownership for younger households, those headed by individuals younger than 45. The reduction was substantial between the 1980s and the 1990s, and continued to a further, smaller extent between the 1990s and the 2000s. From 1985 to 2006, the homeownership rate declined by 12 percentage points, from 63 percent to 51 percent, for households headed by a man between the ages of 35 and 39; by 15 percentage points, from 33 percent to 18 percent, for households with head between 25 and 29; and by about five percentage points, from nine percent to four percent, for households with head between 20 and 24 (Nielsen and Jensen, 2011, Figure 4.1).

The effect was smallest for those born in the later 1950s and progressively larger for successive five-year cohorts through those born in the later 1970s, the youngest cohort likely to become homeowners by 2006. Over time, younger cohorts caught up with older ones, so the effect on homeownership per se disappeared, but the younger cohorts had a shorter period to benefit from increasing home prices and build net worth (Nielsen and Jensen, 2011, Figure 4.2).

Finally, the effect was largest for households in the lowest income quartile and least for those in the highest quartile, with a difference of almost 45 percentage points as of 2005, which is likely to contribute to a less equal distribution of wealth over time.

The United Kingdom had a deduction for mortgage interest as part of its original income tax law, which was enacted in 1842. The law remained unchanged until 1974, when the deduction was limited to mortgages of no more than 25,000 pounds. The limitation was enacted by a newly elected Labor Party government; it had been a campaign promise. Ironically, the new government also created a Royal Commission on the Distribution of Income and Wealth, which reported five years later that homeownership had risen sharply from 4.1 million households in 1951 to 9.4 million in 1971, and concluded that the increase in homeownership was one of the main factors contributing to a more equal distribution of wealth during that period (Royal Commission 1979, p. 156).

Very few households were affected by the cap to begin with; the typical mortgage was then 10,000 pounds. The cap was not adjusted for inflation, however, and it applied to half of all home purchase mortgage originations by 1990. In 1993, the value of the deduction was lowered, a process which continued from year to year until 1999, when it was eliminated.

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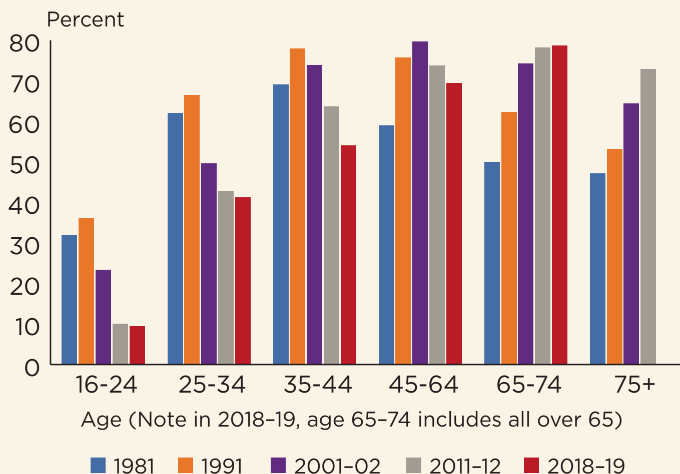
The impact of these changes was blunted by two factors. A small program allowing residents of council housing (the counterpart of public housing in the United States) to buy their homes had been established in 1960; when Margaret Thatcher became prime minister in 1979 she made it a flagship program, creating a statutory "Right to Buy" for council housing tenants, on favorable terms which made it possible to obtain an affordable loan in the mortgage market. During her tenure as prime minister from 1979 to 1990, over 150,000 families each year bought their council homes (Jones and Murie, 2006; see especially pp. 18-28 and the sales data in Table 4.2). These homes amounted to about eight percent of the UK housing stock as of 1990; they would have remained rentals in the absence of the Right to Buy program.

In addition, the British economy grew steadily and substantially during the 1980s, after a major recession, facilitating homeownership for another two million families. As shown in Figure 17, between 1981 and 1991 the homeownership rate increased for every age group. Nationally, it rose from 57 percent to 67 percent (UK Ministry of Housing, Communities & Local Government, 2020).

The increase in homeownership was smaller for younger households, however. It was less than five percentage points for those with the household head younger than 35, compared to nine to fifteen points for those with a head older than 35. The Right to Buy was not particularly relevant to young households. The program provided more favorable terms for council housing tenants based on length of tenure. Few of the families in council housing were young families, and fewer took advantage of the Right to Buy. In the 1990s, the change in the age distribution became much more pronounced. Between 1991 and 2012, the national homeownership rate for households with the head between 25 and 34 dropped from 67 percent to 41 percent; for households with the head younger than 25, it dropped from 36 percent to nine percent (United Kingdom Office of National Statistics, 2017). Among older families, homeownership increased.

Figure 17. English Homeownership Rates by Age, 1981–2019



Source: English Housing Survey

The overall national homeownership rate peaked at 70.9 percent in 2003. By 2016 it had dropped to 62.9 percent and was the fourth lowest in the European Union. This attracted attention across the political spectrum, and a number of policy research institutes created new projects on housing policy. The conservative Legatum Institute's "More Good Homes" initiative is a good example (Legatum Institute, 2017): "housing in the UK is too small, too expensive, and there is not enough of it....Already a generation of people are entering middle age without having been able to buy homes of their own. In 25 years they face an asset-less retirement." Political leaders had already begun to create several programs to promote homeownership, known collectively as "Help to Buy." The homeownership rate has since risen by about one percentage point, as of 2019, but is low in the context of the British experience since the mid-1980s (UK Ministry of Housing, Communities & Local Government, 2020). In the absence of the council housing sales, it would be 53 percent, about where it was 50 years ago.

The United Kingdom and Denmark are the only liberal democracies that have recently modified their tax laws to eliminate the mortgage interest deduction, either legally or effectively, and in the process both have sharply reduced homeownership among young households. Their experience suggests that the United States may face a similar situation and perhaps a more unequal distribution of wealth as a result.

The second policy change since 2016 is the expansion of retirement accounts in the SECURE Act (the Setting Every Community Up for Retirement Enhancement Act of 2019), which was passed and signed in December of 2019. The SECURE Act extended the availability of retirement accounts to two groups of employees not previously covered and liberalized the program generally in some respects.

The act made it easier for small businesses to offer 401(k) retirement plans by banding together, without constraints. Previously, the law required companies that established joint plans to be similar in some respect, such as being in the same industry, or in the same location. The SECURE Act eliminates this requirement, allowing any combination of small businesses to join together and thus achieve economies of scale. In addition, all participating companies in a group plan will no longer be subject to punishment if one company fails to follow program requirements.

In a further program expansion, part-time workers will be able to participate in a 401(k), if they work 1,000 hours

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in a year or 500 hours for three consecutive years. This is potentially a significant expansion and may prove quite popular in what is increasingly becoming a "gig" economy.

Changes that apply generally to retirement accounts include raising the age at which participants have to start taking Required Minimum Distributions from 70½ to 72, and also allowing individuals to contribute to traditional IRAs at any age. Under the previous rules, contributions could be made only until the employee turned 70½.

The SECURE Act is the latest in a series of expansions since IRAs were established in the Retirement Income Security Act in 1974. In 1981, all full-time working taxpayers were allowed to establish retirement accounts; Roth IRAs were added in 1997; contribution limits were increased and "catch-up" contributions allowed for employees over the age of 50 in 2001, among other changes.

As noted earlier, retirement accounts have been growing in importance and are the second most important asset in the portfolios of middle-wealth households. In 1989, 37 percent of all households (35 million households) had accounts; by 2007, 53 percent (about 60 million households) had them. The percentage declined during the Great Recession, to 49 percent by 2013, then rebounded to 52 percent as of 2016. The growing number of households during the Great Recession meant that the number with retirement accounts increased although the percentage did not; about 60 million households had retirement accounts over the years from 2007 to 2013, and the number increased to 65 million in 2016. The mean value of their retirement accounts rose from $71,000 in 1989 to $171,000 in 2007 and continued to rise through the Great Recession to $229,000 in 2016. The median account holding increased from $21,000 in 1989 to $52,000 in 2007 and to $60,000 by 2013; it was $61,000 in 2016. The minimal increase in the median may be the result of the more substantial increase in the number of households with accounts. The share of total net worth consisting of retirement account holdings increased from about seven percent in 1989 to 14 percent by 2007 and 17.5 percent by 2016.

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Conclusion

The distribution of wealth became increasingly unequal between 2007 and 2016, markedly more so than during the period of increasing total net worth that preceded it from 1992 to 2007. Average real net worth was $45,000 more, seven percent higher, in 2016 compared to 2007; median real net worth was $43,000 less, 30 percent lower. Rich households as a class recovered; poor families as a class have had negative net worth since at least 2010. The large number of families in the middle gained back less than half of what they lost and had a smaller share of total net worth than they had at the start of the Great Recession. Various signs suggest that improvement occurred from 2016 to 2019 — notably the increase in home prices, the rising homeownership rate, and the rise in the stock market.

This year, however, has been different due to the economic effects of COVID-19. There was a sudden, sharp recession beginning in February, with unemployment and other indicators falling dramatically between February and April, followed by some improvements during May, June, July, and August. Owner-occupied housing was hit especially hard during 2007-2016, but started to recover with encouraging increases in homeownership for minority households as well as for the population as a whole, which have continued during the first half of 2020; and two of the three major stock market indices have recently set records.

The financial collapse during 2008 was a severe shock to American households. Public opinion pollsters have frequently asked whether the country is moving in the right direction or is on the wrong track. Since January 2009, "on the wrong track" has been the answer of a large majority; at no time has a plurality said that we are moving in the right direction. Indeed, seldom have as many as 40 percent said so: during the summer and fall of 2018; during May 2019; and most recently in March 2020. Sentiment then turned sharply negative at the onset of the coronavirus pandemic. (Real Clear Politics, 2020.)

The continuing view that we have been on the wrong track is not surprising. The decline in household wealth was noticeable. Middle-wealth families were especially likely to notice it. Not only did their net worth decline in both nominal and real terms, but they were older from one survey to the next, and probably closer to retirement. It is not surprising that their portfolios were more focused on assets that would contribute to their standard of living in retirement, or the standard of living of their dependents after their own death: the equity in their homes, the balances in their retirement accounts, the cash value of their life insurance policies. It also had to be noticeable for many families with not much wealth to begin with that their net worth had turned negative between 2007 and 2010, and was still negative in 2016. Meanwhile, rich households — the richest 10 percent of all households, roughly those who were millionaires — increased their share of household wealth. In 2007, they owned over 71 percent of total net worth; in 2010 they owned 74 percent; in 2013 they owned 75 percent; in 2016 they owned 77 percent. The distribution of wealth did not change dramatically between 1983 and 2007, and it may have become more equal since 2016, but it became more unequal during the Great Recession.

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