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HOUSEHOLD WEALTH TRENDS IN THE UNITED STATES, 1962 TO 2019:  
MEDIAN WEALTH REBOUNDS... BUT NOT ENOUGH

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**ABSTRACT**

Median household wealth shot up by 21.2 percent in real terms between 2016 and 2019, as asset prices continued to rebound. However, 2007 still remains the watershed year, and median wealth was down 20.4 percent relative to 2007, though mean wealth more than fully recovered. There was a modest remission in wealth inequality, with the share of the top one percent down by 1.4 percentage points, that of the top 20 percent down by 1.0 percentage points, the Gini coefficient down by 0.008, and the mean wealth of the top one percent also down by 1.9 percent. The homeownership rate finally rebounded a bit, by 1.2 percentage points, to 64.9 percent. The stock ownership rate advanced by 0.4 percentage points to 49.6 percent, though still down from its 2001 peak. Though the mean debt of the middle class rose by 10.7 percent in real terms, the debt-income and debt-net worth ratios remained largely unchanged. The black-white gap in mean net worth remained unchanged, as did the Hispanic-white wealth gap. The wealth of households under age 35 continued to deteriorate in both absolute and relative terms between 2016 and 2019.

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## 1. Introduction

Relying on calculations from the Survey of Consumer Finances (SCF) from the Federal Reserve Board of Washington, as well as two other surveys, this paper documents trends in household net worth over more than 50 years from 1962 to 2019. Particular attention is devoted to how the middle class fared over years 2007 to 2010, during one of the sharpest declines in stock and real estate prices, and over years 2010 to 2019 as asset prices recovered. The debt of the middle class exploded from 1983 to 2007, already creating a fragile middle class. One main question is whether their position deteriorated over the “Great Recession” and recovered after that.<sup>1</sup> I also investigate what happened to wealth inequality over these years, particularly from 2007 to 2019.<sup>2</sup> It should be stressed that 2019 is pre-Pandemic, so that the results presented here do not reflect the likely adverse effects of the Pandemic on household wealth.

The period covered is from 1962 to 2019. In particular, results will be provided for years 1962, 1969, 1983, 1989, 1992, 1995, 1998, 2001, 2004, 2007, 2009, 2010, 2013, 2016, and 2019. The choice of years is dictated by the availability of survey data on household wealth. Asset prices plunged between 2007 and 2010 but then rebounded from 2010 to 2019. The most telling finding is that median wealth plummeted by 43.9 percent over years 2007 to 2010, almost double the drop in housing prices, and by 2010 was at its lowest level since 1969. From 2010 to 2016 median wealth rebounded by 17.1 percent and then by another 21.2 percent from 2016 to 2019. However, median wealth in 2019 was still down 20.4 percent from its peak in 2007. The inequality of net worth, as measured by the Gini coefficient, after almost two decades of little movement, was up sharply from 2007 to 2010. It then increased moderately from 2010 to 2016, while the wealth share of the top one percent shot up by 4.5 percentage points. There was a remission of inequality between 2016 and 2019, with the Gini coefficient and the top percentile share both falling. Middle class debt, with the exception of student loans, contracted sharply, by 31.1 percent from 2007 to 2013, but then rose by 14.1 percent from 2013 to 2019.

The rest of the paper is organized as follows. The next section, Section 2 provides

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<sup>1</sup> As noted below, though the “official” recession ended in June, 2009, according to the NBER definition, I refer to the period 2007 to 2010 as the “Great Recession,” since median income and wealth showed no recovery over these years and I have data points for these two years but not in between.

<sup>2</sup> This paper updates Wolff (2017a) and Wolff (2017b) to the year 2019. Results differ from these earlier works in two ways. First, I use the CPI-U-RS to deflate dollar figures here instead of the CPI-U. Second, asset price data and hence rate of return estimates have been revised.

historical background. Section 3 discusses the measurement of household wealth and describes the data sources used for this study. Section 4 presents time trends for median and average wealth holdings and Section 5 on the inequality of household wealth. Section 6 looks at changes in the portfolio composition of household wealth over years 1983 to 2019 (the period for which consistent data exists) and rates of return on household wealth over the same period. It also looks at developments in ownership rates for selected assets. Particular attention is paid to changes in relative indebtedness.

Are the rich really different from the rest of the population? Section 6.1 looks at the pattern of wealth holdings of the rich in comparison to the middle class. The rather staggering debt level of the middle class in 2019, as we shall see below, raises the question of whether this is a recent phenomenon or whether it has been going on for some time. Section 6.2 focuses on changes in the debt of the middle class over this time period. Section 6.3 presents another way of portraying differences between middle class households and the rich in terms of the share of total assets of different types held by each group. Differences in portfolio composition, particularly leverage (indebtedness) between wealth classes translates into large disparities in rates of return on household wealth over time, as documented in Section 7.

Section 8 investigates changes in wealth holdings by race and ethnicity; and Section 9 reports on changes in wealth holdings by age group. Section 10 investigates what has happened to stock ownership and Section 11 what has happened to accumulations in defined contribution pension plans. A summary of results and concluding remarks are provided in Section 12.

## **2. Historical background on asset price movements**

The last two decades have witnessed some remarkable events. Perhaps, most notable was the housing value cycle which first led to an explosion in home prices and then a collapse, affecting net worth and helping to precipitate the Great Recession, followed by a recovery. The median house price remained virtually the same in 2001 as in 1989 in real terms.<sup>3</sup> However, the

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<sup>3</sup> The source for years 1989 to 2007 is Table 935 of the *2009 Statistical Abstract*, US Bureau of the Census, available at <http://www.census.gov/compendia/statab/>. For years after 2007, the source is: National Association of Realtors, “Median Sales Price of Existing Single-Family Homes for Metropolitan Areas,” available at: <http://www.realtor.org/sites/default/files/reports/2012/embargoes/2012-q1-metro-home-prices-49bc10b1efdc1b8cc3eb66dbcdad55f7/metro-home-prices-q1-single-family-2012-05-09.pdf> [both accessed October 9, 2019]. The figures are based on median prices of existing houses for metropolitan areas only. All figures are in constant (2019) dollars unless otherwise indicated.

home ownership rate shot up from 62.8 to 67.7 percent. Then, 2001 saw a recession (albeit a short one). Despite this, house prices suddenly took off. The median sales price of existing one-family homes spurred by 19 percent nationwide from 2001 to 2007. The home ownership rate continued to expand, though at a somewhat slower rate, from 67.7 to 68.6 percent.

Then, the recession and associated financial crisis hit. The recession officially began in December, 2007, and “officially” ended in June, 2009.<sup>4</sup> One consequence was that asset prices plummeted. From 2007 to 2010, the median home price (in constant dollars) nose-dived by 24.5 percent, and the share of households owning their own home fell off, from 68.6 to 67.2 percent. This was followed by a partial recovery, with median house prices rising 26.3 percent from 2010 to 2016, though still below its 2007 value. However, the homeownership rate continued to contract, falling to 63.7 percent. From 2016 to 2019, home prices were up another 7.1 percent, finally above its 2007 level (though still below its 2005 peak), while the homeownership rate picked up a bit to 64.9 percent.

In contrast to the housing market, the stock market boomed during the 1990s. On the basis of the Standard & Poor (S&P) 500 index, stock prices surged 159.0 percent in constant dollars between 1989 and 2001.<sup>5</sup> Stock ownership spread and by 2001 over half of U.S. households owned stock either directly or indirectly (see Section 6 below). The stock market slowed from 2001 to 2007 and stock prices were up only 5.7 percent, while the stock ownership rate fell to 49.1 percent. Then came the Great Recession. Stock prices crashed from 2007 to 2009 and then partially recovered in 2010 for a net decline of 26.6 percent. The stock ownership rate also once again declined, to 46.9 percent. The stock market continued to rise after 2010 and by 2016 was up 59.6 percent over 2010 and way above its previous high in 2007. Moreover, the stock ownership rate rebounded to 49.3 percent. The stock market continued to boom from 2016 to 2019, up by 38.7 percent in real terms and the stock ownership rate inched up to 49.6 percent.

What have these various asset price trends wrought in terms of the distribution of household wealth? How have these changes impacted different demographic groups, particularly

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<sup>4</sup> The source is: <http://www.nber.org/cycles/cyclesmain.html> [accessed April 20, 2014]. As noted above, I use the term “Great Recession” to refer to the period from 2007 through 2010.

<sup>5</sup> The source for stock prices is Table B-96 of the *Economic Report of the President, 2013*, available at <http://www.gpoaccess.gov/eop/tables13.html>, with updates to 2019 from: <http://us.spindices.com/indices/equity/sp-composite-1500> [both accessed October 11, 2020].

as defined by race, ethnicity, and age? This is the subject of the remainder of this paper.

### **3. Data sources and methods**

The primary data sources used for this study are the 1983, 1989, 1992, 1995, 1998, 2001, 2004, 2007, 2010, 2013, 2016, and 2019 SCF. Each survey consists of a core representative sample combined with a high-income supplement. Starting in 1989, the first sample was selected from a standard multi-stage area-probability design. This part of the sample was intended to provide good coverage of asset characteristics such as home ownership that are broadly distributed. The second sample, the high income supplement, was selected as a so-called “list sample” from statistical records (the Individual Tax File) derived from tax data by the Statistics of Income (SOI) Division of the Internal Revenue Service. In this case, the IRS provided the names and addresses of a sample of very high income families. This second sample was designed to disproportionately select families that were likely to be relatively wealthy (see, for example, Kennickell and Woodburn. 1999). The advantage of the high-income supplement is that it provides a much "richer" sample of high income and therefore potentially very wealthy families. However, the presence of a high-income supplement creates some complications, because weights must be constructed to meld the high-income supplement with the core sample. Typically, about two thirds of the cases came from the representative sample and one third from the high-income supplement. In the 2007 SCF the standard multi-stage area-probability sample contributed 2,915 cases while the high-income supplement contributed another 1,507 cases.

The principal wealth concept used here is marketable wealth (or net worth), which is defined as the current value of all marketable or fungible assets less the current value of debts. Net worth is thus the difference in value between total assets and total liabilities. Total assets are defined as the sum of: (1) owner-occupied housing; (2) other real estate; (3) bank deposits, certificates of deposit, and money market accounts; (4) government and corporate bonds and other financial securities; (5) the cash surrender value of life insurance plans; (6) defined contribution (DC) pension plans, including IRAs and 401(k) plans; (7) corporate stock and mutual funds; (8) unincorporated businesses; and (9) trust funds. Total liabilities are the sum of: (1) mortgage debt, (2) consumer debt, and (3) other debt such as educational loans.

This measure reflects wealth as a store of value and therefore a source of potential consumption. I believe that this is the concept that best reflects the level of well-being associated with a family's holdings. Thus, only assets that can be readily converted to cash (that is,

"fungible" ones) are included. Though the SCF includes information on the value of vehicles owned by the household, I exclude this from my standard definition of household wealth, since their resale value typically far understates the value of their consumption services to the household. The value of other consumer durables such as televisions, furniture, household appliances, and the like are not included in the SCF.<sup>6</sup> Another justification for their exclusion is that this treatment is consistent with the national accounts, where purchase of vehicles and other consumer durables is counted as expenditures, not savings. A further reason is that for most people the concept of wealth as a store of potential consumption means that one should exclude assets whose possession is required in order to enable consumption or to earn income – for example, cars which are needed to purchase groceries or go to work.<sup>7</sup>

Also excluded here is the value of future Social Security benefits the family may receive upon retirement ("Social Security wealth"), as well as the value of retirement benefits from defined benefit pension plans ("DB pension wealth"). Even though these funds are a source of future income to families, they are not in their direct control and cannot be marketed.

I also use a more restricted concept of wealth, which I call "financial resources" or FR. This is defined as net worth minus net equity in owner-occupied housing (the primary residence only). FR is a more liquid concept than marketable wealth, since one's home is difficult to convert into cash in the short term. Moreover, primary homes also serve a consumption purpose besides acting as a store of value. FR represents what a household can draw down without lowering its standard of living, and thus excludes homes (and vehicles).<sup>8</sup>

Two other data sources are used in this chapter. The first of these is the 1962 Survey of Financial Characteristics of Consumers (SFCC). This survey was also conducted by the Federal Reserve Board of Washington and was a precursor to the SCF (see, Projector and Weiss, 1966). This was also a stratified sample which over-sampled high income households. Though the

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<sup>6</sup> On the other hand, the value of antiques, jewelry, art objects and other "valuables" are included in the SCF in the category "other assets."

<sup>7</sup> Another rationale is that if vehicles are included in the household portfolio, their "rate of return" would be substantially negative since they depreciate very rapidly over time (see Section 7 for calculations of the overall rate of return on the household portfolio).

<sup>8</sup> However, FR does include "valuables" like artwork, since this can be sold without significantly lowering a family's standard of living, as well as business assets which may be illiquid in the short term. As a result, FR is not a 100 percent purely liquid concept since it includes some illiquid assets as well.

sample design and questionnaire are different from the SCF, the methodology is sufficiently similar to allow comparisons with the SCF data (see Appendix 1 of Wolff, 2017, for details on the adjustments). The second is the 1969 MESP database, a synthetic dataset constructed from income tax returns and information provided in the 1970 Census of Population. A statistical matching technique was employed to assign income tax returns for 1969 to households in the 1970 Census. Property income flows (such as dividends) in the tax data were then capitalized into corresponding asset values (such as stocks) to obtain estimates of household wealth.<sup>9</sup>

Estimates of the size distribution of household wealth are sensitive to the sampling frame used in survey data. The reason is that because of the extreme skewness of the distribution of household wealth, the inclusion of a high-income supplement in the sample provides much more reliable estimates than a representative sample. The SFCC and the SCF each has an explicit high-income supplement. The MESP dataset has an implicit high-income supplement since it is based in large part on income data from the IRS tax file, which is *not top-coded* like the Current Population Survey and most other publicly available survey data. Moreover, the accounting framework, the choice of observational unit, and patterns of response error, because of portfolio variation with wealth class, also affect wealth estimates.

#### **4. Median wealth partially recovers after 2010**

Table 1 documents a robust growth in wealth from 1983 to 2007, even back to 1962 (also see Figure 1). Median wealth increased at an annual rate of 1.63 percent from 1962 to 1983, 1.13 percent from 1983 to 1989, and then 1.98 percent from 1989 to 2007. Then between 2007 and 2010, median wealth plunged by a staggering 43.9 percent! Indeed, real median wealth was actually about the same in 2010 as in 1969. The primary reasons, as we shall in Section 7, are the collapse in the housing market and the high leverage of middle class families. Median wealth

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<sup>9</sup> It should be noted that the 1962 SFCC, the 1969 MESP data file, and the 1983 and 1989 SCF data files were aligned to national balance sheet totals in order to provide consistency in the household wealth estimates, since they each use somewhat different sampling frames and methodologies. (The methodology for the 1983 SCF differs to some extent from that for the 1989 SCF, while the same methodology is used for SCF files for 1989 and onward). The 1992 SCF, the 1995 SCF, and the 1998 SCF also required some minor adjustments because they both showed serious discrepancies with the national balance sheet figures. My baseline estimates also exclude vehicles. Moreover, my calculations are based on the “public use” samples provided by the Federal Reserve Board, which are to some degree different from the internal files maintained by the Federal Reserve Board. As a result, my figures on mean and median net worth, as well as on wealth inequality, will in general be at a slight variance from the “standard” estimates provided by the Federal Reserve Board which include the value of vehicles in their statistics (see, for example, Kennickell and Woodburn, 1999, and more recently, Bricker et. al., 2017).



rebounded somewhat from 2010 to 2016, climbing by 17.1 percent, and again from 2016 to 2019, by 21.2 percent, though it was still down 20.4 percent from its peak in 2007.

**[Table 1 and Figure 1 about here]**

As shown in the third row of Panel A, the percentage of households with zero or negative net worth, after falling from 18.2 percent in 1962 to 15.5 percent in 1983, increased to 18.6 percent in 2007. This was followed by a sharp rise to 21.8 percent in 2010, at which level it remained until 2016. Then, there was moderate drop off in 2019 (to 19.6 percent). Similar time trends are in evidence for the share of household with net worth less than \$5,000 and less than \$10,000 (both in 1995 dollars), though in both cases there was a decline from 2010 to 2016 and a more pronounced falling-off from 2016 to 2019. In all three cases, the figures were one to three percentage points above the corresponding 2007 levels.

Mean net worth also grew vigorously from 1962 to 1983, at an annual rate of 1.82 percent, a little higher than that of median wealth. Its growth accelerated to 2.52 percent per year over years 1983 to 1989, about double the growth rate of median wealth. Over years 1989 to 2007, the growth rate of mean wealth accelerated to 3.24 percent per year. Mean wealth in 2007 was more than double its value in 1983. Another point of note is that mean wealth grew much faster than the median from 1983 to 2007, indicative of widening inequality of wealth.

The Great Recession also saw an absolute decline in mean household wealth. However, whereas median wealth plunged by 43.9 percent between 2007 and 2010, mean wealth fell by (only) 16.1 percent. However, here, too, the relatively faster growth in mean wealth than median wealth (that is, the latter's more moderate decline) was coincident with rising wealth inequality. Mean wealth then grew by 27.9 from 2010 to 2016 and was 7.3 percent above its previous 2007 peak. This was followed by almost no change from 2016 to 2019.

Median financial resources (FR), after expanding at a relatively slow pace of 0.55 percent per year from 1962 to 1983, accelerated to 3.01 percent per year from 1983 to 1989 and then fell off a bit to 1.98 percent per year from 1989 to 2007 (also see Figure 2). Then, when the financial crisis hit, median FR nose-dived by 49.0 percent from 2007 to 2010, even more than median net worth, to only \$14,800 – is lowest level over the 57-year period. This was followed by a modest gain of 8.7 percent between 2010 and 2016 and a more vigorous 24.9 percent advance from 2016 to 2019. However, despite this median FR was still 44.6 percent down from its 2007 level. After holding relatively steady between 1962 and 1983, the fraction of

households with zero or negative FR expanded from 25.7 percent in 1983 to 27.4 percent in 2007. However, in 2010 the share was up again to 29.4 percent and generally remained at this level through 2019.

**[Figure 2 about here]**

Mean FR, after expanding at annual pace of 1.38 percent from 1962 to 1983, grew at 2.99 percent per year from 1983 to 1989 and then 3.25 percent from 1989 to 2007. Like NW, there was a fall-off in mean FR of 12.2 percent from 2007 to 2010. From 2010 to 2016, there was a substantial gain of 32.7 percent in mean FR and then no change through 2019. The 2016 value was 16.5 percent above its previous peak in 2007.

Income trends are rather different. Median household income (based on Current Population Survey data) advanced at a fairly solid pace from 1962 to 1983, at 1.19 percent per year (also see Figure 3). Then, after gaining 2.02 percent per annum between 1983 and 1989, its annual growth dipped to only 0.41 percent from 1989 to 2007. Then, from 2007 to 2010, it fell off in absolute terms by 6.7 percent. Though this is not an insignificant amount, the reduction was not nearly as great as that in median wealth. From 2010 to 2016, median income advanced by 8.6 percent and then a robust 9.2 percent from 2016 to 2019. By 2016, median income was about back to where it was in 2007 and by 2019 was up by 10.7 percent over its 2007 level. Mean income shows a similar time trend, though the percentage gains were greater than that of median income in every time period. By 2016 mean income was 6.0 percent above its 2007 level and by 2019 it was 17.4 percent greater.

**[Figure 3 about here]**

In sum, while median income grew slowly from 1989 to 2007, median net worth advanced strongly. The Great Recession, on the other hand, saw a massive destruction of median net worth but a much more modest decline in median income. Median income did fully recover by 2019 while median wealth was still below its previous 2007 peak.

## **5. Wealth inequality shows a slight remission in 2019**

The figures in Table 2 also show that wealth inequality, after rising from 1962 to 1969, returned to its 1962 level in 1983 (also see Figure 4).<sup>10</sup> Then, after increasing again from 1983

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<sup>10</sup> This is not to say that there was no major change in wealth inequality over these years. Indeed, on the basis of estate tax data, Wolff (2002) documents a sharp reduction in wealth inequality from about 1969 to 1976 and then a sharp rise from 1976 to 1983.

to 1989, it remained virtually unchanged from 1989 to 2007 according to the Gini coefficient. Over these years, the share of the top percentile actually declined a bit, from 35.2 to 34.6 percent, though this was more than compensated for by an increase in the share of the next four percentiles. As a result, the share of the top five percent increased from 58.0 percent in 1989 to 61.8 percent in 2007, and the share of the top quintile rose from 83.0 to 85.0 percent. The share of the fourth and middle quintiles each declined by about a percentage point, while that of the bottom 20 percent increased by 0.2 percentage point. Overall, the Gini coefficient saw a very small rise, from 0.828 in 1989 to 0.834 in 2007.

**[Table 2 and Figure 4 about here]**

The years 2007 to 2010 saw a sharp elevation in wealth inequality, with the Gini coefficient rising from 0.834 to 0.866. Interestingly, the share of the top percentile showed only a half percentage point gain. Most of the rise in wealth share took place in the remainder of the top quintile, and overall the share of wealth held by the top quintile climbed by 3.6 percentage points. The shares of the other quintiles, correspondingly, dropped, with the share of the second quintile falling by 0.4 percentage points and that of the bottom quintile by 0.7 percentage points.

From 2010 to 2016 there was a small rise in the Gini coefficient, from 0.866 to 0.877. The share of the top one percent experienced a huge increase of 4.5 percentage points but the share of the next 19 percent went down, so that the wealth share of the top quintile dropped slightly, by 0.3 percentage points. The wealth of the fourth quintile also lost 1.3 percent, that of the middle quintile fell 0.3 percent, but that of the bottom forty percent gained 0.4 percent. From 2016 to 2019, the Gini coefficient dropped from 0.877 to 0.869. The share of the top percentile fell by 1.4 percentage points and that of the top quintile by 1.0 percentage points and the wealth share of the other quintiles rose. In constant dollar terms, the net worth of the top one percent actually declined by 1.9 percent over those years.

FR is even more concentrated than net worth, with the richest one percent (as ranked by FR) owning 44.5 percent of total FR in 2019, compared to a 38.2 percent share of net worth of the top percentile in for net worth, and the top 20 percent of the former owning 95.4 percent, compared to 88.9 percent for net worth. The inequality of FR shows a somewhat different time trend than net worth – mainly because of differences in timing between the housing market and the stock market cycles (also see Figure 4). The share of the top percentile climbed from 39.5 percent in 1962 to 42.9 percent in 1983 and the Gini coefficient showed a marked increase from

0.838 to 0.893, while the inequality of net worth was about the same in the two years. The share of the top one percent then gained 1.2 percentage points and the Gini coefficient increased from 0.893 to 0.920 between 1983 and 1989 – trends, in this case, mirroring those of net worth.

However, in the ensuing 18 years, from 1989 to 2007, the Gini coefficient for FR fell from 0.920 to 0.908 while that for NW rose slightly, from 0.828 to 0.834, though the top percentile share declined in both cases. From 2007 to 2010, the share of total FR held by the top one percent actually declined a bit but the shares of the remaining groups in the top quintile expanded, so that the share of the top quintile advanced from 93.0 to 94.8 percent. The shares of the lower four quintiles declined, so that the overall Gini coefficient rose from 0.908 in 2007 to 0.921 in 2010, close to its previous high point in 1989. From 2010 to 2016, the share of the top one percent shot up from 41.3 to 45.9 percent, though the Gini coefficient showed a more moderate rise, of 0.009. There was no change in the Gini coefficient or the top quintile share from 2016 to 2019, though the share of the top one percent dropped by 1.4 percentage points.

The top 1 percent of families (as ranked by income on the basis of the SCF data) earned 19.0 percent of total household income in 2018 and the top 20 percent accounted for 61.0 percent -- large figures but lower than the corresponding wealth shares (also see Figure 4).<sup>11</sup> The time trend for income inequality also contrasts with that for net worth. Income inequality showed a sharp rise from 1961 to 1982, with the Gini coefficient expanding from 0.428 to 0.480 and the share of the top one percent up from 8.4 to 12.8 percent. Income inequality increased sharply again between 1982 and 1988, with the Gini coefficient rising from 0.480 to 0.521 and the share of the top one percent up from 12.8 to 16.6 percent.

Inequality again surged from 1988 to 2006, with the share of the top percentile rising by 4.7 percentage points, the share of the top quintile up by 5.9 percentage points, the shares of the other quintiles falling again, and the Gini index advancing from 0.521 to 0.574. Perhaps, somewhat surprisingly, the years 2007 to 2010 witnessed a rather sharp contraction in income inequality. The Gini coefficient fell from 0.574 to 0.549 and the share of the top one percent dropped sharply from 21.3 to 17.2 percent. Property income and realized capital gains (which are included in the SCF definition of income), as well as corporate bonuses and the value of stock options, plummeted over these years, a process which explains the steep decline in the share of

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<sup>11</sup> It should be noted that the income in each survey year (say 2019) is for the preceding year (2018 in this case).

the top percentile. Real wages actually rose over these years, though the unemployment rate also increased. As a result, the income of the middle class was down but not nearly as much in percentage terms as that of the high income groups. In contrast, transfer income such as unemployment insurance rose, so that the bottom also did better in relative terms than the top. As a result, overall income inequality fell over the years 2006 to 2009.

Years 2009 to 2015 saw a reversal in this trend, with income inequality once again increasing sharply. The Gini coefficient increased 0.598, above its 2006 level. The share of the top percentile rose to 23.5 percent and that of the top quintile was up to 64.0 percent, both above their level in 2006. The same set of factors, though in reverse, helps explain this turnaround in income inequality. Property income, realized capital gains, and associated income rose sharply over these years as the stock market recovered, accounting for the sharp rise in the share of the top percentile. The unemployment rate fell over these years but real wages were down, according to the BLS figures. As a result, the income of the middle class rose but not nearly as much in percentage terms as that of the high income groups. Transfer income such as unemployment insurance fell, as the extensions of benefits enacted in the early days of the recession ended. Income inequality then contracted from 2015 to 2018, with the Gini coefficient falling to 0.571, the share of the top one percent down to 19.0 percent, and that of the top quintile to 61.0 percent.

All in all, income inequality increased much more in percentage terms than either net worth or FR inequality over years 1983 to 2019. On the basis of the Gini coefficient, net worth inequality was up by 8.8 percent and FR inequality was up by 4.2 percent, while income inequality rose by 18.9 percent.

### 5.1 The upper strata

Despite the relative stability in overall wealth inequality during the 1990s, there was a near explosion in the number of very rich households (see Table 3). The number of millionaires (standardized to 1995 dollars) almost doubled between 1989 and 2001, the number of "penta-millionaires" (\$5,000,000 or more) increased three and a half times, and the number of "deca-millionaires" (\$10,000,000 or more) grew more than five-fold. Much of the growth occurred between 1995 and 2001 and was directly related to the surge in stock prices. The number of the very rich continued to increase between 2001 and 2007 at about the same pace, with the number of millionaires growing by 23.4 percent, the number of penta-millionaires by 37.4 percent, and the number of deca-millionaires by 37.2 percent.

**[Table 3 about here].**

However, despite the increase in the share of the top one percent of wealth holders, the millionaire count slowed markedly from 2007 to 2010, rising by only 9.0 percent. Moreover, there was an absolute decline in the number of penta-millionaires and deca-millionaires, falling by 26.8 and 24.1 percent, respectively. These numbers reflect the steep decline in asset prices over these years, particularly for stocks and business equity (see Section 1 above). From 2010 to 2016, the ranks of all three groups exploded due to the boom in house and stock prices. The number of millionaires rose by 15.3 percent, the number of penta-millionaires by 72.3 percent, and the number of deca-millionaires by 80.5 percent. Then, coincident with the fall in wealth inequality, there was virtually no change in the number of millionaires and penta-millionaires from 2016 to 2019, though the number of deca-millionaires rose by 9.0 percent.

5.2 The share of overall wealth gains, 1983 to 2019

Table 4 shows percentage changes in mean wealth and income by quantile between 1983 and 2019. The results are even more striking. Over this period, the largest gains in relative terms were made by the wealthiest households. The top 0.1 percent saw their average wealth (in 2019 dollars) rise by 60.3 million dollars or by 137.3 percent, that of the top 0.5 percent by 25.1 million or 153.4 percent, and that of the top one percent by 16.9 million dollars or by 157.2 percent. The remaining part of the top quintile experienced increases from 88 to 188 percent, the fourth quintile by 55.1 percent, and the middle quintile by 26.6 percent, while the average wealth of the poorest 40 percent fell by \$14,200 to -\$7,200.

**[Table 4 about here]**

Another way of viewing this phenomenon is afforded by calculating the proportion of the total increase in real household wealth between 1983 and 2019 accruing to different wealth groups. This is computed by dividing the increase in total wealth of each percentile group by the total increase in household wealth, while holding constant the number of households in that group. If a group's wealth share remains constant over time, then the percentage of the total wealth growth received by that group will equal its share of total wealth. If a group's share of total wealth increases (decreases) over time, then it will receive a percentage of the total wealth gain greater (less) than its share in either year. However, it should be noted that in these calculations, the households found in each group (say the top quintile) may be different in the two years.

The results indicate that the richest one percent received 41.6 percent of the total gain in wealth over years 1983 to 2019. This proportion was greater than the share of wealth held by the top one percent in any of the intervening 36 years. Indeed, the top 0.1 percent garnered 14.9 percent of the total gains and the top 0.5 percent made off with 30.9 percent. The next 4 percent (P95 to P99) received 32.9 percent of the total gain and the next 15 percent 20.4 percent, so that the top quintile collectively accounted for 94.9 percent of the total growth in wealth, while the bottom 80 percent accounted for a little over five percent. The pattern of results is very similar for financial resources. However, in this case, the top percentile and the top quintile secured a higher proportion of the total wealth gain than for net worth.

A similar calculation using the SCF income data reveals that the greatest percentage gains in real income over the period from 1982 to 2018 were made by households in the top one percent of the income distribution, who saw their incomes grow by 112.3 percent in real terms. The percentage gain then fell almost monotonically with income level, with the bottom 40 percent seeing only a 12.3 percent increase in their mean income. Of the total growth in real income between 1982 and 2018, a third accrued to the top one percent and 82 percent to the top quintile. These figures are somewhat lower than those for net worth and FR.

## **6. Household debt finally recedes**

In 2019, owner-occupied housing was the most important household asset in the average portfolio breakdown for all households shown in Table 5, accounting for 26.9 percent of total assets (also see Figure 5). However, net home equity -- the value of the house minus any outstanding mortgage -- amounted to only 17.7 percent of total assets. Real estate, other than owner-occupied housing, comprised 9.4 percent, and business equity another 20.0 percent.

### **[Table 5 and Figure 5 about here]**

Demand deposits, time deposits, money market funds, CDs, and the cash surrender value of life insurance (collectively, “liquid assets”) made up 6.8 percent and pension accounts 15.5 percent. Bonds and other financial securities amounted to 0.9 percent; corporate stock, including mutual funds, to 15.5 percent; and trust fund equity to 3.6 percent. Debt as a proportion of gross assets was 12.9 percent, and the debt to net worth ratio was 14.9 percent, while the debt-income ratio was 104.0 percent.

There were some notable changes in the composition of household wealth over years 1983 to 2019. First, the share of housing wealth in total assets, jumped from around 30 percent in

1983-2001 to a peak value of 33.5 percent but then declined to 26.9 percent in 2019. Two factors explain this movement. The first is the trend in the homeownership rate, which rose from 63.4 percent in 1983 to a top value of 69.1 percent in 2004 and then fell off to 64.9 percent in 2019. The second is that the median house price for existing one-family homes rose by 16.9 percent between 2001 and 2004 and then inched up by 3.9 percent from 2004 to 2019. A second and related trend is that net home equity, after falling almost continuously from 23.8 percent of total assets in 1983 to 18.2 percent in 1998, picked up to 21.8 percent in 2004 but then fell to 17.7 percent in 2019. The difference between the two series (gross versus net) is attributable to the changing magnitude of mortgage debt on homeowner's property, which increased from 20.9 percent in 1983 to 37.0 percent in 1998 but then fell back to 34.0 percent in 2019.

Third, overall relative indebtedness first increased, with the debt to net worth ratio climbing from 15.1 percent in 1983 to 20.6 percent in 2010, and then tumbled to 14.9 percent in 2019. Likewise, the debt-income ratio surged almost continuously over time from 68.4 percent in 1983 to a peak of 127.0 percent in 2010 but then dropped off sharply to 104.0 percent in 2019. If mortgage debt on principal residence is excluded, then the ratio of other debt to total assets actually fell off over time from 6.8 percent in 1983 to 3.8 percent in 2019.

The large rise in *relative* indebtedness among all households between 2007 and 2010 could be due to a rise in the absolute level of debt and/or a fall-off in net worth and income. As shown in Table 1, both mean net worth and mean income fell over the three years. There was also a slight contraction of debt in constant dollars, with mortgage debt declining by 5.0 percent, other debt by 2.6 percent, and total debt by 4.4 percent (see Table 9 below). Thus, the steep rise in the debt-net worth and the debt-income ratios over the three years was entirely due to the reduction in wealth and income. In contrast, from 2010 to 2019, relative indebtedness declined sharply. The main reason was sizeable gains in both mean wealth and mean income, which was reinforced by a 6.2 percent reduction in average household debt.

A fourth change is that pension accounts rose from 1.5 to 15.5 percent of total assets from 1983 to 2019. This increase largely offset the decline in the share of liquid assets in total assets, from 17.4 percent to 6.8 percent, so that it is reasonable to infer that to a large extent households substituted tax-deferred pension accounts for taxable savings deposits.

Fifth, stocks and mutual funds rose from 9.0 to 15.5 percent of gross assets over these years. Its year to year trend mainly reflects fluctuations in the stock market. If we include the



value of stocks indirectly owned through mutual funds, trusts, IRAs, 401(k) plans, and other retirement accounts, then the value of total stocks owned as a share of total assets more than doubled from 11.3 percent in 1983 to a peak of 24.5 percent in 2001, but then declined to 22.6 percent in 2019. The rise during the 1990s reflected the bull market in corporate equities as well as increased stock ownership, while the decline in the 2000s was a result of the sluggish stock market as well as a drop in stock ownership (see Table 17b below). The increase from 2010 to 2019 reflected the recovery of the stock market and increases in stock ownership.

### 6.1 Portfolio composition by wealth class

The tabulation in Table 5 provides a picture of the average holdings of all families in the economy, but there are marked class differences in how middle-class families and the rich invest their wealth. As shown in Table 6, the richest one percent of households (as ranked by wealth) invested almost 80 percent of their savings in investment real estate, businesses, corporate stock, and financial securities in 2019 (also see Figure 6). Corporate stock, either directly owned by the households or indirectly owned through mutual funds, trust accounts, or various pension accounts, comprised 25.8 percent by itself. Housing accounted for only 8.9 percent of their wealth (and net equity in housing 7.5 percent), liquid assets 5.0 percent, and pension accounts another 6.0 percent. Their ratio of debt to net worth was only 2.4 percent, their ratio of debt to income was 45.3 percent, and the ratio of mortgage debt to house value was 15.3 percent.

#### **[Table 6 and Figure 6 about here]**

Among the next richest 19 percent of U.S. households, housing comprised 25.9 percent of their total assets (and net home equity 198.9 percent), liquid assets 7.5 percent, and pension assets another 22.6 percent. Investment assets -- real estate, business equity, stocks, and bonds -- made up 43.0 percent and 25.4 percent was in the form of stocks directly or indirectly owned. Debt amounted to 10.3 percent of their net worth and 95.9 percent of their income, and the ratio of mortgage debt to house value was 27.0 percent.

In contrast, 64.3 percent of the assets of the middle three wealth quintiles of households was invested in their own home in 2019. However, home equity amounted to only over a third of total assets, a reflection of their large mortgage debt. Another 23.1 percent went into monetary savings of one form or another and pension accounts. Together housing, liquid assets, and pension assets accounted for 87.4 percent of the total assets of the middle class. The remainder was about evenly split among non-home real estate, business equity, and various financial

securities and corporate stock. Stocks directly or indirectly owned amounted to only 8.6 percent of their total assets. The ratio of debt to net worth was 57.5 percent, and their ratio of debt to income was 122.0 percent, both much higher than that of the top quintile. Finally, their mortgage debt amounted to 44.5 percent of the value of their principal residences.

Almost all households among the top 20 percent of wealth holders owned their own home, in comparison to 70.5 percent of households in the middle three quintiles. Three-quarters of very rich households (in the top percentile) owned some other form of real estate, compared to 44.8 percent of rich households (those in the next 19 percent of the distribution) and only 12.6 percent of households in the middle 60 percent. Over 90 percent of the very rich had a pension account, compared to 85.7 percent of the rich and 47.4 percent of the middle. A stunning 71.7 percent of the very rich reported owning their own business. The comparable figures were 29.6 percent among the rich and only 9.0 percent of the middle class.

Among the very rich, 91.1 percent held corporate stock, mutual funds, financial securities or a trust fund, in comparison to 61.9 percent of the rich and 16.8 percent of the middle class. Almost all of the very rich reported owning stock either directly or indirectly, compared to 88.8 percent of the rich and 45.9 percent of the middle. If we exclude small holdings of stock, then the ownership rates dropped off sharply among the middle three quintiles, from 45.9 percent to 34.6 percent for stocks worth \$5,000 or more and to 28.7 percent for stocks worth \$10,000 or more.

Table 7 compares the wealth composition of the three wealth classes in 1983 and 2019. There was remarkable stability in the composition of wealth by wealth class over these years. The most notable exception is a substitution of pension assets for liquid assets -- a transition that occurred for all three wealth classes but that was particularly marked for percentiles 80-99 and for the middle three quintiles. The debt to net worth ratio actually fell by over half for the top one percent from 1983 and 2019, and the debt-income ratio by almost half. The debt to net worth ratio decreased slightly for the next 19 percent, while the debt-income ratio rose from 72.8 to 95.9 percent. For the middle three wealth quintiles, the debt to net worth ratio rose from 37.4 to 57.5 percent and their debt-income ratio almost doubled over this period.

**[Table 7 about here]**

More details are provided in Table 8 for the middle three wealth quintiles. Perhaps, the most striking development is the homeownership rate, which after rising almost continuously over time from 71.6 percent in 1983 to 78.2 percent in 2004, plunged to 67.0 percent in 2016.

However, there was a notable pick-up to 70.5 percent in 2019. This trend was more pronounced than that among all households, among whom the homeownership rate dropped from 69.1 percent in 2004 to 63.7 percent in 2016 followed by a modest rebound to 64.9 percent in 2019. A similar trend is evident for the share of homes in total assets, which remained virtually unchanged from 1983 to 2001 but then rose sharply in 2004. This increase was largely a result of rising house prices and gains in the homeownership rate. The share then declined from 2004 through 2016 as the homeownership rate plummeted but then bounced back in 2019.

**[Table 8 about here]**

The share of pension accounts in total assets rose by 13.5 percentage points from 1983 to 2019, while that of liquid assets declined by 13.1 percentage points. This trend parallels that of all households. In contrast, the share of middle class households holding a pension account, after surging by 41.2 percentage points, from 12.2 percent in 1983 to 53.4 percent in 2007, contracted to 47.4 percent in 2019. The share of all stocks in total assets mushroomed from 2.4 percent in 1983 to 12.6 percent in 2001 but and then fell off to 8.6 percent in 2019. The stock ownership rate among the middle class also shot up quickly from 16.5 percent in 1983 to 51.1 percent in 2001, when it peaked. It then declined steeply to 41.4 percent in 2010 but recovered to 45.9 percent in 2019. In similar fashion, the share of middle class households owning either corporate stock, financial securities, mutual funds or a personal trust rose from 21.6 percent in 1983 to 27.5 percent in 2001 and then plunged to 16.8 percent in 2019. Much of the decline took place between 2007 and 2010, as middle class households got scared off by the stock market collapse of those years.

**6.2 The evolution of middle class debt**

The rather staggering debt level of the middle class in 2019 raises the question of whether this is a recent phenomenon or whether it has been going on for some time. The debt-income ratio peaked in 2007 and then contracted substantially in 2010 and receded a bit more by 2019, while the debt-net worth ratio peaked in 2010 and then fell off sharply through 2019.

There was a sharp rise in the debt to net worth ratio of the middle class from 37 percent in 1983 to 61 percent in 2007. There was a particularly steep uptick between 2001 and 2004, a reflection mainly of rising mortgage debt. The debt to income ratio skyrocketed from 1983 to 2007, more than doubling. Once, again, much of the increase happened between 2001 and 2004. In constant dollar terms, the mean debt of the middle class shot up by a factor of 2.6 between

1983 and 2007, mortgage debt by a factor of 3.2, and other debt by a factor of 1.5. The rise in the debt to net worth ratio and the debt-income ratio was much more pronounced than for all households. In 1983, for example, the debt to income ratio was about the same for the middle class as for all households but by 2007 the ratio was much larger for the former.

After the Great Recession hit, the debt to net worth ratio continued to rise, reaching 69.2 percent in 2010 but there was actually a retrenchment in the debt to income ratio, falling to 134.3 percent. The reason is that from 2007 to 2010, the mean debt of the middle class actually contracted by 24.9 percent in constant dollars (see Table 9). Average mortgage debt declined by 23.1 percent, as families paid down their outstanding balances, while the mean value of other debt plummeted by 31.6 percent, as families paid off credit card balances and other forms of consumer debt. If we separate out educational loans, which actually remained flat over these years, we find that non-educational debt plunged by 36.7 percent. Among all households, in contrast, mortgage debt in constant dollars fell by only 5.0 percent, non-educational debt was down by 9.6 percent but students loans climbed by 43.5 percent. The significant rise in the debt to net worth ratio of the middle class between 2007 and 2010 was due to the steeper drop off in net worth than in debt, while the decline in the debt-income ratio of this group was exclusively due to the sharp contraction of overall debt.

**[Table 9 about here]**

Both the debt to net worth and the debt-income ratios fell from 2010 to 2019 for the middle class. Overall mean debt actually rose by 4.7 percent in real terms over these years. Average mortgage debt remained fairly flat but non-mortgage debt, particularly educational loans, increased sharply – the latter by 66.4 percent. The decline in relative indebtedness was entirely due to a substantial rise in both mean income and wealth. In contrast, average overall debt fell among all households, by 6.2 percent, with mortgage debt down by 10.7 percent and non-educational debt down by 3.7 percent, whereas student loans increased by 49.6 percent.

Similar to the trend for all households, net home equity as a percentage of total assets for the middle class fell rather continuously from 1983 to 2010 and then rebounded. Mortgage debt as a proportion of house value rose through 2010 and then fell off a bit through 2019, though still far above its 1983 level. The decline in the former between 2007 and 2010 was relatively small despite the steep decrease in home prices, a reflection of the sharp reduction in mortgage debt. The rise after 2010 was due to rising home prices. On the other hand, the rise in the ratio of

mortgage debt to house values was relatively large over years 2007 to 2010 because of the fall-off in home prices. This ratio then contracted after 2010 due to rising home prices.

### 6.3 Concentration of assets by asset type

Another way to portray differences between middle class households and the rich is to compute the share of total assets of different types held by each group (see Table 10 and Figure 7 and Figure 8). In 2019 the richest one percent of households held more than half of all outstanding stocks and mutual funds, financial securities, and business equity, and 40 percent of trust funds, and a little over a third of non-home real estate. The top 10 percent as a group accounted for about 85 to 95 percent of stock shares and mutual funds, bonds, trusts, and business equity, and about 80 percent of non-home real estate. Moreover, despite the fact that almost half of all households owned stock shares either directly or indirectly through mutual funds, trusts, or pension accounts, the richest 10 percent controlled 85.0 percent of their total value, though less than its 93.6 percent share of directly owned stocks and mutual funds.

#### **[Table 10 and Figure 7 and Figure 8 about here]**

In contrast, owner-occupied housing, deposits, life insurance, and pension accounts were more evenly distributed among households. The bottom 90 percent of households accounted for 58.8 percent of the value of owner-occupied housing, 35.9 percent of deposits, 37.0 percent of life insurance cash value, and 33.4 percent of the value of pension accounts. Debt was the most evenly distributed component of household wealth, with the bottom 90 percent of households responsible for 72.7 percent of total indebtedness.

There were some interesting time trends. First, the concentration of equities showed a notable uptick between 2001 and 2019. While the share of total stocks and mutual funds held by the richest 10 percent of households declined from 90.4 percent in 1983 to a low of 84.5 percent in 2001, it bounced back to 93.6 percent in 2019. Likewise, while their share of stocks directly or indirectly owned fell from 89.7 percent in 1983 to a nadir of 76.9 percent in 2001, it rebounded to 85.0 percent in 2019. Second, the time trend is similar for trusts, with the share of the top 10 percent falling from 95.4 percent in 1983 to 79.4 percent in 2007 and then rising to 85.9 percent in 2019. The time pattern is different for other assets. Third, the share of financial securities owned by the top 10 percent trended upward from 82.9 percent in 1983 to 98.5 percent in 2007 but then retreated to 92.7 percent in 2019. Fourth, the proportion of business equity held by this group generally trended upward over time, from 89.9 percent in 1983 to 94.0 percent in 2019.

Fifth, the fraction of non-home real estate held by this group, after remaining more or less stable from 1983 to 2010, trended upward to 79.5 percent in 2019.

Time patterns are also different for non-investment type assets. First, the concentration of homes, deposits, and life insurance in the hands of the top decile generally trended upward over time. Second, total pension accounts held by the top 10 percent fell from 66.5 percent in 1983 to 50.5 percent in 1989, reflecting the growing use of IRAs by middle income families, and then rebounded to 66.6 percent in 2019 from the expansion of 401(k) plans and their adoption by high income earners. Third, the share of total debt held by the top 10 percent declined from 31.8 percent in 1983 to 25.9 percent in 2001 but then rose to 27.3 percent in 2019.

## **7. The role of leverage in explaining time trends in wealth**

### 7.1 Rates of return

Table 11 shows average annual *real* rates of return for both gross assets and net worth over the period from 1983 to 2019. Results are based on the average portfolio composition over the period and assume that all wealth groups receive the same rate of return, on average, by asset type. In particular, it is assumed that there are no systematic differences in returns on, for example, stocks by wealth class.

#### **[Table 11 about here]**

What is the evidence supporting this assumption? First, one rather dated study, Blume et. al. (1974, p. 26), looked at the relation of dividend yield to household income in 1969. The study found that dividend yield, rather interestingly, varied inversely with income but the range was very small (2.51 percent to 2.78 percent). Second, Feldstein and Yitzhaki (1982) found that high income investors received a higher rate of return on their investments than low income ones. However, the study, based on income tax returns, relied exclusively on capital gains realized on corporate stock and the differences were not great.

Third, Wolff (1987) also looked at asset yields by income class on the basis of the 1962 Survey of Financial Characteristics of Consumers (and reported in Wolff, 2017a, Table A1.2 of Appendix 2). The results indicated that bond yields were notably higher for the top income class (\$100,000 or more) than the eight other income classes. However dividend yields on stocks showed very little systematic variation with income class (they were actually highest for the second and sixth income class). Returns on unincorporated business were highest for the two middle income classes and lowest for the top two and bottom income classes. Yields on trust

equity tended to be inversely related to income, highest at the bottom and lowest at the top of the income distribution.

Fourth, Johnson, Raub, and Newcomb (2013) used micro estate tax data of 2007 decedents matched to 2006 income tax returns to analyze rates of return by wealth class. If anything, they found slightly decreasing rates of returns for some asset classes by wealth level. Fifth, Saez and Zucman (2016) provided three pieces of evidence supporting this assumption. They encountered the same issue in their capitalization technique since they also assumed a uniform rate of return across income classes. They also used matched estate-income returns like Johnson et. al. (2013) and analyzed three datasets. The first piece of evidence was based on publicly available SOI tabulations of matched estate-income returns for 2008. Saez and Zucman (SZ) found that within-asset-class returns were fairly constant across wealth groups. Although rates of returns varied across individuals, they were similar across wealth groups.

The second source of evidence was the internal SOI matched estate and income tax files over years 1996–2011 period. SZ matched the estate tax returns of non-married individuals dying in this period to their prior-year income tax returns. They found that the interest rate on bonds and deposits did not vary much with wealth level. In 1997, for example, the interest rate was 3.9 percent on aggregate, and between 4.1 and 4.3 percent for all groups of estate tax payers ranging from \$0.5–1 million to more than \$20 million. The third source was a publicly available sample of estates filed in 1977. SZ once again found that rates of return within asset class were very similar across wealth groups. Individuals in the top 0.1 percent and top 0.01 percent had an average dividend yield of 4.7 percent, about the same as the average dividend yield of 5.1 percent among all decedents.

Sixth, Fagereng et. al. (2016), using Norwegian individual wealth returns over twenty years, reported econometric evidence of a positive correlation between wealth level and risk-adjusted rate of return (the Sharpe ratio) by asset type. The differentials were quite large – a difference of 180 basis points (that is, 1.8 percentage points) between the 10<sup>th</sup> and 90<sup>th</sup> percentile of the wealth distribution in 2013. Seventh, Bricker et. al. (2016), found a huge discrepancy on interest-bearing assets between the very rich compared to the average household. In particular, in the 2013 SCF, the average rate of return on fixed-income assets (defined as the ratio of SCF interest income to SCF fixed-income assets) across all households was about 1 percent, but the average return for the top 1 percent of families was almost 6 percent. Thus with the exception of

Fagereng et. al. (2016) and Bricker et. al. (2016), the preponderance of the evidence does suggest that there is little systematic variation of rates of return by wealth or income level.

It is first of interest to look at the results for all households (see Appendix Table 1 for data sources). The overall average annual *real* rate of return on gross assets rose from 2.58 percent in the 1983-1989 period to 3.36 percent in the 1989-2001 period and then fell slightly to 3.10 percent in the 2001-2007 period before plummeting to -5.99 percent over the Great Recession. This was followed by a substantial recovery to 5.06 percent over years 2010 to 2016 and then a slight decline to 3.77 percent per year 2016 to 2019.

As shown in Appendix Table 1, the largest *nominal* declines in asset prices over the years 2007 to 2010 occurred for residential real estate and the category businesses and non-home real estate. The value of financial assets, including stocks, bonds, and other financial securities, registered an annual rate of return of “only” -1.33 percent because interest rates on corporate and foreign bonds continued to remain strong over these years. The value of pension accounts had a -0.20 percent annual rate of return, reflecting the mixture of bonds and stocks held in pension accounts (see Table 17c below). From 2010 to 2016, all asset classes with the exception of liquid assets made a robust recovery. This was led by financial assets which recorded a 10.10 percent annual return and pension accounts with 7.40 percent annual rate of return. Between 2016 and 2019, returns slackened a bit but were still quite strong, led by financial assets at 9.34 percent per year and then pension accounts at 7.45 percent per year. The annual return on residential real estate declined to 4.49 percent per year, as did that on the combined category of other real estate and businesses to 5.19 percent, while that on liquid assets was up slightly to 0.56 percent.

Returning to Table 11, we see that the average annual rate of return on net worth among all households also increased from 3.57 percent in the first period to 4.33 percent in the second , declined somewhat to 4.03 percent in the third and then fell off sharply to -6.82 percent in the 2007-2010 period. Once again, there was a strong recovery to 6.23 percent in the 2010-2016 period and then a modest drop off to 4.63 percent in 2016-2019. It is first of note that the annual returns on net worth were uniformly higher – by about one percentage point – than those of gross assets over the first three and last two periods, when asset prices were rising. However, in the 2007-2010 period, the opposite was the case, with the annual return on net worth about one percentage point lower than that on gross assets. These results illustrate the effect of leverage, raising the return when asset prices rise and lowering the return when asset prices fall. Over the



full 1983-2019 period, the annual return on net worth was 0.84 percentage points higher than that on gross assets.

There are striking differences in rates of return by wealth class. The highest returns on gross assets were registered by the top one percent of wealth holders, followed by the next 19 percent and then by the middle three wealth quintiles. The one exception was the 2007-2010 period when the next 19 percent was first (the least negative), followed by the top one percent and then the middle three quintiles. The differences were quite substantial. Over the full 1983-2019 period, the average annual return on gross assets for the top one percent was 0.49 percentage points greater than that of the next 19 percent and 1.30 percentage points greater than that of the middle quintiles. The differences reflected the greater share of high yield investment assets like stocks in the portfolios of the rich and the greater share of housing in the portfolio of the middle class (see Tables 6 and 7). Indeed, in the 2010-2016 period, the cleavage in returns between the top and middle groups was 1.55 percentage points, reflecting the much higher gains on stocks and investment assets than on housing in those years.

This pattern is almost exactly reversed when we look at returns on net worth. In this case, in the first three periods and the last two when asset prices were rising, the highest returns were recorded by the middle three wealth quintiles but in the 2007-2010 period, when asset prices were declining, the middle group registered the lowest (that is, most negative) rate of return. The exception was the first period when the top one percent had a slightly higher return on net worth than the middle class. The reason is the substantial spread in returns on gross assets between the top one percent and the middle group – 1.72 percentage points.

Differences in returns between the top one percent and the middle three quintiles were quite substantial in some years. In the 2001-2007 period, the average return on net worth was 5.58 percent for the latter and 3.91 percent for the former – a difference of 1.66 percentage points. The spread was even greater over years 2010 to 2016, 1.93 percentage points, but lower in 2016-2019, 1.18 percentage points. Over years 2007 to 2010, when asset prices declined, the return on net worth was -5.88 percent for the top one percent and -10.39 percent for the middle three quintiles – a differential of 4.51 percentage points in favor of the top one percent.

The spread in rates of return on net worth between the top one percent and the middle three quintiles reflects the much higher leverage of the middle class. In 2019, for example, the

debt to net worth ratio of the middle three quintiles was 0.575 while that of the top one percent was 0.024. The debt to net worth ratio of the next 19 percent was also relatively low, at 0.103.

The huge negative return on net worth of the middle three quintiles was largely responsible for the precipitous drop in median net worth between 2007 and 2010, as we shall see in the next section. This factor, in turn, was due to the steep drop in housing prices and the very high leverage of this group. Likewise, the very high return on net worth of the middle group over the 2001-2007 period played the predominant role in explaining the robust advance of median net worth, despite the sluggish growth in median income. This in turn, was a result of high leverage coupled with the boom in housing prices. These two factors also help account for the very high return enjoyed by the middle quintiles over the 2010-2016 and 2016-2019 periods and the consequent rapid increase in median wealth.

The substantial differential in returns on net worth between the middle and top groups (four and a half percentage points lower) is one factor which explains why wealth inequality rose sharply between 2007 and 2010 despite the decline in income inequality. Likewise this differential over the 2001-2007 period (a spread of 1.66 percentage points in favor of the middle quintiles) is a factor which helps account for the stasis in wealth inequality over these years despite the increase in income inequality. The higher rate of return of the middle than the top group over years 2010 to 2016 also helps account for the relatively modest increase in wealth inequality despite the sharp rise in income inequality.

## 7.2 Decomposition Analysis

To understand trends in both wealth levels and wealth inequality, it is helpful to undertake a decomposition analysis. I begin with the basic wealth relationship as established in Wolff (1999):

$$(1) \Delta W_T \equiv W_t - W_{t-1} = r_T W_T + S_T + G_t.$$

where  $W_t$  = mean net worth (in constant dollars) at time  $t$ ,  $\Delta W_T$  is the change in mean wealth over period  $T$  from year  $t-1$  to  $t$ ,  $W_T$  is average wealth over period  $T$ ,  $r_T$  = average real rate of return on wealth over period  $T$ ,  $S_T$  = average household savings (in constant dollars) excluding capital gains and property income over period  $T$ ,<sup>12</sup> and  $G_T$  = average net inheritances and gifts

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<sup>12</sup> Though the standard SCF income measure includes realized capital gains as well as property income, these two components are excluded from  $S_T$  since they are already captured in the term  $r_T W_T$ .

(in constant dollars) over period  $T$ . With regard to variable  $G_T$ , the SCF contains questions on (*inter-vivos*) gifts and inheritances received as well as gifts given to others and donations made to charitable organizations.

On the basis of equation (1), the change in wealth over a period can be decomposed into capital revaluation (existing wealth multiplied by the rate of return), savings, and net intergenerational transfers. The analysis is divided into six sub-periods: 1983-1989, 1989-2001, 2001-2007, 2007-2010, 2010-2016, and 2016-2019. The decomposition of mean wealth will also tell us the relative importance of capital gains and savings in explaining changes in wealth over time. The same decomposition can be used for the wealth of the top one percent and median wealth.<sup>13</sup> For the inequality analysis, I consider changes over time in the *ratio* of mean wealth of the top one percent to the median. I can then also determine what portion of the change in this difference is due to capital gains and what portion is due to savings.

There are several important methodological issues regarding the implementation of this model that should be addressed before the actual results are shown.

#### 7.2.1 Methodological issues in decomposing wealth changes over time

Let us first consider changes in *aggregate* household wealth from time  $t$  to  $t+1$ .  $W_t$  is the total wealth held by households living in the U.S. at time  $t$  and  $W_{t+1}$  is the total wealth held by households living in the U.S. at time  $t+1$ . If this were a closed economy, then generally speaking the only sources of change,  $\Delta W_t$ , would be from savings and capital appreciation. However, there may be some “leakages” and additions for a few reasons. First, a household could make a charitable contribution, which would subtract from current household wealth. Second, someone could die in this time interval and pay estate taxes or leave a charitable bequest. Third, there may also be outflows if an American resident emigrates from the U.S. and takes wealth out of the U.S. over this interval. Fourth, there may be additions to the stock of household wealth if immigrants bring new wealth in. However, if these effects are small, then changes in aggregate wealth are due generally to only savings and capital gains on wealth.

It is true, of course, that the *identity* of the households will, in general, change over time. The two main sources are deaths and the formation of new households from marriage, children moving out of the home, and the like. However, given the stock of household wealth at time  $t$

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<sup>13</sup> I use the rate of return of the middle three wealth quintiles as a proxy for the rate of return on median wealth.

(and ignoring international transfers and charitable giving), the only two sources of wealth change remain capital appreciation and savings.

With regard to changes in *mean household* wealth, the death of a person living alone will reduce the household count (the death of a married spouse, on the other hand, will not affect the count.) New households may also form over time. If a married couple gets divorced, the household count would increase by one. If two individuals living on their own get married, the household count would go down by one. If two individuals living with parents wed and move out, this will increase the household count by one. Likewise, a single leaving a parental home to form a new household will increase the household count by one. Emigration and immigration will also affect the household count.

The comparison becomes more complicated when we consider changes in wealth of particular sub-groups of the population. In this case, households in one group at time  $t$  may move to another group at time  $t+1$ . This problem is particularly germane to wealth classes. In the case of wealth classes, the same issues of attrition and new entrants may apply as in the case of all households for computing the overall mean. In addition, households may shift their wealth class over time. For example, the households in the top one percent say in 1983 may not be the same as those in the top one percent in 1989. There is a regression to the mean over time, and some households in the top one percent in 1983 may have slipped to the next 19 percent, say.

Let us call  $\Delta W_{top1}$  the measured change in the mean wealth of the top one percent between time  $t-$  and  $t$  and  $\Delta W^*_{top1}$  the actual change in the mean wealth of the households in the top one percent in year  $t$  if we followed exactly the *same households* over time. As noted above, the SCF is a cross-sectional survey, not a panel survey, so that it is not possible to identify individual households in the two years. Then,  $\Delta W^*_{top1} \leq \Delta W_{top1}$ , since some of the original households in the top one percent in year  $t-1$  may have slipped to a lower wealth class in year  $t$ . Indeed,  $\Delta W^*_{top1} = \Delta W_{top1}$  only in the special case when the original top one percent households in year  $t-1$  remain in the top one percent in year  $t$ . It is not possible to know *a priori* whether the slippage of a particular household in the top one percent in year  $t-1$  into a lower wealth group in time  $t$  is due to a low rate of return on their wealth holdings or low savings. If it is from low savings and we call  $ROR_{top1}$  the change in the mean wealth of the top one percent emanating only from capital appreciation on initial wealth, then  $ROR_{top1} / \Delta W_{top1}$  is a *lower bound* on  $ROR / \Delta W^*_{top1}$ , and the contribution of the ROR effect to the change in mean wealth over the period

will be biased *downward*. Since savings is imputed as a residual, the estimated savings for that wealth class will be biased *upward* over the period. If, on the other hand, the slippage occurs because the actual rate of return  $r_{top1}^*$  is lower than the estimated return  $r_{top1}$  (for example, due to mean-reversion on returns), it then becomes ambiguous which direction the bias is.

Conversely, if households move up into a higher wealth class over the period, then,  $\Delta W^* \geq \Delta W$ . This may be the case for the median household. On the other hand, households may also move to a lower wealth class, in which case  $\Delta W^* \leq \Delta W$ . In either case it is not possible to determine in which direction the ROR effect or the savings effect will be biased.

We can directly estimate ROR, the change in the mean wealth of a group emanating only from capital appreciation. The residual will include traditional savings but it will also include net wealth transfers and the effects of new households entering the wealth group over the period and existing households exiting the group.

In Sections 8 and 9, I perform the same analysis for race/ethnicity and age group. The same problems with regard to the entry of new households and the exit of existing households affect these decompositions as it does for all households. In addition, with regard to race/ethnicity, while the category remains constant over the lifetime for an individual, changes in marital status may affect the classification of a household over time since it is based on the household head. With regard to age classes, while a *birth cohort* remains constant over time for an individual, households in an age *class* may change over time due to the death of the household head, marital status changes, emigration, and immigration since households are classified into an age group on the basis of the age of the household head.

### 7.2.2 Decomposition by Wealth Class

Table 12 shows the results of a decomposition of the change in mean net worth by wealth class. Considering first the time trend in mean net worth (Panel A), we find that the share of the change in mean net worth from the return on wealth alone (the “ROR effect”) more than explains the growth in wealth for each of the six sub-periods. That is to say, if households had simply held onto their assets, their wealth would have grown faster than in actuality. The difference is reflected in the residual – presumably mostly dissavings. The only exception to this pattern is the crisis of 2007-2010, when the residual was positive. The results suggest that households may save only when they experience capital losses – presumably, to make up for their lost wealth.

At the median, capital appreciation accounts for more than the total increase in their wealth in all periods except 2007-2010 (Panel B). But in this case the residual (mainly savings) is negative in all six periods. Over 2007-2010, the high negative return on assets accounted for 61.0 percent of the (negative) change in wealth at the median and the residual the other 39.0 percent.

The pattern of results is somewhat different for the top one percent (Panel C). Their mean wealth rises in each of the first three periods and capital gains more than fully explains the change in their mean wealth and the residual is negative. In the fourth period, 2007-2010, the mean wealth of the top one percent shows an absolute decline, which is again more than fully explained by the ROR effect (in this case the residual is positive). In 2010-2016, their mean wealth again shows an absolute increase, and capital gains account for 93.5 percent of the growth and the residual for 6.5 percent. In the last period, 2016-2019, the average wealth of the top one percent falls by 1.9 percent. In this case, the ROR effect is positive and the residual is again negative. As argued above, the ROR effect is likely to be biased upward and thus, the savings effect biased downward.

As a measure of wealth inequality I use the ratio of the mean wealth of the top one percent to median wealth (Panel D). According to this measure, wealth inequality increased in each of the first five sub-periods but decreased in the last, 2016-2019 (row 1).<sup>14</sup> The second row shows what happens to the wealth ratio if capital appreciation alone is added to initial wealth. In the 1983-1989 period, the (slightly) higher return on wealth of the top percentile relative to the middle group would have raised the wealth ratio by 0.9. The wealth ratio rose, instead, by 15.1. Consequently, differences in rates of return between the two groups accounted for 5.7 percent (0.9/15.1) of the increase in the wealth ratio over these years, and the residual (presumably, the relatively smaller dissavings of the top group compared to the middle) accounted for the other 94.3 percent. In the next two periods and fifth, the change in the ratio is reduced by the ROR differential (that is, by the higher rate of return of the middle group relative to the top group). In 1989-2001, the ROR differential would have lowered the wealth ratio by 17.3, in 2001-2007 by 16.4, and in 2010-2016 by 29.7. Instead, the actual wealth ratio rose in each of these periods,

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<sup>14</sup> Note that this trend is quite similar to that of the Gini coefficient for net worth except for 1989-2001, when the Gini coefficient shows a slight falling-off.

presumably due again to the smaller relative dissavings of the top group. In 2007-2010, the higher rate of return on wealth (that is, the less negative return) of the top relative to the middle would have caused the wealth ratio to rise by 26.2. The ratio actually rose by 91.5, so that the difference in rates of return accounted for 28.7 percent of its rise and the difference in the residual for the other 71.3 percent. In 2016-2019, the wealth ratio fell by 64.3. Of this, the ROR differential explained 18.2 percent and the difference in the residual for the other 81.8 percent.

## **8. The racial wealth gap remains steady in 2016-2019**

### 8.1 Trends from 1983 to 2007

Striking differences are found in the wealth holdings of different racial and ethnic groups. In Table 13, households are divided into three groups: (i) non-Hispanic whites, (ii) non-Hispanic African-Americans, and (iii) Hispanics.<sup>15</sup> In 2007, while the ratio of mean incomes between non-Hispanic white (“white”) and non-Hispanic black (“black”) households was an already low 0.48 and the ratio of median incomes was 0.60, the ratios of mean and median wealth holdings in 2007 were even lower, at 0.19 and 0.06, respectively, and those of financial resources (FR) still lower, at 0.14 and 0.01, respectively (also see Figure 9). The homeownership rate for black households was 48.6 percent in 2007, about two thirds the rate among whites, and the percentage of black households with zero or negative net worth stood at 33.4, more than double the corresponding percentage among whites.

### **[Table 13 and Figure 9 about here]**

The racial ratio of mean income fell from 0.54 to 0.48 between 1983 and 2007 while that of median income rose from 0.56 to 0.60. The net worth ratio was the same in the two years, 0.19. The ratio of median wealth was much lower than that of mean wealth. In the case of median wealth, the black-white ratio dipped a bit from 7 percent in 1983 to 6 percent in 2007. Ratios of average and median FR were lower than the corresponding ratios of net worth. FR increased about the same for black and white households between 1983 and 2007, so that the FR ratios remained basically unchanged. The homeownership rate of black households grew from 44.3 percent in 1983 to a peak value of 48.6 percent in 2007, while the black-white ratio was exactly the same in the two years, 0.65. The percentage of black households reporting zero or

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<sup>15</sup> The residual group, American Indians and Asians, is excluded here because of its small sample size in most years.

negative net worth fell slightly from 34.1 percent in 1983 to 33.4 in 2007 and declined relative to whites.

The picture is somewhat different for Hispanics. The ratio of mean income between Hispanics and (non-Hispanic) whites in 2007 was 0.50, almost the same as that between blacks and whites. However, the ratio of median income was 0.70, much higher than the ratio between black and white households. The ratio of mean net worth was 0.26 compared to a ratio of 0.19 between blacks and whites and the ratio of mean FR was 0.19, compared to a ratio of 0.14 between blacks and whites. However, the ratios of medians were 0.06 and 0.01, respectively, almost identical to those between blacks and whites. The Hispanic homeownership rate was 49.2 percent, almost identical to that of black households, and 33.5 percent of Hispanic households reported zero or negative wealth, almost the same as African-Americans.

Progress among Hispanic households over the period from 1983 to 2007 was generally a positive story. While the ratio of mean income relative to whites slid from 60 to 50 percent, that of median income advanced from 66 to 70 percent. The ratio of mean net worth between Hispanic and white households climbed from 0.16 in 1983 to 0.26 percent in 2007 and that of median wealth from 0.04 to 0.06. The ratio of mean FR shot up from 0.07 to 0.19, though that of median FR remained unchanged. Moreover, the homeownership rate among Hispanic households surged from 32.6 to 49.2 percent between 1983 and 2007 and the ratio of homeownership rates between the two groups grew from 0.48 to 0.66. The percentage of Hispanic households with zero or negative net worth fell rather steadily over time, from 40.3 percent in 1983 to 33.5 percent in 2007, and the share relative to white household tumbled from a ratio of 3.55 to 2.30.

## 8.2 Trends from 2007 to 2019

The racial/ethnic picture changed radically by 2010. While the ratio of both mean and median income between black and white households changed very little between 2007 and 2010 (mean income, in particular, declined for both groups), the ratio of mean net worth dropped from 0.19 to 0.14 and that of mean FR from 0.14 to 0.10. The proximate causes were the higher leverage of black households and their higher share of housing wealth in gross assets (see Table 14). In 2007, the ratio of debt to net worth among African-American households was an astounding 0.553, compared to 0.154 among whites, while housing as a share of gross assets was 54.0 percent for the former as against 30.8 percent for the latter. The ratio of mortgage debt to



home value was also much higher for blacks, 0.494, than for whites, 0.324. The sharp drop in home prices from 2007 to 2010 thus led to a relatively steeper loss in home equity for black homeowners percent, than for white homeowners, and this factor, in turn, led to a much steeper fall in mean net worth for the former. In fact, the annual rate of return on the net worth of black families over years 2007 to 2010 was a staggering -9.76 percent, compared to -6.58 percent for white households. Moreover, the higher leverage of African-American households relative to white households and the broad decline in asset prices led to greater relative losses in mean FR for the former than the latter.<sup>16</sup>

The Great Recession hit Hispanic households much harder than black households in terms of wealth. Mean income among Hispanic households rose a bit from 2007 to 2010 and the ratio with respect to white households increased from 0.50 to 0.57. On the other hand, the median income of Hispanics fell, as did the ratio of median income between Hispanic and white households. However, the mean net worth in constant dollars of Hispanics fell almost in half, and the ratio of this to the mean net worth of white households plummeted from 0.26 to 0.15. The same factors were responsible as in the case of black households. In 2007, the debt-net worth ratio for Hispanics was 0.511, compared to 0.154 among whites, while housing as a share of gross assets was 52.5 percent for the former as against 30.8 percent for the latter. The ratio of mortgage debt to home value was also higher for Hispanics, 0.452, than for whites, 0.324. As a result, net home equity dropped by 47 percent among Hispanic homeowners, compared to 24 percent among white homeowners, and this factor, in turn, was largely responsible for the huge decline in Hispanic net worth both in absolute and relative terms. Indeed, the annual rate of return on the net worth of Hispanic families over these years was an astonishing -10.6 percent, compared to -6.58 percent for white households. The high overall leverage among Hispanic households was also mainly responsible for the near 50 percent decline in their mean FR and the fall in the ratio of this to that of white households from 0.19 to 0.11. There was also a steep drop in the homeownership rate among Hispanic households of 1.9 percentage points from 2007 to 2010.

Using the same decomposition technique as in Section 7, I find that differences in rates of

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<sup>16</sup> There was almost no change in the relative homeownership rates of the two groups – both experienced moderate losses – while the share of households with non-positive net worth actually increased more in relative terms for white households than black ones.

return between whites and black households (“the ROR effect”) accounted for 38.5 percent of the decline in the black/white mean wealth ratio from 2007 to 2010 and 27.8 percent of the drop off in the Hispanic/white ratio, with the remainder due to net wealth transfers and savings (see Panel II of Table 14).

**[Table 14 about here]**

Was there any improvement after 2010? Black households enjoyed some recovery in both mean and median income in absolute terms between 2010 and 2016 but a modest slippage relative to white households. The mean net worth of black households was up by 31.8 percent but there was no change relative to white households. Their median net worth actually fell from \$7,400 to \$3,700, and the ratio relative to white households plunged from 0.06 to 0.02. Their mean FR increased by 58.2 percent and the ratio relative to white households rose from 0.11 to 0.15, while their median FR remained close to zero. However, there was a sharp fall in the black homeownership rate from 47.7 to 44.0 percent, which followed a more modest 0.9 percentage point decrease from 2007 to 2010, and a decline in the homeownership rate relative to white households from 0.64 in 2010 to 0.61. Moreover, the share of black households with no net worth shot up from 32.9 percent to 37.0 percent. Thus, by almost all indicators, the relative position of black household deteriorated even further from 2010 to 2016.

The relative decline in the net worth of black households over these years actually seems surprising in light of the fact that the annual yield on the portfolio of black households was 7.52 percent, compared to 6.11 percent for white households (see Table 14). The key is the sharp decline in their homeownership rate. Indeed, this led to a considerable loss in home equity in the black portfolio, which fell by 26 percent overall and 20 percent among black homeowners.

Years 2016 to 2019 present a mixed picture. Black mean income went down by 3.8 percent while median income rose slightly. Their mean net worth also declined sharply, by 5.9 percent, though their median net worth more than doubled (though only to \$9,000). Relative to the wealth of white households, black mean wealth remained unchanged but black median wealth went up. However, all in all, black mean and median net worth were still well below their 2007 peak value (16.5 percent below for the former and 21.0 percent for the latter). Black mean FR also dropped over these years while median FR was up. However, like net worth, black mean and median FR were still far below their 2007 peak (down 14.4 percent for mean FR and 38.9 percent for median FR). The black homeownership remained unchanged, though the share with

non-positive net worth went down by 3.9 percentage points.

Income developments were very similar for Hispanics as for blacks but wealth developments were different. Both mean and median incomes of Hispanics were up from 2010 to 2016, but the ratios relative to white households were down (from 0.57 to 0.48 in the case of mean income). The mean net worth of Hispanic households shot up by 61.6 percent and their position relative to white households advanced from a ratio of 0.15 to 0.19. Their median wealth was also up in both absolute terms and relative to whites. Their mean FR also showed very strong gains, as did their relative position, while their median FR stayed close to zero.

However, like black families, their homeownership rate continued to fall, in this case from 47.3 percent to 45.44 percent, though their homeownership rate relative to white households remained unchanged. However, the percentage of Hispanics with non-positive wealth actually fell 1.8 percentage points from 2010 to 2016. Overall, Hispanic households had an average annual rate of return on their portfolio of 7.63 percent, compared to 6.11 percent for white households (see Panel I of Table 14). Using the same decomposition technique as in Section 7, I calculate that differences in rates of return between white and Hispanic households (“the ROR effect”) accounted for 41.3 percent of the rise in the in the Hispanic/white wealth ratio, with the remainder due to net wealth transfers and savings.

Years 2016 to 2019 once again present a mixed picture. Hispanic mean and median income were basically unchanged. Their mean net worth was down slightly but unchanged relative to white families, while their median net worth more than doubled and increased relative to white households. However, like black wealth, Hispanic mean and median net worth were still well below their 2007 peak value and almost to the same degree. Hispanic mean FR also fell between 2016 and 2019 and declined relative to whites, while median FR was up. However, like net worth, Hispanic mean FR was 16.3 percent below its 2007 peak. The Hispanic homeownership did pick up a bit and rose relative to white households, and the share with non-positive net worth decreased by 2.2 percentage points.

Table 14 also updates the portfolio composition by racial group to 2019. Patterns are very similar to 2007, on the eve of the Great Recession. The share of housing in total assets is almost double among the two minority groups as among white households, while the share of financial assets, business equity, and stock directly or indirectly owned is much lower. The debt-net worth ratio is considerably higher among the two minorities while the debt-income ratio is only

somewhat higher. Mortgage debt as a share of home value is also lower among white families.

## **9. Wealth shifts from the young to the old**

As shown in Table 15, the cross-sectional age-wealth profiles of the various years between 1983 and 2019 generally follow the predicted hump-shaped pattern of the life-cycle model (see, for example, Modigliani and Brumberg, 1954). Mean wealth increases with age up through age 65 or so and then falls off. FR has an almost identical profile, though the peak is generally somewhat higher than for net worth. Homeownership rates also had a similar profile before 2004, in 2007, and 2010, though the fall-off after the peak age is much more attenuated than for the wealth numbers, but in 2004, 2016, and 2019 they actually show a steady rise with age. In 2019, the wealth of elderly households (age 65 and over) was 82.7 percent greater than that of the non-elderly and their homeownership rate was 20.6 percentage points higher.

### **[Table 15 about here]**

Despite the apparent similarity in the profiles, there were notable shifts in the relative wealth holdings of age groups between 1983 and 2007 (also see Figures 10 and 11). The relative wealth of the youngest age group, under 35 years of age, expanded from 21 percent of the overall mean in 1983 to 29 percent in 1989 but then collapsed to 17 percent in 2007. In 2007, the mean wealth of the youngest age group was \$112,700 (in 2019 dollars), which was only slightly more than the mean wealth of this age group in 1989 (\$105,600).

### **[Figure 10 and Figure 11 about here]**

The mean net worth of the next youngest age group, 35-44, relative to the overall mean tumbled from 0.71 in 1983 to 0.58 in 2007, with most of the relative decline taking place between 2004 and 2007. The relative wealth of the next youngest age group, 45-54, also declined rather steadily over time, from 1.53 in 1983 to 1.19 in 2007, while that of age group 55-64 generally gained over time from 1.67 in 1983 to 1.69 in 2007. The relative net worth of age group 65-74 dipped somewhat from 1.93 in 1983 to 1.86 in 2007, while that of the oldest age group went from 5 percent above the mean in 1983 to 16 percent above in 2007.

Results for FR are very similar. The average FR of the youngest age group climbed from 17 to 28 percent of the overall mean from 1983 to 1989 and then plummeted to only 15 percent in 2007. A similar pattern is evident for age group 35 to 44. The relative average FR of age group 45-54 and 65-74 also fell over the 1983-2007 period, whereas that of age group 55-64 rose and that of the oldest age group was the same in 2007 as in 1983 (10 percent above the mean).

Changes in homeownership rates tend to mirror net worth trends. While the overall ownership rate increased by 5.2 percentage points between 1983 and 2007, the share of households in the youngest age group owning their own home increased by only 2.1 percentage points. The homeownership rate of households between 35 and 44 of age actually fell by 2.3 percentage points, and that of age group 45 to 54 years of age declined by 0.9 percentage points. Big gains in homeownership were recorded by the older age groups: 3.9 percentage points for age group 55-64, 7.1 percentage points for age group 65-74, and 7.6 percentage points for the oldest age group. By 2007, homeownership rates rose monotonically with age up to age group 65-74 and then dropped off for the oldest age group. The statistics point to a relative shifting of homeownership away from younger towards older households between 1983 and 2007.

Changes in relative wealth were equally dramatic from 2007 to 2019. The relative wealth of the under 35 age group continued to plummet from 0.17 to 0.08 and that of age group 35-44 from 0.58 to 0.40 in 2016, though it did pick up to 0.57 in 2019. The mean net worth of age group 45-54 slipped somewhat from 1.19 to 1.11. In actual (2019 dollar) terms, the average wealth of the youngest age group collapsed almost in half, from \$112,700 in 2007 to \$61,300 in 2019, its second lowest point over the 36-year period (the lowest occurred in 1995), while the relative wealth of age group 35-44 shrank from \$381,700 in 2007 to \$283,100 in 2016, though it did bounce back to \$415,700 in 2019. The relative net worth of age group 55-64 dropped from 1.69 in 2007 to 1.59 in 2019 while in absolute terms there was little change. The same pattern held for age group 65-74. In contrast, the relative wealth of the oldest age group, age 75 and over, rose 1.16 to 1.30, and was up by 22.3 percent in constant dollar terms.

The pattern of change by age group over the 2007-2019 period is very similar for mean FR. Homeownership rates fell for all age groups from 2007 to 2019 except the very oldest among whom it increased by 5.4 percentage points.

Changes in the relative wealth position of different age groups depend in large measure on relative asset price movements and differences in asset composition. The latter are highlighted in Table 16 for the year 2019. Homes comprised over half the value of total assets for age group 35 and under, and its share of total assets fell off with age to about a quarter for age group 75 and over. Liquid assets as a share of total assets was higher for the youngest and oldest age groups, at around nine percent, than the other age groups, at around six to seven percent. This pattern partially reflects the relative financial conservativeness of older people.

Pension accounts as a share of total assets rose from 9.7 percent for the youngest group to 17.6 percent for age group 55 to 64 and then fell off to 13.9 percent for the oldest age group. This pattern reflects the build-up of retirement assets until retirement age and then a decline as these pension assets are liquidated.<sup>17</sup> Corporate stock and financial securities showed a steady rise with age, from a 4.7 percent share for the youngest group to a 27.9 percent share for the oldest. A similar pattern is evident for total stocks as a percentage of all assets. Business equity and non-home real estate were more important in the portfolios of age groups 35-44, 45-54, and 55-64 than the youngest group and those aged 65 and over.

**[Table 16 about here]**

There was a pronounced fall off of debt with age. The debt-net worth ratio declined continuously with age from 130.9 percent for the youngest group to 4.8 percent for the oldest. The debt-income ratio went up from 125.4 percent for the youngest group to 151.3 percent for age group 35-44 and then fell off continuously with age to 63.4 percent for the oldest group. Mortgage debt as a ratio to house value declined continuously with age from 64.3 percent to 13.4 percent. As a result of the latter, net home equity as a proportion of total assets rose from 8.4 to 28.0 percent from the youngest to oldest age group.

Younger households were thus more heavily invested in homes and more heavily in debt whereas the portfolio of older households was more heavily skewed to financial assets, particularly corporate stock. As a result, younger households benefit in relative terms when housing prices rise and inflation is strong while older households relatively benefit from rising stock prices. Changes in the relative net worth position of age groups over years 1983 to 2019 were to a large extent due to differences in portfolio composition and relative asset price movements. As with black and Hispanic households, the higher leverage of younger age groups make them vulnerable when asset prices, particularly housing prices, decline.

As a result, the steep decline in house prices from 2007 to 2010 led to a relatively steeper loss in home equity for the youngest homeowners, 53 percent, than all homeowners, 29 percent, and this factor, in turn, led to a much steeper fall in net worth. Indeed, in terms of the annual rate of return on their wealth portfolio, this group, which had the highest annual return over the 2001-

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<sup>17</sup> This pattern may also be partly a cohort effect since 401(k) plans and other defined contribution plans were not widely introduced into the workplace until after 1989.

2007 period, 7.89 percent, had the lowest over the 2007-2010 period, -13.26 percent! Using the same decomposition technique as used in Section 7, I find that differences in rates of return between age group under 35 and all households (“the ROR effect”) accounted for 49.4 percent of the decline in the ratio of the mean wealth of this age group to overall mean wealth, with the remaining 51.6 percent due to differences in most notably savings (see Panel II of Table 16).

The story is very similar for age group 35 to 44. Their debt-net worth ratio was much higher than average, as were the ratio of mortgage debt to house value and the share of houses in gross assets. As with the youngest age group, the drop in home prices from 2007 to 2010 caused a large fall in home equity of 48 percent among homeowners, which in turn caused a steep fall off in their relative net worth. The annual return on their wealth portfolio was the second highest in years 2001-2007, 5.62 percent, but the second lowest in years 2007 to 2010, -9.19 percent. In this case, the ROR effect accounted for 25.0 percent of the relative decline in this group’s mean wealth from 2007 to 2010, with the remainder due to other factors.

Years 2010 to 2016 saw a 1.8 percentage point drop in the relative net worth of the youngest age group. On the surface, one might have expected an actual rise since the rate of return on the portfolio of this age group was a robust 11.71 percent per year – the highest of any age group. However, further investigation indicates that the main reason why its net worth did not increase more was the continued decline in its homeownership rate, which fell by 4.38 percentage points. The higher rate of return of the under 35 age group relative to all households would have by itself led to a 0.43 rise in its relative level compared to all households. The lower savings of this age group relative to all households offset the ROR effect and was responsible the group’s net relative decline. Results are similar for years 2016-2019. The annual rate of return of the youngest age group was 8.88 percent, the highest of any age group. The ROR effect by itself would have raised the group’s relative level by 0.012. Instead it fell by 0.006.

Age group 35-44 also saw a relative decline of its net worth position of 0.020 from 2010 to 2016. Its annual return was 8.24 percent, the second highest of any age group. By itself the ROR effect should have led to a 0.053 increase in its relative position. However, this was offset by a negative residual of 0.073 due in part to a precipitous drop in its homeownership rate of 5.99 percentage points. Years 2016 to 2019 saw a big comeback in terms of net worth, with this group’s relative position expanding by 0.176. In this case, the ROR effect accounted for a mere 6.7 percent of the group’s relative gain. The predominant factor was a large expansion in its

homeownership rate of 3.55 percentage points.

### **10. Stock ownership first rises, then falls, and then rises again**

Tables 17a and 17b report on overall stock ownership trends from 1983 to 2019 (also see Figure 12). The proportion of households who owned corporate stock shares directly declined a bit between 1983 and 1989, from 13.7 to 13.1 percent, while the share that owned any stocks or mutual funds plunged over these years, from 24.4 to 19.9 percent.<sup>18</sup> In contrast, the share of households owning stocks and mutual funds worth \$5,000 or more (in 1995 dollars) was stable over this period; and, indeed, the proportion with holdings of \$10,000 or more and with \$25,000 or more actually rose. These changes over the 1983-1989 period might reflect the steep drop in the stock market in 1987 and the consequent exit of small stock holders after that year. As a result, despite a 61.7 percent real increase in stock prices (as measured by the Standard and Poor 500 index), stocks plus mutual funds as a share of total household asset actually dipped from 9.0 percent in 1983 to 6.9 percent in 1989.

#### **[Table 17a, Table 17b, and Figure 12 about here]**

In contrast, the years 1989 to 2001 saw a substantial increase in stock ownership (see Table 17b). The share of households with direct ownership of stock climbed from 13.1 to 21.3 percent, while the share with some stock owned either outright or indirectly through mutual funds, trusts, or pension accounts surged from 31.7 to 51.9 percent. This is the peak year when a majority of American households held stock. Much of the increase was fueled by the growth in pension accounts. Over these years, the share of households owning stock through a pension account more than doubled, accounting for the bulk of the overall increase in stock ownership. Indirect ownership of stocks through mutual funds also greatly expanded over the 1989-2001 period, from 5.9 to 16.7 percent. All told, the share of households with indirect ownership of stocks more than doubled, from 23.5 to 47.7 percent.

The next fifteen years, 2001-2016, generally saw a retrenchment in stock ownership. This trend probably reflected the sharp drop in the stock market from 2000 to 2001, its rather anemic recovery through 2004, its subsequent rebound from 2004 to 2007, and its even sharper fall off from 2007 to 2010. Direct stock ownership plummeted from 21.3 percent in 2001 to 13.9 percent in 2016, while indirect stock ownership fell off a bit from 47.7 to 46.6 percent. The latter

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<sup>18</sup> The 1983 data do not permit an estimation of indirect stock ownership, so that I present the results for 1983 and 1989 separately from the other years.



trend was largely due to a sharp decline in stock ownership through mutual funds (down by 6.8 percentage points). Stock ownership through pension accounts was actually up by 2.1 percentage points. However, stock ownership picked up from 2016 to 2019 to 49.6 percent as the stock market continued to rebound, though still below its 2001 level.

However, many of these families had only a minor stake in the stock market in 2019, with only 36.3 percent with total stock holdings worth \$5,000 (in 1995 dollars) or more, down from 40.1 percent in 2001; 31.7 percent owned \$10,000 or more of stock, down from 35.1 percent in 2001; and 24.1 percent with \$25,000 or more of stocks, down from 27.1 percent 15 years earlier.

Directly plus indirectly held stocks as a percent of total household assets did more than double from 10.2 in 1989 to 24.5 in 2001. This increase reflected in large measure the 135.6 percent surge in stock prices (in constant dollars) over these years. However, between 2001 and 2007, the share plummeted to 16.8 percent, though it did recover slightly to 17.5 percent in 2010. This change was a result not only of the relative stagnation of the stock market over these years but also of the withdrawal of many families from the stock market. However, from 2010 to 2019 the proportion rose to 22.6 percent, a reflection of the surge in the stock market over these years.

Table 17c shows the distribution of total stocks owned by vehicle of ownership. Here there are very marked time trends. Direct stock holdings as a share of total stock holdings fell almost continuously over time, from 54.0 percent in 1989 to 27.7 percent in 2019. In contrast, stock held in mutual funds as a share of total stocks rose almost continuously over time from 8.5 percent in 1989 to 34.0 percent in 2016 and then dipped to 29.5 percent in 2019. The share held in trust funds declined by 5.1 percentage points from 1989 to 2019.

**[Table 17c about here]**

The most variable pattern was with regard to stock held in pension accounts as a share of total stocks. This trend mainly reflected the almost continuously rising share of pension accounts in total assets (from 2.9 percent in 1989 to 15.5 percent in 2019) and fluctuations in the stock market. Its share of total stocks increased from 24.4 percent in 1989 to 40.2 percent in 2010 but then fell down to 34.6 percent in 2019. The big jump from 2007 to 2010 was likely due to two factors. First, interest rates were very low over these years, so that pension holders substituted stocks for bonds in their retirement portfolio, despite the sharp drop in stock prices. Second, the share of pensions in total assets increased from 12.1 to 15.1 percent. The sharp drop-off from

2010 to 2019 was mainly a reflection of the sharp rise in mutual fund investment.

The proportion of the total value of pension plans held in the form of stocks showed a parallel movement. It more than doubled between 1989 and 2001, from 32.6 to 66.3 percent, and then fell off to 43.6 percent in 2007. However, from 2007 to 2010, the share of pensions invested in stocks rose from 43.6 to 46.8 percent, as interest rates dropped sharply, and then to 50.5 percent in 2019, as the stock market recovered.

Stock ownership is also highly skewed by wealth and income class. As shown in Table 18a, 95.6 percent of the top one percent of wealth holders reported owning stock either directly or indirectly in 2019, compared to 46.2 percent of the middle quintile and 22.7 percent of the poorest 20 percent. While 95.4 percent of the top percentile also reported stocks worth \$10,000 or more (in current dollars), only 27.0 percent of the middle quintile and 4.8 percent of the bottom quintile did so. The top one percent of households owned 38.9 percent of all stocks, the top five percent 71.8 percent, the top 10 percent 85.0 percent, and the top quintile 93.6 percent.

**[Table 18a and Table 18b about here]**

Stock ownership is also highly concentrated by income class (see Table 18b). Whereas 91.2 percent of households in the top 6.0 percent of income recipients (those who earned \$250,000 or more) owned stock in 2019, 34.2 percent of the middle class (incomes between \$25,000 and \$50,000), 18.6 percent of the lower middle class (incomes between \$15,000 and \$25,000), and only 10.6 percent of poor households (income under \$15,000) reported stock ownership. The comparable ownership figures for stock holdings of \$10,000 or more are 89.1 percent for the top income class, 16.6 percent for the middle class, 8.4 percent for the lower middle class, and 5.2 percent for the poor. Moreover, 91.6 percent of all stocks were owned by households earning \$75,000 or more (the top 39 percent) and 96.3 percent by those earning \$50,000 or more in terms of income.

Another notable development after 2001 was an increase in the concentration of stock ownership. The share of total stock owned by the richest one percent in terms of wealth increased from 33.5 percent in 2001 to 38.9 percent in 2019 and that of the richest 5 percent from 62.3 to 71.8 percent. In terms of income, the share of total stock owned by the top income class jumped from 40.6 to 60.7 percent (though, it should be noted their fraction of total households also rose, from 2.7 to 6.0 percent) and that of the top two income classes from 68.6 to 86.9 percent. One result of the stock market bust of the early and late 2000s was a withdrawal

of middle class families from the stock market (as shown in Table 8, their stock ownership rate fell from 51.1 percent in 2001 to 41.4 percent in 2010). However, the stock ownership rate partially recovered to 45.9 percent from in 2019 as the stock market improved.

### **11. Defined contribution pension wealth continues to rise**

Defined contribution (DC) accounts include not only 401(k) and other employer-provided retirement plans but also Individual Retirement Accounts (IRAs), Keogh plans, and similar government-sponsored plans. DC accounts are a key ingredient in retirement preparedness. Table 19 charts the development of these accounts from 1983 to 2019. There was a huge increase in the share of households holding these accounts from 1983 to 2001 both overall and by individual age group. Overall, the proportion skyrocketed from 11.1 to 52.2 percent. The mean value of these plans climbed dramatically. It more than tripled among account holders and skyrocketed by a factor of 14.3 among all households. These time trends partially reflected the history of DC plans. IRAs were first established in 1974. This was followed by 401(k) plans in 1978 for profit-making companies (403(b) plans for non-profits are much older). However, 401(k) plans and the like did not become widely available in the workplace until about 1989.

#### **[Table 19 about here]**

From 2001 to 2007 the share of households with a DC plan increased slightly and the peak value was reached in 2007 at 52.6 percent. Average DC holdings in constant dollars continued to grow after 2001. Overall, it advanced by 21.2 percent from 2001 to 2007 among account holders and by 22.2 percent among all households. From 2007 to 2019, the participation rate in DC plans fell off by 2.1 percentage points to 50.5 percent but mean pension wealth gained another 41.6 percent among account holders and 35.9 percent among all households. However, of note is that the growth rate of mean pension wealth slowed down almost in half after 2007. From 1983 to 2007, the annual growth rate was 5.42 percent among account holders and 11.92 percent overall but they slowed to 2.90 and 2.56 percent, respectively, from 2007 to 2019.

The pattern of change was similar for the individual age groups. Among young households (under age 47), there was a slight pick-up in the DC participation rate after 2007 but a particularly marked slowdown in the growth of mean DC pension wealth after 2007 both among account holders and among all households in the age group. Among middle-aged households (ages 47 to 64), the decline in the DC participation rate after 2007, 7.6 percentage points, was even more extreme than among all households. Among older households (ages 65

and over), the DC participation rate actually increased by 2.8 percentage points after 2007 and there was a modest acceleration in the annual growth rate of mean DC wealth among account holders after 2007 (3.78 versus 3.23 percent).

## **12. Summary and concluding remarks**

In terms of median wealth, year 2007, on the eve of the Great Recession, stands out as a truly high water mark. Median household net worth in constant dollars showed robust growth from 1962 to 2001, gaining 83.3 percent or 1.55 percent per year. Over the 2001-2007 period the median increased by 19.0 percent or 2.90 percent per year, even faster than in the preceding decades. Then the Great Recession hit and like a tsunami wiped out 40 years of wealth gains. From 2007 to 2010, house prices fell by 24 percent in real terms, stock prices by 26 percent, and median wealth by a staggering 43.9 percent. By 2010 median wealth was at about the same level as 1969. The share of households with zero or negative net worth rose sharply from 18.6 to 21.8 percent. However, from 2010 through 2019, asset prices recovered, as did median wealth. Indeed, from 2016 to 2019 house prices were up by 7.1 percent and stock prices by 30.2 percent in real terms, and, as a result, median wealth advanced by a robust 21.2 percent and the proportion of households with non-positive net worth was down by 1.6 percentage points. Nonetheless, median wealth was still 20.4 percent below its 2007 peak.

However, on the good news side, mean wealth more than fully recovered by 2016 and was up by 9.2 percent in 2019 from its 2007 level, while mean and median income also fully recovered and were up by 10.7 and 17.4 percent, respectively, in 2019 from their 2007 level. The results indicate that wealth grew more vigorously at the top of the wealth distribution than in the middle.

According to the Gini coefficient and top wealth shares, wealth inequality rose sharply from 1983 to 1989 (the Gini coefficient was up by 0.029), remained relatively stable from 1989 to 2007, then showed a steep increase over years 2007 to 2010 (the Gini was up 0.032), and a more modest rise from 2010 to 2016. By 2016 the Gini coefficient for net worth and the share of the top one percent were at their highest level over the 57 years, at 0.877 and 39.6 percent, respectively. However, from 2016 to 2019 there was actually a remission of wealth inequality, albeit small,. The share of the top one percent was down by 1.4 percentage points, that of the top 20 percent down by 1.0 percentage points, the Gini coefficient down by 0.008, and the mean wealth of the top one percent also down by 1.9 percent. Still, between 1983 and 2019, the top one

percent received 41.6 percent of the total growth in net worth, while the top 20 got 94.9 percent.

Relative debt accelerated upward after 1983. Among all households, the debt to income ratio peaked at 127.0 percent in 2010 and the debt to net worth ratio at 20.6 percent, while among the middle three wealth quantiles, the former peaked at 156.7 percent in 2007 and the latter at 69.2 percent in 2010. Since then, these two indicators have broadly retreated. The debt-income ratio fell to 104.0 percent in 2019 among all households and the debt-net worth ratio to 14.9 percent, while the former receded to 122.0 percent and the latter to 57.5 percent among the middle class. These last two trends occurred despite the fact the mean debt of the middle class rose by 10.7 percent in real terms between 2016 and 2019 and reflected rising income and wealth.

The overall homeownership rate rose from 63.4 percent in 1983 to a peak value of 69.1 percent in 2004 but the fell off by 5.4 percentage points to 63.7 percent in 2016. However, it finally rebounded a bit, by 1.2 percentage points, to 64.9 percent in 2019. The overall stock ownership rate (either directly or indirectly through mutual funds, trust funds, or pension plans), after rising briskly from 31.7 percent in 1989 to a peak of 51.9 percent in 2001, fell off to 46.1 percent in 2013. However, it rebounded to 49.6 percent in 2019, though still down from its 2001 peak. The proportion of total stocks owned by the richest 10 percent of wealth holders, after trending downward from 89.7 percent in 1989 to 76.9 percent in 2001, reversed course and reached 85.0 percent in 2019.

The year 2007 was also a watershed year for both the racial and ethnic wealth gap. The ratio of mean net worth between blacks and whites and that between Hispanics and whites reached their maximum value in that year, 0.19 for the former and 0.26 for the latter. The Great Recession hit African-American households much harder than whites because they were more highly leveraged and had a greater share of assets in homes and the ratio of mean wealth between the two groups plunged from 0.19 in 2007 to 0.14 in 2010, reflecting a 33 percent decline (in real terms) in black wealth. However, the wealth ratio remained unchanged from 2010 to 2019.

Hispanic households made sizeable gains on white households from 1983 to 2007, with the ratio of mean net worth growing from 0.16 to 0.26. However, like blacks, Hispanic households got hammered by the Great Recession, with their mean net worth plunging in half from 2007 to 2010 and the ratio of mean net worth with white households falling from 0.26 to 0.15. The relative (and absolute) losses suffered by Hispanic households over these three years

were also mainly due to their much higher leverage rate and greater concentration of assets in homes. From 2010 to 2016, the mean wealth ratio rebounded to 0.19, where it remained in 2019.

Young households also got pummeled by the Great Recession. The ratio of net worth between households under age 35 and all households, after rising from 0.21 in 1983 to 0.29 in 1989, fell almost continuously to 0.17 in 2007 and then plunged to 0.11 in 2010. In (real) dollar terms, their mean net worth declined by 46 percent from 2007 to 2010. Their much higher leverage rate and greater share of assets in homes also help explains these losses. The relative net worth of the under 35 age group continued its downward trajectory to 0.09 in 2016 and then to 0.08 in 2016, with their mean net worth falling by 5.4 percent in real between 2016 and 2019,.

**[Appendix Table 1 about here]**

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**Table 1: Mean and Median Wealth and Income, Selected Years, 1962-2019**

(In thousands, 2019 dollars)

Variable	1962	1969	1983	1989	2001	2007	2010	2016	2019	
<b><u>A. Net Worth</u></b>										
1. Median	58.0	71.2	81.7	88.8	106.4	126.7	71.0	83.2	100.8	
2. Mean	217.1	260.0	318.0	369.9	550.3	662.6	556.2	711.3	723.8	
3. Percent with net worth										
a. Zero or negative	18.2	15.6	15.5	17.9	17.6	18.6	21.8	21.2	19.6	
b. Less Than \$5,000 <sup>a</sup>	30.0	20.9	25.4	27.6	26.6	26.6	32.3	31.4	29.4	
c. Less Than \$10,000 <sup>a</sup>	34.1	26.0	29.7	31.8	30.1	30.0	36.2	34.7	32.3	
<b><u>B. Financial Resources (FR)</u></b>										
1. Median	15.7	19.8	17.6	21.1	33.6	29.0	14.8	16.1	20.1	
2. Mean	172.6	220.6	230.8	276.1	432.1	495.5	435.0	577.1	576.4	
3. Percent with zero or negative FR	25.9	23.5	25.7	26.8	25.5	27.4	29.4	30.4	29.5	
<b><u>C. Income (CPS)<sup>b</sup></u></b>										
1. Median	39.8	51.9	51.1	57.7	61.1	62.1	57.9	62.9	68.7	
2. Mean	45.2	59.0	62.2	72.9	84.3	83.6	79.2	88.6	98.1	
	<b>Annual Growth Rates (percent)</b>						<b>Percentage Change</b>			
	1962- 1983	1983- 1989	1989- 2007	2007- 2010	2010- 2016	2016- 2019	2007- 2010	2010- 2016	2016- 2019	
<b><u>A. Net Worth</u></b>										
1. Median	1.63	1.39	1.98	-19.28	2.63	6.40	-43.9	17.1	21.2	
2. Mean	1.82	2.52	3.24	-5.84	4.10	0.58	-16.1	27.9	1.8	
<b><u>B. Financial Resources</u></b>										
1. Median	0.55	3.01	1.77	-22.46	1.38	7.42	-49.0	8.7	24.9	
2. Mean	1.38	2.99	3.25	-4.34	4.71	-0.04	-12.2	32.7	-0.1	
<b><u>C. Income (CPS)<sup>b</sup></u></b>										
1. Median	1.19	2.02	0.41	-2.33	1.38	2.94	-6.7	8.6	9.2	
2. Mean	1.52	2.65	0.76	-1.79	1.87	3.40	-5.2	11.9	10.7	

Source: author's computations from the 1983, 1989, 2001, 2007, 2010, 2016, and 2019 SCF.

Additional sources are the 1962 SFCC and the 1969 MESP file.

Wealth figures are deflated by the CPI-U from 1962 to 1976 and by the CPI-U-RS from 1977 onward.

a. Constant 1995 Dollars [CPI-U adjusted].

b. Source for household income data: U.S. Census of the Bureau, Current Populations Surveys, Table h05, at: <https://www.census.gov/data/tables/time-series/demo/income-poverty/historical-income-households.html>

The 1962 figures are based on family income and the rate of change of family income between 1962 and 1969.

All figures are re-based to the 2019 CPS figures for mean and median income.



**Table 2. The Size Distribution of Wealth and Income, 1962-2019**

Year	Gini Coeff.	Percentage Share of Wealth or Income held by:									All
		Top 1.0%	Next 4.0%	Next 5.0%	Next 10.0%	Top 20.0%	4th 20.0%	3rd 20.0%	2nd 20.0%	Bottom 20.0%	
<b><u>A. Net Worth</u></b>											
1962	0.803	33.4	21.2	12.4	14.0	81.0	13.4	5.4	1.0	-0.7	100.0
1969	0.828	35.6	20.7	12.5	13.8	82.5	12.2	5.0	0.9	-0.6	100.0
1983	0.799	33.8	22.3	12.1	13.1	81.3	12.6	5.2	1.2	-0.3	100.0
1989	0.828	35.2	22.8	11.9	13.2	83.0	12.0	4.7	0.9	-0.7	100.0
2001	0.826	33.4	25.8	12.3	12.9	84.4	11.3	3.9	0.7	-0.4	100.0
2007	0.834	34.6	27.3	11.2	12.0	85.0	10.9	4.0	0.7	-0.5	100.0
2010	0.866	35.1	27.4	13.8	12.3	88.6	9.5	2.7	0.3	-1.2	100.0
2016	0.877	39.6	27.1	12.1	11.1	89.9	8.2	2.4	0.3	-0.8	100.0
2019	0.869	38.2	28.2	11.6	10.8	88.9	8.6	2.9	0.4	-0.8	100.0
<b><u>B. Financial Resources</u></b>											
1962	0.838	39.5	22.4	15.0	9.2	86.1	9.5	3.3	2.5	-1.4	100.0
1969	0.841	38.4	22.3	16.9	10.1	87.7	10.3	3.6	0.1	-1.7	100.0
1983	0.893	42.9	25.1	12.3	11.0	91.3	7.9	1.7	0.1	-1.0	100.0
1989	0.920	44.1	25.5	12.1	11.2	92.8	7.4	1.3	0.1	-1.6	100.0
2001	0.888	39.7	27.8	12.3	11.4	91.3	7.8	1.7	0.1	-0.8	100.0
2007	0.908	42.7	29.3	10.9	10.1	93.0	6.8	1.3	0.0	-1.1	100.0
2010	0.921	41.3	29.5	13.3	10.7	94.8	5.9	0.8	0.1	-1.6	100.0
2016	0.930	45.9	28.7	11.6	9.3	95.4	5.2	0.7	0.0	-1.3	100.0
2019	0.930	44.5	30.3	11.4	9.3	95.4	5.3	0.8	0.0	-1.5	100.0
<b><u>C. Income</u></b>											
1962	0.428	8.4	11.3	10.2	16.1	46.0	24.0	16.6	9.9	3.5	100.0
1969	0.469	10.4	12.4	10.3	15.9	48.9	23.4	16.4	9.5	1.7	100.0
1982	0.480	12.8	13.3	10.3	15.5	51.9	21.6	14.2	8.7	3.7	100.0
1988	0.521	16.6	13.3	10.4	15.2	55.6	20.6	13.2	7.8	2.9	100.0
2000	0.562	20.0	15.2	10.0	13.5	58.6	19.0	12.3	7.4	2.6	100.0
2006	0.574	21.3	15.9	9.9	14.3	61.4	17.8	11.1	6.8	2.8	100.0
2009	0.549	17.2	16.5	10.7	14.7	59.1	18.7	14.9	4.3	3.0	100.0
2015	0.598	23.5	16.2	10.2	14.1	64.0	16.8	10.2	6.3	2.7	100.0
2018	0.571	19.0	16.9	10.6	14.6	61.0	18.3	11.0	6.9	2.7	100.0

Source: author's computations from the 1962 SFCC, the 1969 MESP file, and the 1983-2019 SCF. Income data are from these files.

**Table 3. The Count of Millionaires and Multi-Millionaires, 1983-2019**

Year	Total Number of Households (1,000s)	The Number of Households (in 1,000s) with Net Worth Equal to or Exceeding:		
		1 Million <sup>a</sup>	5 Million <sup>a</sup>	10 Million <sup>a</sup>
1983	83,893	2,411	247.0	66.5
1989	93,009	3,024	296.6	64.9
1992	95,462	3,104	277.4	41.6
1995	99,101	3,015	474.1	190.4
1998	102,547	4,783	755.5	239.4
2001	106,494	5,892	1,067.8	338.4
2004	112,107	6,466	1,120.0	344.8
2007	116,120	7,274	1,466.8	464.2
2010	117,606	7,931	1,073.9	352.3
2013	122,527	7,123	1,314.7	406.5
2016	125,979	9,145	1,850.8	635.8
2019	128,640	9,266	1,819.6	692.8
% Change	53.3	284.3	636.6	942.0

Source: author's computations from the 1983-2019 SCF.

a. Constant 1995 Dollars [CPI-U adjusted].

**Table 4. Mean Wealth Holdings and Income by Wealth or Income Class, 1983 and 2019**

(In thousands, 2019 dollars)

Variable	Top 0.1%	Top 0.5%	Top 1.0%	Next 4%	Next 5%	Next 10%	Top 20%	4th 20%	3rd 20%	Bottom 40%	All
<b><u>A. Net Worth</u></b>											
1983	43,954	16,353	10,733	1,775.3	772.1	416.9	1,293	199.9	83.0	7.0	318.0
2019	104,285	41,431	27,602	5,111	1,686	784.8	3,218	310.1	105.1	-7.2	723.8
% change	137.3	153.4	157.2	187.9	118.3	88.2	148.8	55.1	26.6	--	127.6
% of gain <sup>a</sup>	14.9	30.9	41.6	32.9	11.3	9.1	94.9	5.4	1.1	-1.4	100.0
<b><u>B. Financial Resources</u></b>											
1983	--	--	9,254	1,355.0	529.5	237.3	984.8	85.2	18.3	-4.7	215.8
2019	--	--	25,608	4,357	1,313	536.4	2,749	152.6	23.1	-21.8	576.4
% change	--	--	176.7	221.6	147.9	126.0	179.2	79.1	25.7	--	167.2
% of gain <sup>a</sup>	--	--	45.4	33.3	10.9	8.3	97.9	3.7	0.3	-1.9	100.0
<b><u>C. Income</u></b>											
1982	--	--	924.8	238.9	148.4	111.3	186.8	77.9	51.0	22.2	72.0
2018	--	--	1,963	429.9	221.6	149.6	314.5	93.9	57.2	25.0	103.4
% change	--	--	112.3	79.9	49.4	34.3	68.4	20.5	12.3	12.3	43.6
% of gain <sup>a</sup>	--	--	33.4	24.6	11.8	12.3	82.1	10.3	4.0	3.5	100.0

Source: author's computations from the 1983 and 2019 SCF.

For the computation of percentile shares of net worth, households are ranked according to their net worth.

Likewise for financial resources and income. The CPI-U-RS is used to convert to 2019 dollars.

a. The computation is performed by dividing the total increase in wealth of a given group by the total increase of wealth for all households over the period, under the assumption that the number of households in each group

remains unchanged over the period. It should be noted that the households found in a given group (such as the top quintile) may be different in each year.

**Table 5. Composition of Total Household Wealth, 1983 - 2019**  
(Percent of gross assets)

Wealth component	1983	1989	2001	2007	2010	2016	2019
Principal residence	30.1	30.2	28.2	32.8	30.7	25.1	26.9
Other real estate <sup>a</sup>	14.9	14.0	9.8	11.3	11.6	10.4	9.4
Unincorporated business equity <sup>b</sup>	18.8	17.2	17.2	20.1	17.7	20.1	20.0
Liquid assets <sup>c</sup>	17.4	17.5	8.8	6.6	7.7	6.7	6.8
Pension accounts <sup>d</sup>	1.5	2.9	12.3	12.1	15.1	15.6	15.5
Financial securities <sup>e</sup>	4.2	3.4	2.3	1.5	1.8	1.3	0.9
Corporate stock & mutual funds	9.0	6.9	14.8	11.8	11.2	16.1	15.5
Net equity in personal trusts	2.6	3.1	4.8	2.3	2.4	3.4	3.6
Miscellaneous assets <sup>f</sup>	1.3	4.9	1.8	1.7	1.7	1.3	1.4
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
Debt on principal residence	6.3	8.6	9.4	11.4	12.7	8.6	9.1
All other debt <sup>g</sup>	6.8	6.4	3.1	3.9	4.4	3.9	3.8
<b>Total debt</b>	<b>13.1</b>	<b>15.0</b>	<b>12.5</b>	<b>15.3</b>	<b>17.1</b>	<b>12.5</b>	<b>12.9</b>
<b>Selected ratios in percent:</b>							
Debt / net worth ratio	15.1	17.6	14.3	18.1	20.6	14.3	14.9
Debt / income ratio	68.4	87.6	81.1	118.7	127.0	95.1	104.0
Net home equity / total assets <sup>h</sup>	23.8	21.6	18.8	21.4	18.1	16.5	17.7
Principal residence debt as ratio to house value	20.9	28.6	33.4	34.9	41.2	34.4	34.0
Stocks, directly or indirectly owned as a ratio to total assets <sup>i</sup>	11.3	10.2	24.5	16.8	17.5	22.4	22.6

Source: author's computations from the 1983-2019 SCF.

a. In 2001, 2004, and 2007, this equals the gross value of other residential real estate plus the *net equity* in non-residential real estate.

b. Net equity in unincorporated farm and non-farm businesses and closely-held corporations.

c. Checking accounts, savings accounts, time deposits, money market funds, certificates of deposits, and the cash surrender value of life insurance.

d. IRAs, Keogh plans, 401(k) plans, the accumulated value of defined contribution pension plans, and other retirement accounts.

e. Corporate bonds, government bonds (including savings bonds), open-market paper, and notes.

f. Gold and other precious metals, royalties, jewelry, antiques, furs, loans to friends and relatives, future contracts, and miscellaneous assets.

g. Mortgage debt on all real property except principal residence; credit card, installment, and other debt.

h. Ratio of gross value of principal residence less mortgage debt on principal residence to total assets.

i. Includes direct ownership of stock shares and indirect ownership through mutual funds, trusts, and IRAs, Keogh plans, 401(k) plans, and other retirement accounts

**Table 6. Composition of Household Wealth by Wealth Class, 2016**  
(Percent of gross assets)

Asset	All Households	Top One Percent	Next 19 Percent	Middle 3 Quintiles
Principal residence	25.1	7.6	25.6	61.9
Liquid assets (bank deposits, money market funds, and cash surrender value of life insurance)	6.7	4.6	7.7	8.5
Pension accounts	15.6	6.0	22.4	16.6
Corporate stock, financial securities, mutual funds, and personal trusts	20.8	31.4	18.6	3.9
Unincorporated business equity other real estate	30.5	49.0	24.5	7.9
Miscellaneous assets	1.3	1.4	1.2	1.2
<b>Total assets</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
<b><u>Memo (selected ratios in percent):</u></b>				
Debt / net worth ratio	14.3	2.4	10.1	58.9
Debt / income ratio	95.1	35.0	88.9	120.4
Net home equity / total assets <sup>a</sup>	16.5	6.4	18.8	33.3
Principal residence debt / house value	34.4	15.4	26.5	46.1
All stocks / total assets <sup>b</sup>	22.4	25.5	24.5	9.7
<b><u>Ownership Rates (Percent)</u></b>				
Principal residence	63.7	94.1	94.6	67.0
Other real estate	17.4	74.7	46.7	11.7
Pension assets	52.1	91.3	83.8	48.9
Unincorporated business	11.4	66.1	28.7	7.8
Corporate stock, financial securities, mutual funds, and personal trusts	22.8	89.2	61.6	15.3
Stocks, directly or indirectly owned <sup>b</sup>	49.3	94.0	86.2	45.0
(1) \$5,000 or more	39.3	94.0	84.4	33.9
(2) \$10,000 or more	34.9	93.8	82.7	28.3

Source: author's computations from the 2016 SCF. Households are classified into wealth class according to their net worth. Brackets for 2016 are:

Top one percent: Net worth of \$10,257,000 or more.

Next 19 percent: Net worth between \$471,600 and \$10,257,000.

Quintiles 2 through 4: Net worth between \$0 and \$471,600.

Also, see Notes to Table 5.

a. Ratio of gross value of principal residence less mortgage debt on principal residence to total assets.

b. Includes direct ownership of stock shares and indirect ownership through mutual funds, trusts, and IRAs, Keogh plans, 401(k) plans, and other retirement accounts

**Table 7. Composition of Household Wealth by Wealth Class, 1983 and 2019**

(Percent of gross assets)

Component	Top One Percent		Next 19 Percent		Middle 3 Quintiles	
	1983	2019	1983	2019	1983	2019
Principal residence	8.1	8.9	29.1	25.9	61.6	64.3
Liquid assets (bank deposits, money market funds, and cash surrender value of life insurance)	8.5	5.0	21.4	7.5	21.4	8.3
Pension accounts	0.9	6.0	2.0	22.6	1.2	14.8
Corporate stock, financial securities, mutual funds, and personal trusts	29.5	30.8	13.0	18.5	3.1	3.2
Unincorporated business equity	52.0	47.5	32.8	24.4	11.4	8.1
other real estate						
Miscellaneous assets	1.0	1.9	1.6	1.0	1.3	1.4
Total assets	100.0	100.0	100.0	100.0	100.0	100.0
<b>Memo:</b>						
Debt / net worth ratio	5.9	2.4	10.9	10.3	37.4	57.5
Debt / income ratio	86.8	45.3	72.8	95.9	66.9	122.0

Note: author's computations from the 1983 and 2019 SCF. Also, see Notes to Tables 5 and 6.

**Table 8. Composition of Household Wealth of the Middle Three Wealth Quintiles, 1983-2019**  
(Percent of gross assets)

Asset	1983	1989	2001	2004	2007	2010	2016	2019
Principal residence	61.6	61.7	59.2	66.1	65.1	64.8	61.9	64.3
Liquid assets (bank deposits, money market funds, and cash surrender value of life insurance)	21.4	18.6	12.1	8.5	7.8	8.0	8.5	8.3
Pension accounts	1.2	3.8	12.7	12.0	12.9	13.9	16.6	14.8
Corporate stock, financial securities, mutual funds, and personal trusts	3.1	3.5	6.2	4.2	3.6	3.1	3.9	3.2
Unincorporated business equity other real estate	11.4	9.4	8.5	7.9	9.3	8.9	7.9	8.1
Miscellaneous assets	1.3	2.9	1.2	1.4	1.3	1.3	1.2	1.4
<b>Total assets</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
<b><u>Memo (selected ratios in percent):</u></b>								
Debt / net worth ratio	37.4	41.7	46.4	61.6	61.1	69.2	58.9	57.5
Debt / income ratio	66.9	83.0	100.3	141.2	156.7	134.3	120.4	122.0
Net home equity / total assets <sup>a</sup>	43.8	39.2	33.8	34.7	34.8	31.4	33.3	35.7
Principal residence debt / house value	28.8	36.5	42.9	47.6	46.6	51.5	46.1	44.5
All stocks / total assets <sup>b</sup>	2.4	3.3	12.6	7.5	7.0	8.1	9.7	8.6
<b><u>Ownership Rates (Percent)</u></b>								
Principal residence	71.6	71.5	75.9	78.2	76.9	68.0	67.0	70.5
Other real estate	15.4	15.5	13.2	13.6	14.7	12.4	11.7	12.6
Pension assets	12.2	27.3	52.9	51.4	53.4	45.8	48.9	47.4
Unincorporated business	8.5	8.4	7.9	8.1	8.8	8.2	7.8	9.0
Corporate stock, financial securities, mutual funds, and personal trusts	21.6	24.2	27.5	27.1	23.1	15.3	15.3	16.8
All stocks <sup>b</sup>	16.5	29.4	51.1	49.7	47.8	41.4	45.0	45.9
<b><u>Mean Debt (thousands, 2019\$)<sup>c</sup></u></b>								
Debt on principal residence	24.6	36.3	54.6	78.5	83.7	64.3	57.4	64.6
All other debt	13.1	11.1	13.5	16.6	21.1	14.4	17.1	17.8
<b>Total debt</b>	<b>37.7</b>	<b>47.5</b>	<b>68.1</b>	<b>95.1</b>	<b>104.8</b>	<b>78.7</b>	<b>74.5</b>	<b>82.4</b>

Source: author's computations from the SCF.

Households are classified into wealth class according to their net worth. Also, see Notes to Table 5 and 6.

a. Ratio of gross value of principal residence less mortgage debt on principal residence to total assets.

b. Includes direct ownership of stock shares and indirect ownership through mutual funds, trusts, and IRAs, Keogh plans, 401(k) plans, and other retirement accounts

c. CPI-U-RS adjusted.

**Table 9. The Evolution of Household Debt, 2007-2019**

(Mean values, in thousands, 2019 dollars)

	2007	2010	2013	2016	2019	Percentage Change		
						2007- 2010	2010- 2019	2007- 2019
<b>A. All Households</b>								
1. Mortgage Debt <sup>a</sup>	89.5	85.1	73.9	70.3	76.0	-5.0	-10.7	-15.2
2. All Other Debt	30.4	29.6	26.3	31.5	31.6	-2.6	6.7	3.9
a. Educational Loans	4.0	5.8	6.4	8.1	8.7	43.5	49.6	114.7
b. Non-Educational Debt	26.4	23.9	19.9	23.3	23.0	-9.6	-3.7	-13.0
3. Total Debt	120.0	114.7	100.2	101.8	107.6	-4.4	-6.2	-10.3
<b>B. Middle Three Wealth Quintiles</b>								
1. Mortgage Debt <sup>a</sup>	83.7	64.3	57.6	57.4	64.6	-23.1	0.5	-22.8
2. All Other Debt	21.1	14.4	14.6	17.1	17.8	-31.6	23.4	-15.6
a. Educational Loans	3.0	3.0	3.3	4.5	4.9	-0.6	66.4	65.3
b. Non-Educational Debt	18.1	11.5	11.3	12.6	12.9	-36.7	12.3	-28.9
3. Total Debt	104.8	78.7	72.2	74.5	82.4	-24.9	4.7	-21.3

Source: author's computations from the 2007, 2010, 2013, 2016, and 2019 SCF.

Figures are adjusted by the CPI-U-RS.

a. Principal residence debt only.



**Table 10. The Percent of Total Assets Held by Wealth Class, 2019**

Asset Type	Top 1.0%	Next 9.0%	Bottom 90.0%	All	Share of Top 10 %						
					1983	1989	2001	2007	2010	2016	2019
<b><u>A. Investment assets</u></b>											
Stocks & mutual funds	54.9	38.6	6.4	100.0	90.4	86.0	84.5	89.4	91.2	93.2	93.6
Financial securities	58.4	34.2	7.3	100.0	82.9	87.1	88.7	98.5	93.6	93.8	92.7
Trusts	39.8	46.1	14.1	100.0	95.4	87.9	86.7	79.4	80.9	84.6	85.9
Business equity	64.5	29.4	6.0	100.0	89.9	89.8	89.6	93.3	91.8	94.3	94.0
Non-home real estate	34.6	45.0	20.5	100.0	76.3	79.6	78.5	76.9	78.9	82.1	79.5
Total for group	53.9	36.6	9.5	100.0	85.6	85.7	85.5	87.8	87.5	90.8	90.5
Stocks, directly or indirectly owned <sup>a</sup>	38.9	46.1	15.0	100.0	89.7	80.8	76.9	81.2	80.6	84.0	85.0
<b><u>B. Housing, liquid assets, pension assets, and debt</u></b>											
Principal residence	11.2	30.0	58.8	100.0	34.2	34.0	37.0	38.5	40.2	41.3	41.2
Deposits <sup>b</sup>	23.6	40.6	35.9	100.0	52.9	61.5	57.2	57.7	67.5	65.3	64.1
Life insurance	33.5	29.5	37.0	100.0	33.6	44.6	46.0	54.9	54.4	64.2	63.0
Pension accounts <sup>c</sup>	13.1	53.5	33.4	100.0	67.5	50.5	60.4	59.2	65.4	64.8	66.6
Total for group	13.7	38.7	47.6	100.0	41.0	43.9	45.9	45.8	51.0	52.4	52.4
Total debt	6.1	21.1	72.7	100.0	31.8	29.4	25.9	26.6	27.4	27.6	27.3

Source: author's computations from the SCF.

Households are classified into wealth class according to their net worth. Brackets for 2019 are:

Top one percent: Net worth of \$11,115,200 or more.

Next 9 percent: Net worth between \$1,190,000 and \$11,115,200 .

Bottom 90 Percent: Net worth less than \$1,190,000

a. Includes direct ownership of stock shares and indirect ownership through mutual funds, trusts, and IRAs, Keogh plans, 401(k) plans, and other retirement accounts

b. Includes demand deposits, savings deposits, time deposits, money market funds, and CDs.

c. IRAs, Keogh plans, 401(k) plans, and other retirement accounts.

**Table 11. Average Annual Real Rates of Return by Period and Wealth Class, 1983 - 2019**

(percentage)

	1983- 1989	1989- 2001	2001- 2007	2007- 2010	2010- 2016	2016- 2019	1983- 2019
<b>A. Gross Assets</b>							
1. All Households	2.58	3.36	3.10	-5.99	5.06	3.77	2.72
2. Top 1 Percent	3.32	3.71	3.75	-5.75	5.68	4.22	3.23
3. Next 19 Percent	2.58	3.47	2.88	-5.69	4.99	3.81	2.74
4. Middle 3 Quintiles	1.60	2.64	2.71	-6.97	4.13	2.73	1.93
<b>B. Net Worth</b>							
1. All Households	3.57	4.33	4.03	-6.82	6.23	4.63	3.56
2. Top 1 Percent	3.71	3.96	3.91	-5.88	5.90	4.38	3.45
3. Next 19 Percent	3.25	4.09	3.46	-6.20	5.77	4.42	3.29
4. Middle 3 Quintiles	3.60	5.00	5.58	-10.39	7.83	5.55	4.09
<b>Memo: difference between top 1% and middle quintiles</b>	-0.11	1.04	1.66	-4.51	1.93	1.18	0.65

Source: author's computations from the SCF.

Rates of return by asset type are provided in Appendix 1.

Households are classified into wealth class according to their net worth.

Calculations are based on household portfolios averaged over the period for each group.

Miscellaneous assets are excluded from the calculation.

**Table 12. Decomposition of Trends in Wealth Levels**

(Wealth levels in thousands, 2019 dollars)

	1983- 1989	1989- 2001	2001- 2007	2007- 2010	2010- 2016	2016- 2019
<b><u>A. Mean Net Worth</u></b>						
1. Actual change in mean net worth	51.9	180.4	112.3	-106.4	155.1	12.5
2. Change in mean net worth from return on wealth alone ( $r_t w_{t-1}$ )	75.9	251.9	150.7	-122.5	252.2	106.0
<b><u>3. Percentage decomposition</u></b>						
a. From return on wealth alone	146.4	139.6	134.1	115.2	162.6	845.0
b. Residual	-46.4	-39.6	-34.1	-15.2	-62.6	-745.0
<b><u>B. Median Net Worth</u></b>						
1. Actual change in median net worth	7.1	17.7	20.3	-55.6	12.2	17.6
2. Change in median net worth from return on wealth alone ( $r_t w_{t-1}$ )	19.7	73.0	42.3	-33.9	42.6	15.1
<b><u>3. Percentage decomposition</u></b>						
a. From return on wealth alone	278.2	413.8	208.9	61.0	350.2	85.6
b. Residual	-178.2	-313.8	-108.9	39.0	-250.2	14.4
<b><u>C. Mean Wealth of the Top One Percent</u></b>						
1. Actual change in mean wealth of the top 1%	2272.7	5380.4	4516.5	-3559.9	8783.8	-524.1
2. Change in mean wealth of the top 1% from return on wealth alone ( $r_t w_{t-1}$ )	2674.5	7911.8	4866.9	-3703.8	8212.8	3947.4
<b><u>3. Percentage decomposition</u></b>						
a. From return on wealth alone	117.7	147.0	107.8	104.0	93.5	-753.2
b. Residual	-17.7	-47.0	-7.8	-4.0	6.5	853.2
<b><u>D. Ratio of the Mean Wealth of the Top One Percent to Median Wealth</u></b>						
1. Change in the actual ratio	15.1	26.3	8.0	91.5	65.8	-64.3
2. Change in the ratio from return on wealth alone ( $r_t w_{t-1}$ )	0.9	-17.3	-16.4	26.2	-29.7	-11.7
<b><u>3. Percentage decomposition</u></b>						
a. From return on wealth alone	5.7	-65.7	-204.4	28.7	-45.2	18.2
b. Residual	94.3	165.7	304.4	71.3	145.2	81.8

Source: author's computations from the SCF.

Households are classified into wealth class according to their net worth.

Wealth figures are deflated using the Consumer Price Index CPI-U-RS.

Rates of return by wealth group are provided in Table 6. The rate of return for the middle three wealth quintiles is used in the decomposition for median wealth.

**Table 13. Household Income and Wealth by Race and Ethnicity, 1983-2019**  
(In thousands, 2019 dollars)

Component	1983	1989	2001	2007	2010	2016	2019
<b><u>A. Mean Income</u></b>							
Whites	76.2	84.7	109.9	114.1	102.0	125.6	117.8
Blacks	41.0	37.7	53.2	55.1	48.7	57.4	55.2
Hispanics	46.1	38.6	54.4	57.3	57.7	60.7	60.5
Ratio:							
Blacks/Whites	0.54	0.45	0.48	0.48	0.48	0.46	0.47
Hispanics/Whites	0.60	0.46	0.50	0.50	0.57	0.48	0.51
<b><u>B. Median Income</u></b>							
Whites	53.6	56.5	63.7	61.8	59.9	63.9	66.0
Blacks	29.9	21.4	36.2	37.1	35.3	37.3	38.0
Hispanics	35.5	27.1	34.7	43.3	40.0	41.5	42.0
Ratio:							
Blacks/Whites	0.56	0.38	0.57	0.60	0.59	0.58	0.58
Hispanics/Whites	0.66	0.48	0.55	0.70	0.67	0.65	0.64
<b><u>C. Mean Net Worth</u></b>							
Whites	371.6	446.4	674.3	806.1	711.0	932.8	925.2
Blacks	69.9	74.8	96.0	151.6	102.1	134.6	126.6
Hispanics	60.4	73.5	115.9	210.6	109.3	176.7	173.5
Ratio:							
Blacks/Whites	0.19	0.17	0.14	0.19	0.14	0.14	0.14
Hispanics/Whites	0.16	0.16	0.17	0.26	0.15	0.19	0.19
<b><u>D. Median Net Worth</u></b>							
Whites	107.0	129.0	154.0	177.5	121.5	149.6	160.2
Blacks	7.1	3.3	15.4	11.4	7.4	3.7	9.0
Hispanics	4.1	2.7	4.3	11.3	3.2	6.7	14.0
Ratio:							
Blacks/Whites	0.07	0.03	0.10	0.06	0.06	0.02	0.06
Hispanics/Whites	0.04	0.02	0.03	0.06	0.03	0.04	0.09
<b><u>E. Mean Financial Resources</u></b>							
Whites	273.8	337.4	535.1	612.2	564.5	769.7	752.2
Blacks	35.2	36.6	62.6	87.4	55.8	88.2	74.8
Hispanics	17.8	35.9	74.5	119.1	62.7	115.5	99.6
Ratio:							
Blacks/Whites	0.13	0.11	0.12	0.14	0.10	0.11	0.10
Hispanics/Whites	0.07	0.11	0.14	0.19	0.11	0.15	0.13
<b><u>F. Median Financial Resources</u></b>							
Whites	29.8	40.8	60.9	53.9	39.1	50.6	47.8
Blacks	0.0	0.0	1.6	0.7	0.3	0.1	0.4
Hispanics	0.0	0.0	0.3	0.5	0.1	0.2	0.5
Ratio:							
Blacks/Whites	0.00	0.00	0.03	0.01	0.01	0.00	0.01
Hispanics/Whites	0.00	0.00	0.01	0.01	0.00	0.00	0.01
<b><u>F. Homeownership Rate (in Percent)</u></b>							

Whites	68.1	69.3	74.1	74.8	74.6	71.9	72.8
Blacks	44.3	41.7	47.4	48.6	47.7	44.0	44.0
Hispanics	32.6	39.8	44.3	49.2	47.3	45.4	47.3
Ratio:							
Blacks/Whites	0.65	0.60	0.64	0.65	0.64	0.61	0.61
Hispanics/Whites	0.48	0.57	0.60	0.66	0.63	0.63	0.65
<b><u>G. Percentage of Households with zero or negative net worth</u></b>							
Whites	11.3	12.1	13.1	14.5	17.9	15.5	14.9
Blacks	34.1	40.7	30.9	33.4	32.9	37.0	33.1
Hispanics	40.3	39.9	35.3	33.5	34.6	32.8	30.6
Ratio:							
Blacks/Whites	3.01	3.38	2.35	2.30	1.84	2.38	2.21
Hispanics/Whites	3.55	3.31	2.69	2.30	1.93	2.11	2.05

Source: author's computations from the SCF.

Dollar figures are deflated by the CPI-U-RS.

Households are divided into four racial/ethnic groups: (i) non-Hispanic whites; (ii) non-Hispanic blacks; (iii) Hispanics; and (iv) American Indians, Asians, and others. For 1995, 1998, and 2001, the classification scheme does not explicitly indicate non-Hispanic whites and non-Hispanic blacks for the first two categories

so that some Hispanics may have classified themselves as either whites or blacks.

**Table 14. Composition of Household Wealth by Race and Ethnicity, 2019**  
(Percent of gross assets)

Asset	All	Non-Hispanic Whites	African-Americans	Hispanics
Principal residence	26.9	24.6	46.8	51.4
Liquid assets (bank deposits, money market funds, and cash surrender value of life insurance)	6.8	6.7	10.0	6.0
Pension accounts	15.5	15.7	19.7	13.4
Corporate stock, financial securities, mutual funds, and personal trusts	20.0	21.2	4.6	7.3
Unincorporated business equity other real estate	29.4	30.2	17.9	21.5
Miscellaneous assets	1.4	1.5	1.0	0.4
<b>Total assets</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
<b>Memo (selected ratios in percent):</b>				
Debt / net worth ratio	14.9	12.7	47.8	47.7
Debt / income ratio	104.0	99.6	109.5	136.8
Net home equity / total assets <sup>a</sup>	17.7	16.6	27.7	28.8
Principal residence debt / house value	34.0	32.6	40.8	43.9
All stocks / total assets <sup>b</sup>	22.6	23.7	11.5	12.9
<b>I. Annual rate of return on net worth (in percent)<sup>c</sup></b>				
1983-1989	3.57	3.21	2.60	3.43
1989-2001	4.33	4.27	4.76	5.00
2001-2007	4.03	3.86	5.99	6.51
2007-2010	-6.82	-6.58	-9.76	-10.62
2010-2016	6.23	6.13	7.55	7.65
2016-2019	4.63	4.58	5.42	5.28
<b>II. Percentage contribution of ROR effect to change in racial/ethnic wealth ratio<sup>d</sup></b>				
	<u>Black/White</u>	<u>Hispanic/White</u>		
1983-1989	32.6	107.8		
1989-2001	-40.9	206.4		
2001-2007	42.5	33.1		
2007-2010	38.5	27.8		
2010-2016	2011.6	41.4		
2016-2019	-49.1	-215.4		
<p>a. Ratio of gross value of principal residence less mortgage debt on principal residence to total assets</p> <p>b. Includes direct ownership of stock shares and indirect ownership through mutual funds, trusts, and IRAs, Keogh plans, 401(k) plans, and other retirement accounts</p> <p>c. Based on average portfolio composition and rates of return by asset type over the period.</p> <p>d. The "ROR effect" is the change in the ratio of mean net worth between groups attributable to differences in rates of return between groups.</p>				

**Table 15. Age-Wealth Profiles and Homeownership Rates by Age Group, 1983-2019**

Age	1983	1989	2001	2004	2007	2010	2016	2019
<b><u>A. Mean Net Worth (Ratio to Overall Mean)</u></b>								
Overall	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Under 35	0.21	0.29	0.19	0.14	0.17	0.11	0.09	0.08
35-44	0.71	0.72	0.64	0.65	0.58	0.42	0.40	0.57
45-54	1.53	1.50	1.25	1.21	1.19	1.14	1.05	1.11
55-64	1.67	1.58	1.86	1.91	1.69	1.80	1.70	1.59
65-74	1.93	1.61	1.72	1.57	1.86	1.73	1.55	1.64
75 & over	1.05	1.26	1.20	1.19	1.16	1.35	1.57	1.30
<b><u>B. Mean Financial Resources (Ratio to Overall Mean)</u></b>								
Overall	1.00	1.00	1.00	1.00	1.00	0.86	0.00	0.00
Under 35	0.17	0.28	0.19	0.12	0.15	0.10	0.07	0.06
35-44	0.59	0.68	0.61	0.64	0.54	0.40	0.36	0.56
45-54	1.53	1.48	1.27	1.24	1.19	1.15	1.04	1.10
55-64	1.72	1.60	1.94	1.97	1.80	1.87	1.77	1.63
65-74	2.12	1.69	1.74	1.61	1.86	1.74	1.56	1.67
75 & over	1.10	1.27	1.11	1.08	1.10	1.27	1.55	1.27
<b><u>C. Homeownership Rate (in Percent)</u></b>								
Overall	63.4	62.8	67.7	69.1	68.6	67.2	63.7	64.9
Under 35	38.7	36.3	40.2	41.5	40.8	37.5	33.1	36.2
35-44	68.4	64.1	67.6	68.6	66.1	63.8	57.8	61.4
45-54	78.2	75.1	76.1	77.3	77.3	75.2	68.8	69.7
55-64	77.0	79.2	83.2	79.1	80.9	78.1	73.7	74.1
65-74	78.3	78.1	82.5	81.2	85.5	82.5	78.9	78.4
75 & over	69.4	70.2	76.2	85.1	77.0	81.3	83.1	82.4

Source: author's computations from the SCF.

Households are classified according to the age of the householder.

**Table 16 Composition of Household Wealth by Age Class, 2019**  
(Percent of gross assets)

Asset	All	Under 35	35-44	45-54	55-64	65-74	75 & over
Principal residence	26.9	56.9	36.3	29.4	22.5	22.1	24.4
Liquid assets (bank deposits, money market funds, and cash surrender value of life insurance)	6.8	9.0	5.8	6.6	6.4	6.9	8.6
Pension accounts	15.5	9.7	12.7	15.4	17.6	16.3	13.9
Corporate stock, financial securities, mutual funds, and personal trusts	20.0	4.7	10.3	16.2	20.0	25.8	27.9
Unincorporated business equity other real estate	29.4	18.8	34.4	31.2	32.1	27.3	23.1
Miscellaneous assets	1.4	0.9	0.5	1.1	1.4	1.6	2.1
<b>Total assets</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
<b>Memo (selected ratios in percent):</b>							
Debt / net worth ratio	14.9	130.9	39.6	18.9	9.8	6.2	4.8
Debt / income ratio	104.0	125.4	151.3	107.7	88.2	70.9	63.4
Net home equity / total assets <sup>a</sup>	17.7	20.3	15.6	17.8	16.5	17.9	21.1
Principal residence debt / house value	34.0	64.3	57.1	39.4	26.9	19.0	13.4
All stocks / total assets <sup>b</sup>	22.6	8.4	15.7	20.2	22.8	27.0	28.0
<b>I. Annual rate of return on net worth (in percentage)<sup>c</sup></b>							
2001-2007	4.03	7.89	5.62	4.24	3.67	3.37	2.52
2007-2010	-6.82	-13.26	-9.19	-7.13	-6.17	-5.98	-5.84
2010-2016	6.23	11.71	8.24	6.43	5.94	5.64	5.56
2016-2019	4.63	8.88	5.61	4.67	4.48	4.35	4.29
<b>II. Percentage contribution of ROR effect to change in the ratio of mean wealth by age group to the overall mean<sup>d</sup></b>							
	<u>Under 35</u>		<u>35 - 44</u>				
2001-2007	-203.9		-95.1				
2007-2010	49.4		25.0				
2010-2016	-231.6		-272.3				
2016-2019	-193.1		6.7				

Source: author's computations from the 2019 Survey of Consumer Finances. Households are classified into age class according to the age of the household head.

a. Ratio of gross value of principal residence less mortgage debt on principal residence to total assets.

b. Includes direct ownership of stock shares and indirect ownership through mutual funds, trusts, and IRAs, Keogh plans, 401(k) plans, and other retirement accounts

c. Based on average portfolio composition and rates of return by asset type over the period.

d. The "ROR effect" is the change in the ratio of mean net worth between groups attributable to differences in rates of return between groups.



**Table 17a. Stock Ownership, 1983 and 1989**

(Percent of households holding stocks)

<b>Stock Type</b>	<b>1983</b>	<b>1989</b>	<b>1983- 1989</b>
<b>Direct stock holdings only</b>	<b>13.7</b>	<b>13.1</b>	
<b><u>Stocks and mutual funds</u></b>			
<b>1. Any holdings</b>	<b>24.4</b>	<b>19.9</b>	
<b>2. Holdings worth \$5,000 or more<sup>a</sup></b>	<b>14.5</b>	<b>14.6</b>	
<b>3. Holdings worth \$10,000 or more<sup>a</sup></b>	<b>10.8</b>	<b>12.3</b>	
<b>4. Holdings worth \$25,000 or more<sup>a</sup></b>	<b>6.2</b>	<b>8.4</b>	
<b>Memo:</b>			
<b>Stocks plus mutual funds as a percent of total assets</b>	<b>9.0</b>	<b>6.9</b>	
<b>Percentage change in S&amp;P 500 Index, in constant dollars over period</b>			<b>61.7</b>

Source: author's computations from the 1983 and 1989 SCF.

a. 1995 dollars

**Table 17b. Stock Ownership, 1989-2019**

(Percent of households holding stocks)

Stock Type	1989	2001	2007	2010	2016	2019	1989- 2019
<b>Direct stock holdings only</b>	13.1	21.3	17.9	15.1	13.9	15.2	
<b>Indirect stock holdings only</b>	23.5	47.7	44.4	43.4	46.6	45.9	
1. Through mutual funds	5.9	16.7	10.6	8.3	9.8	8.9	
2. Through pension accounts	19.5	41.4	40.2	40.0	43.5	42.5	
3. Through trust funds	1.6	5.1	4.1	4.2	3.9	4.6	
<b>All stock holdings<sup>a</sup></b>							
1. Any holdings	31.7	51.9	49.1	46.9	49.3	49.6	
2. Stock of \$5,000 or more <sup>b</sup>	22.6	40.1	34.6	33.6	36.8	36.3	
3. Stock of \$10,000 or more <sup>b</sup>	18.5	35.1	29.6	28.8	32.0	31.7	
4. Stock of \$25,000 or more <sup>b</sup>	10.5	27.1	22.1	21.6	24.6	24.1	
<b>Memo:</b>							
Direct plus indirect stocks as a percent of total assets	10.2	24.5	16.8	17.5	22.4	22.6	
Percentage change in S&P		135.6	9.2	-18.6	61.4	35.5	357.9
Composite 1500 index in constant dollars over period <sup>c</sup>							

Source: author's computations from the SCF.

The source for stock prices are Tables B-55 and B-56 of the *Economic Report of the President, 2020*, available at <https://www.whitehouse.gov/wp-content/uploads/2020/02/2020-Economic-Report-of-the-President-WHCEA.pdf>

a. Includes direct ownership of stock shares and indirect ownership through mutual funds, trusts, and IRAs, Keogh plans, 401(k) plans, and other retirement accounts.

b. 1995 dollars

c. Deflated by the CPI-U-RS price index.

**Table 17c. Distribution of Stock Ownership by Asset Type, 1989-2013**

(Percent of total stock held in each asset type)

Stock Type	1989	2001	2007	2010	2016	2019	Change, 1989- 2019
<b>Direct stock holdings</b>	54.0	38.5	37.1	30.6	26.6	27.7	-26.3
<b>Indirect stock holdings only</b>	46.0	61.5	62.9	69.4	73.4	72.3	26.3
1. Through mutual funds	8.5	16.0	21.3	22.7	34.0	29.5	21.1
2. Through pension accounts	24.4	33.5	31.4	40.2	33.4	34.6	10.2
3. Through trust funds	13.2	12.0	7.2	6.5	6.0	8.1	-5.1
<b>Memo:</b>							
Stocks held in pension accounts / total value of pension accounts	32.6	66.3	43.6	46.8	48.0	50.5	18.0

Source: author's computations from the SCF.

**Table 18a. Concentration of Stock Ownership by Wealth Class, 2019**

Wealth Class	Percent of Households Owning Stock Worth More Than			Percent of Stock Owned		
	Zero	\$4,999	\$9,999	Shares	Cumulative	Cumulative-2001
Top one percent	95.6	95.6	95.4	38.9	38.9	33.5
Next four percent	94.2	10.7	93.0	33.0	71.8	62.3
Next five percent	91.8	11.4	89.9	13.1	85.0	76.9
Next ten percent	81.8	78.8	76.5	8.6	93.6	89.3
Second quintile	64.2	57.0	51.7	4.7	98.3	97.1
Third quintile	46.2	34.3	27.0	1.2	99.5	99.3
Fourth quintile	27.7	14.6	9.7	0.3	99.9	99.8
Bottom quintile	22.7	7.6	4.8	0.1	100.0	100.0
All	49.6	39.8	35.4	100.0		

Source: author's computations from the 2019 SCF.

Note: Includes direct ownership of stock shares and indirect ownership through mutual funds, trusts, and IRAS, Keogh plans, 401(k) plans, and other retirement accounts. All figures are in 2019 dollars.

**Table 18b. Concentration of Stock Ownership by Income Class, 2019**

Income Level	Share of Households	Percent of Households Owning Stock Worth More Than			Percent of Stock Owned		
		Zero	\$4,999	\$9,999	Shares	Cumulative	Cumulative-2001
\$250,000 or more	6.0	91.2	90.3	89.1	60.7	60.7	40.6
\$100,000-\$249,999	21.3	77.3	70.4	65.0	26.2	86.9	68.6
\$75,000-\$99,999	11.6	62.0	50.6	44.1	4.8	91.6	77.4
\$50,000-\$74,999	17.1	53.3	39.7	33.2	4.7	96.3	89.3
\$25,000-\$49,999	25.1	34.2	20.6	16.6	2.2	98.5	97.6
\$15,000-\$24,999	10.4	18.6	10.1	8.4	0.5	99.0	98.9
Under \$15,000	8.6	10.6	6.3	5.2	1.0	100.0	100.0
All	100.0	49.6	39.8	35.4	100.0		

Source: author's computations from the 2019 SCF.

Note: Includes direct ownership of stock shares and indirect ownership through mutual funds, trusts, and IRAs, Keogh plans, 401(k) plans, and other retirement accounts. All figures are in 2019 dollars.

**Table 19 Defined Contribution (DC) Pensions by Age Group, 1983-2019**

(In thousands, 2019 dollars)

	1983	1989	2001	2007	2010	2016	2019	Change or % Change <sup>a</sup>		
								1983- 2007	2007- 2019	1983- 2019
<b>A. All Households</b>										
1. Percent with a DC Account	11.1	24.0	52.2	52.6	50.4	52.1	50.5	41.6	-2.1	39.4
2. Mean DC Pension Wealth (Pension holders only)	49.1	52.6	148.8	180.4	200.8	243.7	255.5	267.1	41.6	419.9
3. Mean DC Pension Wealth (All households in group)	5.4	12.6	77.7	94.9	101.1	126.9	129.0	1645.6	35.9	2272.0
<b>B. Ages 46 and under</b>										
1. Percent with a DC Account	13.7	31.2	53.8	49.9	47.8	50.2	50.4	36.1	0.5	36.6
2. Mean DC Pension Wealth (Pension holders only)	25.4	35.3	76.0	76.1	74.1	81.9	92.5	200.0	21.6	264.9
3. Mean DC Pension Wealth (All households in group)	3.5	11.0	40.9	37.9	35.4	41.1	46.6	988.1	22.9	1237.4
<b>C. Ages 47-64</b>										
1. Percent with a DC Account	12.3	28.3	62.0	63.8	59.6	59.0	56.2	51.5	-7.6	43.9
2. Mean DC Pension Wealth (Pension holders only)	92.7	86.3	225.6	259.4	283.8	334.9	344.7	179.7	32.9	271.6
3. Mean DC Pension Wealth (All households in group)	11.4	24.4	139.8	165.4	169.2	197.5	193.7	1353.4	17.1	1601.9
<b>D. Ages 65 and over</b>										
1. Percent with a DC Account	2.0	1.3	35.0	40.8	41.1	45.8	43.6	38.7	2.8	41.6
2. Mean DC Pension Wealth (Pension holders only)	117.9	207.7	221.6	256.2	301.7	371.8	403.2	117.2	57.4	241.9
3. Mean DC Pension Wealth (All households in group)	2.4	2.7	77.5	104.5	124.0	170.4	175.8	4233.5	68.3	7191.5

Note: author's computations from the SCF.

Households are classified into age groups by the age of the head of household.

Dollar figures are deflated by the CPI-U-RS price index.

a. Change for Row 1 and percentage change for Rows 2 and 3.

**Appendix Table 1. Average Annual Nominal Rates of Return  
By Asset Type and Period, 1983-2019**

Description	Average nominal rates of return by period (percentage)					
	1983- 1989	1989- 2001	2001- 2007	2007- 2010	2010- 2016	2016- 2019
Residential real estate	4.02	4.66	5.84	-7.22	5.72	4.49
Business + non-home real estate	3.94	4.10	9.75	-5.83	6.76	5.19
Liquid assets	6.70	4.69	3.11	1.28	0.48	0.56
Financial assets (including stocks)	13.32	11.17	2.34	-1.33	10.10	9.34
Pension accounts	11.19	9.68	2.99	-0.20	7.40	7.45
Mortgage debt	0.00	0.00	0.00	0.00	0.00	0.00
Non-mortgage debt	0.00	0.00	0.00	0.00	0.00	0.00
Inflation (CPI-U-RS average)	3.46	2.72	2.67	1.71	1.65	2.13

**Notes:**

**Real Rate of Return = (1 + nominal rate) / (1 + ΔCPI) - 1**

**Residential Real Estate:** The source for years 1989 to 2007 is Table 935 of the *2009 Statistical Abstract*, US Bureau of the Census, available at [<http://www.census.gov/compendia/statab/>]. For years after 2007, the source is: National Association of Realtors, “Median Sales Price of Existing Single-Family Homes for Metropolitan Areas,” at <https://www.nar.realtor/sites/default/files/documents/metro-home-prices-q2-2020-ranked-median-single-family-2020-08-12.pdf>

The figures are based on median prices of existing houses for metropolitan areas only.

**Businesses and Commercial Real Estate:** Holding gains (taken from the Financial Accounts of the United States (FA), Table R.100, divided by equity in noncorporate business (taken from the FA, Table B.100), available at: <https://www.federalreserve.gov/releases/z1/20200921/z1.pdf>

**Liquid assets:** Before 2010, the weighted average of the rates of return on checking deposits and cash, time and saving deposits, and life insurance reserves. The weights are the proportion of these assets in their combined total (calculated from the FA, Table B.100). The assumptions regarding the rates of return are: zero for checking deposits, the rate of return on a 1-month CD (taken from the table “H.15 Selected Interest Rates” published by the Federal Reserve and available at: <http://www.federalreserve.gov/releases/h15/data.htm>) for time and saving deposits and CDs, and, one plus the inflation rate for life insurance reserves.

2010 and after: Weights are based on the SCF. Source for interest rate data is the FDIC: <https://www.fdic.gov/regulations/resources/rates/previous.html>

**Financial assets:** The weighted average of the rates of return on open market paper, Treasury securities, municipal securities, corporate and foreign bonds, corporate equities, and mutual fund shares. The weights are the proportion of these assets in total financial assets held by the household sector (calculated from the FA, Table B.100). The assumption regarding the rate of return on open market paper is that it equals the rate of return on 1-month Finance paper (taken from the table H.15 “Selected Interest Rates” published by the Federal Reserve and available at: <http://www.federalreserve.gov/releases/h15/data.htm>). The data for the rates of return on other assets are taken from the *Economic Report of the President 2020*, Table B-25, available at <https://www.whitehouse.gov/wp-content/uploads/2020/02/2020-Economic-Report-of-the-President-WHCEA.pdf> The assumptions regarding Treasury securities, municipal securities, corporate and foreign bonds, and corporate equities are, respectively, average of Treasury security yields, high-grade municipal bond yield, average of corporate bond yields, and annual percent change in the S&P 500 index. Mutual fund shares are assumed to earn a rate of return equal to the weighted average of the rates of return on open market paper, Treasury securities, municipal securities, corporate and foreign bonds, and corporate equities. The weights are the proportions of these assets in the total financial

assets of mutual funds (calculated from the FA, Table L.123).

**Stock prices:** Table B-96 of the *Economic Report of the President, 2013*, available at <http://www.gpoaccess.gov/eop/tables13.html>, with updates to 2016 from: <http://www.fedprimerate.com/s-and-p-500-history.htm>

**Pension (DC) Accounts:** Weighted average of returns on stocks, bonds, and money market funds, where the weights are based on the average portfolio composition of DC accounts over the period (for the 1983-89 period, the weights are based on 1989 data only).

**CPI-U-RS:** from [www.bls.gov/cpi/research-series/home.htm](http://www.bls.gov/cpi/research-series/home.htm)

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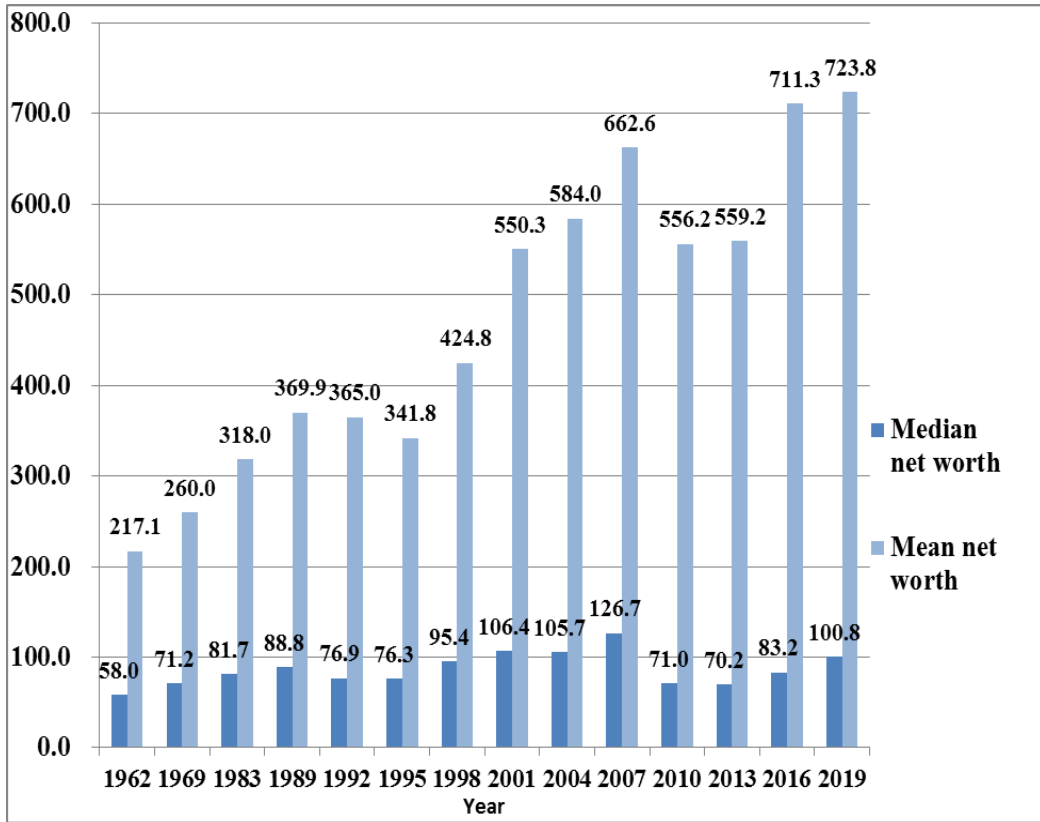


Figure 1. Mean and Median Net Worth, 1962-2019 (in thousands, 2019 dollars)

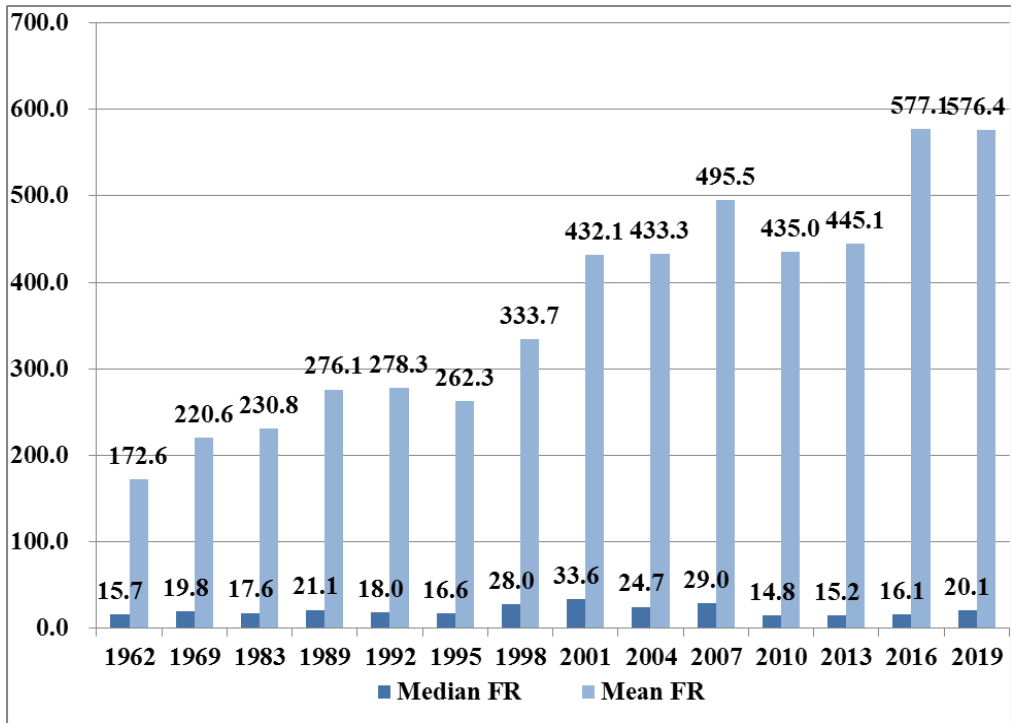


Figure 2. Mean and Median Financial Resources (FR), 1962-2019 (in thousands, 2019 dollars)

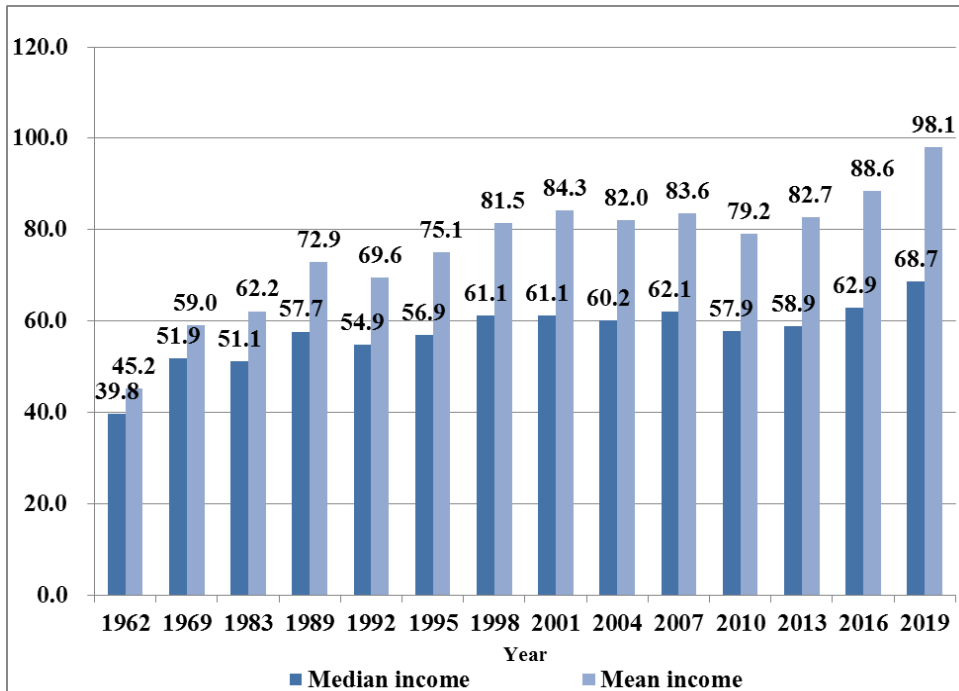


Figure 3. Mean and Median Household Income, 1962-2019 (in thousands, 2019 dollars)

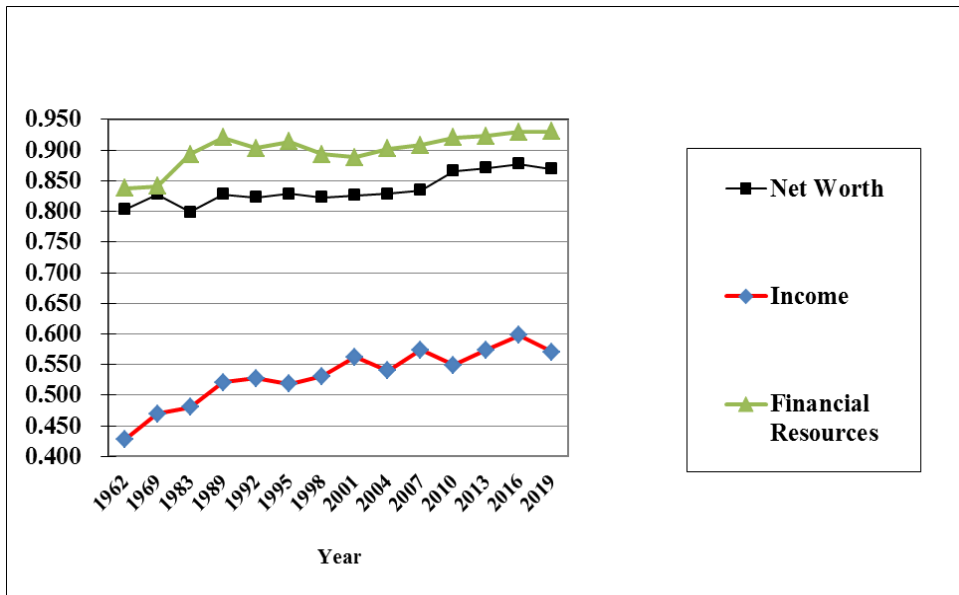


Figure 4. Wealth and Income Inequality, 1962-2019 (Gini coefficients)



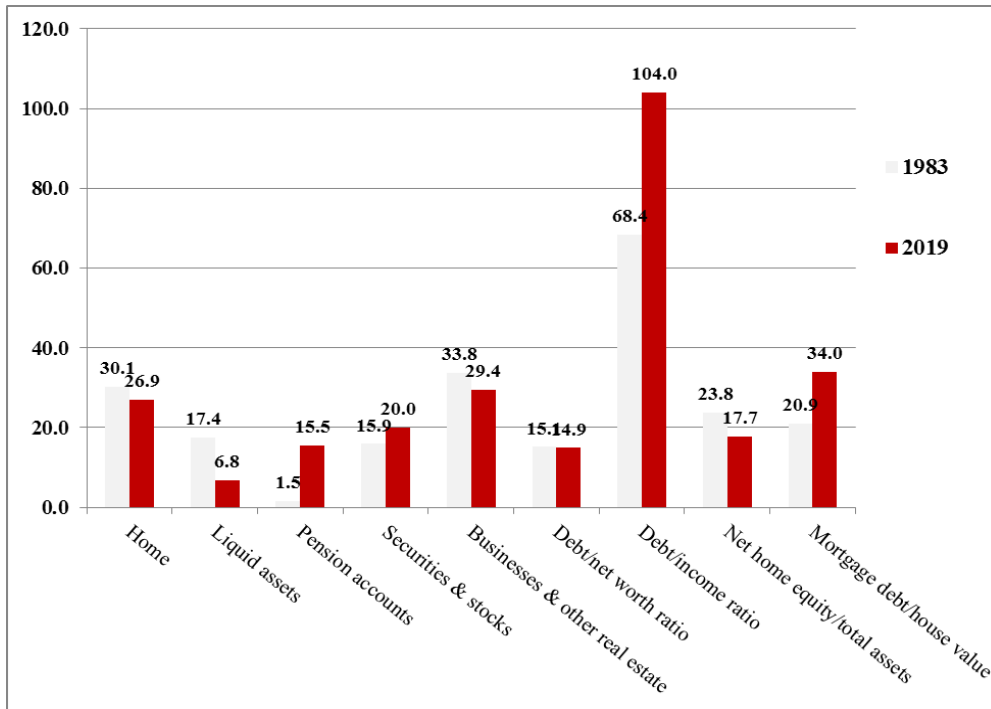


Figure 5. Composition of Household Wealth, 1983 and 2019 (percent of gross assets)

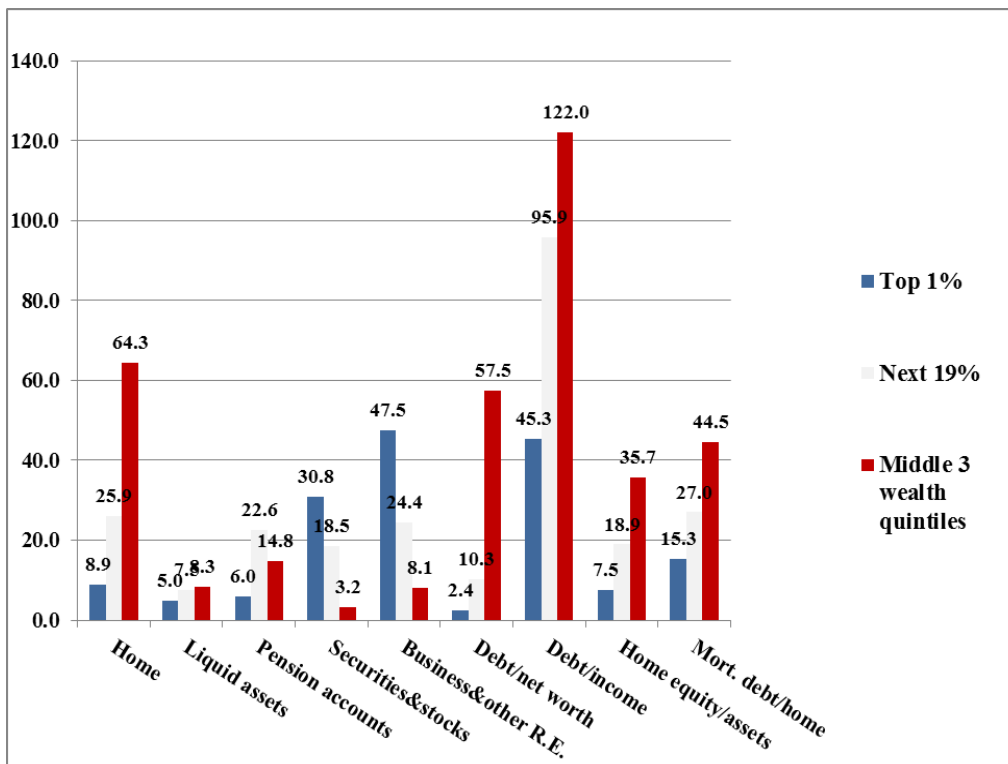


Figure 6. Composition of Household Wealth by Wealth Class, 2019 (percent of gross assets)

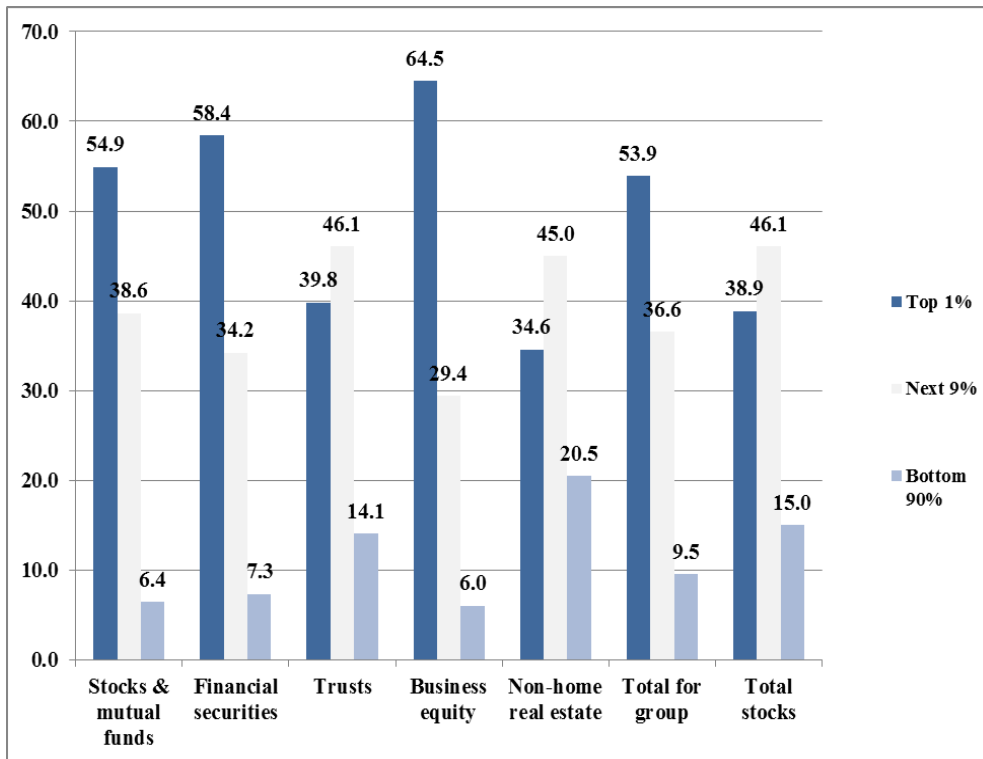


Figure 7. Percent of Total Investment Type Assets Held by Wealth Class, 2019

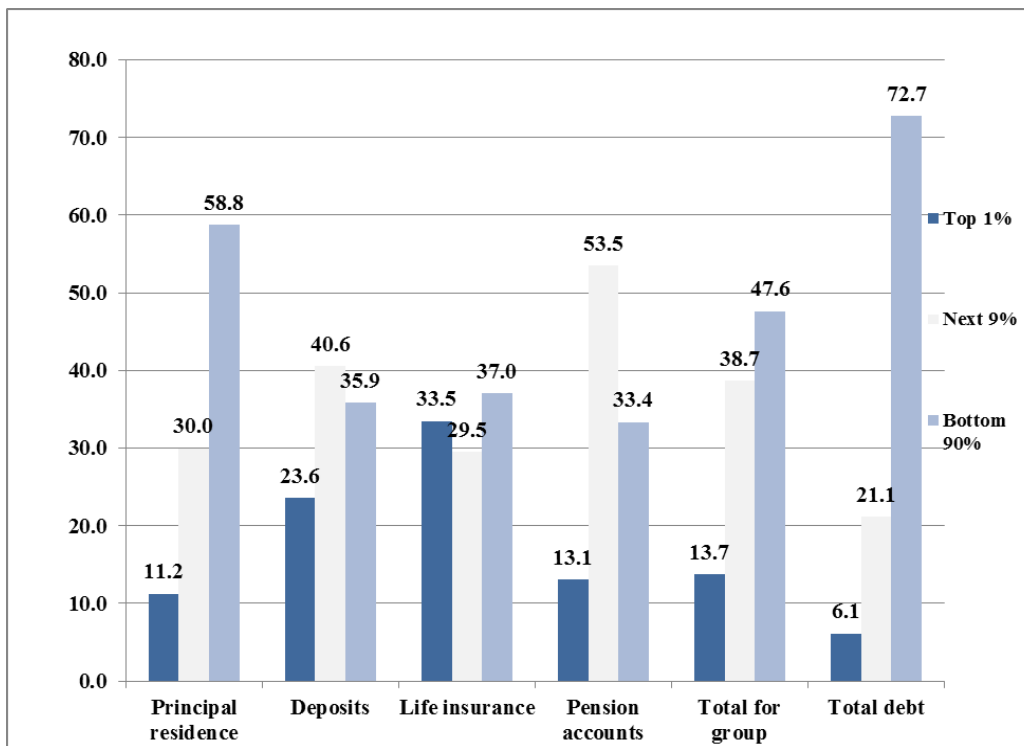


Figure 8. Percent of Non-Investment Assets and Debt Held by Wealth Class, 2019

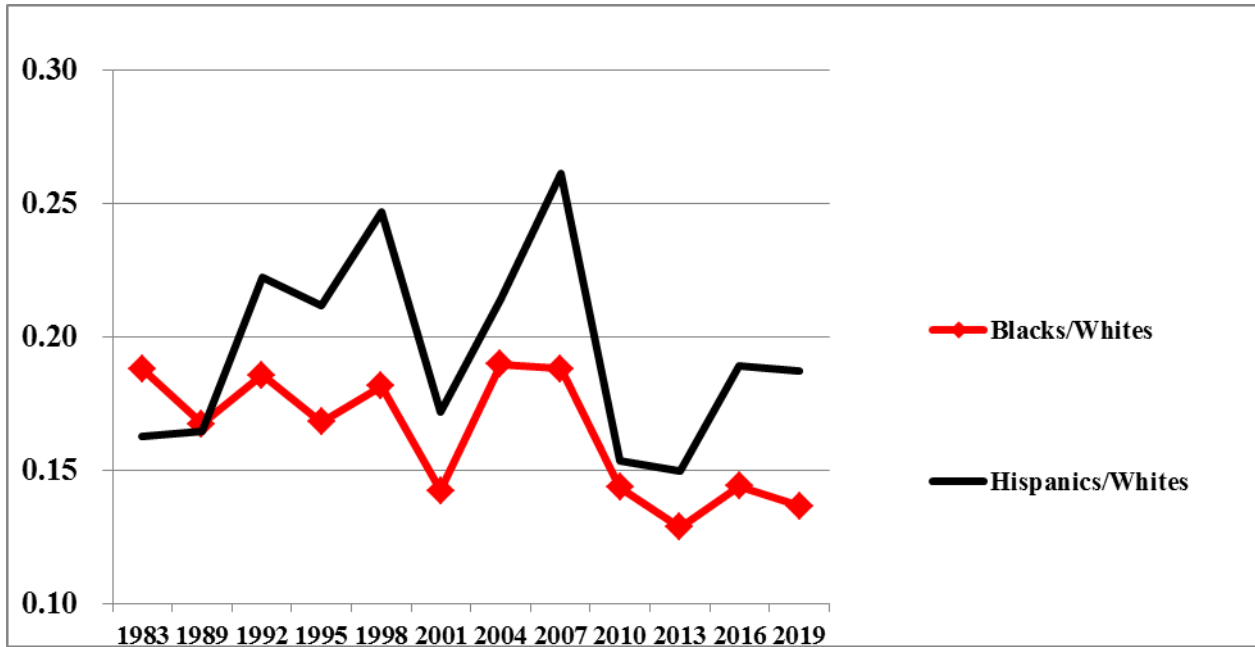


Figure 9. Ratio of Mean Net Worth between Racial and Ethnic Groups, 1983-2019

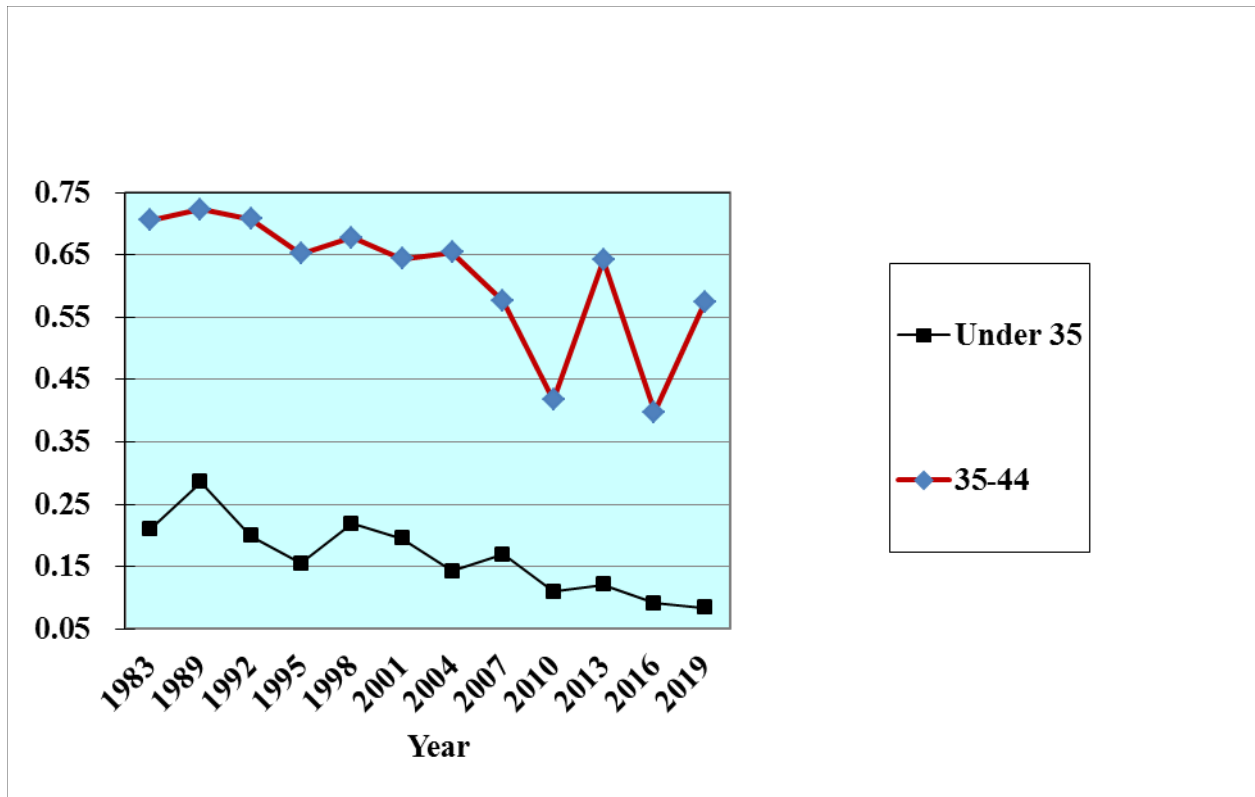


Figure 10. Ratio of Mean Net Worth of Age Group to Overall Mean Net Worth, 1983-2019

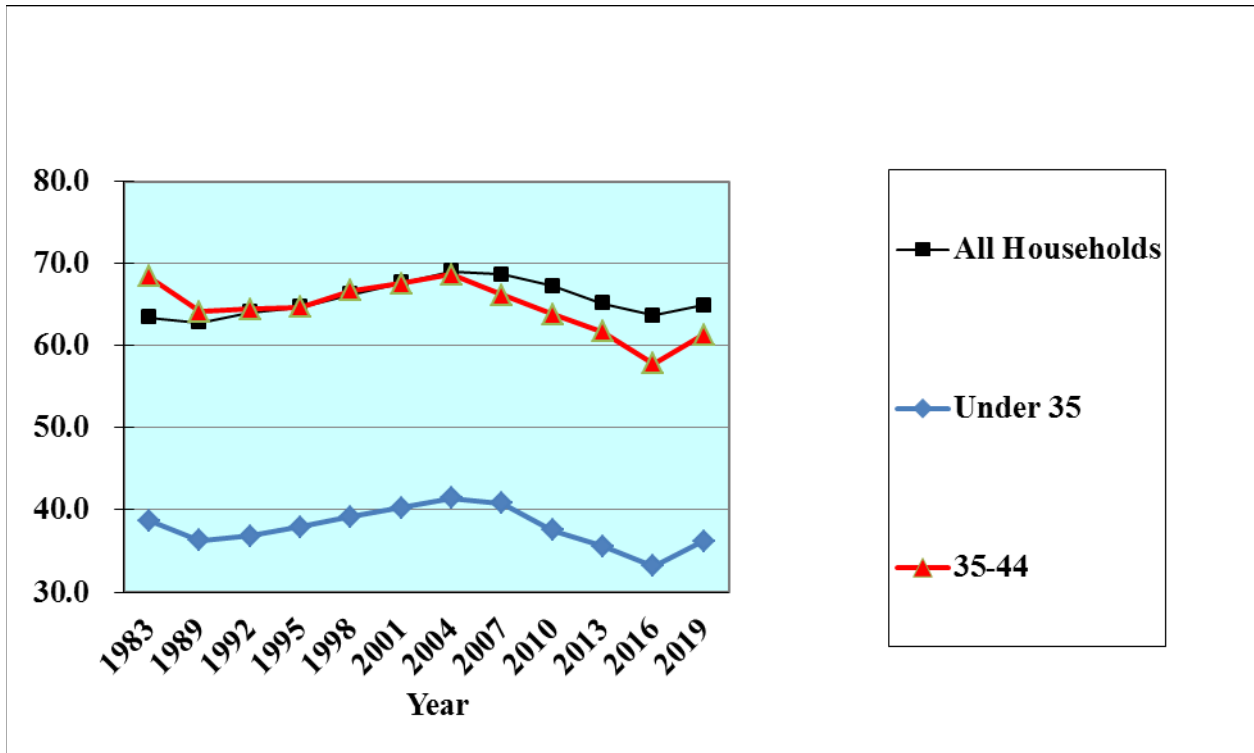


Figure 11. Homeownership Rate for Young Adults and All Households, 1983-2019 (percentage)

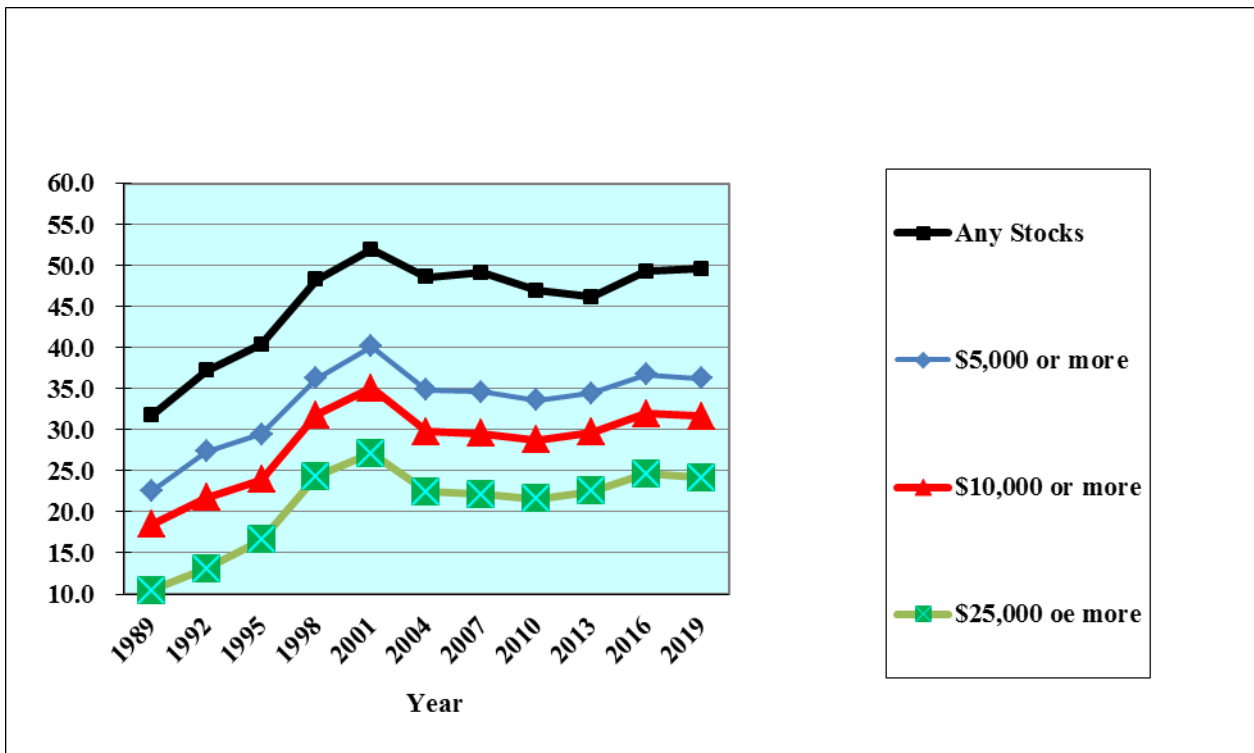


Figure 12. Percentage of Households Owning Stock, 1989-2019