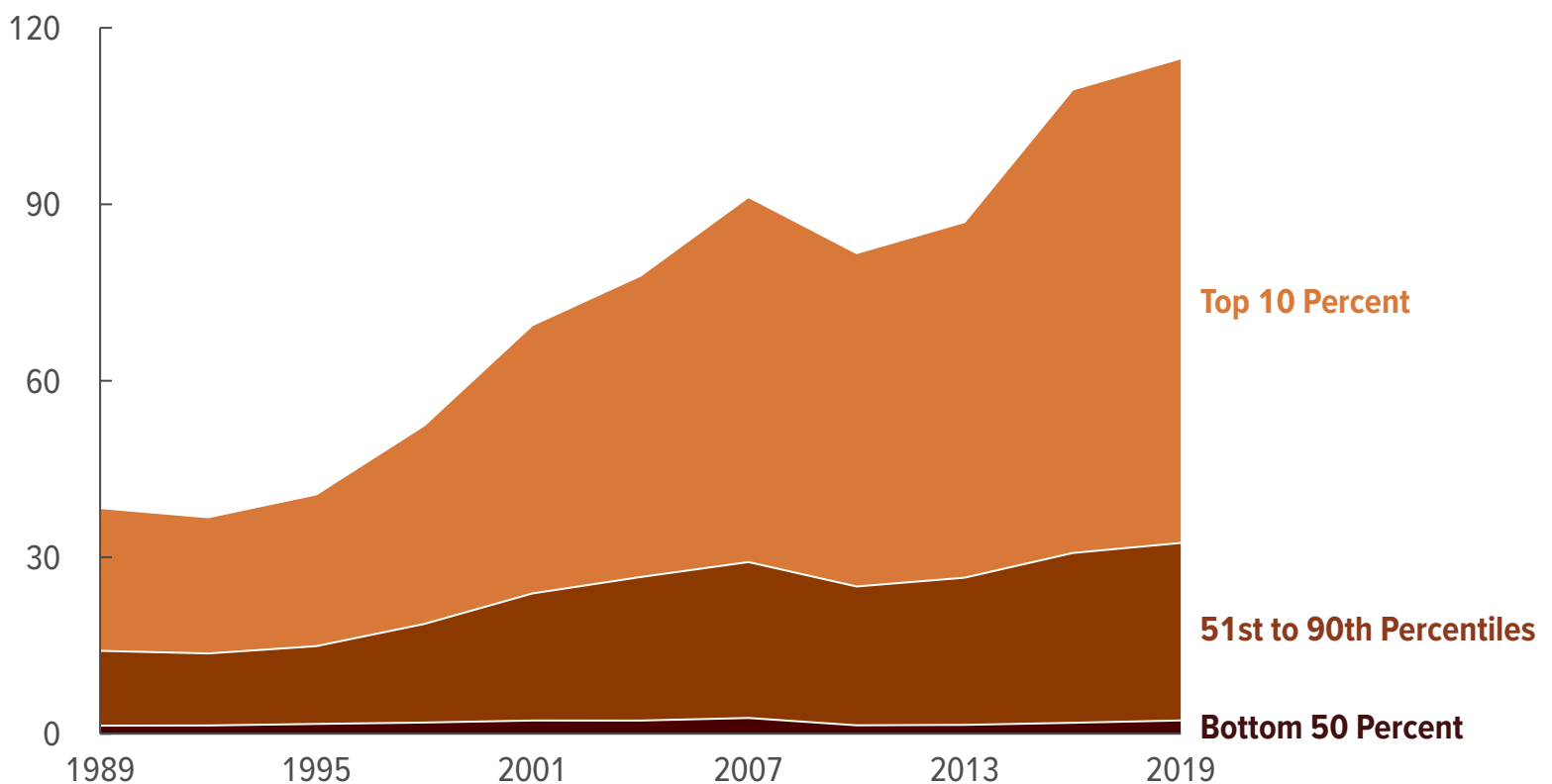




Trends in the Distribution of Family Wealth, 1989 to 2019

Total Family Wealth, by Wealth Group
Trillions of 2019 Dollars



At a Glance

Building on earlier work by the Congressional Budget Office, this report examines changes in the distribution of family wealth (a family's assets minus its debts) from 1989 to 2019 and analyzes those changes in relation to several family characteristics—income, level of education, race and ethnicity, age, and birth cohort. In addition, the report examines how total family wealth has changed since 2019.

- **Total Wealth.** The total real wealth (that is, wealth adjusted to remove the effects of inflation) held by families in the United States tripled from 1989 to 2019—from \$38 trillion in 2019 dollars (roughly four times the nation's gross domestic product, or GDP) to \$115 trillion (about five times GDP).
- **Concentration of Wealth.** The growth of real wealth over the past three decades was not uniform: Family wealth increased more in the top half of the distribution than in the bottom half. Families in the top 10 percent and in the top 1 percent of the distribution, in particular, saw their share of total wealth rise over the period. In 2019, families in the top 10 percent of the distribution held 72 percent of total wealth, and families in the top 1 percent of the distribution held more than one-third; families in the bottom half of the distribution held only 2 percent of total wealth.
- **Trends by Family Characteristics.** Over the 30-year period, the median wealth of families in higher-income groups, families with more education, and older families rose faster than that of families with less income, families with less education, and younger families. The median wealth of White families exceeded that of families in other racial and ethnic groups by considerable amounts throughout the period. The median wealth of every cohort born since 1950 was less than the preceding cohort's median wealth when that cohort was the same age.
- **Trends Since 2019.** In the first quarter of 2020, total family wealth declined as a result of the disruption in economic activities caused by the coronavirus pandemic. By the end of the second quarter of 2020, total family wealth had recovered; it continued to increase through the fourth quarter of 2021 but declined slightly in the first quarter of 2022.

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Notes

Numbers in the text, tables, and figures may not add up to totals because of rounding.

Unless this report indicates otherwise, family wealth and family income are shown in thousands of 2019 dollars. To remove the effects of inflation, the Congressional Budget Office adjusted all dollar amounts shown for years before 2019 with the price index for personal consumption expenditures from the Bureau of Economic Analysis.

Shaded vertical bars in some figures indicate periods of recession, which extend from the peak of a business cycle to its trough.

For definitions of key terms and measures used in the report, see Appendix A. For a discussion of the data sources and methods underlying this analysis and of other technical details referenced throughout the report, see Appendix B.

The Congressional Budget Office has corrected this report since its original publication. The correction is described at the end of the report.

Summary and Introduction

In 2019, the stock of wealth held by all families in the United States totaled \$115 trillion—about five times the nation’s gross domestic product, or GDP—and the median family wealth (the value at the midpoint of the wealth distribution) was \$168,500, the Congressional Budget Office estimates. This report examines trends in the overall distribution of family wealth from 1989 to 2019, the first and the most recent years for which comparable survey data on family wealth are available. Unless otherwise specified, the report describes changes in real wealth—that is, wealth adjusted to remove the effects of inflation over the period; dollar amounts are reported in 2019 dollars.

For this analysis, CBO measured family wealth as the sum of a family’s marketable wealth and the value of its promised income from defined benefit pension plans (referred to here as defined benefit wealth; see Appendix A for a definition of that term and others used in this report). Often called net worth, marketable wealth is calculated as the value of a family’s easily tradable assets (namely, home equity, other real estate, financial securities, bank deposits, defined contribution wealth, and business equity) minus its nonmortgage debt (including credit card debt, vehicle loans, and student loans).

How Was Total Wealth Distributed in 2019?

The average wealth of families in the top 10 percent of the wealth distribution in 2019 was about \$6.4 million, that of families in the 51st to 90th percentiles was \$587,000, and that of families in the 26th to 50th percentiles was \$81,000. (A percentile is a value that indicates the percentage of observations in a distribution that fall below it.) On average, families in the bottom 25 percent of the wealth distribution had more debt than assets; their average wealth was $-\$11,000$. Families in the top 10 percent of the distribution held more than

two-thirds of all wealth, and families in the bottom half of the distribution held only 2 percent of total wealth.

The composition of wealth varied by families’ position in the wealth distribution. On average, home equity accounted for a larger share of the assets of families in the bottom half of the wealth distribution than of those in the top half. By contrast, retirement assets and non-retirement financial assets were more prevalent among families in the top half of the distribution. Measured as a percentage of total assets, the average amount of debt held by families in the bottom half of the distribution was larger than that held by families in the top half.

The share of wealth held by families in the top 10 percent of the distribution is larger—and the share held by families in the bottom half of the distribution smaller—when defined benefit pension plans are not included in the measure of family wealth (that is, when wealth is measured as only marketable wealth). The value of accrued Social Security benefits is not included in this analysis because that measure is not directly available in survey data and would be difficult to construct. If it had been included, the share of wealth held by families in the bottom half of the distribution would be greater.

How Did the Distribution of Wealth Change From 1989 to 2019?

Wealth became less equally distributed over the 30-year period. The share of total wealth held by families in the top 10 percent of the distribution increased from 63 percent in 1989 to 72 percent in 2019, and the share of total wealth held by families in the top 1 percent of the distribution increased from 27 percent to 34 percent over the same period, CBO estimates. By contrast, the share of total wealth held by families in the bottom half of the distribution declined over that period, from 4 percent to 2 percent.

How Did Wealth Change From 1989 to 2019 for Different Groups of Families With Shared Characteristics?

The growth of wealth over the past three decades was not uniform; the median wealth of families with certain characteristics increased by more than did that of other groups. CBO examined the relationship between wealth and several family characteristics:

- **Income.** Income became more concentrated at the top of the distribution of family income from 1995 (the first year for which income data are available) to 2019, but it remained less skewed toward the top than wealth. The share of total income received by families in the highest quintile (or fifth) of the income distribution increased by 7 percentage points, whereas the share of total wealth held by families in that same segment of the income distribution increased by 12 percentage points.
- **Education.** The median wealth of families with a college degree rose considerably from 1989 to 2019, but that of families with less education remained about the same, or even fell slightly, over that period.
- **Race and Ethnicity.** The median wealth of White families far exceeded that of families in all other groups throughout the period from 1989 to 2019. In percentage terms, the median wealth of Black and Hispanic families increased more over the period than did the median wealth of White families and Asian and other families, but Black and Hispanic families' median wealth also started out much lower than that of the other two groups. Moreover, measured in relation to the median wealth of White families, Black and Hispanic families' median wealth fluctuated over the period, whereas Asian and other families' median wealth remained relatively stable. In 2019, White families' median wealth was 6.5 times that of Black families, 5.5 times that of Hispanic families, and 2.7 times that of Asian and other families.
- **Age.** The median wealth of families age 65 or older was higher in 2019 than it was in 1989, but that of families younger than 65 was about the same at the end of the 30-year period as it had been at the beginning of it.
- **Birth Cohort.** The median wealth of families born in the 1940s was greater than that of families of the preceding generation at similar ages; that was not the case for subsequent generations. For cohorts born since the 1950s, their ratio of median wealth to median income was lower than that of the preceding cohort when it was the same age, and the ratio of median debt to median assets was higher.

How Has Total Family Wealth Changed Since 2019?

Total family wealth declined by 5.7 percent from the last quarter of 2019 to the first quarter of 2020, when the coronavirus pandemic began and stock prices fell sharply. By the end of the second quarter of 2020, as the stock market rebounded, total family wealth had recouped its loss from the previous quarter. It continued to increase through the fourth quarter of 2021 but declined slightly in the first quarter of 2022.

How Does CBO's Estimate of the Share of Wealth Held by the Top 1 Percent of the Distribution Compare With Estimates From Other Studies?

CBO estimates that the share of wealth held by the top 1 percent of the wealth distribution increased by 7.4 percentage points over the period—from 26.6 percent in 1989 to 34.0 percent in 2019. The agency's estimate of the share of all wealth held by the top 1 percent in 2019 is roughly in the middle of other estimates, which range from 30.7 percent to 37.9 percent. Other studies' estimates of the increase in that share over the 1989–2019 period are similar to CBO's, ranging from 6.6 percentage points to 7.6 percentage points. Several factors explain the variation in those estimates, including differences in the data sources, unit of analysis, and definition of wealth used by the studies.

What Data Were Used for This Analysis?

The analysis is based primarily on data from the Survey of Consumer Finances (SCF)—a nationally representative survey of U.S. families that is conducted every three years. (A family is defined by the survey as the primary economic unit in a household; it consists of a single person or a couple and all other people in the household who are financially interdependent with that person or couple.) The survey samples different families each year; it is not a longitudinal study that tracks the same families over many years. Moreover, many families experience changes in their wealth from year to year, and some families may move from one segment of the wealth distribution to another. As a result, any given segment of the wealth distribution in one year does not comprise the same families as that segment in other years, though many families may remain in the same segment over many years. (For example, the families in the top 10 percent of the wealth distribution in 2019 were not the exact same families as those in the top 10 percent in 2007.) Therefore, the analysis in this report should not be interpreted as describing the experiences of any particular

families; rather, it describes how the overall distribution of family wealth has changed over the 30-year period.

How Does the Current Analysis Differ From CBO's Previous Study of Family Wealth?

CBO last published a report on trends in the distribution of family wealth in 2016. That report analyzed trends from 1989 to 2013. Not only does this report update that analysis with more recent data, but it also expands the scope of the analysis in two ways. First, this report uses a broader measure of family wealth. Whereas the previous report examined only marketable wealth, this report incorporates defined benefit wealth into the measure of wealth. Second, for this analysis, CBO examined the relationship between more family characteristics and wealth over time; the earlier study did not consider the income, race and ethnicity, or birth cohort of families.

Chapter 1: Trends in Wealth Among Families in Different Segments of the Wealth Distribution

From 1989 to 2019, total family wealth increased, but the wealth held by different segments of the U.S. population grew at significantly different rates. The Congressional Budget Office analyzed the changes in total wealth and in the categories of assets and debt held by families in different parts of the wealth distribution.

Total Family Wealth

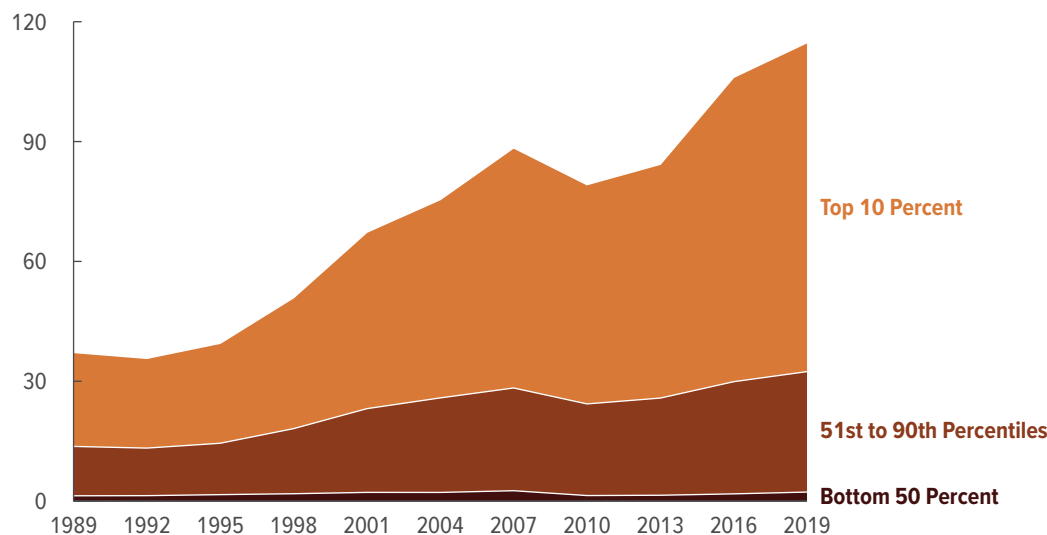
In 2019, total family wealth in the United States—that is, the sum of all families’ assets minus their total debt—was \$115 trillion. That amount is three times total real family wealth in 1989. Measured as a percentage of the nation’s gross domestic product, total family wealth increased from about 380 percent to about 540 percent over the 30-year period from 1989 to 2019, CBO estimates.

During the 2007–2009 recession, total family wealth declined, but by 2016, it had fully recovered, and it continued growing through 2019. The recession’s effect on family wealth was greatest, in percentage terms, for the bottom half of the distribution: The total wealth held by families in the bottom half of the wealth distribution fell by 47 percent from 2007 to 2010, whereas the total wealth held by families in the 51st to 90th percentiles and by those in the top 10 percent of the distribution dropped by 11 percent and by 9 percent, respectively.

The increase in wealth over the 30-year period was unevenly distributed and concentrated near the top of the distribution. The total wealth held by families in the top 10 percent increased at a faster rate than wealth held by families in the rest of the distribution.

Total Family Wealth, by Wealth Group

Trillions of 2019 Dollars



From 1989 to 2019, the total wealth held by families in the top 10 percent of the wealth distribution increased from \$24.3 trillion to \$82.4 trillion (or by 240 percent), the wealth held by families in the 51st to 90th percentiles increased from \$12.7 trillion to \$30.2 trillion (or by 137 percent), and the wealth held by families in the bottom half of the distribution increased from \$1.4 trillion to \$2.3 trillion (or by 65 percent).

Composition of Family Wealth

To analyze changes in the composition of total family wealth, CBO separated family wealth into six mutually exclusive categories—nonmortgage debt and five types of assets. The asset categories are home equity, nonretirement financial assets, wealth from defined benefit retirement plans, wealth from defined contribution retirement plans, and other assets. (Together, defined benefit wealth and defined contribution wealth constitute retirement assets. For detailed definitions of all six categories, see Appendix A.)

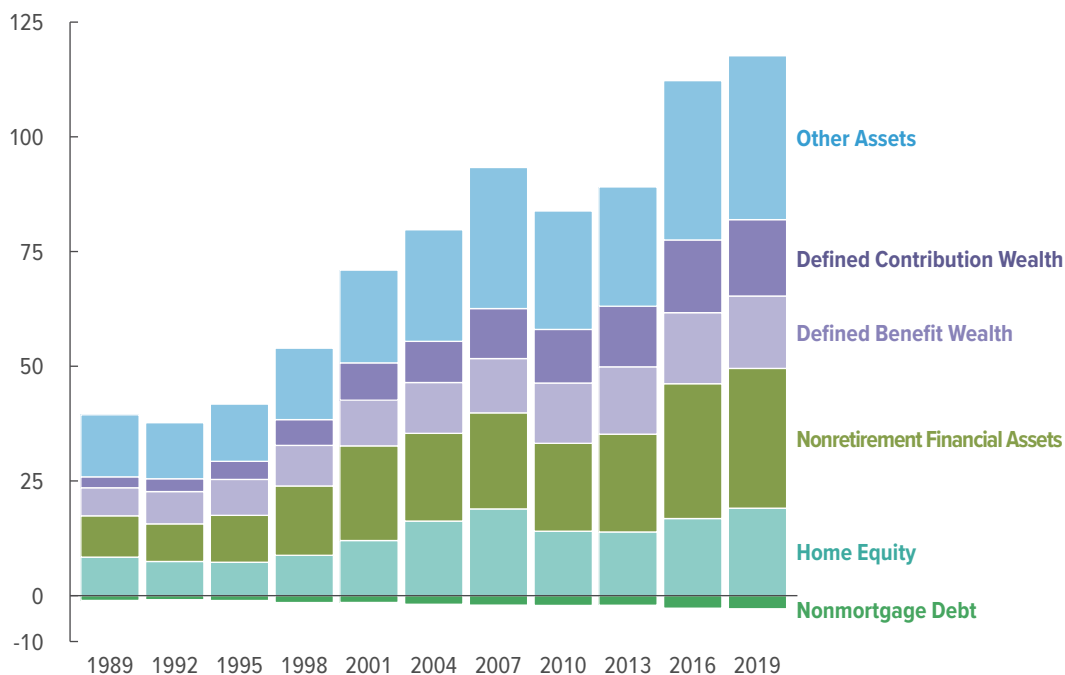
The total value of all five asset categories increased from 1989 to 2019, but those gains were partially offset by the rise in nonmortgage debt. The assets whose real value increased the most over the 30-year period were defined contribution wealth, which climbed by 599 percent (an average annual rate of 6.7 percent), and nonretirement financial assets, which grew by 238 percent (an average annual rate of 4.1 percent). Meanwhile, nonmortgage debt increased by 173 percent (an average annual rate of 3.4 percent). (Those rates are compound annual growth rates calculated using the values for the first and last year of the period.) Of all assets, home equity rose the least, increasing by 127 percent over the 30-year period (an average annual rate of 2.8 percent). Driven by increasing home values, the total value of home equity increased by 125 percent from 1989 to 2007, but it declined over the next three years as home prices fell and the percentage of families that owned homes decreased during the 2007–2009 recession. Total home equity rose once again as the housing market recovered, and by 2019, it had surpassed its prerecession peak.

The composition of total family wealth changed during the period. Measured as a percentage of total family wealth, home equity and other assets declined slightly, whereas nonretirement financial assets and retirement wealth increased slightly; nonmortgage debt remained roughly unchanged.

Although total defined benefit wealth increased throughout the 30-year period, defined benefit plans became less common, so the share of total retirement assets attributable to defined benefit wealth declined. Defined contribution wealth's share of retirement wealth increased from less than one-third in 1989 to almost one-half by 2007, and it continued to grow modestly thereafter. By 2019, defined contribution wealth accounted for slightly more than half of retirement wealth.

Holdings of Family Wealth, by Category of Asset or Debt

Trillions of 2019 Dollars



From 1989 to 2019, the value of defined contribution wealth and nonretirement financial assets increased the most in percentage terms, and that of home equity and defined benefit wealth increased the least. The uneven growth in value among different asset types contributed to the increased concentration of wealth because the asset types whose value grew the most were concentrated among the wealthiest families.

Trends in Wealth of Families at Selected Percentiles of the Distribution

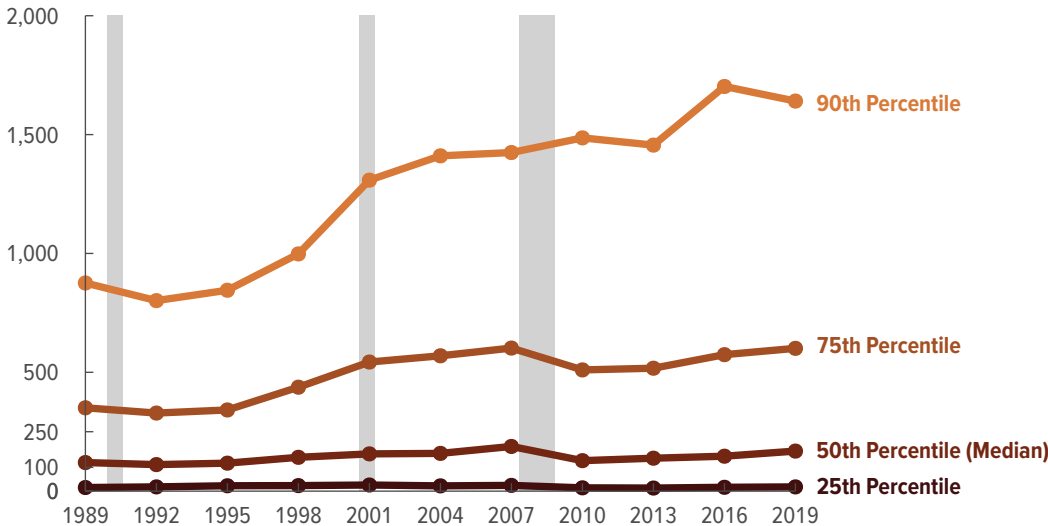
Over the 1989–2019 period, family wealth increased more rapidly at the 90th and 75th percentiles of the wealth distribution than it did at the 50th and 25th percentiles. Measured in 2019 dollars, family wealth rose by 87 percent at the 90th percentile, by 71 percent at the 75th percentile, by 40 percent at the 50th percentile, and by 17 percent at the 25th percentile of the distribution.

The differential growth of family wealth at the selected percentiles of the distribution is partly attributable to differences in growth rates after the 2007–2009 recession. From 2007 to 2010, wealth declined the most at the 25th and 50th percentiles—by 42 percent and 32 percent, respectively. Wealth also fell at the 75th percentile—by 15 percent—but at the 90th percentile, wealth increased by 4 percent. The recovery followed a similar pattern. Family wealth at the 25th and 50th percentiles still had not fully recovered in 2019: It was 26 percent and 10 percent less, respectively, than it had been in 2007. By contrast, family wealth at the 75th percentile was the same in 2019 as it had been in 2007, and wealth at the 90th percentile was 15 percent greater than it had been before the recession.

Some of the growth in median family wealth can be attributed to the aging of the population and to rising education levels among all age groups over time: Older people tend to have more wealth than younger people, and people who are more educated are generally wealthier than people with less education. The average age of families' reference person (the male in a mixed-sex couple or the older person in a same-sex couple if the family consists of more than a single person) increased from 47.9 years to 51.7 years from 1989 to 2019. Education levels also rose: The percentage of families whose reference person had at least a bachelor's degree rose from 23 percent in 1989 to 36 percent in 2019. (For more details on how education and age affect family wealth, see Chapter 2.)

Wealth of Families at Selected Percentiles of the Distribution

Thousands of 2019 Dollars



In 1989, the ratio of the wealth of the family at the 90th percentile to that of the family at the median was 7.3 to 1. In 2007, that ratio grew to 7.6 to 1, and in 2019, it rose to 9.7 to 1.

Wealth Inequality

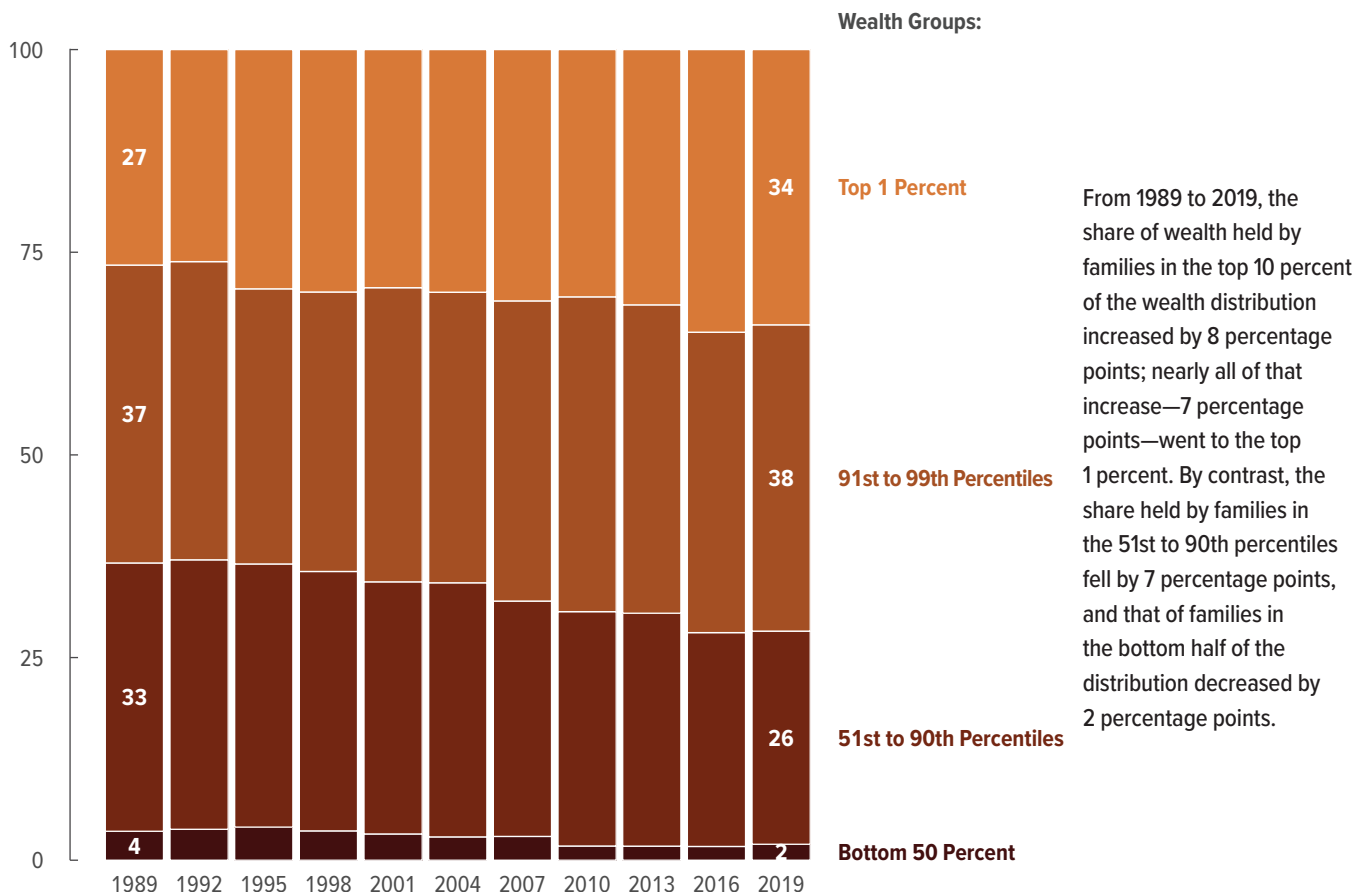
Family wealth was skewed toward families at the top of the wealth distribution over the entire 30-year period. In 2019, families in the top 10 percent of the distribution held more than two-thirds of all wealth, and families in the bottom half of the distribution held only 2 percent of total wealth. The share of wealth held by families in the top 10 percent of the distribution increased from 1989 to 2019. If that share had not changed since 1989 and the total increase over the period remained the same, the wealth held by families in the top 10 percent of the distribution in 2019 would have been 12 percent less than it was, all else equal. Likewise, if the share of wealth held by families in the bottom half of the distribution had not changed, the wealth of that group would have been 82 percent greater than it was.

One factor that may have contributed to the concentration of wealth at the top of the distribution is marital status. Couples tend to have more family wealth than single people, so differences in marriage rates among families in different segments of the wealth distribution may exacerbate estimates of wealth concentration. When family wealth is adjusted to account for marital status by splitting the wealth of couples equally, the share of wealth held by individuals in the top 10 percent of the wealth distribution is smaller than when wealth is measured on a family basis. But the increase in that share over the period—8 percentage points (from 61 percent in 1989 to 69 percent in 2019)—is roughly the same as the increase without that adjustment.

The share of wealth held by families in the top 10 percent of the distribution would be even larger if the value of promised defined benefit income was excluded from the measure of wealth, as it was in CBO's 2016 report. Defined benefit wealth is less concentrated at the top of the distribution than marketable wealth is.

Distribution of Family Wealth, by Wealth Group

Percent

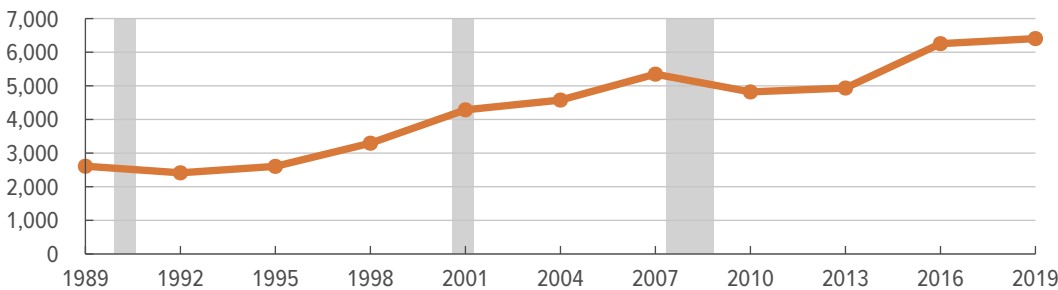


The Top 10 Percent

In 2019, families in the top 10 percent of the wealth distribution—families whose wealth exceeded \$1.64 million—held an average of \$6.4 million in wealth. That is about 150 percent more than the average real wealth of families in that group in 1989 and 20 percent more than their average wealth in 2007. The group’s average wealth declined from 2007 to 2010, mostly because of losses in home equity and in the value of assets categorized as other assets. Following that decline, the average wealth of families in the group rose, largely because of increases in the value of nonretirement financial assets, retirement assets, and other assets.

Average Wealth of Families in the Top 10 Percent of the Wealth Distribution

Thousands of 2019 Dollars

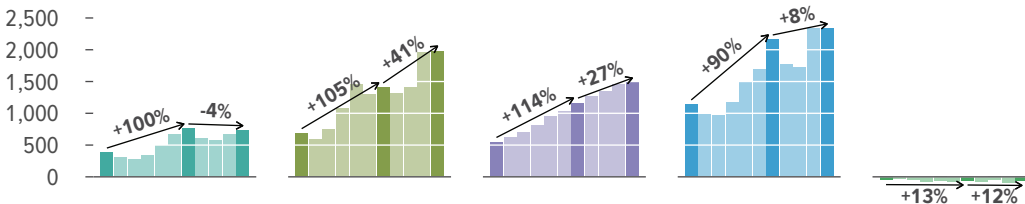


Average real wealth fell by 10 percent from 2007 to 2010. But by 2016, those losses had been recouped, and average wealth was 17 percent greater than it was in 2007.

Changes in Assets and Debt of Families in the Top 10 Percent of the Wealth Distribution

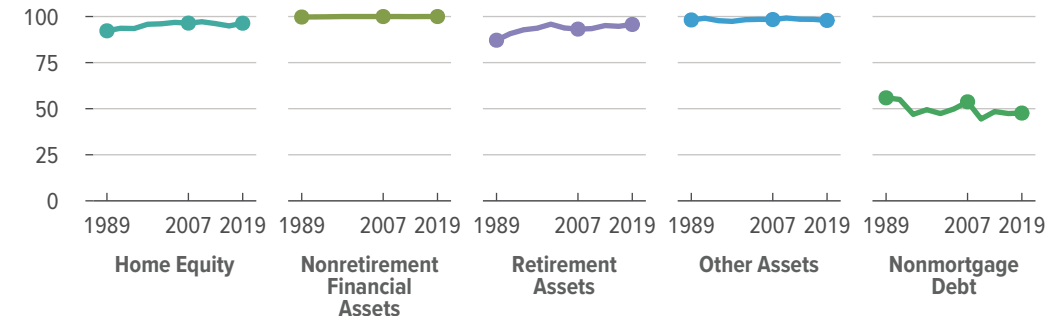
Average Values Among Families That Hold Each Category of Asset or Debt

Thousands of 2019 Dollars



Percentage of Families That Hold Each Category of Asset or Debt

Percent



From 1989 to 2007, the average value of retirement assets increased the most in percentage terms, and the average value of nonmortgage debt the least. From 2007 to 2019, the average value of nonretirement financial assets increased the most; that of home equity had just returned to its prerecession level in 2019.

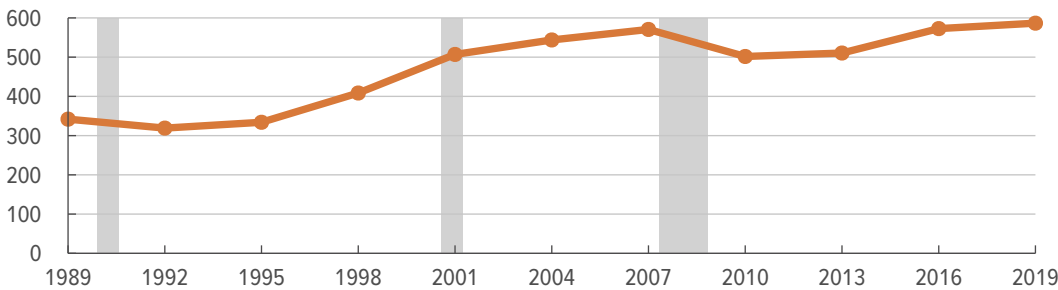
Almost all families in the group held assets in each category. Only about half of the families had nonmortgage debt; the proportion declined slightly over the period.

The 51st to 90th Percentiles

In 2019, the 51st to 90th percentiles of the wealth distribution comprised families whose wealth was between \$169,000 and \$1.64 million. Their average wealth was \$587,000—about 70 percent more than the average real wealth of families in that wealth group in 1989 and slightly greater than the average wealth of such families in 2007. The average real wealth of that segment of the distribution declined from 2007 to 2010 because of losses in the value of home equity, nonretirement financial assets, and other assets. The recovery in the group’s average wealth that followed was fueled by increases in the value of home equity, retirement assets, nonretirement financial assets, and other assets. Those increases were somewhat offset by the slight increase in the average amount of nonmortgage debt of families who held such debt.

Average Wealth of Families in the 51st to 90th Percentiles of the Wealth Distribution

Thousands of 2019 Dollars

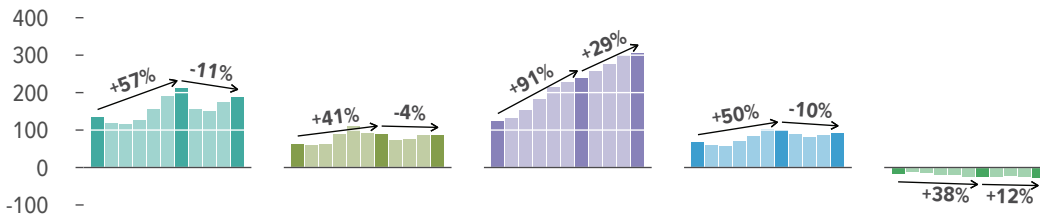


Average wealth declined by 12 percent from 2007 to 2010. In 2016, those losses were recouped as average wealth returned to its 2007 level. It continued to rise thereafter, and in 2019, average wealth was 3 percent greater than it had been in 2007.

Changes in Assets and Debt of Families in the 51st to 90th Percentiles of the Wealth Distribution

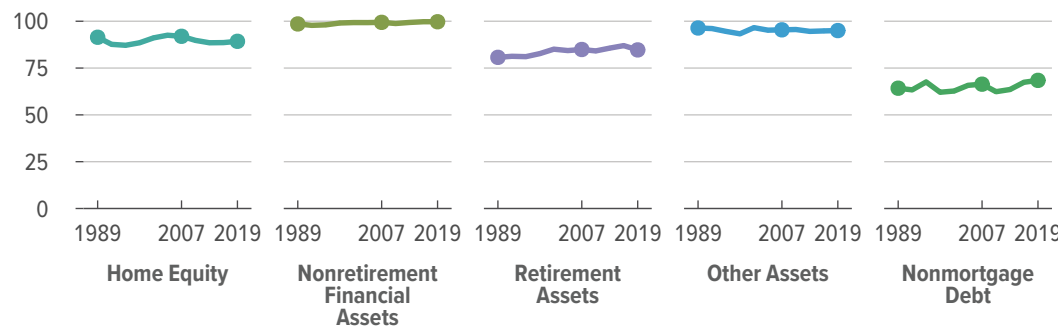
Average Values Among Families That Hold Each Category of Asset or Debt

Thousands of 2019 Dollars



Percentage of Families That Hold Each Category of Asset or Debt

Percent



From 1989 to 2007, the average value of retirement assets increased the most of all assets in percentage terms, and the average value of nonretirement financial assets rose the least. Retirement assets continued to increase the most from 2007 to 2019; the average value of home equity, nonretirement financial assets, and other assets declined.

About 90 percent of families in the group were homeowners, and more than 80 percent had retirement assets. Roughly two-thirds of the group had nonmortgage debt.



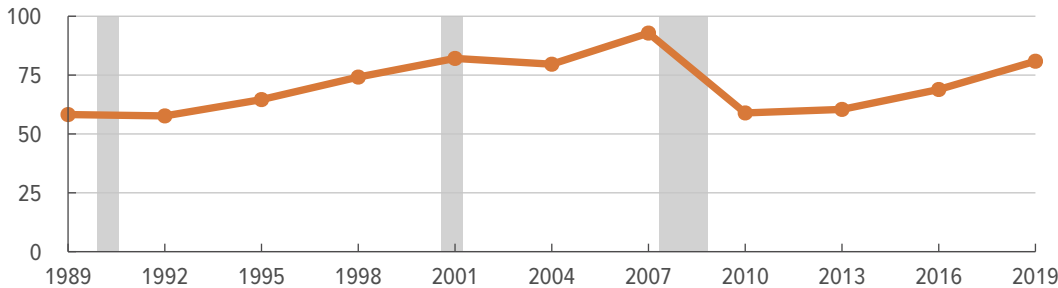
The 26th to 50th Percentiles

In 2019, the 26th to 50th percentiles of the wealth distribution comprised families whose wealth was between \$18,000 and \$169,000; their average wealth was \$81,000—about 40 percent more than the average real wealth of families in that wealth group in 1989 and 13 percent less than the average wealth of families in that group in 2007. The average real wealth of that segment of the distribution declined sharply from 2007 to 2010, erasing the gains in average wealth made since 1989. An important factor driving that decline was the drop in the average value of home equity, marked by a sudden increase in the percentage of homeowners whose mortgage debt exceeded their home’s value and whose home equity was thus negative.

Since 2010, increases in average home equity among homeowners and the reduction in the percentage of homeowners with negative home equity have contributed to the ongoing recovery in the group’s average wealth. However, those gains were offset by two developments: In 2019, the percentage of families that owned their home was well below its pre-2007 level, and the average amount of nonmortgage debt of families who held such debt was greater than it was before the 2007–2009 recession.

Average Wealth of Families in the 26th to 50th Percentiles of the Wealth Distribution

Thousands of 2019 Dollars

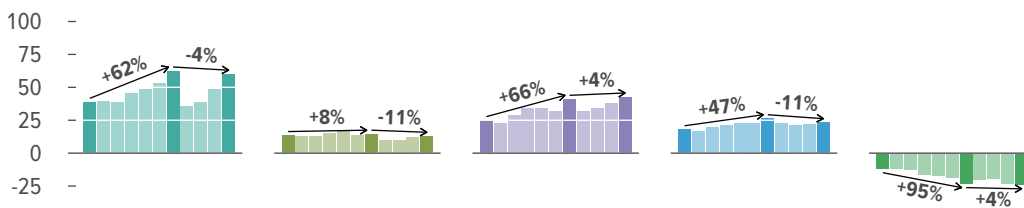


The average wealth of families in the 26th to 50th percentiles declined by 37 percent from 2007 to 2010. Although it rose thereafter, in 2019 it was still 13 percent less than it was in 2007.

Changes in Assets and Debt of Families in the 26th to 50th Percentiles of the Wealth Distribution

Average Values Among Families That Hold Each Category of Asset or Debt

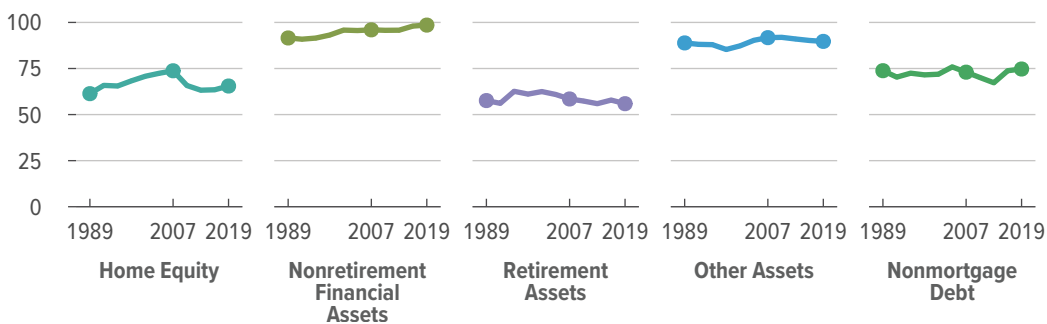
Thousands of 2019 Dollars



In 2019, the average values of home equity, nonretirement financial assets, and other assets still had not returned to their prerecession levels. Only the average value of retirement assets increased from 2007 to 2019.

Percentage of Families That Hold Each Category of Asset or Debt

Percent



Over the 30-year period, between two-thirds and three-quarters of families in the group owned homes, about three-fifths had retirement assets, and about three-quarters had nonmortgage debt.

The Bottom 25 Percent

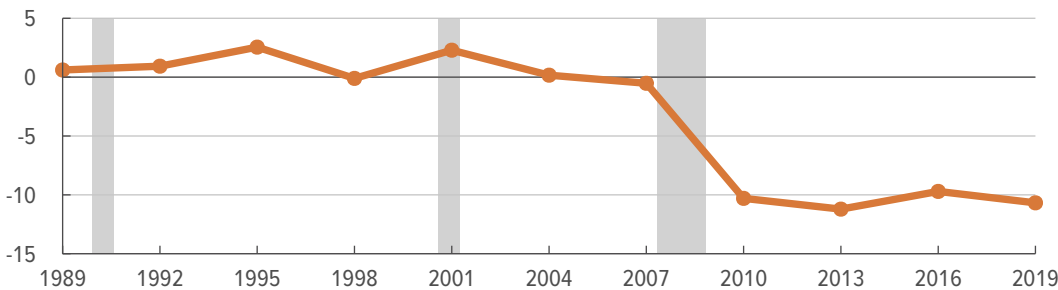
In 2019, the bottom 25 percent of the wealth distribution comprised families with less than \$18,000 in wealth. On average, those families owed more than what they held in assets: Their average wealth was -\$11,000. The average real wealth of families in that wealth group was greater from 1989 (when it was \$600) to 2007 (when it was -\$500).

From 2007 to 2010, the average wealth of families in the group declined sharply, mostly because of a drop in average home equity and an increase in the average amount of nonmortgage debt. Although the group's rate of home ownership rose from less than one-sixth of families in the group in 2007 to about one-fifth in 2010, the decline in the average home equity of those homeowners was large—\$26,000.

Most of the decline in home equity had been reversed by 2016, but nonmortgage debt—particularly student loan debt (which was not adjusted to account for potential loan forgiveness)—increased considerably, keeping the average wealth of families in the group much lower than it was before the recession. Both the percentage of families with student loan debt and the average amount of that debt increased from 2010 to 2019. The significance of student loan debt for families in the bottom 25 percent of the wealth distribution reflects the uneven distribution of ages among wealth groups. In 2019, the average age of the reference person of families in the bottom 25 percent of the wealth distribution was 42 years, and 42 percent of them were under age 35; for those in the top 10 percent, the average age was 61 years, and only 1 percent were under age 35.

Average Wealth of Families in the Bottom 25 Percent of the Wealth Distribution

Thousands of 2019 Dollars

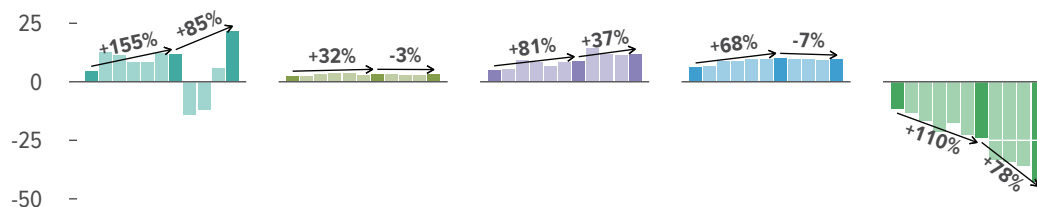


From 2007 to 2010, the average real wealth of families in the bottom 25 percent of the wealth distribution fell from -\$500 to -\$10,300; it remained roughly unchanged through 2019.

Changes in Assets and Debt of Families in the Bottom 25 Percent of the Wealth Distribution

Average Values Among Families That Hold Each Category of Asset or Debt

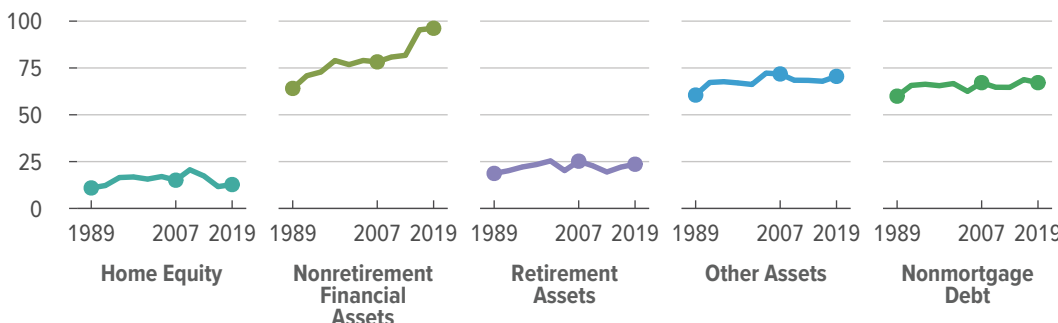
Thousands of 2019 Dollars



The average value of home equity held by families in this segment of the wealth distribution declined sharply from 2007 to 2010, falling below zero. Average nonmortgage debt more than doubled from 1989 to 2007 and grew at an even faster rate thereafter.

Percentage of Families That Hold Each Category of Asset or Debt

Percent



No more than one-fifth of families in the group owned homes at any time in the 30-year period, and no more than one-quarter held retirement assets.



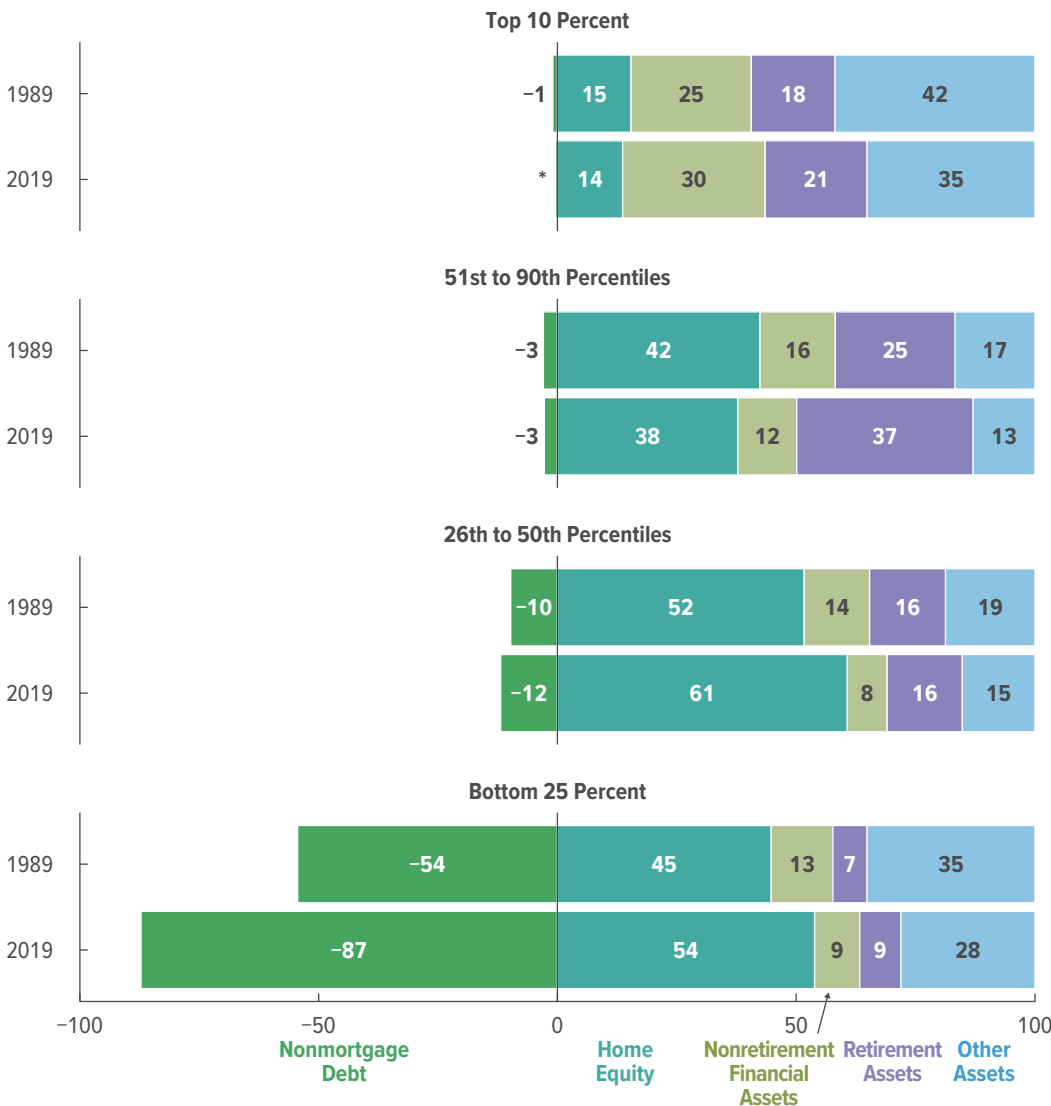
Composition of Family Wealth, by Wealth Group

Over the 1989–2019 period, the composition of wealth shifted toward nonmortgage debt and home equity in the bottom half of the wealth distribution, toward retirement wealth in the 51st to 90th percentiles, and toward nonretirement financial assets in the top 10 percent of the distribution. Measured as a percentage of total assets, the total debt of the bottom 25 percent of the wealth distribution increased considerably, but the total debt of the remaining 75 percent of the distribution was roughly unchanged. For the bottom half of the distribution, the share of total wealth attributable to home equity increased; for the top half of the distribution, that share decreased. By contrast, the share of wealth attributable to retirement assets changed little for the bottom half of the distribution but increased for the top half.

In 1989, the most common type of nonmortgage debt held by families in the bottom 25 percent of the wealth distribution was vehicle debt, which accounted for 35 percent of total nonmortgage debt; in 2019, it was student loan debt, which accounted for 63 percent. Over the three decades, defined contribution plans became more common, and in 2019, they accounted for more than 50 percent of retirement assets held by families in all groups except for the one comprising families in the 51st to 90th percentiles.

Types of Assets and Debt Measured as Shares of Total Assets, by Wealth Group

Percent



Debt and home equity account for a larger share of assets of families in the bottom half of the wealth distribution than of those in the top half. By contrast, retirement and nonretirement financial assets are more prevalent among families in the top half of the distribution.

Other assets account for a larger share of the total assets of families in the top 10 percent and in the bottom 25 percent than they do of the total assets of families in the middle of the distribution. For families in the top 10 percent, those assets are mostly business assets; for families in the bottom 25 percent, they are primarily vehicles.

* = between -0.5 percent and zero.



Composition of Debt of Families in the Bottom 25 Percent of the Wealth Distribution

From 1989 to 2013, mortgage debt was the largest component of debt of families in the bottom 25 percent of the wealth distribution. Since then, the composition has shifted from mortgage debt toward student loan debt. That shift reflects changes in the percentage of families in the group that had those types of debt, as well as changes in the average amount of such debt.

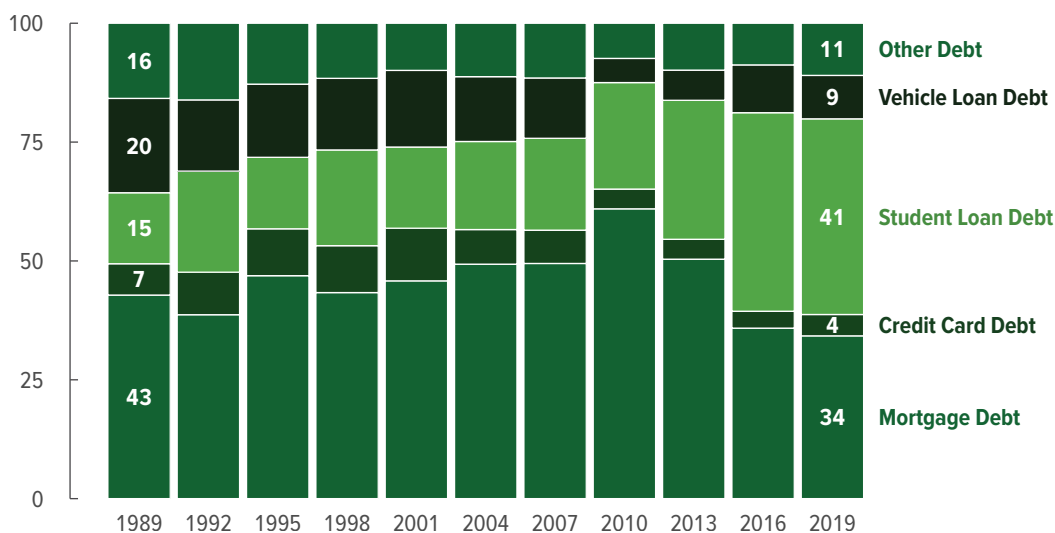
For families in the bottom 25 percent of the wealth distribution, mortgage debt’s share of debt was largest in 2010, immediately after the 2007–2009 recession and housing market crash. That increase stemmed largely from a significant change in the characteristics of families that made up the bottom 25 percent of the wealth distribution. For example, the proportion of families in the bottom 25 percent who owned homes was larger in 2010 (21 percent) than it was in 2007 (15 percent). The proportion of families in the bottom quarter of the wealth distribution who had mortgage debt increased accordingly, from 11 percent in 2007 to 18 percent in 2010, and the average amount of outstanding mortgages rose by \$43,300—from \$140,700 to \$184,000.

Moreover, over that same period, the proportion of families in the bottom 25 percent of the wealth distribution with negative home equity increased from 1.0 percent to 9.8 percent (or almost half of all homeowners in that group). By 2019, the percentage of homeowners in the group with negative home equity had fallen to its prerecession level, and the percentage of families that owned homes and the percentage that had mortgage debt had fallen below their prerecession levels.

The proportion of families in the bottom 25 percent of the distribution with student loans increased from 1989 to 1992 and then remained roughly unchanged through 2007, when it was 24 percent. That proportion then began to rise, peaking at 38 percent in 2016 before falling to 33 percent in 2019. The average loan balance more than doubled from 2007 to 2019, increasing from \$25,600 to \$53,600 (in 2019 dollars). Because student loan debt is typically accumulated in the process of attaining a higher level of education, which can increase lifetime earnings, such debt might have different implications for wealth accumulation over time than other types of nonmortgage debt.

Composition of Debt of Families in the Bottom 25 Percent of the Wealth Distribution

Percent



For most of the 30-year period, mortgage debt was the largest component of debt of families in the bottom 25 percent of the wealth distribution. After the 2007–2009 recession, student loan debt became more prevalent; by 2016, it had become the largest component of debt.



Chapter 2: Trends in Wealth, by Family Characteristics

Wealth tends to vary by certain family characteristics. The Congressional Budget Office analyzed the relationship between family wealth and five such characteristics—income, education, race and ethnicity, age, and birth cohort. The variation in wealth with respect to any one of those characteristics does not, however, imply a causal relationship between the particular characteristic and family wealth because many of the characteristics are correlated. For example, families with lower income tend to have less education, and younger families tend to have lower income.

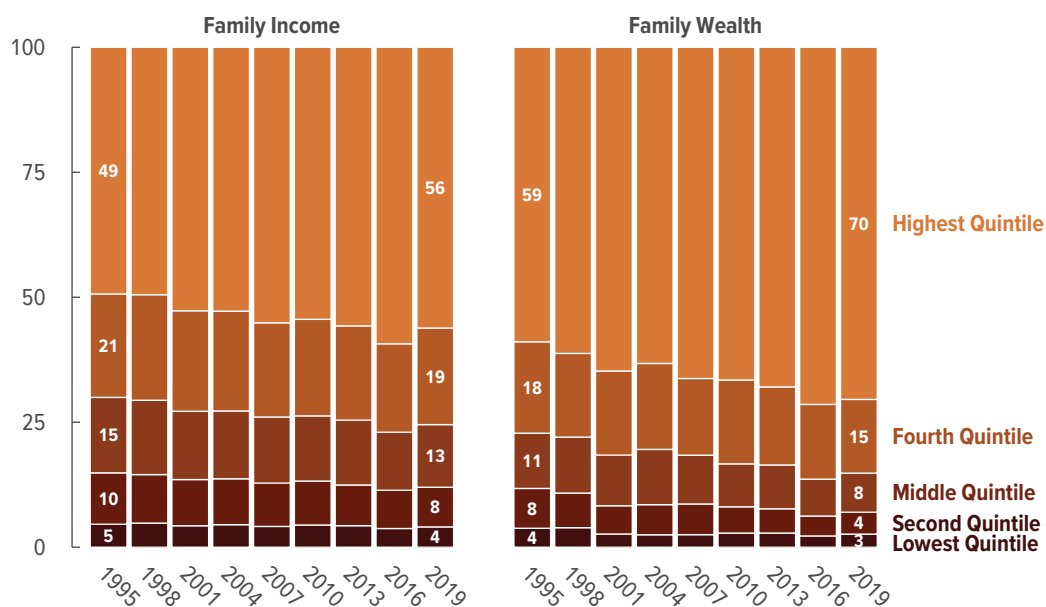
The analysis should not be misconstrued as providing information about changes in the wealth or income of *particular* families over time; rather, it describes trends among groups of families who share similar characteristics. The sample of families representing all families with particular characteristics—including specific positions in the income and wealth distributions—in the Survey of Consumer Finances in one year is not the same sample representing families with those characteristics in another year.

Distribution of Income and Wealth, by Income Group

Whereas wealth is a stock—it represents a family’s accumulated holdings of assets and debt at a given point in time—income is the flow of money that the family receives (from employers, from owning a business, from rent on properties it owns, or from some other source) over a specified period, typically a calendar year. Both family wealth and family income are skewed toward the top of the income distribution. The families in the highest quintile of the income distribution receive disproportionate shares of total family income and hold disproportionate shares of total family wealth. Moreover, family wealth is more concentrated in the highest quintile than is family income. From 1995 (the first year for which the income measure used here was available) to 2019, the shares of family income and of family wealth attributed to families in the highest quintile of the income distribution increased, but the increase in the share of family wealth was greater.

Distribution of Family Income and Family Wealth, by Income Group

Percent



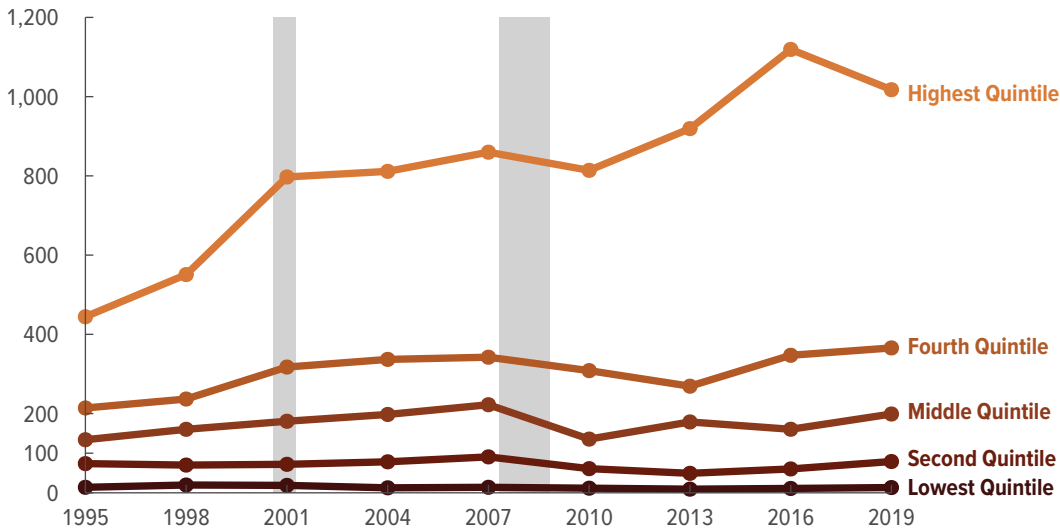
Throughout the 1995–2019 period, family wealth was more skewed toward the top of the income distribution than family income. In 1995, for example, families in the highest income quintile received 49 percent of all income and held 59 percent of all wealth. Over the 24-year period, that group’s share of income increased by 7 percentage points, and its share of wealth rose by 12 percentage points.

Family Wealth, by Income Group

The median family wealth of all but the lowest quintile of the income distribution increased from 1995 to 2019; that of the highest quintile grew the most. In 2019, the median wealth of families in the lowest quintile of income was \$13,300, that of those in the middle quintile was \$198,900, and that of families in the highest quintile was \$1,017,500. (The median real income per person in the lowest, middle, and highest quintiles in 2019 was \$14,000, \$44,000, and \$124,000, respectively.) The disparity in the median wealth of the quintiles in 2019 was greater than it was in 1995, indicating that wealth became more unequally distributed over the period. The difference between the median wealth of families in the highest quintile of income and that of those in the middle quintile widened from \$310,400 in 1995 to \$818,600 in 2019.

Median Family Wealth, by Income Group

Thousands of 2019 Dollars



During the 2007–2009 recession, the median family wealth of all income groups declined. In 2019, only the median wealth of families in the two highest quintiles was higher than it had been in 2007.



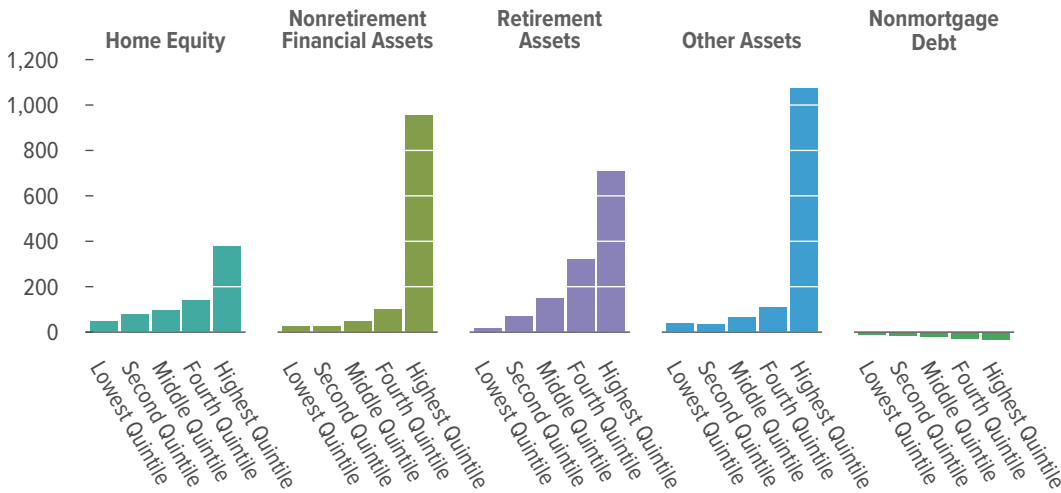
Composition of Wealth, by Income Group

Families with more income have greater asset holdings and more debt, on average. (Average values in this chapter were calculated for all families in a group, including those who did not hold a particular type of asset or had no debt.) The differences in the percentage of families holding those assets explain some of the differences in values. For example, families with lower income were less likely to own a home—39 percent of families in the lowest income quintile were homeowners in 2019, whereas 84 percent of families in the highest quintile were. Families in the lowest income quintile were also less likely to have retirement assets—20 percent of those families had retirement assets versus 91 percent of families in the top income quintile.

Although lower-income families had less home equity and less nonmortgage debt than families with higher income, on average, those categories accounted for a larger share of their portfolios, whereas nonretirement financial assets were more prevalent in the portfolios of higher-income families. Retirement assets accounted for the biggest share of assets of families in the middle and fourth quintiles of income.

Average Value of Assets and Debt in 2019, by Income Group

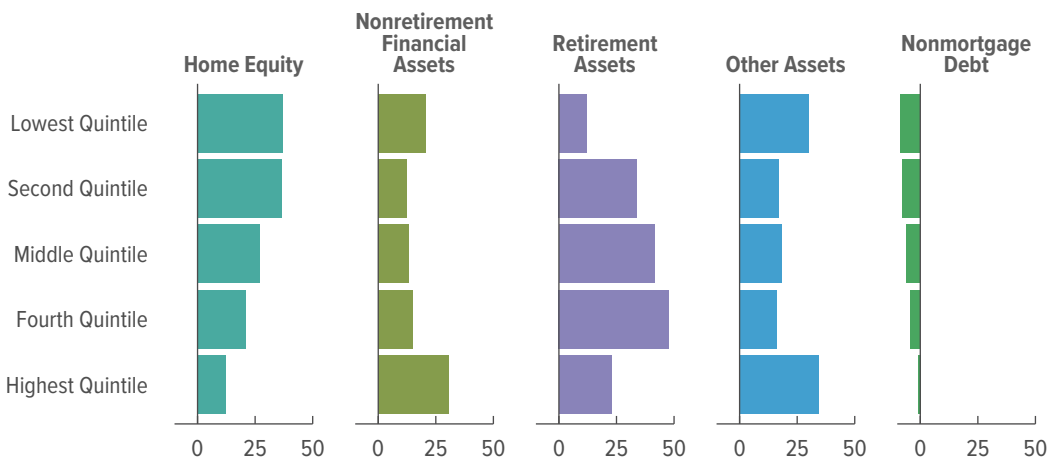
Thousands of Dollars



In 2019, the differences between the average holdings of families in the highest quintile and those of families in the middle quintile were largest for other assets (\$1,007,000), nonretirement financial assets (\$905,000), and retirement assets (\$557,000). The differences were smallest for home equity (\$281,000) and nonmortgage debt (\$12,000).

Types of Assets and Debt Measured as Shares of Total Assets in 2019, by Income Group

Percent



For families in the lowest quintile of income, home equity and other assets (most commonly business assets and vehicles) were the dominant types of wealth. For those in the highest income quintile, other assets (primarily business equity) and nonretirement financial assets accounted for the largest shares of wealth.

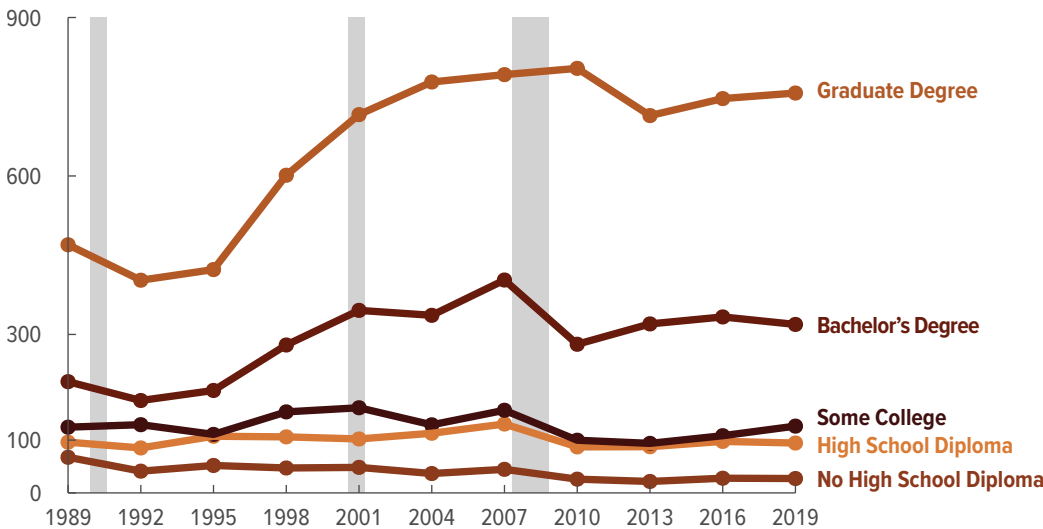
Family Wealth, by Education Group

From 1989 to 2019, the median wealth of families with higher levels of education increased more quickly than that of those with lower levels. (Education groups were defined on the basis of the education of the family reference person.) Over that period, the median wealth of families with a graduate degree increased by 61 percent, and that of those with a bachelor’s degree, by 51 percent. The median wealth of families with some college education increased modestly—by 2 percent. By contrast, the median wealth of families with only a high school diploma and of those without a high school diploma fell by 2 percent and 60 percent, respectively.

An increase in the percentage of the population with at least a bachelor’s degree accounts for some of the increase in the overall median family wealth from 1989 to 2019: Historically, families with more education have held more wealth than those with less education. In 1989, 23 percent of families had a reference person with at least a bachelor’s degree; in 2019, 36 percent did. If the average education level had remained unchanged over the period, median family wealth in 2019 would have been 26 percent less, all else equal. (For details on how CBO calculated that estimate, see Appendix B.)

Median Family Wealth, by Education Group

Thousands of 2019 Dollars



In 1989, the median wealth of families with a graduate degree was about five times the median wealth of families with only a high school diploma. In 2019, that ratio had increased to 8 to 1.

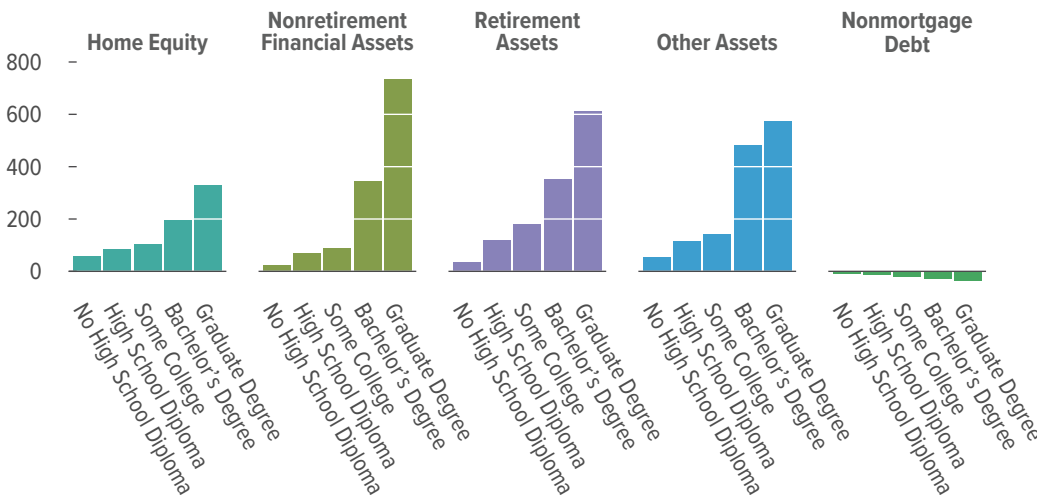
Composition of Wealth, by Education Group

The average value of assets and the average amount of debt increases with families' education level. The differences in the percentage of families in each education group holding particular types of assets explained some of the differences in values. Families with less education were less likely to own a home or to have retirement assets in 2019. For example, 51 percent of families without a high school diploma were homeowners, whereas 61 percent of those with some college education and 82 percent of those with graduate degrees owned a home. Of the families without a high school diploma, only 28 percent had retirement assets; 59 percent of those with some college education and 88 percent of those with graduate degrees held such assets.

Although families with less education had less home equity and less nonmortgage debt, on average, those categories accounted for a larger share of their portfolios than they did of more-educated families' portfolios. For families with only a high school diploma or some college education, retirement assets accounted for the largest share of assets, and for families with a graduate degree, nonretirement financial assets accounted for the largest share.

Average Value of Assets and Debt in 2019, by Education Group

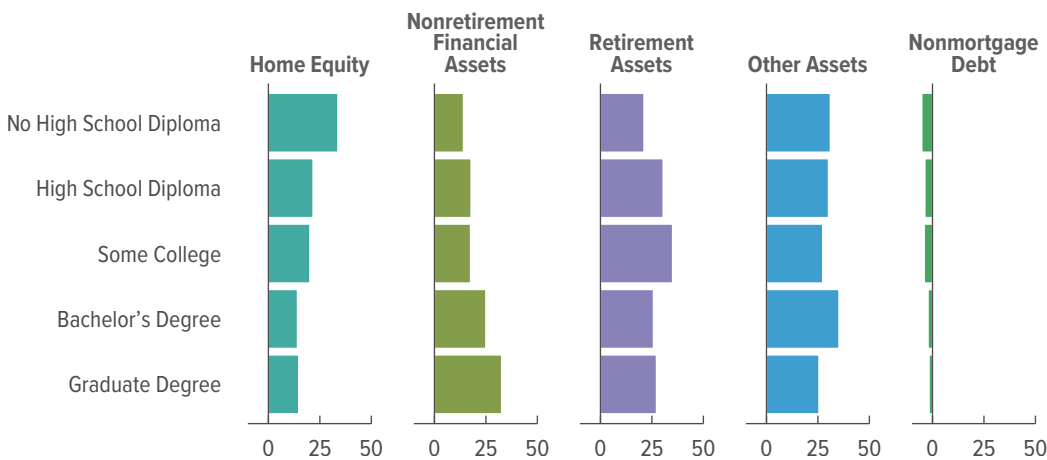
Thousands of Dollars



In 2019, the largest differences in the average value of assets held by families with graduate degrees and by those without a high school diploma were in nonretirement financial assets (\$710,000), retirement assets (\$576,000), and other assets (\$520,000); the smallest differences were in home equity (\$274,000) and nonmortgage debt (\$28,000).

Types of Assets and Debt Measured as Shares of Total Assets in 2019, by Education Group

Percent



As a group, families without a high school diploma held most of their wealth in the form of home equity and other assets. For families with graduate degrees, nonretirement financial assets and retirement assets accounted for the biggest shares of their total assets; for families with some college, retirement assets accounted for the largest share of their total assets.

Family Wealth, by Race and Ethnicity

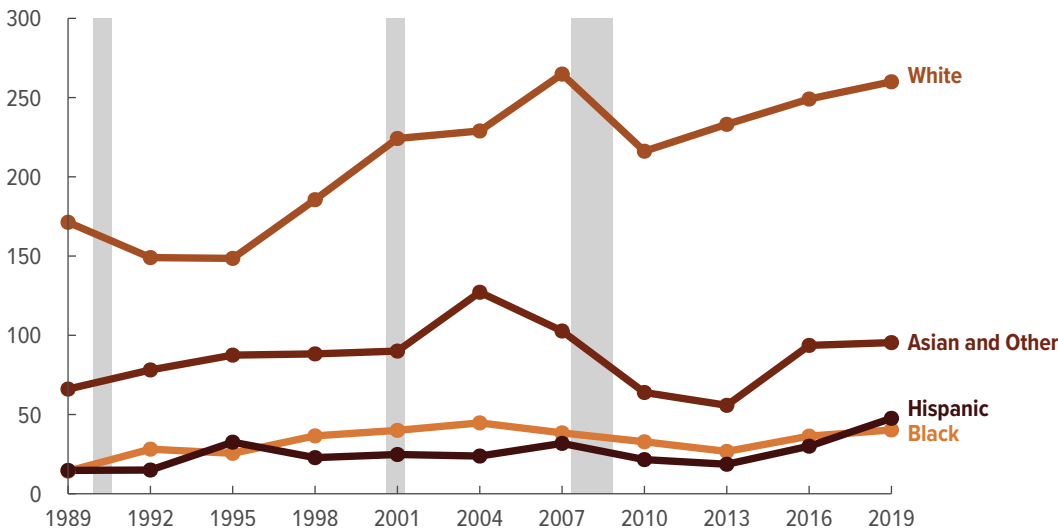
The median family wealth of different racial and ethnic groups varied considerably over the entire 30-year period. (Groups were defined on the basis of the race and ethnicity of the survey respondent rather than that of the reference person; see Appendix A.) The median wealth of White families remained significantly greater than the other three groups' median wealth throughout the period. In 2019, for example, the median wealth of White families was \$260,000, that of Black families was \$40,300, that of Hispanic families was \$47,600, and that of the group comprising Asian and other families was \$95,400.

From 1989 to 2019, the median wealth of Hispanic families and of Black families increased by more in percentage terms than the median wealth of the other two groups: Hispanic families' median wealth grew by 223 percent; Black families', by 183 percent; White families', by 52 percent; and Asian and other families', by 44 percent. Nevertheless, differences in wealth among the groups remained because Black families' and Hispanic families' median wealth was much less than that of White families and that of Asian and other families to begin with. In 1989, the median wealth (in 2019 dollars) of the different groups was as follows: \$171,300 for White families, \$14,200 for Black families, \$14,700 for Hispanic families, and \$66,100 for Asian and other families.

The ratio of White families' median wealth to Asian and other families' median wealth was relatively stable over the period (averaging 2.6 to 1), but the ratios of White families' median wealth to that of Black families and Hispanic families fluctuated more. The ratio of White families' median wealth to Black families' median wealth averaged 6.7 to 1; it was highest in 1989 (12.0 to 1) and lowest in 1998 (5.1 to 1). The ratio of White families' median wealth to Hispanic families' median wealth averaged 8.9 to 1 over the period; it was highest in 2013 (12.5 to 1) and lowest in 1995 (4.6 to 1).

Median Family Wealth, by Race and Ethnicity

Thousands of 2019 Dollars



The median wealth of White families was significantly greater than that of the three other racial and ethnic groups over the entire 30-year period. In 2019, White families' median wealth was 6.5 times that of Black families, 5.5 times that of Hispanic families, and 2.7 times that of Asian and other families.



Composition of Wealth, by Race and Ethnicity

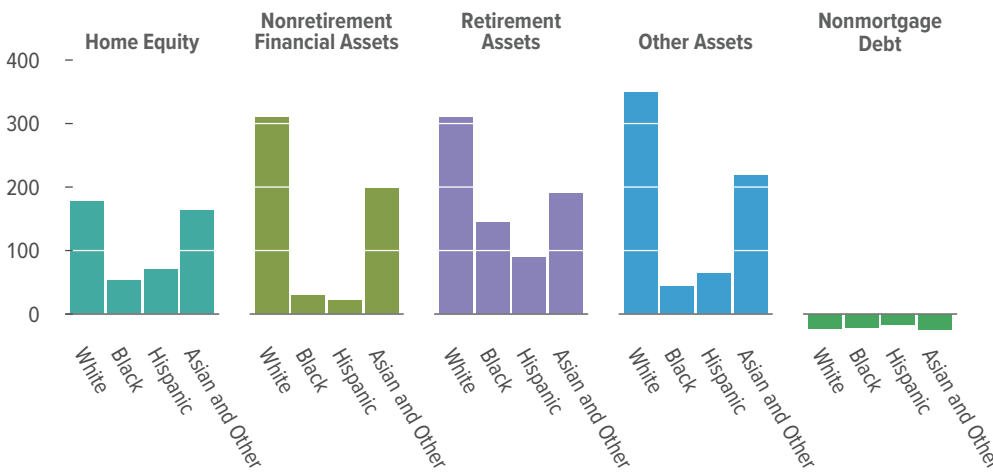
In 2019, White families' holdings of all categories of assets were greater, on average, than those of the families in the other three racial and ethnic groups. The differences were greatest for nonretirement financial assets and other assets and smallest for retirement assets and home equity. Differences among racial groups in the proportion of families that held nonmortgage debt and in the average value of that debt were smaller.

Some of the differences in asset values can be explained by differences in the proportion of families holding those assets. White families were more likely to have certain types of assets than other families. In 2019, 74 percent of White families were homeowners, but only 45 percent of Black families, 48 percent of Hispanic families, and 54 percent of Asian and other families owned homes. Whereas 71 percent of White families had retirement assets, only 50 percent of Black, 36 percent of Hispanic, and 61 percent of Asian and other families did. And, on average, White families who held a particular type of asset held more of it than did families in other groups who held the same type of asset.

Although in 2019 Black and Hispanic families had less nonmortgage debt and less home equity, on average, than White families, debt and home equity amounted to larger shares of their total assets. Similarly, retirement assets accounted for a larger share of Black and Hispanic families' asset portfolios, but those families' holdings of such assets were, on average, smaller than those of other families.

Average Value of Assets and Debt in 2019, by Race and Ethnicity

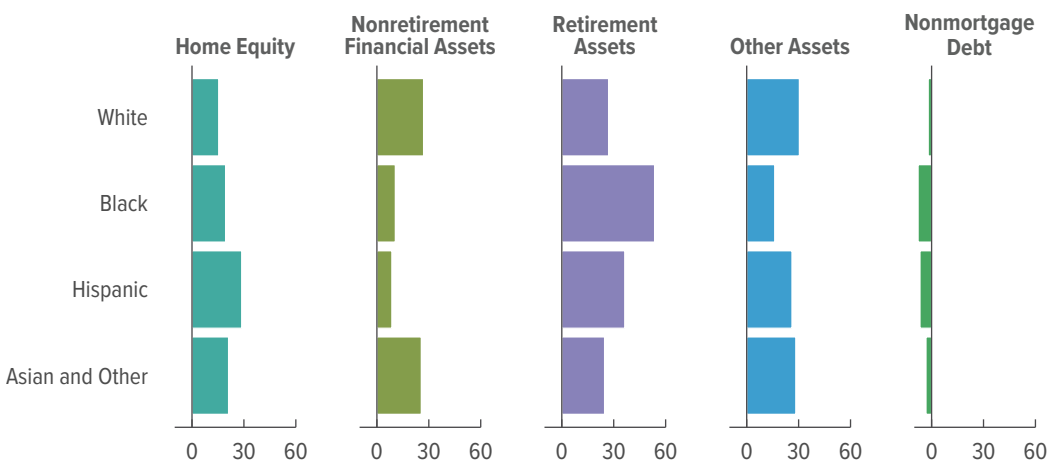
Thousands of Dollars



The largest differences in average holdings between White families and Black and Hispanic families were in nonretirement financial assets and other assets, and the smallest were in home equity and nonmortgage debt.

Types of Assets and Debt Measured as Shares of Total Assets in 2019, by Race and Ethnicity

Percent



Home equity accounted for a smaller share of White families' asset portfolios than it did of the other groups' portfolios, and nonretirement financial assets and other assets accounted for larger shares. As a share of total assets, retirement assets were largest for Black and Hispanic families.



Family Wealth, by Age Group

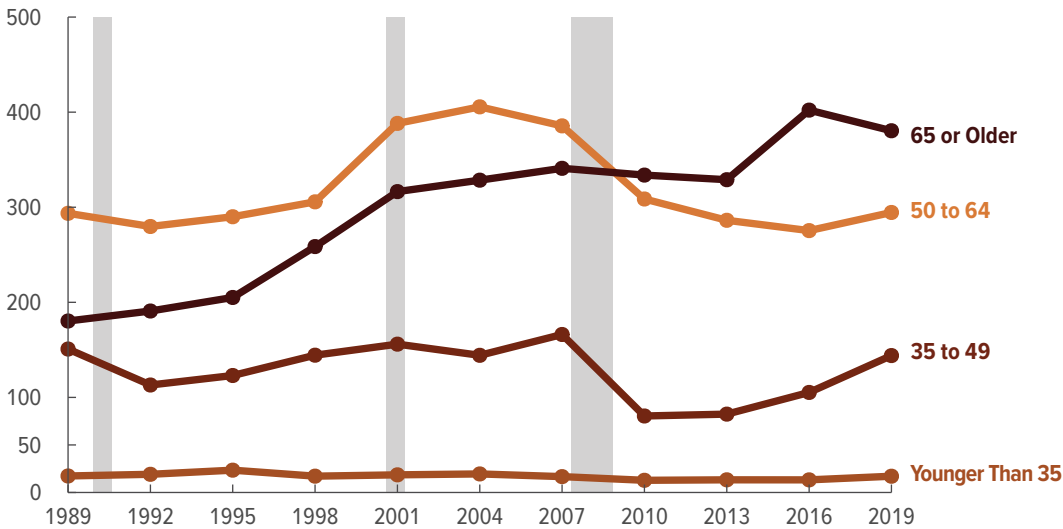
Family wealth was generally greater for older families. Families tend to earn less and borrow more when they are younger, to save and accumulate assets as they age, and to spend down their assets when they are retired. In 2019, the median wealth of families age 65 or older was \$380,500—22.2 times the median wealth of families younger than 35, 2.6 times that of families ages 35 to 49, and 1.3 times that of families ages 50 to 64. (Age groups were defined on the basis of the age of the family reference person.)

In addition, the growth of median wealth over the 1989–2019 period differed by age group. From 1989 to 2007, the median wealth of families age 35 or older increased, and that of younger families remained stable. Between 2007 and 2010, the median wealth of each of the three groups comprising families younger than 65 declined. That decline has mostly reversed since then, and in 2019, the median wealth of families in those groups was about the same as that of families in the groups in 1989. The slow growth in the median wealth of families age 50 to 64 since 2007 is partly attributable to the slow recovery of the median home equity of the group and a decline in the median value of its retirement assets.

Because wealth tends to increase as a family gets older and has had more years to accumulate assets, the aging of the population—that is, the increase in the average age of the population—accounts for some of the increase in overall median family wealth over the 30-year period. In 1989, 21 percent of families were over the age of 65; in 2019, 27 percent were. If the age composition of the population remained the same over the period, the overall median family wealth in 2019 would, all else equal, have been 23 percent less than what it was, CBO estimates. (See Appendix B for details on that calculation.)

Median Family Wealth, by Age Group

Thousands of 2019 Dollars



The median wealth of older families was greater than that of families under age 50 over the entire 30-year period. Until 2010, the median wealth of the oldest group (age 65 or older) was less than that of the second-oldest group (ages 50 to 64). Since then, the oldest group's median wealth has been the greatest.



Composition of Wealth, by Age Group

In 2019, younger families’ average holdings of all categories of assets were smaller—and their average amount of nonmortgage debt larger—than older families’. Differences in the percentage of families holding a given type of asset explain some of the differences in average values. For example, younger families are less likely than older families to be homeowners or to have retirement assets, and they are more likely to have outstanding nonmortgage debt. In 2019, 36 percent of families younger than 35 owned a home, 52 percent held retirement assets, and 75 percent had nonmortgage debt. By contrast, 80 percent of families age 65 or older owned a home, 70 percent held retirement assets, and 51 percent had nonmortgage debt.

Measured in relation to the group’s total assets, home equity and nonmortgage debt are greater for younger families, particularly those younger than 35. By contrast, nonretirement financial assets typically account for a larger share of older families’ portfolios—for the group of families age 65 or older, such assets account for the largest share of their total assets. The value of retirement assets and other assets increases with age, on average, but the shares of families’ portfolios that those assets account for are similar for all age groups.

Average Value of Assets and Debt in 2019, by Age Group

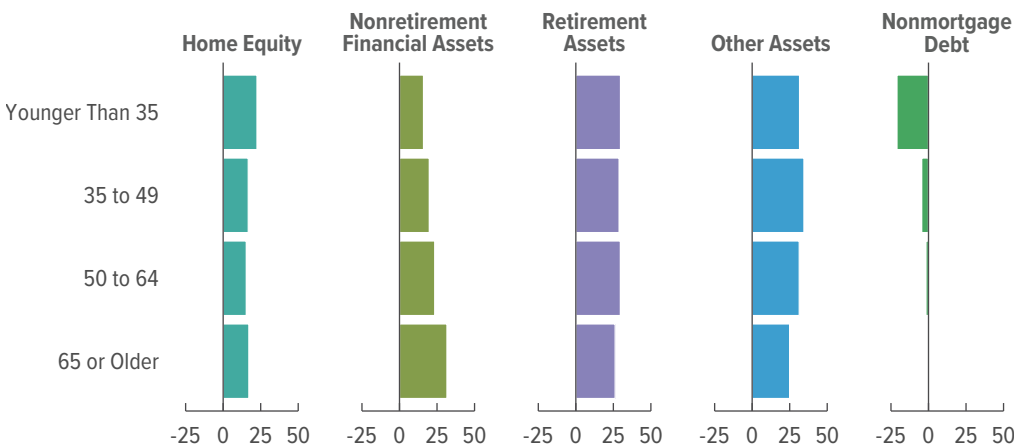
Thousands of Dollars



The average values of all categories of assets typically increase as families approach retirement. On average, the retirement assets of families of retirement age (age 65 or older) are worth less than those of families who are near retirement age (ages 50 to 64). Average nonmortgage debt was highest for families ages 35 to 49.

Types of Assets and Debt Measured as Shares of Total Assets in 2019, by Age Group

Percent



The total nonmortgage debt of families younger than 35 equaled about one-fifth of those families’ total assets. More than 60 percent of that debt stemmed from student loans. Nonretirement financial assets’ share of total assets was largest—about one-third—for families over age 65. Retirement assets’ share of total assets was similar for all age groups.

Family Wealth Over the Lifecycle

On average, families work, consume, and borrow in their younger working lives; repay debts, work, consume, and save in their later working lives; and use their savings to consume when they retire. Among other factors, changes in the distribution of family wealth over time reflect changes in the evolution of wealth over the lifecycle of families of various generations.

CBO examined how median wealth changed with age for families belonging to six different birth cohorts. In addition, the agency analyzed how the ratio of median wealth to median income and the ratio of median debt to median assets changed as those cohorts aged. (Each family was placed into a cohort on the basis of the birth year of the family's reference person. Family wealth and family income were adjusted to account for family size and for changes in prices; the two measures are presented on a per person basis.)

The analysis provides a series of snapshots of family wealth; it does not provide information about changes in the wealth of particular families over time. Different families are interviewed for the Survey of Consumer Finances each year that it is conducted, so families in a particular birth cohort in one survey are not the same families as those in that cohort in an earlier or later survey. Nevertheless, because the SCF is nationally representative and conducted on a regular basis over a long period, the statistics derived from it are representative of families of different generations at various ages.

The characteristics of the various cohorts differ. For example, by age 35, people born between 1980 and 1984 received more years of education than earlier generations, and a smaller percentage of them were married. In addition, a smaller percentage of families in that cohort than in older cohorts identified as White. How such differences in characteristics affect the distribution of family wealth within generations is outside the scope of this report.

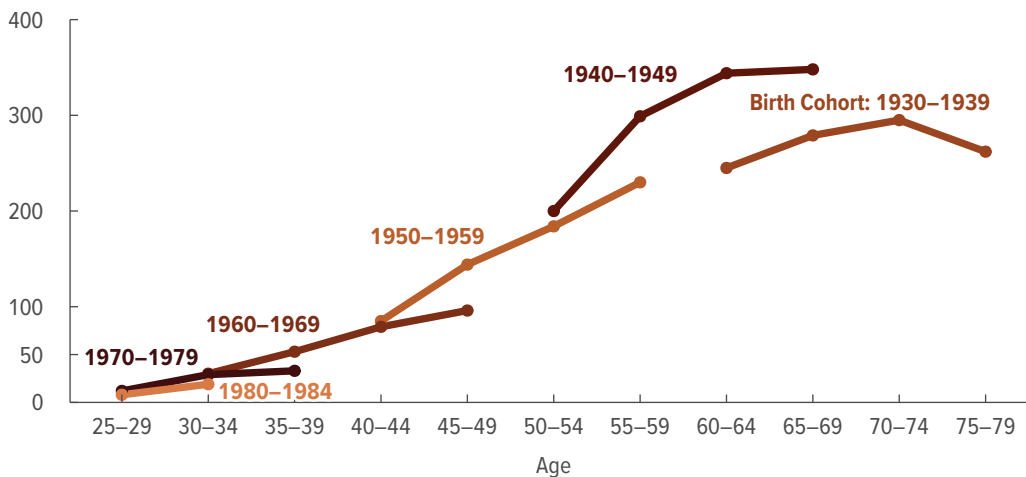
Family Wealth, by Year of Birth

Although wealth generally increased with age for families in all the birth cohorts examined, there were differences in median wealth among the generations at similar ages. For example, the median wealth of those born in the 1940s was greater when they were in their 60s than that of families born in the 1930s was when they were the same age. Compared with families in the birth cohort immediately preceding theirs, families born in the 1950s had less median wealth when they were in their 50s, families born in the 1960s had less median wealth in their 40s, families born in the 1970s had less median wealth in their 30s, and families born in the early 1980s had less median wealth in their late 20s. Those declines in median wealth at a given age from one cohort to the next roughly coincided with the losses in family wealth sustained during the 2007–2009 recession and the slow recovery in wealth that followed.

Families of more recent birth cohorts have generally held less wealth relative to their income than earlier cohorts held at similar ages. (The exception to the rule is the cohort born in the 1940s.) In addition, families of more recent birth cohorts have had more debt relative to their assets. For example, the median family wealth of families born in the early 1980s was 27 percent of median family income when that cohort was between the ages of 25 and 29, but for families born in the 1970s, that ratio was 38 percent when they were the same age. Median family debt was 57 percent of median family assets at that age for families born in the early 1980s and 50 percent of median assets for those born in the 1970s.

Median Family Wealth From 1989 to 2019, by Birth Cohort

Thousands of 2019 Dollars



For families of all six birth cohorts, median family wealth generally increased with age. Although the median wealth of families born in the 1940s was greater when they were in their 60s than that of families of the preceding generation was at the same age, subsequent generations had less wealth than families of the preceding generation had at the same age.

Wealth as a Percentage of Income and Debt as a Percentage of Assets From 1989 to 2019, by Birth Cohort

Percent

Age	Birth Cohort					
	1930–1939	1940–1949	1950–1959	1960–1969	1970–1979	1980–1984
Median Family Wealth as a Percentage of Median Family Income						
25 to 29					38	27
30 to 39				108	83	
40 to 49			246	204		
50 to 59		500	426			
60 to 69	633	795				
70 to 79	817					
Median Family Debt as a Percentage of Median Family Assets						
25 to 29					50	57
30 to 39				36	47	
40 to 49			27	34		
50 to 59		13	20			
60 to 69	4	6				
70 to 79	0					

Median family wealth as a percentage of median family income generally increased with age, and median family debt as a percentage of median family assets declined. However, for cohorts born since the 1950s, median wealth as a percentage of median income was lower than that measure was for the preceding cohort at the same age, and median debt as a percentage of median assets was higher.



Chapter 3: Trends in Total Family Wealth Since 2019

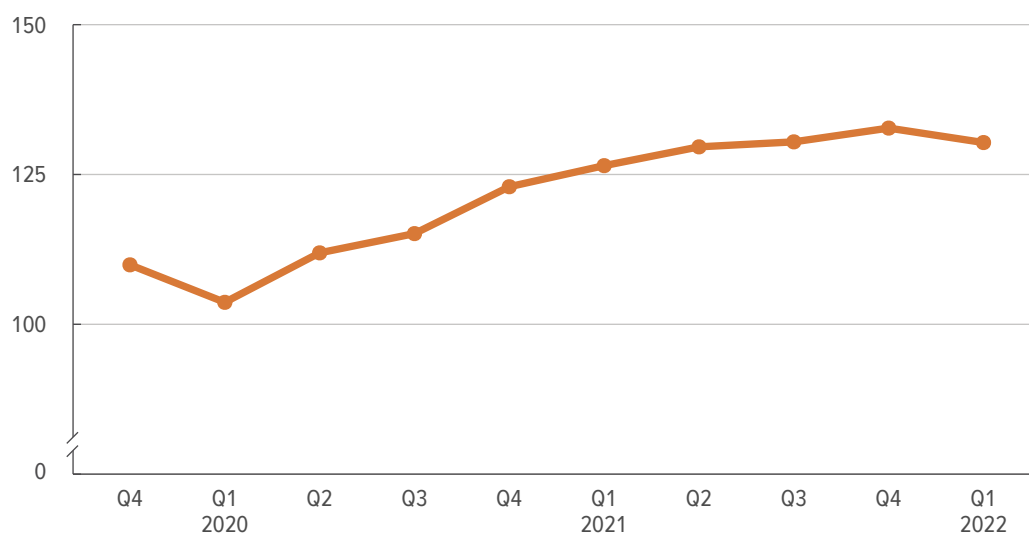
Although the data from the Survey of Consumer Finances that are necessary for a detailed analysis of the distribution of family wealth beyond 2019 are not currently available, the Congressional Budget Office was able to examine changes in the total wealth of U.S. households since 2019—including during the coronavirus pandemic—by using data from the Distributional Financial Accounts (DFA). For this analysis, CBO used the measure of wealth and the classification of assets used in the DFA without any further adjustment. Although the SCF and DFA define wealth and classify assets slightly differently, the general trends in total wealth and its components indicated by the two sources are very similar. (See Appendix B for details about the two data sources.)

Changes in Total Family Wealth Since 2019

The coronavirus pandemic disrupted economic activities and ended the longest expansion since World War II. In the first quarter of 2020, total family wealth declined, primarily because of the large drop in stock prices that occurred from mid-February to mid-March 2020. By the end of the second quarter of that year, as the stock market rebounded and the economy began recovering, total family wealth recouped its loss from the first quarter; it continued to increase through the fourth quarter of 2021 before falling slightly in the first quarter of 2022. Another factor that has contributed to the increase in total family wealth since 2019 is that home prices have risen, on average.

Total Family Wealth Since 2019

Trillions of 2019 Dollars



Measured from the previous quarter, total family wealth fell by 6 percent in the first quarter of 2020 but rose by 8 percent in the second quarter. At the end of the first quarter of 2022, total family wealth was 19 percent higher than it had been at the end of 2019.

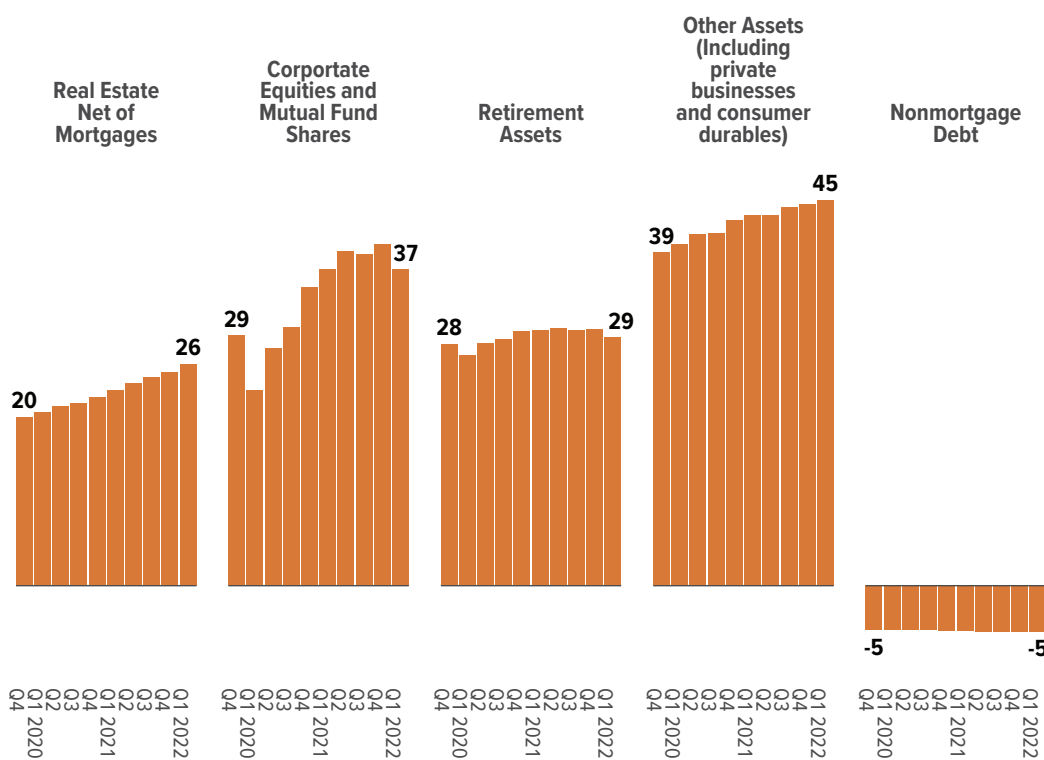
Changes in Holdings of Different Categories of Assets and Debt Since 2019

The rise in total family wealth since the first quarter of 2020 was driven by increases in holdings of all the categories of assets that were examined for this analysis. The increases were largest for corporate equities and mutual fund shares.

Although total holdings in all those categories recovered and exceeded their values from before the pandemic, the implications for the distribution of wealth will not be clear until detailed data on assets and debt during the period become available. The reason is twofold. First, the likelihood of owning various types of assets and debt differs for families in different segments of the wealth distribution. Second, the average values of various assets could have changed at different rates for families in different segments of the distribution.

Holdings of Family Wealth Since 2019, by Category of Asset or Debt

Trillions of 2019 Dollars



In percentage terms, the largest declines in value in the first quarter of 2020 were in corporate equities and mutual fund shares (-22 percent) and retirement assets (-5 percent). By contrast, the value of real estate assets and other assets rose slightly, and nonmortgage debt remained unchanged.

At the end of the first quarter of 2022, the value of each asset category and of nonmortgage debt was greater than it had been at the end of 2019.



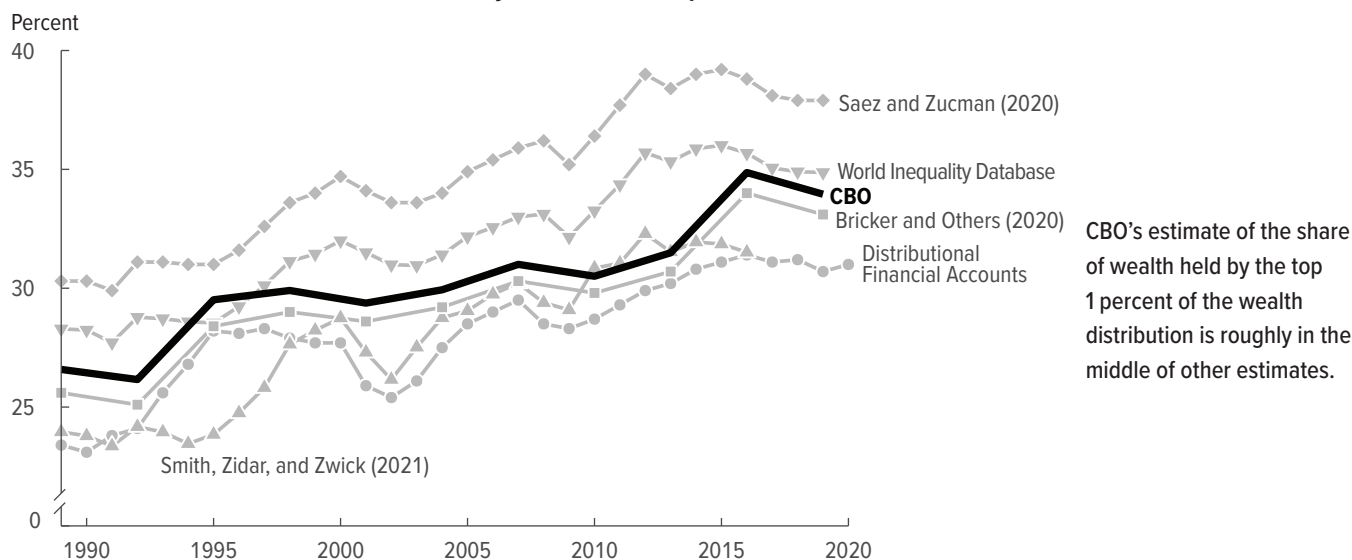
Chapter 4: A Comparison of Estimates of the Share of Wealth Held by the Wealthiest 1 Percent

Regardless of the type of data used to determine how evenly wealth is distributed in the United States, estimates show a high concentration of wealth at the top of the distribution. Moreover, several studies—which rely on various methods and different data—suggest that the concentration of wealth in the top 1 percent of the wealth distribution has increased from 1989 to 2019. Nevertheless, estimates of the trends in the concentration of wealth at the top of the distribution differ somewhat depending on the data set and methods used in the analysis.

Estimates of the Share of Wealth Held by the Wealthiest 1 Percent

The share of wealth held by those in the top 1 percent of the wealth distribution increased by 7.4 percentage points over the 30-year period examined for this analysis—from 26.6 percent in 1989 to 34.0 percent in 2019—the Congressional Budget Office estimates. Other sources yield similar results. Data from the Distributional Financial Accounts suggest that the share increased by 7.3 percentage points over the period.¹ And data from the World Inequality Database indicate that it grew by 6.6 percentage points.² Bricker and others (2020) estimate that the share increased by 7.5 percentage points, and Saez and Zucman (2020) estimate that it rose by 7.6 percentage points.³ Smith, Zidar, and Zwick (2021), who examined the period from 1989 to 2016, estimate that the share of wealth held by families in the top 1 percent of the distribution increased by 7.6 percentage points over those years.⁴ (See Appendix B for additional details about those estimates.)

Various Estimates of the Share of Wealth Held by Families in the Top 1 Percent of the Wealth Distribution



Data Sources, Unit of Analysis, and Definition of Wealth

Differences in estimates among various studies arise for at least three reasons. First, studies rely on different data sources that measure certain asset types differently. In addition to the data from the Survey of Consumer Finances, data from the Financial Accounts of the United States (FAUS), *Forbes* magazine (which publishes information about the 400 wealthiest people in the United States), and income tax returns are commonly used. The method for determining the value of private business assets, for example, differs among those data sets. Second, not all studies use the same unit of analysis. Studies that use income tax data examine the wealth of tax units, and those that use SCF data examine the wealth of families. Third, various studies define what constitutes wealth differently. For example, some studies include the value of the unfunded portion of defined benefit wealth, whereas others do not. Even studies that are the same in all three of those respects could provide different estimates of wealth because the underlying parameters used to compute the estimates may differ. For instance, one common approach—the capitalization method—estimates total wealth on the basis of annual income reported in income tax data, but the rates of return used to convert income amounts into wealth may differ among studies.

Data Sources, Unit of Analysis, and Definition of Wealth Used by Various Analysts

Study or Organization	Main Data Sources	Unit of Analysis	Definition of Wealth
CBO	SCF and <i>Forbes</i> 400; total defined benefit wealth from the FAUS	Family	Marketable wealth plus the funded and unfunded portions of defined benefit wealth; excludes life insurance and annuities
Bricker and Others (2020)	SCF and <i>Forbes</i> 400; total defined benefit wealth from the FAUS	Family	Marketable wealth plus the funded and unfunded portions of defined benefit wealth; excludes life insurance and annuities
Distributional Financial Accounts	SCF; total wealth from the FAUS	Family	Marketable wealth plus the funded and unfunded portions of defined benefit wealth
Saez and Zucman (2020)	Income tax returns; total wealth from the FAUS	Tax unit	Marketable wealth plus the funded portion of defined benefit wealth; excludes consumer durables
Smith, Zidar, and Zwick (2021)	Income tax returns; total wealth from the FAUS	Equal-split adults (Wealth is distributed equally within a couple)	Marketable wealth plus the funded and unfunded portions of defined benefit wealth; excludes consumer durables
World Inequality Database	Income tax returns; total wealth from the FAUS	Equal-split adults (Wealth is distributed equally within a couple)	Marketable wealth plus the funded portion of defined benefit wealth; excludes consumer durables

1. Board of Governors of the Federal Reserve System, “DFA: Distributional Financial Accounts” (accessed May 18, 2021), <https://go.usa.gov/xevQb>.
2. World Inequality Database (accessed May 18, 2021), <https://wid.world>.
3. Jesse Bricker and others, “Wealth and Income Concentration in the SCF: 1989–2019,” FEDS Notes (Board of Governors of the Federal Reserve System, September 28, 2020), <https://doi.org/10.17016/2380-7172.2795>; and Emmanuel Saez and Gabriel Zucman, *Trends in US Income and Wealth Inequality: Revising After the Revisionists*, Working Paper 27921 (National Bureau of Economic Research, October 2020), www.nber.org/papers/w27921.
4. Matthew Smith, Owen M. Zidar, and Eric Zwick, *Top Wealth in America: New Estimates and Implications for Taxing the Rich*, Working Paper 29374 (National Bureau of Economic Research, October 2021), www.nber.org/papers/w29374.

Appendix A: Definitions

age groups. Established for this report on the basis of the age of the reference person.

assets. Consist of home equity, defined benefit wealth, defined contribution wealth, nonretirement financial assets, and other assets.

business equity. A component of the category “other assets,” business equity is measured as a family’s net worth in sole proprietorships, limited partnerships, other types of partnerships, S corporations, other types of corporations that are not publicly traded, limited liability companies, and other types of private businesses, including certain family farms and ranches.

defined benefit wealth. Defined as the discounted present value of the expected stream of benefits from defined benefit pension plans associated with current or past jobs that the family has earned the rights to receive. Defined benefit pension plans are a type of employer-sponsored retirement plan that guarantees a certain stream of income in retirement; that income is usually based on accumulated years of service and a final salary or the highest salary over several years. To value each family’s defined benefit wealth, the Congressional Budget Office aligned total defined benefit wealth in the economy to that reported in the Financial Accounts of the United States. The agency then adjusted the market yield curve used to calculate the present value of expected income from defined benefit pension plans to account for funding shortfalls. For details on how defined benefit wealth was calculated, see Appendix B.

defined contribution wealth. Measured as the sum of the balances reported in the Survey of Consumer Finances for the family’s defined contribution–type retirement accounts—including Keogh plans, 401(k) plans, and similar tax-deferred retirement accounts from current and past jobs. Defined contribution plans provide participants with a tax-preferred savings account to which both the employee and the employer can contribute; assets in those accounts vary with investment returns. In this analysis, defined contribution wealth also includes balances in individual retirement accounts (tax-advantaged

retirement savings accounts that are not employer-sponsored). No adjustments were made to account for potential early withdrawal fees or for future income taxes to be paid when funds are withdrawn.

Distributional Financial Accounts (DFA). A data source maintained by the Board of Governors of the Federal Reserve System that provides quarterly estimates of the distribution of household wealth in the United States. CBO used information from the DFA to analyze changes in total wealth since 2019, the most recent year for which data from the SCF were available when this report was released.

education groups. Established for this report on the basis of the education of the survey reference person. The group with no high school diploma comprises families with a reference person who does not have a high school diploma, GED, or the equivalent. The group with some college comprises those who attended some college but did not earn a degree, as well as those who have attained an associate’s degree or certificate but have not earned the equivalent of a bachelor’s degree.

family. Defined by the SCF as the primary economic unit in a household. A family, in that context, consists of a single person or a couple and all other people in the household who are financially interdependent with that person or couple.

family wealth. A family’s assets minus its debt. Unless otherwise specified, in this report family wealth is defined as a family’s marketable wealth plus its wealth in the form of defined benefit pensions. Family wealth in all years is reported in 2019 dollars. To remove the effects of inflation, CBO adjusted family wealth in years before 2019 with the price index for personal consumption expenditures from the Bureau of Economic Analysis.

Financial Accounts of the United States (FAUS). A data source maintained by the Board of Governors of the Federal Reserve System that tracks the total assets and liabilities in each sector of the economy. CBO used information from the FAUS about total defined benefit

liabilities, which are not directly measurable in the SCF, to estimate defined benefit wealth.

home equity. The value of the primary residence (if owned by the family) minus the amount owed on any mortgages or home equity loans.

income groups. Created for this report by ranking families by their usual income. Income groups are defined only for 1995 and after because the data necessary to rank families by their usual income were not available for earlier years. For each year that the SCF was conducted, CBO sorted families into income groups on the basis of their adjusted family income. To better rank families by their relative economic status, CBO adjusted the family income reported in the SCF with an adjustment factor known as an equivalence scale. CBO used the square root scale: Family income was divided by the square root of the number of people in the family. The agency has made a similar adjustment to income in other analyses. For a discussion of the method, see Congressional Budget Office, *The Distribution of Household Income, 2018* (August 2021), Appendix A, www.cbo.gov/publication/57061. Family income changes over the lifecycle. To remove such lifecycle effects, CBO sorted families into income groups based on their adjusted family income within age groups defined on the basis of the age of the family's reference person.

marketable wealth. Also referred to as “net worth,” marketable wealth is the difference between a family's marketable (that is, easily tradable) assets and its debt. Marketable assets include home equity, other real estate (net of real estate loans), financial securities, bank deposits, defined contribution wealth, and business equity. Debt is nonmortgage debt, including credit card debt, vehicle loans, and student loans. Marketable assets and debt are measured by the SCF as the balances reported by survey respondents. For defined contribution wealth, CBO made no adjustments to account for potential early withdrawal fees or for future income taxes to be paid when funds are withdrawn.

median wealth. The wealth of the family at the midpoint of a distribution. Half of all families have more wealth than the family at the median, and half have less.

mortgage debt. In the calculation of home equity, such debt is subtracted from the value of the primary residence.

net worth. See **marketable wealth**.

nonmarketable wealth. Consists of sources of future income that would not retain value after their owner's death. Examples include income from defined benefit pension plans and Social Security benefits.

nonmortgage debt. Consists of a family's consumer debt (including credit card debt and vehicle loans) and other debt (including student loan debt).

nonretirement financial assets. Consist of bank deposits, financial securities, the cash value of life insurance, and trust funds.

other assets. Consist of real estate (net of real estate loans) other than a family's primary residence, vehicles, and business equity.

percentile. A value that indicates the percentage of observations in a distribution that fall below it.

quintile. One-fifth of a distribution.

racial and ethnic groups. For this analysis, groups were constructed on the basis of the race and ethnicity of the member of the family who responded to the SCF interview because, in the SCF, only the original respondent was asked to self-identify his or her race and ethnicity. Before 1998, the SCF asked respondents to choose only one category. In 1998, respondents were asked to indicate the category they identified with most strongly, but they were allowed to choose additional categories. Since 2004, respondents have been asked to indicate whether they were of Hispanic or Latino culture or origin. For greater comparability across the survey years, CBO placed respondents into four groups on the basis of their responses to the racial identification question: White non-Hispanic; Black non-Hispanic; Hispanic and Latino; and Asian, other, and multiple race (for respondents who identified with more than one racial and ethnic identification). For brevity, in this report those categories are referred to as White, Black, Hispanic, and Asian and other.

reference person. Defined by the SCF as the male in a mixed-sex couple or the older person in a same-sex couple. A single person is considered a family reference person.

respondent. In the SCF, the respondent is the person identified by the person contacted in the initial interview as the more financially knowledgeable person. In most cases, the respondent is the reference person.

retirement assets. Defined contribution wealth and defined benefit wealth. Those assets were measured pretax—that is, CBO made no adjustments for potential early withdrawal fees or for future income taxes to be paid when funds are withdrawn or income is received. (This analysis of retirement assets does not include expected Social Security benefits.)

student loan debt. Consists of a family's outstanding loans for educational expenses, including those for a child's education. No adjustments were made to account for the potential loan forgiveness associated with loans repaid through income-driven repayment plans.

Survey of Consumer Finances (SCF). A cross-sectional survey of U.S. families and their finances that is conducted every three years. It is sponsored by the Board of Governors of the Federal Reserve System in cooperation with the Department of the Treasury.

usual income. Captures income that the family would earn in a normal year before taxes and deductions. A family's annual income in a given year may deviate from its usual amount for a number of reasons—spells of unemployment, salary bonuses, capital losses or gains, or gifts, for example. If respondents in the SCF indicate that they experienced a temporary deviation in income during the past year, information about usual income is collected in addition to the total family income for the previous year.

wealth. See **family wealth**.

wealth groups. Created for this report by using data taken from each year of the SCF, augmented with data from *Forbes* magazine's list of the nation's 400 wealthiest people and with information from the FAUS about aggregate defined benefit liabilities, which was used in the calculation of families' defined benefit wealth. For each year that the SCF was conducted, CBO sorted families into wealth groups on the basis of their family wealth, unadjusted for family size.

Appendix B: Data and Methods

The Congressional Budget Office relied on data from several sources for its analysis of the distribution of wealth among families in the United States. This appendix describes those sources and explains CBO’s methods for assessing the distribution of family wealth over time.

Sources of Data

The analysis in this report is based primarily on data from the Survey of Consumer Finances (SCF) from 1989 to 2019, the first and last years for which those data are consistently available. The SCF is a periodic cross-sectional survey of U.S. families and their finances that is sponsored by the Board of Governors of the Federal Reserve System in cooperation with the Department of the Treasury. For the portions of the analysis that examined total wealth and the distribution of wealth among wealth groups, those data were augmented with information about the nation’s 400 wealthiest people as identified by *Forbes* magazine. The SCF data were further supplemented with information from the Financial Accounts of the United States (FAUS) about aggregate defined benefit liabilities, which are not directly measurable in the SCF.¹

Survey of Consumer Finances

Every three years, the SCF gathers information—including demographic data—on a sample of families in the United States. Those data make it possible to identify how wealth is distributed among U.S. families on the basis of several family characteristics—namely, age, education, race and ethnicity, and birth cohort. The SCF data also include information about families’ assets and liabilities, income, and pensions.² Data for the 1989 SCF

were collected between October 1989 and March 1990. Data for subsequent surveys were mostly collected between May and December of the survey year.

The SCF has three limitations for use in analyses such as this. First, changes in sampling techniques have made it necessary to restrict analyses of SCF results to surveys conducted since 1989.³ For the analysis of income, the sample is further restricted to surveys conducted since 1995 because that is the first year for which information on a family’s usual annual income (the income that the family would earn in a normal year) is available; that is the measure that CBO used to rank families by income and create the income groups in this report.⁴ Second, like other surveys that rely on self-reported information, the

(March 16, 2017), www.federalreserve.gov/econres/aboutscf.htm. Estimates in this report may differ slightly from estimates published in the Federal Reserve Board’s *Bulletin*, which also uses the SCF data, because this report is based on the public, rather than private, SCF data.

1. The FAUS data used in this analysis were released on June 19, 2020. New data are released on a quarterly basis. As of the publication of this report, the most recent data available were released on September 9, 2022. See Board of Governors of the Federal Reserve System, “Financial Accounts of the United States – Z.1” (September 9, 2022), www.federalreserve.gov/releases/z1/current/.

2. For more information about the SCF, see Board of Governors of the Federal Reserve System, “Survey of Consumer Finances (SCF)”

3. The SCF was conducted in 1983, but it differed methodologically from later surveys. In 1962, the Federal Reserve Board sponsored the Survey of Financial Characteristics of Consumers, a precursor to the SCF, but that survey was never repeated.

4. Every year that the survey has been conducted, families have been asked to report their total before-tax income for the previous calendar year. A family’s annual income in one year may differ from the usual amount for a number of reasons—spells of unemployment, salary bonuses, capital losses or gains, or gifts, for example. If respondents in the SCF indicate that they experienced a temporary deviation in income during the past year, information about usual income is collected in addition to the total family income for the previous year. Although CBO used the self-reported usual income in the SCF as the measure of income in this report, the agency regularly uses measures that are similar to but not identical to usual income in other analyses of the income distribution. See for example, Congressional Budget Office, *The Distribution of Household Income, 2018* (August 2021), www.cbo.gov/publication/57061. The core income data used in that report were from a nationally representative sample of individual tax returns that the Internal Revenue Service publishes as part of its Statistics of Income program.

SCF is susceptible to measurement and reporting error.⁵ And third, because each iteration of the SCF samples a different group of families, the results analyzed for this report amount to snapshots of family wealth taken every three years from 1989 to 2019; they do not provide information about changes in the wealth of specific families from one survey to the next. CBO's estimate that median wealth rose by 40 percent from 1989 to 2019 should thus be interpreted to mean that the wealth of the family at the median in 2019 was 40 percent greater than the wealth of the family at the median in 1989. Those two families were not the same, so the estimate does not indicate that the wealth of the family at the median in 1989 increased by 40 percent over the next 30 years.

The *Forbes* 400

Although the SCF covers nearly the full distribution of family wealth, by design it does not include information about the nation's 400 wealthiest people, as identified by *Forbes* magazine.⁶ CBO supplemented the SCF data with the *Forbes* data to identify the shares of wealth held by different groups and to calculate the percentiles of the full distribution of family wealth.⁷ The *Forbes* data lack information on portfolio allocations, so when calculating changes in categories of assets and debt for families in the top 10 percent of the wealth distribution, CBO approximated the *Forbes* 400 families' composition of wealth by using that of other families in the top 0.1 percent of the distribution of net worth.⁸

The *Forbes* data were not used for the analysis of family wealth by income, education, race and ethnicity, age, or birth cohort because they lack information about those characteristics. In 2019, that group of 400 people accounted for less than 0.001 percent of the nation's 129 million families. Adding those 400 people to the analysis would have made no discernible difference in the median wealth of any of the groups based on family characteristics.

Financial Accounts of the United States

The FAUS are national accounts that measure total wealth by economic sector. The data are released quarterly by the Federal Reserve Board. Each release shows the assets and liabilities in each sector of the economy at the end of the period in question. CBO supplemented the data on family wealth from the SCF with information about total defined benefit wealth from the FAUS. That information was taken from Table L.117, "Private and Public Pension Funds," which includes total defined benefit liabilities of private, federal, and state and local funds.⁹

5. Although there is not a source of administrative data with which the wealth measures in the SCF can be compared, previous studies have shown that the SCF totals line up closely with estimates of overall household wealth from the FAUS. See, for example, Michael Batty and others, "Updating the Distributional Financial Accounts," FEDS Notes (Board of Governors of the Federal Reserve System, November 9, 2020), <https://doi.org/10.17016/2380-7172.2810>. The authors of that study point out that most of the difference is concentrated in private business valuations; the SCF uses market values, whereas the FAUS use a mix of book and market values.
6. For the latest list of the *Forbes* 400, see Kerry A. Dolan, Chase Peterson-Withorn, and Jennifer Wang, eds., "The *Forbes* 400: The Definitive Ranking of the Wealthiest Americans in 2021," *Forbes* (October 5, 2021), www.forbes.com/forbes-400/.
7. When calculating percentiles of the wealth distribution and shares of wealth, CBO considered the people on the *Forbes* 400 to be at the top of the wealth distribution. For a recent study that used a similar approach, See Jesse Bricker, Peter Hansen, and Alice Henriques Volz, "Wealth Concentration in the U.S. After Augmenting the Upper Tail of the Survey of Consumer Finances," *Economic Letters*, vol. 184 (November 2019), <https://doi.org/10.1016/j.econlet.2019.108659>.
8. A similar method is used to impute the portfolio allocation of the *Forbes* 400 for the Distributional Financial Accounts

data. See Board of Governors of the Federal Reserve System, "DFA: Distributional Financial Accounts" (accessed May 18, 2021) <https://go.usa.gov/xevQb>. Other researchers have made additional adjustments in the allocation of public and private equity in the portfolios of the *Forbes* 400 by using public information about which of those individuals derive most of their wealth from public companies and which individuals derive most of their wealth from private companies. See for example, Matthew Smith, Owen M. Zidar, and Eric Zwick, *Top Wealth in America: New Estimates and Implications for Taxing the Rich*, Working Paper 29374 (National Bureau of Economic Research, October 2021), www.nber.org/papers/w29374. For each person on the *Forbes* 400, the authors allocated fixed income, pensions, housing, and other wealth to reflect the portfolio allocation of the top 0.1 percent of the SCF and then allocated the remaining amounts to either public or private equity depending on whether the individual derives most of his or her wealth from public or private companies.

9. The estimates of aggregate defined benefit liabilities and the unfunded share of such liabilities were revised between June 2020 (when the data used in this analysis were released) and September 2022 (the date of the most recent release at the time this report was published). Those revisions were concentrated in the years since 2016. For example, aggregate defined benefit liabilities in 2019 are 1.2 percent greater overall in the September 2022 release than they were in the June 2020 release. In particular, defined benefit liabilities are 4.3 percent greater for private defined benefit plans, 2.5 percent greater for federal defined benefit plans, and 0.4 percent less for state and local defined benefit plans. The unfunded share of defined benefit liabilities that year increased from 36.2 percent to 39.0 percent, reflecting mostly upward revisions in the funding shortfalls of private defined benefit plans. The estimate of the unfunded share of defined benefit liabilities in the private sector in 2019 was revised from less than 1.4 percent to 11.1 percent. The potential impact of those revisions on the results presented in this paper are discussed in the section of this appendix titled "Estimating Families' Defined Benefit Wealth."

Distributional Financial Accounts

CBO also used the quarterly data from the Distributional Financial Accounts (DFA), which are consistent with total wealth information in the FAUS, to examine trends in total family wealth since 2019, both overall and for different categories of assets and debt. The DFA data, which are also released by the Federal Reserve Board, combine distributional information from the SCF and quarterly aggregate measures of family wealth from the FAUS. The categories of assets and debt in the DFA are largely consistent with those that CBO defined using the SCF, though slight differences exist. For the analysis of changes in family wealth since 2019 in Chapter 3, CBO used the categories of wealth that are defined in the DFA.¹⁰

How CBO Chose the Sources of Data for This Analysis

In general, researchers look to three main sources of data for analyses of family wealth—the SCF, federal estate tax returns, and federal income tax returns.¹¹ Each source has its advantages and shortcomings. For example, the SCF data are collected only every three years rather than annually. The lack of demographic information in the tax data precludes researchers from constructing distributions of family wealth based on education or race and ethnicity. None of the sources provides a complete picture of the wealth of families across the nation’s entire wealth distribution. Estate tax returns reflect wealth at the end of a person’s life, and only very wealthy people are required to file them. Income tax returns do not

directly report wealth, so when researchers turn to those returns to examine the distribution of wealth, they must impute the amount of wealth held by a family on the basis of the income the family reported.

CBO did not use data on estate taxes for this analysis because those data capture only families in the top 1 percent or 2 percent of the wealth distribution. Because those data do not cover the whole population, estimating wealth from estate tax records involves drawing inferences from the limited population that is subject to the tax: Only the estates of deceased people with wealth exceeding a certain threshold are required to file an estate tax return. That threshold for federal estate taxes is \$12.06 million in 2022. Estate tax forms include virtually no demographic information of the kind used in this analysis, so CBO could not use data from that source to examine wealth by education or by race and ethnicity.

Similarly, CBO did not use income tax data for this analysis because working with those data poses several challenges. Using income tax data requires analysts to estimate total wealth on the basis of annual income, an exercise that involves imputing wealth arising from the asset categories that do not generate taxable income and making assumptions about rates of return on capital to infer the value of the underlying assets.¹² Moreover, the demographic information included in income tax data is limited. To examine how wealth differs by education level or by race and ethnicity, the agency would need to impute a set of demographic characteristics in the tax records.

Finally, although CBO has specific authority to obtain certain restricted data deemed necessary for it to perform its duties and functions, gaining access to such tax data comes with challenges.¹³ Agreements governing access to restricted data such as those from income and estate tax returns can be very complex, and negotiating them is often a time-consuming process that involves navigating

10. For a discussion of how total wealth in the SCF compares with wealth in the FAUS and DFA, the steps that are needed to reconcile the SCF data with that in the FAUS, and the categories of assets and debt in the DFA, see Michael M. Batty and others, *Introducing the Distributional Financial Accounts of the United States*, Finance and Economics Discussion Series Paper 2019-017 (Board of Governors of the Federal Reserve System, March 2019), <https://doi.org/10.17016/FEDS.2019.017>.

11. Many other nationally representative household surveys in the United States collect detailed information about households’ assets and debt. The Panel Study of Income Dynamics and the Survey of Income and Program Participation are two examples. The SCF differs from those other surveys in that it oversamples taxpayers with high net worth—a relatively small segment of the population. That approach allows researchers to construct a more precise measure of wealth concentration at the top of the distribution. The resulting total family wealth in the SCF is generally higher than the estimates of total wealth in other household surveys and more closely aligns with the measures of total wealth derived from other aggregate data sources, such as the FAUS.

12. For an analysis that uses income tax data and the capitalization method described, see Emmanuel Saez and Gabriel Zucman, “Wealth Inequality in the United States Since 1913: Evidence From Capitalized Income Tax Data,” *Quarterly Journal of Economics*, vol. 131, no. 2 (May 2016), pp. 519–578, <https://doi.org/10.1093/qje/qjw004>.

13. Although CBO does not use income tax data to analyze the distribution of wealth, the agency has used such data to analyze the distribution of household income and taxes. See for example, Congressional Budget Office, *The Distribution of Household Income, 2018* (August 2021), www.cbo.gov/publication/57061.

many legal authorities.¹⁴ CBO does not have an agreement in place to use those data for this analysis.

Unit of Analysis

The unit of analysis in this report is the family. The SCF defines the family as the primary economic unit in a household. A family thus consists of a single person or a couple and all other people in the household who are financially interdependent with that person or couple.

To analyze trends in wealth by family characteristics, CBO grouped families on the basis of the characteristics of the reference person or the family's original respondent to the SCF interview. The reference person in the SCF is the male in a mixed-sex couple or the older person in a same-sex couple. If the family consists of a single individual, that person is designated as the reference person. The education groups, age groups, and birth cohorts are based on characteristics of families' reference person. The racial groups, however, are based on the race and ethnicity of the survey respondent because the SCF asked only the original respondent to self-identify his or her race and ethnicity.

Adjustments Made to Account for the Aging of the Population and the Increase in Average Education Level

To calculate how much the aging of the population contributed to the change in the overall median family wealth from 1989 to 2019, CBO applied a reweighting technique developed by John DiNardo and his colleagues.¹⁵ CBO used that approach to calculate what the median wealth would have been in 2019 if the age distribution of the population had been the same in 2019 as it was in 1989. CBO applied the same method to calculate the degree to which the increase in overall

educational attainment contributed to the change in median family wealth.¹⁶

Ways to Define Wealth

For the analysis presented here, family wealth includes marketable wealth and wealth in the form of defined benefit pensions. Marketable wealth consists of assets that can be bought and sold or inherited, minus family debt. Defined benefit wealth, a type of nonmarketable wealth, equals the present value of the family's future defined benefit pension payments.¹⁷ Another form of nonmarketable wealth is future Social Security benefit payments; that type of wealth was not included in the analysis. Measures that use nonmarketable wealth show less concentration at the top end of the distribution than those that do not include such wealth.

Marketable Wealth

CBO defined a family's marketable wealth as the difference between its marketable assets and its debt. Marketable assets consist of all financial assets—bank deposits, financial securities, the cash value of life insurance policies, trust funds, defined contribution retirement accounts (including individual retirement accounts, Keogh plans, and 401(k)-type plans from current and past jobs), home equity and other real estate (net of real estate loans), vehicles, and business equity. Debt refers to nonmortgage debt, which consists of consumer debt (such as credit card debt and vehicle loans) and other debt (including student loans, which were not adjusted to account for potential loan forgiveness). Wealth from defined contribution plans was measured as the account balances reported by survey respondents. CBO made no adjustments for potential early withdrawal fees or for future income taxes to be paid when funds are withdrawn. Because marketable wealth is based on categories of assets and debt for which information is readily available in the SCF data, calculating that measure from those data is straightforward.¹⁸

14. For further discussion, see Congressional Budget Office, *The Congressional Budget Office's Access to Data From Federal Agencies* (June 2021), www.cbo.gov/publication/57150.

15. See John DiNardo, Nicole M. Fortin, and Thomas Lemieux, "Labor Market Institutions and the Distribution of Wages, 1973–1992: A Semiparametric Approach," *Econometrica*, vol. 64, no. 5 (September 1996), pp. 1001–1044, <https://doi.org/10.2307/2171954>. The method is a reweighting procedure—it estimates what the distribution of a given outcome for a group would have been if that group had the observable characteristics of another group. For this analysis, CBO used the method to estimate what the distribution of wealth would have been in 2019 if, as a whole, families in 2019 had the same age or education characteristics as families had in 1989.

16. Because CBO did not have information about the age and education of families on the *Forbes* 400 list, they were excluded from the calculation of the counterfactual outcomes.

17. A present value is a single number that expresses the flow of current and future payments or income in terms of an equivalent lump sum paid or received at a specified time. A present value depends on the rate of interest, or discount rate, that is used to translate future cash flows into current dollars.

18. For a discussion of wealth categories that are not included in the SCF, such as human capital or income streams from annuities or trusts, see Arthur B. Kennickell, *Ponds and Streams: Wealth and Income in the U.S., 1989 to 2007*, Finance and Economics Discussion Series Paper 2009-13 (Board of Governors of the Federal Reserve System, January 2009), <https://go.usa.gov/x22rP>.

Defined Benefit Wealth

CBO measured defined benefit wealth as the present value of future defined benefit payments that the respondent and spouse expect to receive. Those defined benefit payments include pensions that the family is currently receiving and pensions that the family has earned the rights to receive in the future through current or past employment. Defined benefit wealth is not directly measurable in the SCF, so CBO adapted an approach for projecting future defined benefit income for each family in the survey and estimating the value of those benefits in each year of the survey.¹⁹ The value of the benefits was also adjusted to account for the risk that beneficiaries might not receive their full promised benefits. CBO's method for projecting defined benefit income is summarized below, and a working paper describing it in more detail will be published after this report.

Other Nonmarketable Wealth

Expected future income from Social Security is another form of nonmarketable wealth. But a measure of wealth that included Social Security benefits would be difficult to construct and is beyond the scope of this report, though it could offer a more accurate representation of a person's expected resources during his or her lifetime. Workers do not, however, have legal claims to future Social Security payments based on current benefit formulas as they do for defined benefit pensions.

Some researchers have included the expected income streams from Social Security in their analysis of wealth distribution. That analysis has revealed that the share of wealth held by the families in the top 10 percent of the wealth distribution is smaller when Social Security wealth is included in total family wealth than it is when family wealth comprises only marketable wealth and defined benefit wealth. Those results are, however, sensitive to the economic and methodological assumptions underlying the analyses; indeed, analysts who have included Social Security wealth in their analysis have reached different conclusions about how the share of wealth held by families in the top 10 percent of the distribution has evolved over time.²⁰

19. For more details about that approach, see Jesse Bricker and others, "Measuring Income and Wealth at the Top Using Administrative and Survey Data," *Brookings Papers on Economic Activity* (Spring 2016), pp. 261–331, <https://tinyurl.com/529u3kjp>.

20. See John Sabelhaus and Alice Henriques Volz, *Social Security Wealth, Inequality, and Lifecycle Saving*, Working Paper 27110 (National Bureau of Economic Research, May 2020),

Other nonmarketable wealth not considered in this analysis includes expected future income stemming from other government transfer programs and from human capital in the form of future earnings. Such measures are not typically included in broad measures of family wealth because estimates of them are inherently uncertain. Typically, no observable market prices exist for such assets because they cannot be sold. Thus, the wealth concept used in this report more closely reflects a family's private financial wealth than it does the resources available to a family for consumption over its lifetime.

Estimating Families' Defined Benefit Wealth

CBO relied on information from the SCF to capture the distribution of defined benefit wealth and data from the FAUS to capture the total defined benefit wealth in the economy.²¹ Estimates of defined benefit wealth based on families' information in the SCF were scaled up to match the appropriate total values in the FAUS.²²

www.nber.org/papers/w27110; and Sylvain Catherine, Max Miller, and Natasha Sarin, *Social Security and Trends in Wealth Inequality*, Jacobs Levy Equity Management Center for Quantitative Financial Research Working Paper Series (February 2020), <https://dx.doi.org/10.2139/ssrn.3546668>. For the effect of taxes on family wealth, including defined benefit and Social Security wealth, see Edward N. Wolff, *Taxes and the Revaluation of Household Wealth*, Working Paper 27328 (National Bureau of Economic Research, June 2020), www.nber.org/papers/w27328.

21. The FAUS data used in this analysis were released in June 2020. Those data were revised in September 2022, and aggregate defined benefit liabilities were 1.2 percent higher than they were in the earlier release. Overall, the revisions in aggregate defined benefit liabilities were relatively small and are not expected to materially affect the results presented in this report. Because the revisions to estimates of the liabilities of private-sector plans were larger than those made to estimates of the liabilities of public-sector plans and because people with private defined benefit plans generally hold more wealth than those with public plans, the updated data might suggest that total defined benefit wealth and total wealth are slightly greater than the estimates presented in this report. However, the differences are expected to be minimal.

22. The method that CBO used is similar to the method that the Federal Reserve Board uses to impute defined benefit wealth. See for example, Michael M. Batty and others, *Introducing the Distributional Financial Accounts of the United States*, Finance and Economics Discussion Series Paper 2019-017 (Board of Governors of the Federal Reserve System, March 2019), <https://doi.org/10.17016/FEDS.2019.017>, and John Sabelhaus and Alice Henriques Volz, "Are Disappearing Employer Pensions Contributing to Rising Wealth Inequality?" FEDS Notes (Board of Governors of the Federal Reserve System, February 2019), <https://go.usa.gov/xewEb>.

Measuring Defined Benefit Wealth

Unlike other components of family wealth, defined benefit wealth is not directly measured in the SCF. For example, other types of retirement wealth, such as defined contribution wealth, are measured by the respondents' account balances, which reflect the current value of the underlying financial assets. No analogous measure exists in the survey for defined benefit wealth. Instead, the SCF collects detailed information about the defined benefit payments that respondents receive at the time they are interviewed and the defined benefit payments that they expect to receive at a specific future date. Those expected payments can be associated with a current or past job. To estimate the value of defined benefit wealth for each family in the SCF, CBO calculated the present value of those streams of currently received or expected benefits. That calculation involved additional inputs, including projected interest rates, projected rates of inflation, and families' expected longevity.²³

CBO measured defined benefit wealth as the accrued, or earned-to-date, value of defined benefit income. For workers who are currently accruing benefits while working for employers who sponsor a defined benefit plan, that value is equivalent to the present value of benefits that the workers would be entitled to receive if their employment terminated immediately or if they stopped accruing benefits. That measure contrasts with another measure, often referred to as the continuation value, that instead focuses on the projected defined benefit wealth that workers would have at retirement if they continued accruing benefits in future years.²⁴

23. CBO used projections of inflation as measured by the price index for personal consumption expenditures and of interest rates derived from the yields on Treasury securities. Those projections were based on the economic forecast described in Congressional Budget Office, *Additional Information About the Economic Outlook: 2021 to 2031* (February 2021), www.cbo.gov/publication/56989, and *The 2021 Long-Term Budget Outlook* (March 2021), www.cbo.gov/publication/56977. The aggregate mortality rates were aligned with those underlying Congressional Budget Office, *The 2020 Long-Term Budget Outlook* (September 2020), www.cbo.gov/publication/56516. In addition, the mortality rates used in this analysis accounted for a person's sex, birth cohort, educational attainment, earnings quintile, and race and ethnicity. Those mortality differentials were modeled after the approach described in Julian P. Cristia, *The Empirical Relationship Between Lifetime Earnings and Mortality*, Working Paper 2007-11 (Congressional Budget Office, August 2007), www.cbo.gov/publication/19096.

24. For an analysis of wealth that uses that alternative measure of defined benefit wealth see, for example, Edward N. Wolff,

CBO used the accrued measure of defined benefit wealth for two reasons. First, that measure is conceptually consistent with the way other categories of assets are measured in the SCF—namely, defined contribution wealth, which is measured as a family's (the respondent's and spouse's) combined balances in defined contribution-type accounts at the time of the survey. Second, the accrued measure of defined benefit wealth is equivalent to the present value of the benefits that workers would receive if their plan coverage ended today. That measure represents a worker's legal claim to defined benefit wealth and corresponds to the measure of total defined benefit wealth in the FAUS—that is, the total financial liability of plan sponsors.

The imputation of defined benefit wealth for each family in the SCF proceeded in four steps. First, total defined benefit wealth was taken from the FAUS. Second, using information from the SCF, CBO calculated the present value of defined benefit income for two groups of beneficiaries: beneficiaries who no longer accrued benefits (current retirees and workers who had a defined benefit pension at a previous job) and beneficiaries who were working for an employer who sponsored a defined benefit plan at the time the SCF was conducted. Third, the difference between total defined benefit wealth in the FAUS and in the SCF was calculated, and the SCF data were adjusted accordingly. The difference between the FAUS and SCF totals represents the legal claims of the group of workers who were still accruing benefits when the SCF was conducted. The defined benefit wealth of those workers was scaled to match the appropriate FAUS total. Fourth, as described in the next section, defined benefit wealth was adjusted to account for the additional risk beneficiaries face of not receiving their full promised benefits.

Accounting for Underfunding of Defined Benefit Pensions

A defined benefit plan is underfunded if the value of the plan's assets is less than the accrued pension liabilities for current workers and retirees. The unfunded portion of the plan's liabilities is the difference between the plan's liabilities and the plan's assets, expressed as a percentage of the plan's liabilities. According to data from the FAUS, in 2019, 36 percent of total defined benefit liabilities were unfunded, and 99 percent of the unfunded

Taxes and the Revaluation of Household Wealth, Working Paper 27328 (National Bureau of Economic Research, June 2020), www.nber.org/papers/w27328.

liabilities were in defined benefit plans run by the federal, state, and local governments.²⁵

In its imputation of defined benefit wealth, CBO made adjustments to account for the additional risk that recipients face of not receiving their full promised benefits because of the shortfall in funding. In the private sector, defined benefit plans are insured by the Pension Benefit Guaranty Corporation (PBGC)—a government-owned corporation that insures the benefits of recipients up to a statutory maximum. In 2019, only 1 percent of unfunded benefits were in private defined benefit plans; 72 percent were in state and local defined benefit plans, and the rest were in federal defined benefit plans.²⁶ For state and local governments, an underfunded pension is similar to the municipal bonds that they sell to investors in that both the pension and bonds represent liabilities that must be financed out of future revenues. State and local plans are not insured by the PBGC. From the employee’s perspective, there is a small but nonzero risk that the governments will not have the funds necessary to make payments on their pension, just as investors in municipal bonds perceive there to be a small but nonzero risk that they will not be paid back.

CBO’s adjustment for that risk lowers the value of expected benefits that are underfunded to reflect the market value of the promised benefits. That approach is similar to the fair-value accounting method that the agency uses to produce estimates of the market value of

federal credit programs.²⁷ To adjust the value of expected pension benefits from state and local plans, CBO used a discount rate that is higher than the rate on Treasury securities. That higher discount rate, which is based on the yield on municipal bonds, includes a risk premium to reflect the higher market risk borne by defined benefit recipients because of the underfunding of their promised benefits. (Market risk is the component of financial risk that remains even after investors have diversified their portfolios as much as possible; it arises from shifts in macroeconomic conditions, such as productivity and employment, and from changes in expectations about future macroeconomic conditions.) By adjusting for the underfunding of state and local plans, the analysis accounts for 72 percent of the total underfunding of defined benefit plans in 2019. As a result of that adjustment, the value of defined benefit pensions was reduced by less than 1 percent.

Because of the market risk involved, the actual value that beneficiaries will receive from their defined benefit pensions in the future is uncertain, and the adjustment that CBO made might understate or overstate the risk, faced by beneficiaries of state and local pension plans, of not receiving the full benefits that they have been promised. That risk partly depends on whether the federal government would bail out financially distressed plans. Recent evidence suggests that it might be willing to intervene under certain conditions: As part of the American Rescue Plan Act of 2021 (Public Law 117-2), the federal government provided financial assistance to multiemployer pension plans in danger of insolvency.

When adjusting for the uncertainty in expected defined benefit income that stems from the funding shortfalls, CBO did not distinguish between different plans because it did not have sufficient information to do so. Had such data been available, the agency would have been better

25. The June 2020 FAUS data used in this analysis showed that the unfunded share of liabilities in the state and local defined benefit plans in 2019 was 46.3 percent. In the September 2022 revision to that data, the estimate of that share is slightly larger—47.4 percent. Because the adjustment that CBO made to account for the underfunding of plans is proportional to each individual’s expected defined benefit wealth, the data revision is not expected to affect the agency’s estimate of the distribution of defined benefit wealth. And because the change in the estimate of the unfunded share of benefits in 2019 is small, the revision would have very little effect on the distribution of total wealth.

26. Those values were calculated using the June 2020 FAUS data. Over the 1989–2019 period, the unfunded portion of total defined benefit wealth has varied somewhat but averaged 37 percent overall. Funding levels are higher in the private sector than in the public sector because private-sector employers’ pension plans are subject to accounting principles and laws that do not apply to public-sector employers. For a discussion of the underfunding of pension plans in the public sector, see Congressional Budget Office, *The Underfunding of State and Local Pension Plans* (May 2011), www.cbo.gov/publication/22042.

27. For example, CBO uses the fair-value method to estimate the costs of federal credit programs (including those of federal subsidies for student loans) and of providing federal pension benefits. See Congressional Budget Office, *Estimates of the Cost of Federal Credit Programs in 2022* (October 2021), www.cbo.gov/publication/57412, *Income-Driven Payment Plans for Student Loans: Budgetary Costs and Policy Options* (February 2020), www.cbo.gov/publication/55968, and *Including Market Risk in Estimates of the Budgetary Effects of Changing the Federal Retirement System for Civilian Workers* (supplemental material for *Options for Changing the Retirement System for Federal Civilian Workers*, October 2017), www.cbo.gov/publication/53003#data.

able to account for the greater uncertainty faced by participants in defined benefit pension plans with bigger funding shortfalls.

Any adjustment to account for the different degrees of underfunding of plans would have only a minimal effect on estimates of how concentrated total wealth is at the top of the distribution. The distribution of defined benefit wealth is less skewed toward the top of the wealth distribution than marketable wealth. Because defined benefit wealth is concentrated among families in the 51st to 90th percentiles, such an adjustment would mostly affect the wealth of families in that segment of the distribution.

Multiemployer Defined Benefit Pension Plans

The issue of underfunding is particularly acute for multiemployer plans. Private-sector defined benefit pension plans fall into one of two categories: multiemployer defined benefit plans, which are sponsored by more than one employer and are typically maintained as part of a collective bargaining agreement, and single-employer plans. Multiemployer plans account for a small percentage of all private defined benefit plans (3 percent in 2017) but cover almost one-third of all participants in those plans.²⁸ Although many multiemployer defined benefit plans have sufficient resources from which to pay their promised benefits, a small but growing number of plans have reported that they most likely will be unable to make up their funding shortfalls.²⁹

Even though both multiemployer and single-employer private-sector plans are insured by the PBGC, the PBGC's financial resources might not be sufficient to cover all the unfunded benefits. When underfunded plans become insolvent, they file claims for financial assistance from the PBGC. The PBGC's multiemployer program has drawn increased scrutiny from policymakers in recent years because the projected insolvencies of some multiemployer plans would probably result in the

insolvency of the program.³⁰ If the PBGC's multiemployer program was not able to meet all its insurance obligations, participants might lose insured benefits, or the federal government might come under pressure to provide the PBGC with greater resources. As part of the American Rescue Plan Act, lawmakers created a special financial assistance program administered by the PBGC to extend the solvency of certain financially troubled multiemployer plans. The program's goal is to provide special financial assistance to eligible plans in the form of onetime payments that are intended to allow the plans to continue to pay all benefits and expenses through 2051.

Comparing Different Estimates of Wealth Concentration

CBO compared its estimates of the concentration of wealth in the top 1 percent of the wealth distribution with estimates reported in other studies that used various data and methods (see Chapter 4). Those estimates generally suggest that the concentration of wealth in the top 1 percent of the wealth distribution increased from 1989 to 2019. Nevertheless, estimates of the trends in wealth concentration at the top of the distribution differ somewhat depending on the data set and methods used in the analysis.

The estimates that CBO used for comparison were derived from the Distributional Financial Accounts; Bricker and others (2020); Saez and Zucman (2020); Smith, Zidar, and Zwick (2021); and the World Inequality Database.³¹ CBO's method of using data

28. For an overview of multiemployer defined benefit plans, see John J. Topoleski and Elizabeth A. Myers, *Multiemployer Defined Benefit (DB) Pension Plans: A Primer*, Report R43305, version 22 (Congressional Research Service, April 3, 2020), <https://go.usa.gov/xfQE>.

29. According to the PBGC, in 2018 nearly 60 percent of the total underfunded liabilities in PBGC-insured private defined benefit pension plans were in multiemployer plans, and the rest were in single-employer plans. See Pension Benefit Guarantee Corporation, "2019 Pension Insurance Data Tables" (accessed August 3, 2022), www.pbpc.gov/prac/data-books.

30. For a discussion of policy options that address the financial condition of the PBGC's multiemployer program, see Congressional Budget Office, *Options to Improve the Financial Condition of the Pension Benefit Guaranty Corporation's Multiemployer Program* (August 2016), www.cbo.gov/publication/51536.

31. See Board of Governors of the Federal Reserve System, "DFA: Distributional Financial Accounts" (accessed May 18, 2021), <https://go.usa.gov/xvQb>; Jesse Bricker and others, "Wealth and Income Concentration in the SCF: 1989–2019," FEDS Notes (Board of Governors of the Federal Reserve System, September 28, 2020), <https://doi.org/10.17016/2380-7172.2795>; Emmanuel Saez and Gabriel Zucman, *Trends in US Income and Wealth Inequality: Revising After the Revisionists*, Working Paper 27921 (National Bureau of Economic Research, October 2020), www.nber.org/papers/w27921; Matthew Smith, Owen M. Zidar, and Eric Zwick, *Top Wealth in America: New Estimates and Implications for Taxing the Rich*, Working Paper 29374 (National Bureau of Economic Research, October 2021), www.nber.org/papers/w29374; and World Inequality Database (accessed May 18, 2021), <https://wid.world>.

from the SCF supplemented with information from the *Forbes* 400 and with data about total defined benefit liabilities from the FAUS to estimate shares of family wealth held by different segments of the wealth distribution is closest to that used by Bricker and others (2020), whose estimates of the share of wealth concentrated in the top 1 percent were slightly lower than CBO's in all years examined. Differences in the assumptions used to impute defined benefit wealth account for those slight discrepancies.

Estimates of the concentration of wealth differ for at least three reasons.³² First, studies rely on various data sources that measure certain asset types differently. For example, the methods that the SCF and FAUS use to estimate the total value of private business assets differ. In contrast to the SCF's market valuation of private business assets, the FAUS data are based on a mix of book and market values. As a result, estimates of the share of wealth concentrated at the top of the distribution that are made using the FAUS data are lower than those based on the SCF data.³³

32. For a fuller discussion of factors explaining the differences in estimates, see Jesse Bricker and others, *A Wealth of Information: Augmenting the Survey of Consumer Finances to Characterize the Full U.S. Wealth Distribution*, Finance and Economics Discussion Series Paper 2021-053 (Board of Governors of the Federal Reserve System, August 2021), <https://doi.org/10.17016/FEDS.2021.053>. For a recent analysis of differences among methods used to estimate the concentration of wealth in the top 0.01 percent of the distribution, see Emmanuel Saez and Gabriel Zucman, *Top Wealth in America: A Reexamination*, Working Paper 30396 (National Bureau of Economic Research, August 2022), www.nber.org/papers/w30396.

33. Smith, Zidar, and Zwick (2021) note that differences in private business valuations between the SCF and FAUS can account for the differences between their estimates of the share of wealth held by families in the top 1 percent of the wealth distribution

A second reason that estimates of the concentration of wealth at the top of the distribution differ is that not all studies use the same unit of analysis. Studies that use income tax data examine the wealth of tax units, and those that use data from the SCF examine the wealth of families.³⁴ There are more tax units than families. According to Bricker and others (2016), in 2013, for example, there were 161 million tax units but 122 million families. Those analysts note that estimates of wealth concentration based on tax units are typically higher than those based on families because the wealthiest 1 percent of families almost always represent one tax unit, whereas the other 99 percent of families are often split into multiple tax units.³⁵

Estimates of the concentration of wealth differ for a third reason: Various studies define what constitutes wealth differently. Not all studies include the value of consumer durables, life insurance and annuities, or the value of the unfunded portion of defined benefit liabilities.

and estimates of other analysts who use data from the SCF. See Matthew Smith, Owen M. Zidar, and Eric Zwick, *Top Wealth in America: New Estimates and Implications for Taxing the Rich*, Working Paper 29374 (National Bureau of Economic Research, October 2021), www.nber.org/papers/w29374.

34. Of the two measures, the family, as defined by the SCF, is more comparable to the U.S. Census Bureau's definition of "household," which can include one-person households.

35. Those authors discuss how the unit of analysis—tax unit versus family—among other factors, can explain differences between estimates of the wealth concentration at the top of the distribution that are based on the SCF and those derived using the capitalization method. See Jesse Bricker and others, "Measuring Income and Wealth at the Top Using Administrative and Survey Data," *Brookings Papers on Economic Activity* (Spring 2016), <https://tinyurl.com/529u3kjp>.

Appendix C: Data Sources for Tables and Figures

Chapter 1. Trends in Wealth Among Families in Different Segments of the Wealth Distribution

The data source for all figures in this chapter may be cited as follows: Congressional Budget Office, using data from the Survey of Consumer Finances, *Forbes* magazine, and the Financial Accounts of the United States.

Chapter 2: Trends in Wealth, by Family Characteristics

The data source for all figures and the table in this chapter may be cited as follows: Congressional Budget Office, using data from the Survey of Consumer Finances and the Financial Accounts of the United States.

Chapter 3: Trends in Total Family Wealth Since 2019

The data source for all figures in this chapter may be cited as follows: Congressional Budget Office, using data from the Distributional Financial Accounts.

Chapter 4: A Comparison of Estimates of Wealth Concentration

The data sources for the figure and table in this chapter may be cited as follows: Congressional Budget Office; Board of Governors of the Federal Reserve System, “DFA: Distributional Financial Accounts” (accessed May 18, 2021), <https://go.usa.gov/xevQb>; Jesse Bricker and others, “Wealth and Income Concentration in the SCF: 1989–2019,” FEDS Notes (Board of Governors of the Federal Reserve System, September 28, 2020), <https://doi.org/10.17016/2380-7172.2795>; Emmanuel Saez and Gabriel Zucman, *Trends in US Income and Wealth Inequality: Revising After the Revisionists*, Working Paper 27921 (National Bureau of Economic Research, October 2020), www.nber.org/papers/w27921; Matthew Smith, Owen M. Zidar, and Eric Zwick, *Top Wealth in America: New Estimates and Implications for Taxing the Rich*, Working Paper 29374 (National Bureau of Economic Research, October 2021), www.nber.org/papers/w29374; and World Inequality Database (accessed May 18, 2021), <https://wid.world>.

About This Document

This report was prepared at the request of the Chairman of the Senate Budget Committee. In keeping with the Congressional Budget Office's mandate to provide objective, impartial analysis, the report makes no recommendations.

Nadia Karamcheva prepared the report with guidance from Joseph Kile, Xiaotong Niu, and Julie Topoleski. Victoria Perez-Zetune (formerly of CBO) provided assistance with the analysis. Elizabeth Bass, Molly Dahl, Michael Falkenheim, Heidi Golding, Bilal Habib, Rebecca Heller, John McClelland, Ellen Steele, and Jeffrey Werling (formerly of CBO) offered comments. Elizabeth Ash and Julia Heinzl fact-checked the report.

Andrew G. Biggs of the American Enterprise Institute, Alice Henriques Volz of the staff of the Board of Governors of the Federal Reserve System, and Eric Zwick of the University of Chicago Booth School of Business commented on an earlier draft. The assistance of external reviewers implies no responsibility for the final product; that rests solely with CBO.

Jeffrey Kling and Robert Sunshine reviewed the report. Bo Peery edited it, and Casey Labrack created the graphics and prepared the text for publication. The report is available at www.cbo.gov/publication/57598.

CBO seeks feedback to make its work as useful as possible. Please send comments to communications@cbo.gov.



Phillip L. Swagel
Director
September 2022

Correction

The Congressional Budget Office has corrected this report since its original publication. Both the PDF and online versions were corrected, but for ease of reference, the location of the correction in the PDF is indicated below.

The following change was made on October 7, 2022:

Page 43, left-hand column, seventh line: “slightly higher” was changed to “slightly lower.”