RESEARCH & ANALYSIS

Changes in U.S. Family Finances from 2019 to 2022

Evidence from the Survey of Consumer Finances

October 2023

BOARD OF GOVERNORS OF THE
FEDERAL RESERVE SYSTEM

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R&S develops and presents economic and financial data and analysis for use by the Board of Governors, the Federal Open Market Committee, and other Federal Reserve System officials. It also fosters a broader understanding of issues relating to economic policy by conducting economic and statistical research and by supplying data and analyses for public release. R&S staff members Aditya Aladangady, Jesse Bricker, Andrew C. Chang, Sarena Goodman, Jacob Krimmel, Kevin B. Moore, Sarah Reber, Alice Henriques Volz, and Richard A. Windle prepared this report with assistance from YeJin Ahn and Eva Ma.

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Executive Summary

The Federal Reserve Board's triennial Survey of Consumer Finances (SCF) collects information about family income, net worth, balance sheet components, credit use, and other financial outcomes.[1] The Federal Reserve has fielded the modern version of the interview survey of U.S. families every three years since 1989.[2]

Between the 2019 and 2022 surveys, the COVID-19 pandemic severely disrupted society and economic activity. Nonetheless, the SCF reveals broad-based improvements in U.S. family finances over this period, particularly with respect to net worth.[3]

Key findings in this report include the following:

Income

- Between the 2019 and 2022 surveys, real median family income (which is measured for the year before the survey) rose a relatively modest 3 percent, while real mean family income grew 15 percent.[4] Increases in income were experienced across the income distribution but were largest at the top, consistent with some increase in income inequality over this period. Indeed, the between-survey growth in mean income was one of the largest three-year changes over the history of the modern SCF.
- A relatively large share of families, 28 percent, reported that their income during the 2021 calendar year differed from its usual amount—that is, their "usual income"—reflecting elevated shares of both families with higher-than-usual income and families with lower-than-usual income.
- Increases in median and mean income were relatively widespread across different types of families, whether grouped by economic characteristics (for example, level of usual income, level of wealth, urbanicity, or homeowner status) or demographic characteristics (for example, age or race and ethnicity), and any declines were modest. The exception is across educational groups,

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1 See appendix A for a general description of the SCF data as well as key technical aspects of the survey.

2 The SCF has been conducted in a consistent manner since 1989. Earlier surveys covered related content but used a different survey methodology.

3 In the 2019 SCF, a small portion of the data collection overlapped with early months of the COVID-19 pandemic, with about 9 percent of interviews conducted between February and April 2020. Results from previous surveys were published as articles in the *Federal Reserve Bulletin* (https://www.federalreserve.gov/publications/bulletin.htm), which has ceased publication. Beginning with the 2022 survey, results will be published as reports, available on the Board's website in two locations—on the Publications page, under "Research & Analysis" (https://www.federalreserve.gov/publications.htm), and in the Survey of Consumer Finances section of the site (https://doi.org/10.17016/datasets.001).

4 In this report, all dollar amounts from the SCF are adjusted to 2022 dollars using the "current methods" version of the consumer price index for all urban consumers (CPI-U-RS), unless otherwise noted.

where increases in both median and mean income were nearly fully concentrated among families in which the reference person had a college degree.

Net Worth

- Between 2019 and 2022, real median net worth surged 37 percent, and real mean net worth increased 23 percent. These patterns imply some narrowing of the wealth distribution between surveys. Indeed, the 2019–22 growth in median net worth was the largest three-year increase over the history of the modern SCF, more than double the next-largest one on record.
- Increases in both median and mean net worth were near universal across different types of families, grouped by either economic or demographic characteristics.

Assets

- The homeownership rate increased slightly between 2019 and 2022, to 66.1 percent. For families that owned a home, the median net housing value (the value of a home minus home-secured debt) rose from $139,100 in 2019 to $201,000 in 2022, as home values increased and housing debt was rather flat. Net housing values grew substantially for families across the usual income distribution, reaching their highest levels on record. Correspondingly, housing affordability fell to historic lows, as the median home was worth more than 4.6 times the median family income.
- Just over two-thirds of working-age families participated in retirement plans in 2022, up slightly from 2019. While participation remained uneven across the income distribution, all major income groups saw increases in participation between 2019 and 2022. Conditional mean balances in account-type retirement plans rose for families in the upper half of the usual income distribution but fell for those in the bottom half.
- Participation in the stock market increased across the usual income distribution between 2019 and 2022, with families between the 50th and 90th percentiles experiencing a substantial increase. Amid a sizable rise in major stock indexes over this period, all major income groups experienced robust growth in the conditional median and mean values of their holdings.
- In 2022, 20 percent of all families, 14 percent of families in the bottom half of the usual income distribution, and nearly half of families in the top decile of the usual income distribution owned a privately held business. Families that owned businesses had higher income and wealth than those that did not. Further, a family's income and wealth increased with the number of employees in their business.

Debt

- Debt secured by residential property was about unchanged between 2019 and 2022. About 42 percent of families in both 2019 and 2022 had debt secured by their primary residence, and the median amount of this debt decreased by less than 1 percent to $155,600 in 2022.
- Between 2019 and 2022, the share of families with credit card debt was fairly stable (around 45 percent). However, median and mean balances for families with credit card debt declined noticeably to $2,700 and $6,100, respectively.
- The share of families that had student debt in 2022 was 22 percent, unchanged from 2019. Among families with student debt, median and mean balances were essentially stable, hovering around $25,000 and $47,000, respectively. Similar to 2019, the distribution of student debt became increasingly skewed toward higher earners.

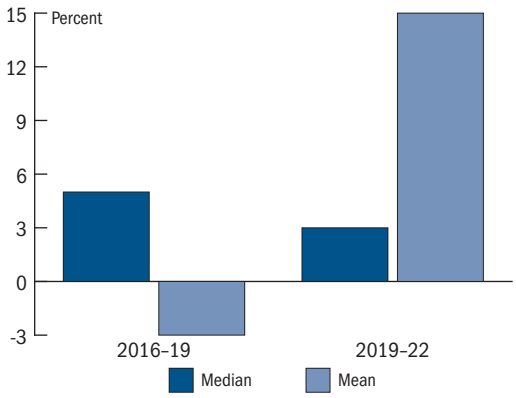
Financial Vulnerability

- All SCF measures of financial fragility declined between 2019 and 2022. For debtors, the median leverage ratio—that is, a family's total debt relative to its total assets—declined to a 20-year low of 29.2 percent, and the median payment-to-income ratio dropped to the lowest level ever recorded in the SCF (13.4 percent). The fraction of families with payment-to-income ratios greater than 40 percent declined 0.9 percentage point to 6.5 percent, also the lowest value on record.
- Families' ability to stay current on their financial obligations was steady between 2019 and 2022 and remained well below levels in the SCF surveys that followed the financial crisis. Between 2019 and 2022, the share of families that declared bankruptcy in the past five years declined to 1.3 percent.

Income

During the three years between the 2019 and 2022 surveys, the COVID-19 pandemic caused severe disruptions to the U.S. labor market and broader economic activity, leading to unprecedented levels of fiscal support.[5] Against this backdrop, U.S. families experienced increases in median and mean inflation-adjusted income, measured for the year before the survey (figure 1). Median income rose a relatively modest 3 percent, from $67,900 in 2018 to $70,300 in 2021. Mean income increased 15 percent—one of the largest three-year changes in mean income over the history of the modern SCF—from $123,400 in 2018 to $141,900 in 2021 (table 1). Gains in income were experienced across the income distribution but were largest toward the top, consistent with some increase in income inequality over this period.

Figure 1. Change in median and mean family incomes, 2016–22 surveys



Note: Income is measured for the calendar year prior to the survey. Changes are based on inflation-adjusted dollars.

Source: Here and in subsequent figures and tables, Federal Reserve Board, Survey of Consumer Finances.

Three points of context are worth bearing in mind with respect to the measurement of real income growth between the 2019 and 2022 surveys.

First, the SCF income measure reflects a family's before-tax income for the full calendar year preceding the survey. This measure aggregates reported income from specific sources, most of which correspond to items on an income tax form.[6] In the 2022 survey, some of these sources capture pandemic-related fiscal support that families received in 2021, including, for example, enhanced unemployment and food stamp benefits. That said, because the survey did not systematically col-

[5] Volatility in economic conditions over this period is well reflected in changes in the civilian unemployment rate measured over different periods relevant for characterizing survey results. Between March 2019 and March 2022, the beginning of the field period for each of the past two surveys, the unemployment rate edged down, on net, from 3.8 percent to 3.6 percent. In contrast, between calendar year 2018 and calendar year 2021, the reference periods for income in these same surveys, the unemployment rate *rose* substantially, on net, from 3.9 percent to 5.3 percent.

[6] The sources of income collected in the survey include wages, self-employment and business income, taxable and tax-exempt interest, dividends, realized capital gains, unemployment insurance, food stamps and other related support programs provided by the government, pensions and withdrawals from retirement accounts, Social Security, alimony and other support payments, and miscellaneous sources.

Table 1. Before-tax median and mean family income, by selected characteristics of families, 2019 and 2022 surveys

Thousands of 2022 dollars

Family characteristic	Median income			Mean income		
	2019	2022	Percent change 2019–22	2019	2022	Percent change 2019–22
All families	**67.9**	**70.3**	**3**	**123.4**	**141.9**	**15**
	(1.1)	(1.2)	n.a.	(1.9)	(4.2)	n.a.
Percentile of usual income						
Less than 20	20.5	21.6	5	20.8	22.5	8
20–39.9	42.5	44.8	6	43.3	45.3	5
40–59.9	68.6	71.2	4	69.4	73.2	5
60–79.9	110.0	115.7	5	112.2	121.9	9
80–89.9	174.3	189.2	9	177.3	201.3	14
90–100	328.0	378.3	15	565.2	691.7	22
Age of reference person (years)						
Less than 35	56.4	60.5	7	75.5	82.7	9
35–44	86.2	85.9	0	128.6	169.9	32
45–54	90.2	91.9	2	168.5	171.4	2
55–64	73.7	81.9	11	151.4	175.9	16
65–74	58.1	60.9	5	125.0	142.5	14
75 or more	49.9	49.1	−2	86.9	107.9	24
Education of reference person						
No high school diploma	35.7	32.3	−10	45.9	42.2	−8
High school diploma	53.1	53.0	0	73.9	74.0	0
Some college	59.4	60.0	1	91.6	86.4	−6
College degree	110.9	117.8	6	204.6	242.2	18
Race or ethnicity of respondent						
White non-Hispanic	80.0	81.1	1	142.4	165.2	16
Black or African American non-Hispanic	46.7	46.0	−2	69.1	71.0	3
Hispanic or Latino	47.2	46.7	−1	67.8	71.5	5
Other or multiple race	64.6	68.3	6	129.8	135.1	4
Asian	n.a.	122.6	n.a.	n.a.	234.8	n.a.
Other (non-Asian) or multiple race	n.a.	57.5	n.a.	n.a.	88.1	n.a.
Housing status						
Owner	89.7	94.0	5	158.5	178.0	12
Renter or other	41.3	42.3	2	58.5	71.7	23
Urbanicity						
Metropolitan statistical area (MSA)	70.8	73.4	4	130.3	151.9	17
Non-MSA	50.0	57.1	14	73.0	82.6	13
Percentile of net worth						
Less than 25	34.6	34.6	0	44.0	43.6	−1
25–49.9	53.9	59.6	11	67.4	69.9	4
50–74.9	81.4	83.1	2	93.4	97.0	4
75–89.9	118.0	140.5	19	150.6	169.5	13
90–100	273.9	301.1	10	496.0	638.1	29

Note: Income is measured for the calendar year before the survey. See appendix B for details on standard errors (shown in parentheses below the first row of data for the means and medians).
n.a. Not available (relevant data not collected).

lect information on stimulus payments that families received from the government when collecting 2021 income, such payments are excluded from the income measure in this report.

Second, the SCF also includes questions to measure a family's "usual income" because, in any given year, a family's income may reflect a recent spell of unemployment, a bonus from an employer, a capital loss or gain on investments, or other transitory factors.[7] Unsurprisingly, in the 2022 survey, a relatively large share of families—28 percent—reported their income was unusual over the 2021 calendar year, reflecting the large imprint that COVID-19 and myriad pandemic-related policies left on the U.S. economy.[8] Since the introduction of the usual income concept in the 1995 survey, the only instance in which a greater share of families reported unusual income was in the Great Recession–era 2010 survey, whereby 31 percent of families reported their income was atypical. In both 2010 and 2022, as in all other survey years, the share of families that reported lower-than-usual income was larger than the share that reported higher-than-usual income. However, in contrast to the 2010 survey, the share of families that reported higher-than-usual income in 2022 was also elevated and, in fact, was the largest on record.

Finally, between the 2019 and 2022 surveys, price inflation ticked up markedly.[9] Without adjusting for inflation, median and mean income in the SCF rose 20 percent and 33 percent, respectively.

Income by Family Characteristics

The 2022 SCF reveals some predictable patterns in income levels across demographic groups, and those patterns are largely consistent with previous surveys.[10] Across age groups, income shows a life-cycle pattern, rising to a peak for families in which the reference person is in one of the middle-age groups and then declining for those in which the reference person is older and increasingly likely to be retired.[11] Income also shows a strong positive association with education; in particular, income among families in which the reference person has a college degree tends to be substantially higher than for those with less schooling. Mean income among college-educated families in the 2022 SCF was nearly three times that of families in any other education group. Among families grouped by the race or ethnicity of the survey respondent, median and mean

[7] Usual income is measured in the survey after income has been reported, if respondents indicate their income in the survey reference year was unusually high or low compared with what they would expect in a "normal year."

[8] An upcoming FEDS Notes article explores families' experiences of the COVID-19 economy in more detail and can be found on the Board's website at https://www.federalreserve.gov/econres/notes/feds-notes/default.htm.

[9] Inflation reached noticeably high rates during the second quarter of 2021, peaked in mid-2022, and stayed elevated through the remainder of the 2022 survey's field period. Cumulatively, according to the CPI-U-RS (the "current methods" version of the consumer price index for all urban consumers used to adjust dollar values throughout this report), price increases between the 2019 and 2022 surveys were more than twice as much as between the 2016 and 2019 surveys. See appendix B for more detail.

[10] Tabulated data from the survey beyond that presented in this report are available on the Board's website at https://doi.org/10.17016/datasets.001. This information includes some alternative versions of the tables in this report, including tables that match the structure used in earlier versions of this publication. For those who wish to make further alternative calculations, this website provides a variety of data files, a data visualization tool, and access to online tabulation software that may be used to create customized tables based on the variables analyzed in this report.

[11] Appendix B explains the designation of the reference person used in this report.

income among families in which the survey respondent identified as white non-Hispanic or Asian—a new grouping in the 2022 survey—are substantially higher than for Black non-Hispanic, Hispanic, and other (non-Asian) and multiple race families.[12] Income is also considerably higher for homeowners and for families living in a metropolitan statistical area (MSA) than for non-homeowners and families living in non-MSAs.[13] Finally, family income is positively correlated with net worth.

With respect to changes between the 2019 and 2022 surveys, increases in median and mean income were relatively broad based across different types of families, whether grouped by economic characteristics such as usual income, wealth, urbanicity, or homeowner status, or by demographic characteristics such as age or race and ethnicity, and any declines were modest.[14] The exception is across educational groups, whereby increases in both median and mean income were essentially fully concentrated among families with a college degree. Families with less education either saw negligible growth or experienced declines in these measures. Declines in median and mean income were largest—10 percent and 8 percent, respectively—among those without a high school degree.

Between-survey growth in median and mean income occurred throughout the usual income distribution, with the bottom quintile experiencing 5 percent and 8 percent growth, respectively.[15] Growth in both measures was largest for families in the top decile—15 percent and 22 percent, respectively—indicating an increase in income inequality between surveys.

Most age groups experienced increases in both median and mean income between surveys. The exceptions are families in which the reference person was either 35 to 44 years old, whose median income was essentially unchanged, or older than 75 years old, whose median income declined modestly. Interestingly, these two age groups experienced the largest increases in mean income—32 percent and 24 percent, respectively. Generally speaking, changes in median and mean income indicate a within-age-group widening of the income distribution between surveys.

Over the 2019–22 period, mean income rose for all families grouped by race or ethnicity, with white non-Hispanic families experiencing the largest growth—16 percent.[16] With respect to

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[12] Appendix B provides information on racial and ethnic identification in the SCF.

[13] In this report, a family is considered a homeowner if at least one person in the family owns at least some part of the family's primary residence.

[14] Changes in the experiences of families with particular characteristics can reflect shifts in the demographic composition of the survey population. For example, both the share of families in which the reference person was older than 55 years old and the share of families that attended college have been steadily trending up over time. In 2022, there was a notable uptick in the share of families with a college degree relative to 2019. Appendix B provides information on evolutions in the survey's racial and ethnic composition, educational composition, and age composition.

[15] Each quintile in the table represents 20 percent of the population. See appendix B for the income percentile values used to define the groups.

[16] An upcoming FEDS Note article discusses differences in income and wealth holding by race and ethnicity in more detail and can be found on the Board's website at https://www.federalreserve.gov/econres/notes/feds-notes/default.htm.

median income, only families that identified as other or multiple races (including Asian) saw more than a modest change—6 percent growth. Otherwise, Hispanic and Black non-Hispanic families experienced slight decreases, and white non-Hispanic families experienced a slight increase.

Mirroring the top-line changes in income, homeowners as well as renters and other non-owners experienced median and mean income growth between 2019 and 2022.

Perhaps reflecting pandemic-related factors, such as migration away from cities and increased remote work, the median income gap between families living in MSAs and those living in non-MSAs narrowed considerably between 2019 and 2022, as median income surged 14 percent among families in non-MSAs and increased just 4 percent among families living in MSAs.[17] However, the mean income gap between the two groups widened further.

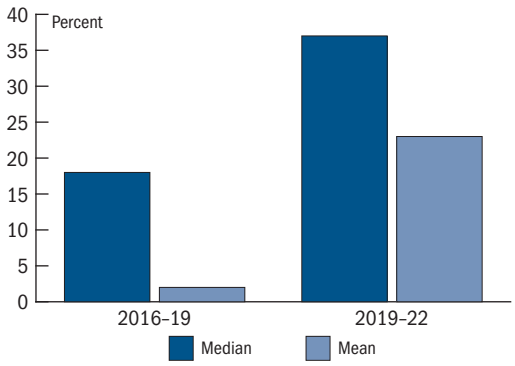
For families grouped by percentile of net worth (as measured concurrently in the SCF), median and mean income growth between 2019 and 2022 were most prominent among families in the upper quartile of the distribution, driven by capital gains. Among families in the bottom quartile, median income was essentially unchanged, and mean income marginally declined.

[17] For more information on internal migration away from cities and increased remote work, see, for example, Connor O'Brien (2023), "Tax Data Reveals Large Flight of High Earners from Major Cities during the Pandemic," Economic Innovation Group, August 8, https://eig.org/high-earners-migration; and Adam Ozimek (2022), "How Remote Work Is Shifting Population Growth across the U.S.," Economic Innovation Group, April 13, https://eig.org/how-remote-work-is-shifting-population-growth-across-the-u-s.

Net Worth

The net improvements in economic performance, including rising house and corporate equity prices that well exceeded consumer price inflation, supported substantial increases in median and mean inflation-adjusted net worth—the difference between families' assets and liabilities—between 2019 and 2022 (figure 2).[18] Specifically, real median net worth surged 37 percent to $192,900, and real mean net worth increased 23 percent to $1,063,700 (table 2), accelerating the steady growth experienced over the 2013–19 period.[19] The 2019–22 changes imply some narrowing of the wealth distribution between surveys. Indeed, growth in median net worth was the largest increase over the history of the modern SCF, more than double the next-largest one on record.[20]

Figure 2. Change in median and mean family net worth, 2016–22 surveys



Note: Changes are based on inflation-adjusted dollars.

While income and net worth both trended up between surveys, there are substantive differences in the degree and breadth of the improvements in families' finances indicated by the two measures. In general, even though they are positively correlated, income and net worth do not always move in lockstep. Income is a flow measure based on economic activity in the previous year, which families either spend or save. Net worth is a stock measure on the date of the interview, reflecting cumulative economic activity over a longer period. Several other factors likely contributed to differential movements in income and net worth between the 2019 and 2022 surveys, including notable changes in the U.S. economy between the reference periods for these measures, the large share

[18] Between the first quarter of 2019 and the first quarter of 2022, just before the beginning of the field period for each of the last two surveys, real gross domestic product grew at an average annual rate of 2.1 percent. Over the same period, the national CoreLogic Home Price Index increased at a 11.8 percent annual rate, and the value of corporate equity holdings, as measured by a broad stock price index, grew at a 16.1 percent annual rate. These nominal changes are measured from March to March—and, for the Standard & Poor's 500 stock price index, using the monthly average—of the respective survey years. Between March 2022 and March 2023, roughly the 2022 SCF field period, the house price index grew an additional 2.3 percent and the stock market index declined 9.6 percent.

[19] Looking back further, between the 2010 and 2013 surveys, real median net worth decreased 2 percent, and real mean net worth did not change despite the recovery in house and other asset prices that followed the declines brought on by the Great Recession. Between 2007 and 2010, real median net worth declined 39 percent, and real mean net worth declined 15 percent.

[20] Between 2004 and 2007, real median net worth increased 18 percent.

Table 2. Family median and mean net worth, selected characteristics of families, 2019 and 2022 surveys

Thousands of 2022 dollars, except as noted

Family characteristic	Median net worth			Mean net worth		
	2019	2022	Percent change 2019–22	2019	2022	Percent change 2019–22
All families	**141.1**	**192.9**	**37**	**868.0**	**1,063.7**	**23**
	(4.3)	(7.5)	n.a.	(18.1)	(23.2)	n.a.
Percentile of usual income						
Less than 20	11.3	14.0	24	132.2	129.7	-2
20–39.9	51.1	71.0	39	157.6	218.7	39
40–59.9	107.7	159.3	48	255.7	385.4	51
60–79.9	230.8	307.2	33	490.3	636.8	30
80–89.9	443.2	747.0	69	985.4	1,264.7	28
90–100	1,842.3	2,556.2	39	5,622.3	6,629.6	18
Age of reference person (years)						
Less than 35	16.1	39.0	143	88.5	183.5	107
35–44	105.9	135.6	28	505.6	549.6	9
45–54	195.4	247.2	27	965.9	975.8	1
55–64	246.3	364.5	48	1,363.1	1,566.9	15
65–74	308.8	409.9	33	1,411.6	1,794.6	27
75 or more	295.4	335.6	14	1,133.2	1,624.1	43
Education of reference person						
No high school diploma	23.7	38.1	60	159.8	175.6	10
High school diploma	85.8	106.8	24	353.8	413.3	17
Some college	102.9	136.5	33	436.4	541.1	24
College degree	357.3	464.6	30	1,761.9	2,003.4	14
Race or ethnicity of respondent						
White non-Hispanic	218.1	285.0	31	1,140.0	1,367.2	20
Black or African American non-Hispanic	28.0	44.9	60	165.1	211.5	28
Hispanic or Latino	41.9	61.6	47	191.9	227.5	19
Other or multiple race	86.4	132.9	54	761.8	849.8	12
Asian	n.a.	536.0	n.a.	n.a.	1,826.9	n.a.
Other (non-Asian) or multiple race	n.a.	62.9	n.a.	n.a.	389.4	n.a.
Housing status						
Owner	295.5	396.2	34	1,277.5	1,530.9	20
Renter or other	7.3	10.4	43	110.8	154.9	40
Urbanicity						
Metropolitan statistical area (MSA)	146.0	199.2	36	934.8	1,133.1	21
Non-MSA	104.8	146.4	40	376.6	652.1	73
Percentile of net worth						
Less than 25	.4	3.5	900	-15.7	-5.3	66
25–49.9	66.5	93.3	40	67.4	98.8	47
50–74.9	259.8	356.3	37	273.9	373.7	36
75–89.9	756.6	1,036.2	37	815.7	1,102.4	35
90–100	3,012.5	3,794.6	26	6,641.8	7,810.5	18

Note: Net worth is the difference between families' assets and liabilities. See appendix B for definitions of asset and liability categories used in the Survey of Consumer Finances, as well as details on standard errors (shown in parentheses below the first row of data for the means and medians).
n.a. Not available (relevant data not collected).

of families that reported unusual income in the 2022 survey, and elevated levels of saving early in the pandemic that have been identified in other data sources.[21]

Net Worth by Family Characteristics

Cross-sectional differences in net worth across groups generally mirror those for income, but the gaps are larger. For example, families in which the reference person had a college degree had twice the median income of those with some college but over three times the median net worth. Separately, individuals usually save for retirement throughout their working career and then spend those savings in retirement, which generates a life-cycle pattern in net worth.

With respect to changes between the 2019 and 2022 surveys, increases in both median and mean net worth were near universal across different types of families. The one exception is that mean net worth in the bottom quintile of the usual income distribution modestly decreased (to about $130,000).

All other segments of the distribution saw robust growth in mean net worth, with the second and third quintiles posting the largest gains—39 percent and 51 percent, respectively. Mean net worth growth among families in the top decile of the usual income distribution was 18 percent; due to this group's high level of baseline wealth, the dollar change was several times that of any other group. Growth in median net worth between 2019 and 2022 was substantial across the usual income distribution but, again, the least among families in the bottom quintile, who saw 24 percent growth (to $14,000).

Median and mean net worth rose for all age groups. The largest growth was among families younger than 35 years old, who saw their median and mean net worth more than double between surveys but remained the least wealthy age group. Growth among the wealthiest group—65 to 74 years old—was also notably high (33 percent and 27 percent, respectively). In comparison with other age groups, families older than 75 years saw relatively modest median wealth growth (14 percent) and relatively large mean income growth (43 percent), indicating wealth inequality among these older families increased between surveys.

[21] The SCF asks respondents whether, over the preceding year, the family's spending was less than, more than, or about equal to its income. This measure of saving does not capture the amount a family saved over the past year, only whether any saving occurred. By this metric, in the 2022 survey, 82 percent of families in the top decile of the usual income distribution saved, compared with 66 percent of families in the upper-middle segment and 43 percent of families in the bottom half. Between 2019 and 2022, the overall fraction of families that saved edged down from 59 percent to 56 percent, with decreased saving observed among all three segments. For more on elevated levels of saving early in the pandemic, see, for example, Aditya Aladangady, David Cho, Laura Feiveson, and Eugenio Pinto (2022), "Excess Savings during the COVID-19 Pandemic," FEDS Notes (Washington: Board of Governors of the Federal Reserve System, October 21), https://doi.org/10.17016/2380-7172.3223.

All education groups experienced robust growth in median and mean net worth between survey years, a notable departure from movements in income. Further, with respect to median net worth, families that did not complete high school experienced the largest gain (60 percent). Mean net worth between 2019 and 2022 grew less than median net worth across education groups, ranging from 10 percent among families without a high school degree to 24 percent among families with some college. The already substantial gap in mean net worth between families with and without a college degree widened between surveys.

Median and mean net worth increased substantially for all types of families grouped by race or ethnicity between 2019 and 2022, whereby the smallest gain—in mean net worth among families that identified as other or multiple race—was 12 percent. Black non-Hispanic families experienced the largest growth in both median and mean net worth—60 percent (to $44,900) and 28 percent (to $211,500), respectively—though their 2022 levels remained below all other racial or ethnic groups.

Between 2019 and 2022, the median and mean net worth of renters or other non-homeowners grew 43 percent to $10,400 and 40 percent to $154,900, respectively. Among homeowners, these measures grew 34 percent to $396,200 and 20 percent to $1,530,900, respectively.

Likely reflecting the same pandemic-related forces noted earlier, families living in non-MSAs saw larger growth in median and mean net worth than those living in MSAs, somewhat narrowing the substantial gap in net worth between families by urbanicity.

Median and mean net worth rose throughout the net worth distribution. Growth in median and mean net worth was largest for the bottom quartile and smallest for the top decile. Still, these growth rates reflect substantial level differences in the net worth of each of these groups. Among families in the bottom quartile, median net worth was $400 in 2019 and $3,500 in 2022, and mean net worth was negative $15,700 in 2019 and negative $5,300 in 2022. Among families in the top decile, median net worth was $3,012,500 in 2019 and $3,794,600 in 2022, and mean net worth was $6,641,800 in 2019 and $7,810,500 in 2022.

The balance sheet of families in the middle of the net worth distribution is dominated by housing, and, as such, increases in their wealth between surveys tend to reflect the extent to which growth in house prices surpassed inflation. Indeed, between 2019 and 2022, the second and third quartiles saw 40 percent and 37 percent growth, respectively, in median net worth and 47 percent and 36 percent growth, respectively, in mean net worth.

Assets

In 2022, virtually all families owned some type of asset, little changed from 2019 (table 3). Conditional on holding at least one asset, median total asset holdings rose 26 percent to $332,600 in 2022. The conditional mean value of families' total assets rose 20 percent to $1,194,300. These changes were driven by increases in the prices of both financial and nonfinancial asset holdings, notably equities and real estate.

Table 3. Holding and values of assets, 2019 and 2022 surveys
Thousands of 2022 dollars, except as noted

Balance sheet item	Percent holding		Conditional median value			Conditional mean value		
	2019	2022	2019	2022	Percent change 2019–22	2019	2022	Percent change 2019–22
Any asset	**99.6**	**99.7**	**263.8**	**332.6**	**26**	**997.2**	**1,194.3**	**20**
Types of financial asset								
Any financial asset	**98.7**	**99.0**	**29.9**	**39.0**	**31**	**421.8**	**511.3**	**21**
Transaction accounts	98.2	98.6	6.1	8.0	30	48.3	62.5	29
Certificates of deposit	7.7	6.5	29.0	26.0	−10	118.2	99.2	−16
Savings bonds	7.5	6.4	.9	2.0	116	9.8	35.6	263
Bonds	1.1	1.1	140.3	210.4	50	757.6	961.2	27
Stocks	15.2	21.0	29.0	15.0	−48	404.0	403.9	0
Pooled investment funds	9.0	11.5	127.5	150.0	18	990.4	961.0	−3
Retirement accounts	50.5	54.3	75.3	86.9	15	295.8	334.0	13
Cash value life insurance	19.0	16.1	10.4	9.7	−7	47.5	55.4	17
Other managed assets	5.9	6.2	133.3	140.0	5	593.8	517.9	−13
Other	7.6	9.4	4.6	6.0	29	83.9	82.1	−2
Types of nonfinancial asset								
Any nonfinancial asset	**91.4**	**92.3**	**225.2**	**281.5**	**25**	**631.2**	**741.6**	**17**
Vehicles	85.4	86.6	19.9	27.7	39	30.8	40.1	30
Primary residence	64.9	66.1	260.8	323.2	24	398.9	471.0	18
Other residential property	13.1	12.9	185.5	225.0	21	464.1	519.1	12
Equity in nonresidential property	6.7	5.9	83.5	125.0	50	437.1	467.7	7
Business equity	13.4	14.6	103.3	90.0	−13	1,447.5	1,622.5	12
Other	7.7	7.4	17.4	20.0	15	88.8	95.1	7

Note: See appendix B for definitions of asset categories used in the Survey of Consumer Finances.

Financial Assets

Overall, 99 percent of families in 2022 owned at least one financial asset—which includes transaction accounts, certificates of deposit, savings bonds, other bonds, stocks, pooled investment funds, retirement accounts, cash value life insurance, and other managed assets—little changed from 2019.[22] The conditional median value of all financial assets held by families rose 31 percent to $39,000 in 2022. The conditional mean value increased 21 percent to $511,300. The large difference between median and mean values reflects the highly disproportionate share of financial assets held by some households.

Transaction accounts—which include checking accounts, savings accounts, money market accounts, call accounts, and prepaid debit cards—remained the most commonly held category of financial asset in 2022, with an ownership rate of 98.6 percent.[23] The conditional median value of transaction accounts rose 30 percent between 2019 and 2022 to $8,000. The conditional mean value of transaction accounts in 2022 was $62,500, up 29 percent from 2019. This growth in balances is fairly broad based across the usual income distribution, except for families in the bottom quintile, whose median and mean balances decreased a bit.

The second-most commonly held type of financial asset continued to be retirement accounts—which include individual retirement accounts, Keogh accounts, and certain employer-sponsored accounts, such as 401(k), 403(b), and thrift savings accounts (for a discussion of retirement plan participation, see box 1). Such accounts were held by 54.3 percent of families in 2022, up almost 4 percentage points since 2019. The conditional median value of retirement accounts increased 15 percent between 2019 and 2022 to $86,900, while the conditional mean value rose 13 percent to $334,000 in 2022.

Direct ownership of stocks increased markedly between 2019 and 2022—from 15 percent of families to 21 percent—the largest change on record. Conditional median stock holdings fell by about half, from $29,000 to $15,000, suggesting new entrants into direct stock ownership held smaller portfolios than longtime stockholding families. Conditional mean direct stock holdings were unchanged, at around $404,000. Stocks may also be indirectly held in pooled investment funds and other managed assets, which were held by 11.5 percent and 6.2 percent of families, respectively (for a discussion of direct and indirect holdings of publicly traded stock, see box 2).

Rates of ownership of almost all other types of financial assets remained below 10 percent, the exception being cash value life insurance at 16.1 percent. Although bonds and savings bonds were held by very few households, their conditional values grew dramatically between 2019 and

[22] See appendix B for detailed definitions of SCF asset and liability categories.

[23] The SCF asks families about their use of online banking. In 2022, families reported, on average, increased use of online banking, from 78 percent of families in 2019 to 85 percent.

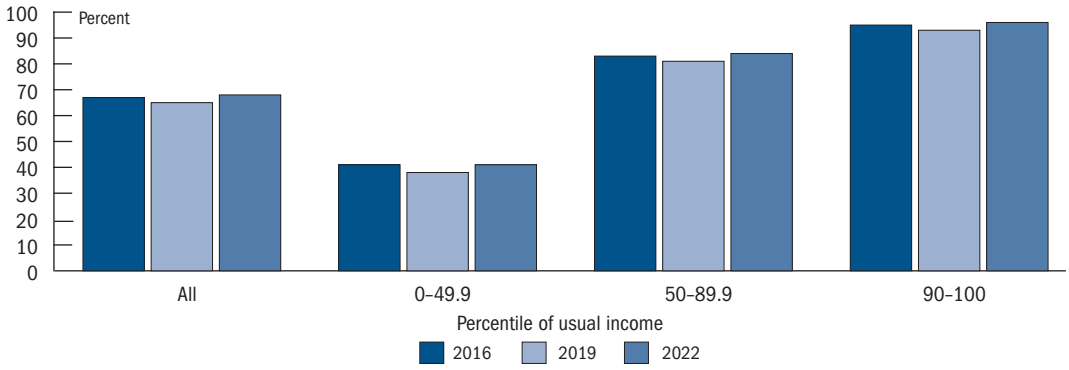
Box 1. Retirement Plan Participation

Participation in retirement plans can both increase families' net worth and provide financial security during retirement through a guaranteed income in retirement, lower taxes on savings, increased compensation (via employer contributions), or all of the above. In this discussion, a family is considered a participant in a retirement plan if they have any of the following: an individual retirement account (IRA); an account-type, defined contribution (DC) pension through an employer, which includes both 401(k)'s and 403(b)'s; or a defined benefit (DB) pension through an employer. The following discussion focuses on working families with a reference person aged 35 to 64 by usual income group. The focus is on these families because, generally speaking, these families have finished their education but have not retired.

Across the usual income distribution, families, on average, saw increases in retirement plan participation from 2019 to 2022 (figure A). Overall participation was at its highest level since 2010 (not shown).

The increase in participation in any retirement plan from 2019 to 2022 was driven by increases in IRA or DC participation across all usual income groups and by increased participation in DB plans for families below the 90th percentile of the usual income distribution. Families are about twice as likely to have an IRA or DC plan as they are to have a DB plan across the usual income distribution.

Figure A. Participation in any retirement plan, by usual income group, 2016–22 surveys



Note: Key identifies bars in order from left to right.

For many families, the assets held in IRAs and DC plans (typically associated with either a current or past job) are among the most important components of their balance sheets and are a key determinant of their future retirement security. Among families that have these assets, the mean combined IRA and DC pension account balance increased to $331,400 in 2022, with the gains concentrated in the top half of the usual income distribution (table A). Among families in the bottom half of the distribution, the mean balance for participating families decreased between 2019 and 2022, from $66,600 to $54,700.[1] In contrast, the mean balance for participating families in each of the higher-earning segments increased more than 10 percent—to $226,700 for the upper-middle income group and to $913,300 for the top decile.

(continued)

[1] This decline is partially on account of an age composition shift of the bottom half of the usual income distribution toward younger families, among families participating in a retirement plan. Moreover, this decline is driven by the bottom quartile of the usual income distribution, among whom participation jumped notably and the conditional mean balance declined 50 percent.

Box 1—*continued*

Table A. Mean retirement savings among those with an individual retirement account or a defined contribution plan, by usual income group, 2016–22 surveys
Thousands of 2022 dollars

	2016	2019	2022
All	**293.1**	**312.5**	**331.4**
Percentile of usual income			
0–49.9	66.0	66.6	54.7
50–89.9	193.6	197.8	226.7
90–100	791.1	803.1	913.3

Note: Sample is restricted to families in which the reference person was 35 to 64 years old. Usual income groups are formed from the unconditional distribution in each survey year.

2022, as interest rates increased in 2022. Conditional median bond values increased 50 percent to $210,400, while conditional median savings bond values increased from $900 to $2,000, or 116 percent. Mean holdings of bonds and savings bonds increased from $757,600 to $961,200 and from $9,800 to $35,600, respectively.

Nonfinancial Assets

The fraction of families reporting ownership of a nonfinancial asset—a broad category that includes vehicles, residential or nonresidential real estate, and equity in a business—remained high in 2022 at about 92 percent.

The most commonly held type of nonfinancial asset in 2022 was a vehicle (see appendix B for a definition of vehicles in this report). Between 2019 and 2022, the fraction of families owning a vehicle edged up a bit from 85.4 percent to 86.6 percent; the conditional median and mean values of families' vehicles increased 39 percent and 30 percent, respectively, to $27,700 at the median and $40,100 at the mean.

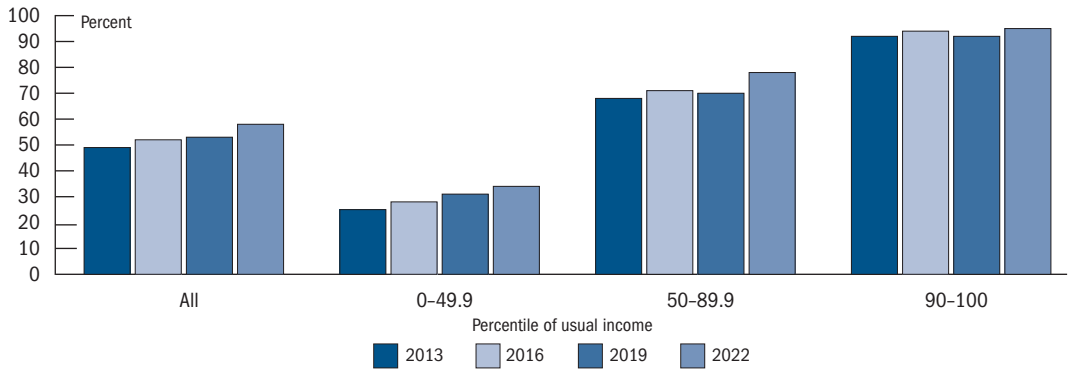
Ownership of primary residences increased from 64.9 percent in 2019 to 66.1 percent in 2022. Homeownership rates have slowly increased over the past two survey waves but remain about 3 percentage points below the peak in 2004.[24] Between 2019 and 2022, there was a broad-based increase in families' reported values of their primary residences. (For a discussion of

[24] The homeownership rate in 1989 was 63.9 percent. It rose to a peak of 69.1 percent in 2004. Across families grouped by percentile of usual income, there are large differences in homeownership rates, which tend to increase with usual income in all years. For families in the bottom half of the usual income distribution, the homeownership rate was 50.3 percent in 2022, the highest level since 2010.

Box 2. Direct and Indirect Holdings of Publicly Traded Stock

Families may hold stocks through direct holdings and through indirect holdings, such as retirement accounts, which are usually less liquid than direct holdings.[1] When direct and indirect stock holdings are combined, the 2022 survey showed a step-up in stock ownership to 58 percent, compared with 53 percent in 2019 and 52 percent in 2016 (figure A, left bars). As in previous years, participation in the stock market in 2022 rose with usual income groups: 34 percent of families in the bottom half of the distribution held stock, compared with 78 percent of families in the upper-middle group and 95 percent of families in the top decile. All three of these groups increased participation between 2019 and 2022. The increase for the upper-middle income group was more than twice as large as for the other two groups, caused by an increase in the share of these families that have both direct and indirect stock holdings.

Figure A. Families with direct and indirect holdings of stock, by usual income group, 2013–22 surveys



Note: Key identifies bars in order from left to right.

In addition to these differences in stock market participation rates, there are significant differences in the value of stock market holdings across usual income groups, conditional on holding stock. In 2022, the conditional median value of stock holdings for the bottom half was $12,600, compared with $53,200 for the upper-middle income group and $608,000 for the top decile (table A). Conditional mean values are substantially larger than the conditional medians for all groups, implying a small number of households within each group hold most of the value of stock. There are wide differences in conditional mean and median values within and across groups.

All major usual income groups experienced notable growth in the conditional median and mean values of their stock holdings between 2019 and 2022.[2] Looking over a longer horizon, since 2013, the conditional median value of stock among families in the bottom half of the distribution decreased 1 percent, while the conditional mean value of stock among these families increased 19 percent. Over the same horizon, growth in both measures was about 70 percent among families in the top decile. This all said, these changes over time should be interpreted with caution, as they are influenced by changes in the composition of households holding stock. For example, since 2013, the bottom half exhibited a substantial increase in stock market participation, which could push median and mean values down, as new participants are likely to have smaller holdings of direct and indirect stock.

(continued)

[1] Other examples of indirect holdings are pooled investment funds and other managed assets. Indirect holdings, particularly through tax-deferred retirement accounts, are much more common than direct holdings.

[2] That said, the bottom quartile of the usual income distribution experienced declines in both measures.

Box 2—*continued*

Table A. Median and mean levels of directly and indirectly held stock, by usual income group, 2013–22 surveys
Thousands of 2022 dollars

	2013	2016	2019	2022
Conditional median value	**45.8**	**49.3**	**46.4**	**52.0**
Median for 0–49.9	12.7	12.9	11.5	12.6
Median for 50–89.9	44.3	49.3	46.4	53.2
Median for 90–100	360.3	439.1	508.3	608.0
Conditional mean value	**343.5**	**424.8**	**432.6**	**491.8**
Mean for 0–49.9	68.3	64.5	64.6	81.5
Mean for 50–89.9	168.3	188.8	202.6	217.4
Mean for 90–100	1233.7	1684.1	1744.8	2138.2

housing wealth and affordability, see box 3.) The conditional median value increased 24 percent to $323,200, and the conditional mean value increased 18 percent to $471,000. In addition to ownership of primary residences, 12.9 percent of families in 2022 reported owning other residential property, such as second homes or time shares, down slightly from 13.1 percent in 2019. The conditional median value of other real estate increased 21 percent to $225,000.

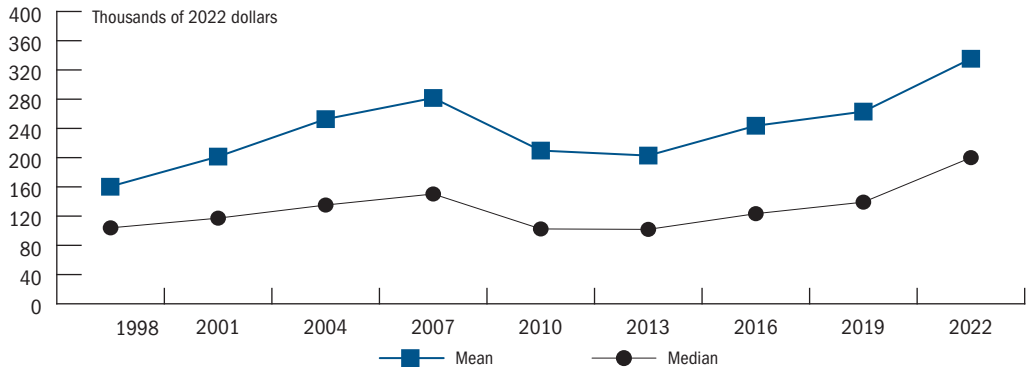
Ownership of equity in nonresidential property was 5.9 percent in 2022, and conditional median and mean values of equity in nonresidential property were $125,000 and $467,700, respectively.

Ownership of business equity was 14.6 percent in 2022, up just over 1 percentage point from 2019 (for a more detailed discussion of business ownership, see box 4). The conditional median value fell 13 percent to $90,000, while the conditional mean value increased 12 percent to $1,622,500. The large differences between the median and mean values reflect the small fraction of privately held businesses with very high valuations.

Box 3. Net Housing Wealth and Housing Affordability

For families that own their primary residence, housing wealth increased substantially between 2019 and 2022, as the rise in house prices over this period far outpaced inflation. The median net housing value—defined as the home's value minus any debts secured by the home (that is, outstanding mortgages, home equity loans, and home equity lines of credit)—increased 44 percent between 2019 and 2022, from about $139,100 to $200,000, continuing the rise since 2013 (figure A).[1] The mean net housing value increased 27 percent between 2019 and 2022, from $263,000 to $335,300. These growth rates in the median and mean net housing values are the largest on record over the history of the modern Survey of Consumer Finances (SCF).

Figure A. Net housing values, 1998–2022 surveys

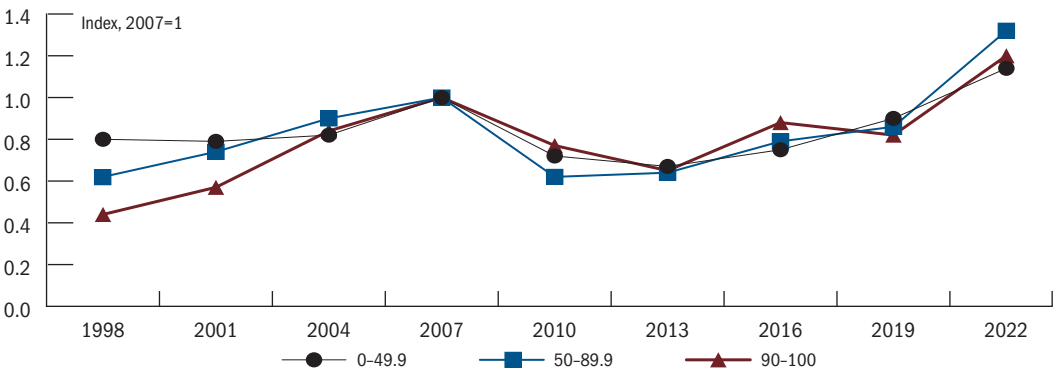


Regarding levels over the medium run, median and mean net housing wealth reached all-time highs in 2022, eclipsing their pre–Great Recession peaks.

Net housing value gains between 2019 and 2022 were broad based across usual income groups, but especially pronounced among families in the upper-middle segment of the distribution (figure B).[2] However, these changes mask considerable heterogeneity in net housing wealth across the distribution. For

(continued)

Figure B. Median net housing values, by usual income group, 1998–2022 surveys



Note: The series describe percentiles of usual income.

[1] Survey respondents are asked to report the value of their home. Only primary residences are included. Debts on the home include any mortgages or home equity loans against the primary residence.

[2] That said, the uptick was less pronounced among families in the bottom quartile.

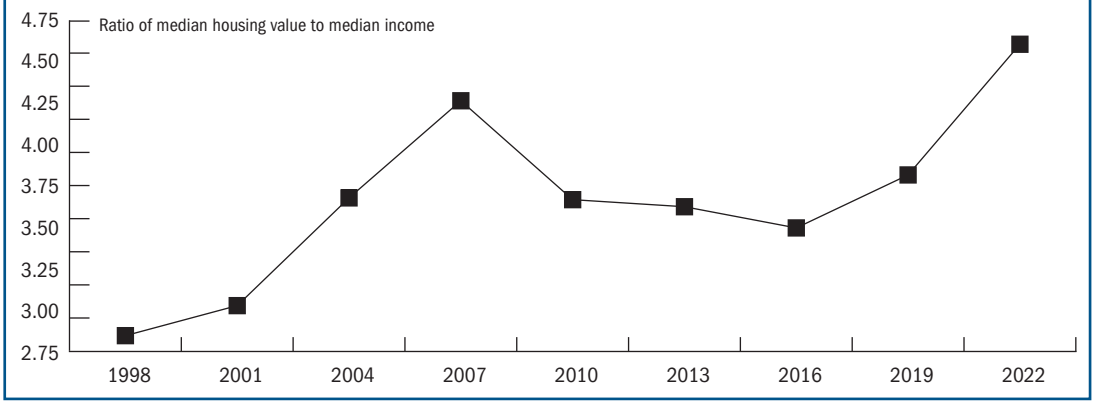
Box 3—*continued*

instance, median housing wealth for upper-middle income households in 2022 was still less than half that of households in the top 10 percent ($201,000 versus $583,000).

For the bottom 90 percent of the usual income distribution, the rise in net housing wealth, along with the small increases in homeownership, contributed substantially to growth in net worth (table 1 in the main text). Similar to the overall median, the median net housing values for all income groups in 2022 surpassed their previous peaks in 2007.

While rising house values can be a boon to homeowners, this trend also represents declining housing affordability for would-be homebuyers. Figure C plots the ratio of the median real home value to median real family income reported in the SCF from 1998 through 2022. After the Great Recession, this ratio declined precipitously before bottoming out at 3.5 in 2016. Despite recent real income gains, the median home was worth over 4.6 times median family income in 2022, surpassing the previous high of 4.2 in 2007.

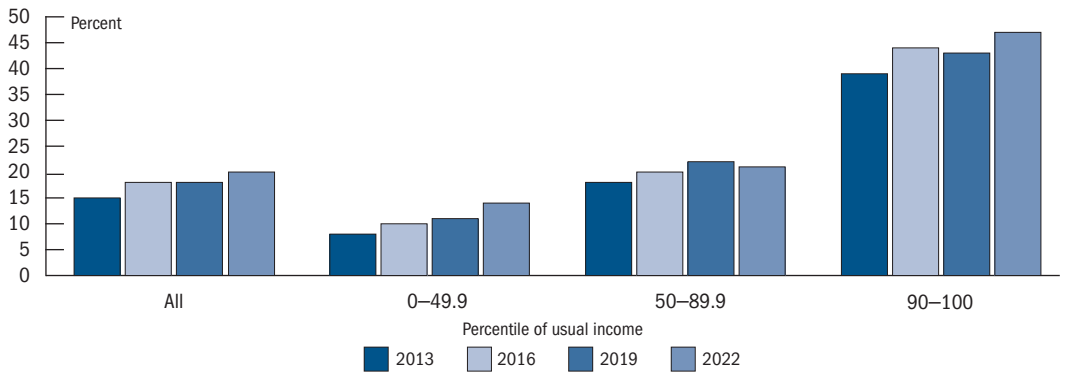
Figure C. Housing affordability, 1998–2022 surveys



Box 4. Business Ownership

In 2022, 20 percent of families owned a privately held business, the highest level on record in the modern Survey of Consumer Finances (figure A).[1] In this discussion, a family is considered a business owner if the family reported owning a business or if either the reference person or the spouse or partner was self-employed.[2] With respect to the usual income distribution, business ownership increased notably among families in the bottom half and the top decile and was largely unchanged among families in the upper-middle segment. Nonetheless, business ownership remained positively correlated with usual income. Nearly half of 2022 families in the top decile owned a business.

Figure A. Families that owned businesses, by usual income group, 2013–22 surveys



Note: Key identifies bars in order from left to right.

Among families that owned businesses in 2022, 78 percent employed fewer than five people, and 52 percent owned nonemployer firms, which are primarily either sole proprietorships or self-employed contractors (table A).[3] Conditional mean business equity rises with the number of employees from $142,700 for nonemployer firms to nearly $3.9 million for families with businesses with more than five employees. Conditional median business equity exhibits a similar pattern, but the values are much more modest. The median nonemployer business owner reported no net value for their business. Among families that owned businesses with more than five employees, median business equity was $400,000.

(continued)

[1] The forms of business in this category are sole proprietorships, limited partnerships, other types of partnerships, subchapter S corporations and other types of corporations that are not publicly traded, limited liability companies, and other types of private businesses. If the family surveyed lived on a farm or ranch that was used at least in part for agricultural business, the value of that part, net of the corresponding share of associated debts, is included with other business assets. While our definition differs slightly, the increase in the fraction of families with businesses since the previous survey is consistent with outside evidence on business formation from the Census Bureau. See U.S. Census Bureau (2023), Release CB23-130, "Business Formation Statistics, July 2023" (August 11), https://www.census.gov/econ/bfs/pdf/historic/bfs_2023m07.pdf.

[2] Among the 14.6 percent of families with a business in 2022, 64 percent had a reference person or a spouse or partner who was self-employed; among the 14.9 percent of families in which either the reference person or a spouse or partner was self-employed, 62.8 percent owned a business.

[3] Families with more than one business are classified according to the business with the largest number of employees. A business that employs one person, the owner, is classified as a nonemployer business. A family in which the reference person or spouse reported being self-employed is classified as owning a nonemployer business, even if the family did not directly report owning a business. Families whose business interests were solely passive are included in the "business owners with more than five employees" category.

Box 4—*continued*

Business-owning families in 2022 were wealthier than families without a business. The mean net worth of families without a business was about $570,000 in 2022, while the mean net worth—excluding the value of businesses—of families that owned a nonemployer business was nearly $1.1 million. Mean nonbusiness net worth rises further with the number of employees in the business: families that owned businesses with two to five employees had $1.6 million in 2022, and those that owned businesses with more than five employees had $4.1 million. Similar patterns hold for mean income. Mean income among families without a business was $105,500, compared with $173,200 for families that owned nonemployer businesses and $617,100 for families that owned businesses with more than five employees. That said, business owners—particularly those with smaller businesses—reported less certainty about their earnings than nonbusiness owners.

Table A. Assets and income, by size of business, 2022
Thousands of dollars, except as noted

	Business owners			All others
	Nonemployer	Two to five employees	More than five employees	
Share of businesses	52.2%	25.4%	22.4%	n.a.
Business assets (mean)	142.7	959.4	3,834.7	n.a.
Business assets (median)	0.0	141.0	400.0	n.a.
Net worth (mean)	1,069.0	1,557.4	4,068.2	566.1
Net worth (median)	194.0	575.9	1,250.7	155.7
Usual income (mean)	143.1	216.9	542.8	101.4
Usual income (median)	84.8	135.2	237.2	67.0
Actual income (mean)	173.2	232.2	613.3	105.5
Actual income (median)	73.5	135.1	216.9	64.9
Uncertain about income	44.5%	37.9%	34.5%	33.9%

Note: Net worth excludes the value of businesses.
n.a. Not applicable.

Debt

Between 2019 and 2022, market interest rates for major types of consumer debt decreased slightly: The average interest rate on a 30-year fixed-rate mortgage ticked down from 4.3 percent to 4.2 percent, the average new vehicle loan interest rate decreased from 5.5 percent to 4.9 percent, and the average credit card interest rate declined from 15.1 percent to 14.6 percent.[25]

In the SCF, the share of families holding any type of debt increased between 2019 and 2022, from 76.6 percent to 77.4 percent (table 4).[26] The conditional median value of debt increased 7 percent to $80,200, and the conditional mean value increased 1 percent to $163,800.

Table 4. Holding and values of debt items, 2019 and 2022 surveys
Thousands of 2022 dollars, except as noted

Types of debts	Percent holding		Conditional median value			Conditional mean value		
	2019	2022	2019	2022	Percent change 2019–22	2019	2022	Percent change 2019–22
Any debt	**76.6**	**77.4**	**75.1**	**80.2**	**7**	**163.0**	**163.8**	**1**
Secured by residential property								
Primary residence	42.1	42.2	156.3	155.6	0	209.6	212.4	1
Other	4.7	4.4	141.4	122.0	−14	238.7	242.5	2
Lines of credit not secured by residential property	1.5	1.6	2.3	3.0	28	46.8	126.7	171
Installment loans								
Education loans	21.5	21.8	25.8	24.5	-5	46.8	46.6	0
Vehicle loans	36.9	34.7	15.2	15.4	1	20.4	21.2	4
Other installment loans	10.5	18.5	4.4	2.3	−49	23.9	10.3	−57
Credit card balances	45.4	45.2	3.1	2.7	−14	7.3	6.1	−16
Other	5.2	5.1	5.8	4.3	−26	28.6	45.7	60

Note: See appendix B for definitions of liability categories used in the Survey of Consumer Finances.

[25] Changes in the mortgage interest rate are measured from March to March of the respective survey years using the contract rate on 30-year fixed-rate conventional home mortgage commitments published by the Federal Home Loan Mortgage Corporation, while changes in the vehicle loan and credit card interest rates are measured from the first quarter to the first quarter of the respective survey years using the G.19 data on commercial bank interest rates published by the Federal Reserve Board. These March 2019 to March 2022 measures hide the fact that rates fluctuated between survey years. Mortgage rates fell to around 2.7 percent in January 2021 before climbing to around 6 percent by the end of 2022; rates rose over 2 percentage points between March 2022 and March 2023. Auto loans bottomed out at 4.6 percent in November 2021 and climbed throughout 2022. Credit card interest rates were mostly flat between March 2019 and March 2022 but increased steadily throughout the 2022 calendar year.

[26] See appendix B for a detailed definition of SCF liability categories.

Debt Holdings by Type

About 42 percent of families in 2022 held debt secured by a primary residence, similar to the percentage in 2019. As discussed in the Nonfinancial Assets section, about 66 percent of families in 2022 owned their principal residence. These numbers imply that almost two-thirds of homeowners have home-secured debt, while just over one-third of homeowners own their home free of debt.

For those with mortgage debt, the median and mean of home-secured debt were essentially flat between 2019 and 2022, with the median decreasing a fraction of 1 percent to $155,600 and the mean growing 1 percent to $212,400. Stable home-secured debt contrasts strongly with the surge in the reported market value of primary residences (table 3). This combination implies large gains in net housing wealth for homeowners (table 2 and box 3).

Credit card debt continued to be the most widely held type of debt in 2022, with more than 45 percent of families reporting a credit card balance after their last payment. Of those with credit card debt, the median family owed $2,700 in 2022, down a noticeable 14 percent from 2019. In 2022, just under 35 percent of families held vehicle loans, down 2 percentage points since 2019. Conditional median and mean balances on vehicle loans were largely unchanged between 2019 and 2022 at just over $15,000 and $21,000, respectively, despite large increases in conditional median and mean vehicle values (table 3).

As part of the fiscal support provided during the pandemic, the federal government placed the majority of education loans in automatic zero-interest forbearance, which was extended through the survey field period. Against this backdrop, the fraction of families that had student debt was stable at 22 percent. In addition, conditional median and mean balances on this debt were largely unchanged between 2019 and 2022. Median balances decreased from $25,800 to $24,500, and mean balances decreased from $46,800 to $46,600. (For more information on student debt, see box 5.)

In 2022, 18.5 percent of families held other installment loans, up 8 percentage points from 2019. These loans are often associated with purchases of furniture, appliances, and other durable goods, although the category also includes medical debt. For the first time in 2022, the SCF asked explicitly whether families had buy now, pay later (BNPL) plans, which allow a buyer to split the cost of a purchase into (typically four to six) equal installments. The growing popularity of BNPL explains nearly all the growth in installment loan holdings.[27] The conditional median and mean installment loan values fell between 2019 and 2022, by about $2,000 and $14,000, respectively, partly because BNPL products are typically used for smaller purchases.

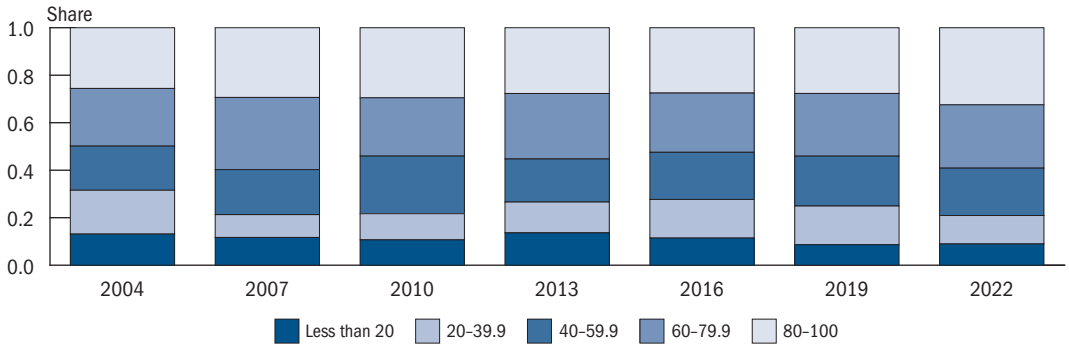
[27] In 2022, 7 percent of families reported a balance on a BNPL plan. Among these families, the respective median and mean balances were $300 and $1,400.

Box 5. Student Debt

Student debt continued to be the largest source, in dollar terms, of nonmortgage debt owed by families in 2022 (table 4). The relationship between student debt and economic well-being is theoretically ambiguous. On the one hand, student borrowing can permit valuable educational investment. Higher balances tend to reflect more time in school or more expensive education, both of which are often commensurate with better future economic positions. On the other hand, student borrowing can reflect lower socioeconomic status during schooling that persists into later periods. In addition, higher student debt balances may crowd out consumption or investment opportunities, either directly or indirectly (via reduced access to credit).[1]

Figure A shows the distribution of student debt across usual income quintiles since 2004.[2] In each survey year, student debt has been consistently concentrated among higher-income families, with more than half of the debt belonging to the top 40 percent of the usual income distribution and the bottom quintile never holding more than 14 percent. Further, beginning in 2016, the share of student debt has monotonically increased with income within each survey year, with student debt becoming increasingly skewed toward the top of the distribution over time.

Figure A. Distribution of student debt across usual income quintiles, 2004–22 surveys



Note: Key identifies usual income quintiles in the order that they appear on the figure, with the lowest quintile on the bottom and the highest quintile on the top.

[1] Student debt tends to peak at younger ages, when such investments may be particularly important but also when other measures of economic well-being, like income and wealth, are relatively subdued.

[2] According to statistics from the Federal Reserve Bank of New York's Household Debt and Credit Report, total outstanding student debt more than quadrupled between 2004 and 2022, from $300 billion to $1.6 trillion, and became the largest source of nonmortgage household debt in 2010.

Financial Vulnerability

The SCF data can be used to measure a family's financial debt burden. In addition, the SCF collects various measures of respondents' recent experiences with credit markets, such as information on credit applications and payment behavior.[28]

Debt Burden

The ability of individual families to service their loans is a function of many factors, including the level of their loan payments and the income and assets they have available to meet those payments. In planning their borrowing, families make assumptions about their future ability to repay their loans. Problems may occur when events turn out to be contrary to those assumptions. If economic shocks are sufficiently large and prevalent, a broad pattern of default, restraint in spending, and financial distress in the wider economy might ensue.

The SCF data can be used to construct three measures of debt burdens: leverage ratios, debt-to-income ratios, and payment-to-income ratios. Leverage ratios compare the amount of debt to asset values, debt-to-income ratios compare the amount of debt to income levels, and payment-to-income ratios compare payments made on debt relative to income. Each of the three ratios can be constructed either in aggregate or as a median for debtors.[29]

All three ratios, both in aggregate and as a median for debtors, decreased between 2019 and 2022, implying families faced lower debt burdens, after relatively broad-based increases across measures from 2016 to 2019 (table 5).[30] In 2022, the median leverage ratio for debtors was 29.2 percent, its lowest level since 2001; the median debt-to-income ratio for debtors was 95.1 percent, holding rather steady since 2016 but well below its 2004–13 levels; and the median payment-to-income ratio for debtors was 13.4 percent, its lowest level ever recorded in the SCF.[31]

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[28] The SCF also asks about families' shopping and decisionmaking related to borrowing and investing services. Families' intensity of shopping for borrowing or investing services remained stable at a moderate level from 2019 to 2022. In general, in 2022, families relied most heavily on the internet, personal connections, and business professionals for both borrowing and investing information.

[29] The aggregate is defined as the total amount of debt held (or payments) divided by the total assets held (or income) among all survey respondents. The median for debtors is defined as the median of each individual family's ratio among those carrying debt only.

[30] For definitions of the components of table 5, see appendix B.

[31] An alternative aggregate version of payment-to-income ratios is the debt service ratio. See Karen Dynan, Kathleen Johnson, and Karen Pence (2003), "Recent Changes to a Measure of U.S. Household Debt Service," *Federal Reserve Bulletin,* vol. 89 (October), pp. 417–26, https://www.federalreserve.gov/pubs/bulletin/2003/1003lead.pdf. A discussion of how this measure compares with the one presented here can be found in appendix B.

Table 5. Debt burdens and credit market experiences, 2010–22 surveys
Thousands of 2022 dollars

Measure of debt burden or interaction with credit markets	2010	2013	2016	2019	2022
Debt burden					
Leverage ratio					
Aggregate	16.4	14.6	12.1	12.6	10.7
Median for debtors	41.3	38.6	36.4	33.9	29.2
Debt-to-income ratio					
Aggregate	124.8	104.5	92.6	101.2	89.4
Median for debtors	118.8	107.3	95.1	95.7	95.1
Payment-to-income ratio					
Aggregate	14.7	12.0	10.8	11.8	9.9
Median for debtors	18.2	15.9	14.7	15.3	13.4
Fraction with payment-to-income ratio greater than 40 percent	10.4	8.2	7.0	7.4	6.5
Credit market experiences					
Credit constrained					
Turned down for credit (past year)	n.a.	n.a.	10.8	10.7	10.1
Did not apply for credit for fear of being turned down (past year)	n.a.	n.a.	14.4	12.7	12.9
Either turned down for credit or feared denial (past year)	n.a.	n.a.	20.8	18.4	18.4
Either turned down for credit or feared denial (past five years)	28.3	27.6	n.a.	n.a.	n.a.
Late on payments					
Late on payments	17.3	14.9	13.5	12.3	12.2
Late on payments 60 days or more	8.1	6.9	5.8	4.6	4.9
Took out a payday loan in past year	3.9	4.2	3.4	2.8	2.1
Declared bankruptcy in past five years	3.6	4.1	3.0	2.0	1.3
Had foreclosure start in past five years	n.a.	n.a.	n.a.	.5	.5
Use credit cards for convenience only (that is, do not carry a balance)	63.0	64.0	57.5	56.0	55.7

Note: See appendix B for a description of measures of debt burden and credit market experiences.
n.a. Not available (relevant data not collected).

An important indicator of potential financial distress is the proportion of families with particularly large debt burdens. In 2022, 6.5 percent of debtors had payment-to-income ratios greater than 40 percent, again the lowest value on record in the modern SCF.

Credit Market Experiences

The SCF asks several questions that attempt to capture whether families are credit constrained, two of which are (1) whether the family was turned down for credit over the past 12 months and (2) whether the family decided not to apply for credit during the past 12 months for fear of being turned down.[32] In 2022, just over 10 percent of families responded "yes" to the first question, and 13 percent responded "yes" to the second.

SCF families' capacity to stay current on their financial obligations was steady between 2019 and 2022 and remained well below 2010–13 levels (table 5). Families that have any debt at the time of their interview are asked whether they were behind on any of their loan payments in the preceding year. In 2022, 12.2 percent of families reported being late on payments, about the same as the 12.3 percent in 2019. The percentage of families that reported being 60 days late or more was 4.9 percent, a small increase since 2019 but a substantial decline since 2010 and 2013.

The SCF asks respondents if they have taken out a payday loan in the past year. Payday loans are unsecured loans that are typically small and short term, and they generally carry interest rates far exceeding those for conventional forms of credit. In 2022, about 2 percent of families reported taking out a payday loan, the lowest rate since the SCF added a question on payday loans in 2007.

Additional measures of financial distress are whether families have declared bankruptcy or experienced a foreclosure. Amid pandemic-related debt relief and foreclosure protections, in 2022, 1.3 percent of families reported having declared bankruptcy in the past five years, and about 0.5 percent of families reported having foreclosure proceedings brought against properties they owned in the past five years.[33]

Finally, between 2019 and 2022, the share of families that used a credit card exclusively for convenience (that is, they did not carry a balance) declined slightly, continuing a downward trend since 2013.

[32] This 12-month time frame differs from analogous questions in surveys before 2016, which had asked families about their experiences with credit constraints over the past five years. Consequently, table 5 reports only two years of historical data on credit constraints over the past 12 months.

[33] The SCF began asking about foreclosure experiences starting with the 2016 survey.

Appendix A: The Data in This Report

Data from the Survey of Consumer Finances (SCF) are the basis of the analysis presented in this report. The SCF is a triennial interview survey of U.S. families sponsored by the Board of Governors of the Federal Reserve System with the cooperation of the U.S. Department of the Treasury. Since 1992, data for the SCF have been collected by the National Opinion Research Center, a research organization at the University of Chicago. Although the majority of the data are collected between May and December of each survey year, 25 percent of interviews for the 2022 SCF were conducted between January and April 2023, somewhat elevated from previous surveys.

The majority of statistics included in this report describe the characteristics of "families." As used in this report, the SCF definition of "family" is more comparable with the U.S. Census Bureau definition of "households"—which can include one-person families—than with its use of "families." Appendix B provides full definitions of "family" for the SCF and the associated family "reference person," along with information about how demographic and economic groups are constructed for this report.

The survey collects information on families' income before taxes for the calendar year preceding the survey year. Otherwise, the bulk of the data covers the status of families as of the time of the interview, including detailed information on their balance sheets and use of financial services as well as on their pensions, labor force participation, and demographic characteristics. Most of the core survey questionnaire has changed in only minor ways relevant to this report since 1989. However, when the questionnaire has been modified at various points to enhance and update the survey, every effort has been made to ensure the maximum degree of comparability of the data over time.

The need to measure financial characteristics imposes special requirements on the sample design for the survey. The SCF is expected to provide reliable information on both attributes that are broadly distributed in the population (such as homeownership) and attributes that are highly concentrated in a relatively small part of the population (such as closely held businesses). To address this requirement, the SCF employs a sample design consisting of two parts: a standard, geographically based random sample and a special oversample of relatively wealthy families. For the 2022 survey, the geographically based random sample was redesigned to oversample families in particular racial and ethnic groups to measure the attributes of these families more precisely (see appendix B for details). Weights are used to combine information from the samples to construct estimates for the full population. In the 2022 survey, 4,602 families were interviewed, and in the 2019 survey, 5,783 families were interviewed.

This report draws principally on the final data from the 2022 and 2019 surveys. To provide a larger context, some information is also included from the final versions of earlier surveys.[34] Differences between estimates from earlier surveys as reported here and as reported in previous SCF articles are attributable to additional statistical processing, correction of minor data errors, revisions to the survey weights, conceptual changes in the definitions of variables used in the articles, and adjustments for inflation. In this report, all dollar amounts from the SCF are adjusted to 2022 dollars using the "current methods" version of the consumer price index for all urban consumers (CPI-U-RS).

The principal detailed tables (tables 1 through 4) describing income, net worth, and asset and debt holdings focus on the percentage of various groups that have such items and the median and mean holding for those that have them.[35] Generally, when one deals with data that exhibit very large values for a relatively small part of the population—as is the case for many of the items considered in this report—estimates of the median are often statistically less sensitive to such outliers than are estimates of the mean. At the same time, means are generally more useful for comparing across population subgroups, because every member of the group contributes equally to the overall average.

One liability of using the median as a descriptive device is that medians are not additive—that is, the sum of the medians of two items for the same population is not generally equal to the median of the sum (for example, median assets minus median liabilities will generally not equal median net worth). In contrast, means for a common population are additive. In the context of this report, where a comparable median and mean are given, the gain or loss of the mean relative to the median may usually be taken as indicative of the relative change at the top of the distribution; for example, when the mean exhibits larger growth than the median, it is typically taken to indicate that the values in the upper part of the distribution rose more than those in the lower part of the distribution.

To provide a measure of the statistical significance of the developments discussed in this report, standard errors caused by sampling and imputation for missing data are given for selected estimates. Space limits prevent the inclusion of the standard errors for all estimates. Although the statistical significance of the results generally is not addressed, the report highlights findings that are significant or are interesting in a broader context. Standard errors for all estimates in tables 1 and 2 are available on the SCF website.

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[34] Additional information about the survey is available on the Board's website at https://doi.org/10.17016/datasets.001.

[35] The median of a distribution is defined as the value at which equal parts of the population considered have values that are larger or smaller.

Appendix B: Survey Procedures and Statistical Measures

The 2022 data used here are derived from the final internal version of the survey information. Data from this survey, suitably altered to protect the privacy of respondents, along with additional tabulations of data from the surveys beginning with 1989, are expected to be available in October 2023 on the Federal Reserve Board's website.[36]

As part of the general reconciliations required for this report, the survey data were compared with many external estimates. One particularly important comparison is between the Survey of Consumer Finances (SCF) and the Federal Reserve's Statistical Release Z.1, "Financial Accounts of the United States," for the household sector.[37] This comparison suggests that when the definitions of the variables in the two sources are adjusted to a common conceptual basis, the estimates of totals in the two systems tend to be close. The data series in the SCF and in Statistical Release Z.1 usually show very similar growth rates.[38] In general, the median values for income and net worth in the SCF are most comparable with values in other household surveys because of the special design of the SCF sample.[39]

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[36] Data from the 2022 Survey of Consumer Finances as well as links to the data used in this report for earlier periods and links to working papers describing statistical methodologies are available on the Board's website at https://doi.org/10.17016/datasets.001.

[37] See Board of Governors of the Federal Reserve System (2023), Statistical Release Z.1, "Financial Accounts of the United States" (September 8), https://www.federalreserve.gov/releases/z1; and Michael Batty, Jesse Bricker, Joseph Briggs, Elizabeth Holmquist, Susan McIntosh, Kevin Moore, Eric Nielsen, Sarah Reber, Molly Shatto, Kamila Sommer, Tom Sweeney, and Alice Henriques Volz (2019), "Introducing the Distributional Financial Accounts of the United States," Finance and Economics Discussion Series 2019-017 (Washington: Board of Governors of the Federal Reserve System, March), https://dx.doi.org/10.17016/FEDS.2019.017.

[38] For details on how these comparisons are structured and the results of comparisons for earlier surveys, see Alice M. Henriques and Joanne W. Hsu (2013), "Analysis of Wealth Using Micro and Macro Data: A Comparison of the Survey of Consumer Finances and Flow of Funds Accounts," Finance and Economics Discussion Series 2013-46 (Washington: Board of Governors of the Federal Reserve System, May), https://www.federalreserve.gov/pubs/feds/2013/201346/201346pap.pdf; and Lisa J. Dettling, Sebastian J. Devlin-Foltz, Jacob Krimmel, Sarah J. Pack, and Jeffrey P. Thompson (2015), "Comparing Micro and Macro Sources for Household Accounts in the United States: Evidence from the Survey of Consumer Finances," Finance and Economics Discussion Series 2015-086 (Washington: Board of Governors of the Federal Reserve System, June), http://dx.doi.org/10.17016/FEDS.2015.086.

[39] Family income measures help highlight the issues that can arise when comparing SCF medians and means against other survey estimates. Over the 2019–22 period, estimates of inflation-adjusted household income for the previous year from the Current Population Survey (CPS) of the U.S. Census Bureau show an increase in both the median (2.1 percent) and the mean (4.4 percent). The change in the median is slightly smaller than the corresponding increase in the SCF, whereas the change in the mean is notably smaller. The medians for 2022 are similar in the SCF ($70,300) and the CPS ($75,900). Typically, the SCF shows a higher level of mean income than does the CPS; for 2022, the SCF yields an estimate of $141,900, while the CPS yields an estimate of $110,600. The two surveys differ in their definitions of the units of observation and in other aspects of their methodologies. Most relevant is the fact that a CPS household can contain more people than a corresponding SCF family. If the SCF measure is expanded to include the income of household members not included in the SCF definition of a family, the median rises 3.1 percent over the period (from $72,400 in 2019 to $74,700 in 2022), while the mean increases 14.7 percent (from $127,600 in 2019 to $146,300 in 2022). The substantial difference in means is likely largely the result of the truncation of large values in the CPS data above a certain amount, which is done with the intent of minimizing the possibility that participants in that survey might be identifiable.

Adjustment for Inflation

In this report, unless otherwise specified, all dollar amounts from the SCF are adjusted to 2022 dollars using the "current methods" version of the consumer price index (CPI) for all urban consumers. In an ongoing effort to improve accuracy, the U.S. Bureau of Labor Statistics has introduced several revisions to its CPI methodology. The current-methods index attempts to extend these changes to earlier years to obtain a series as consistent as possible with current practices in the official CPI.[40] Table B.1 includes the adjustments made to assets and liabilities to convert them to 2022 dollars and to adjust family income for the preceding calendar year, 2021, to 2022 dollars.

Table B.1. Inflation adjustment factors to 2022 dollars for assets and debts and income

Survey year	Adjustment factor for assets and debts in the survey year	Adjustment factor for income in the calendar year before the survey year
2010	1.3658	1.3879
2013	1.2728	1.2921
2016	1.2334	1.2493
2019	1.1592	1.1802
2022	1.0000	1.0809

Definition of "Family"

The definition of "family" used throughout this report differs from that typically used in other government studies. In the SCF, a household unit is divided into a primary economic unit (PEU)—the family—and everyone else in the household. The PEU is intended to be the economically dominant single person or couple (whether married or living together as partners) and all other persons in the household who are financially interdependent with that economically dominant person or couple.

This report also designates a reference person within the PEU, not to convey a judgment about how an individual family is structured but as a means of organizing the data consistently. For example, the age and educational classifications ascribed to families throughout this report describe the age and education of the reference person. If a couple is economically dominant in the PEU, the reference person is the male in a mixed-sex couple or the older person in a same-sex couple. If a single person is economically dominant, that person is designated as the family reference person in this report. Note that the term "reference person" is a new descriptor as of the 2019 survey, replacing the outdated "household head" terminology used in previous surveys.

[40] For technical information about the construction of this index, see Kenneth J. Stewart and Stephen B. Reed (1999), "Consumer Price Index Research Series Using Current Methods, 1978–98," *Monthly Labor Review,* vol. 122 (June), pp. 29–38.

Asset and Liability Categories

The specific concepts of asset and liability categories in the SCF are necessarily tied to the survey question wording and associated field interviewer instructions, both of which can be found in the SCF codebook for the year(s) in question.[41] What follows is a general exposition of the asset and liability categories reported in the tables.

Transaction accounts include checking, savings, and money market deposit accounts; money market funds (MMFs); call or cash accounts at brokerages; and prepaid debit cards. Call accounts include those that hold money received from the sale of securities until the money is reinvested. The savings account category includes a small number of tax-preferred accounts such as medical or health savings accounts and Coverdell or 529 education accounts. Prepaid debit cards, collected in the SCF for the first time in 2016, include reloadable prepaid debit cards and government benefit cards.

Certificates of deposit are accounts held for a set period of time that must be cashed or renewed at the maturity date. Savings bonds include only U.S. government issues; recent series include EE, HH, and I, and older bonds may be series E and H. Other bonds include only those held directly (not part of a managed investment account or bond fund) and include corporate and mortgage-backed bonds; federal, state, and local government bonds; and foreign bonds. Stocks include publicly traded stocks that are directly held—that is, corporate equities not held as part of a managed investment account, mutual fund, or retirement account.

Pooled investment funds include stock funds, tax-free bond funds, government bond funds, other bond funds, and any combinations thereof but exclude MMFs and indirectly held mutual funds. These funds include all other types of directly held pooled investments, such as traditional open-end and closed-end mutual funds, exchange-traded funds, real estate investment trusts, and hedge funds.

Retirement accounts include individual retirement accounts, Keogh accounts, and certain employer-sponsored accounts, such as 401(k), 403(b), and thrift savings accounts from current or past jobs; other current job plans from which loans or withdrawals can be made; and accounts from past jobs from which the family expects to receive the account balance in the future. This definition of employer-sponsored plans is intended to confine the analysis to accounts that are portable across jobs and for which families will ultimately have the option to withdraw the balance. Usually, such accounts may be invested in virtually any asset, including stocks, bonds, pooled

[41] Codebooks for each SCF wave can be found on the Board's website at https://doi.org/10.17016/datasets.001. SAS code that generates the asset and liability categories is available on the Board's website at https://www.federalreserve.gov/econres/files/bulletin.macro.txt. A web-based application for analyzing SCF data can be found at http://sda.berkeley.edu/sdaweb/analysis/?dataset=scfcomb2022.

investment funds, options, and real estate. In principle, employer-sponsored plans may be invested in a similarly broad way, but, in practice, a person's choices for investment are sometimes limited to a narrower set of assets.[42]

Cash value life insurance is the current (nonzero) value of any life insurance policies with a cash value that can be withdrawn. The survey measures the value of such policies according to their current cash value, not their death benefit. In this report, the cash value is included as an asset only when the cash value at the time of the interview was nonzero. This designation excludes term life insurance policies, which provide only a death benefit.

Other managed assets include personal annuities and trusts with an equity interest and managed investment accounts. Annuities may be those in which the family has an equity interest in the asset or in which the family possesses an entitlement only to a stream of income. The wealth figures in this report include only the annuities in which the family has an equity interest.[43] The trusts or managed investment accounts included in other managed assets are those in which families have an equity interest and for which components were not separately reported. Typically, such accounts are those in which the ownership is complicated or the management is undertaken by a professional.[44]

Other financial assets include oil and gas leases, futures contracts, royalties, proceeds from lawsuits or estates in settlement, cryptocurrency, and loans made to others. One specific financial asset excluded from this category is employment-related stock options.[45] Because such options are typically not publicly traded or their execution is otherwise constrained, their value is uncertain until the exercise date; until then, meaningful valuation would require complex assumptions about the future behavior of stock prices.

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[42] Although tax-deferred retirement assets are clearly an important element in retirement planning, families may hold a variety of other assets intended, at least in part, to finance retirement. Two common and often particularly important types of retirement plans are not included in the assets described in this section: Social Security (the federally funded Old-Age, Survivors,' and Disability Insurance program (OASDI)) and employer-sponsored defined-benefit plans. OASDI is well described elsewhere, and it covers the great majority of the population. (See Social Security Administration, "Online Social Security Handbook: Your Basic Guide to the Social Security Programs," Publication 65-008, https://www.ssa.gov/OP_Home/handbook/handbook.html.) The retirement income provided by defined-benefit plans is typically based on workers' salaries and years of work with an employer, a group of employers, or a union. Unfortunately, future income streams from OASDI and defined-benefit plans cannot be translated directly into a current value because valuation depends critically on assumptions about future events and conditions—work decisions, earnings, inflation rates, discount rates, mortality, and so on—and no widely agreed-upon standards exist for making these assumptions.

[43] In 2022, 4.8 percent of families reported having any type of annuity, and, of these families, 74.4 percent reported having an equity interest.

[44] In 2022, 92.9 percent of families with trusts or managed investment accounts had an equity interest in such an account. The survey encourages respondents who have trusts or managed investment accounts held in relatively common investments to report the components in the corresponding questions in the survey. Of the 6.0 percent of families that reported having any kind of trust or managed investment account in 2022, 61.3 percent of them reported at least one of the component assets separately. Of families that detailed the components in 2022, 90.3 percent reported some type of financial asset, 16.6 percent reported a primary residence, 12.5 percent reported other real estate, 4.6 percent reported a business, and 5.1 percent reported another type of asset.

[45] Stock options are generally excluded in the accounting in this report, except for stock option retirement plans, which are included in pensions.

Vehicles include cars, vans, sport utility vehicles, trucks, motor homes, recreational vehicles, motorcycles, boats, airplanes, and helicopters.[46] Primary residences include mobile homes and their sites, the parts of farms and ranches not used for farming or ranching business, condominiums, cooperatives, townhouses, other single-family homes, and other permanent dwellings. Other residential property includes second homes, time shares, one- to four-family rental properties, and other types of residential properties. It also includes outstanding balances on loans that the family may have made to finance the sale of properties the family previously owned and that are still owed to the family.

Nonresidential real estate includes the following types of properties unless they are owned through a business: commercial property, rental property with five or more units, farmland and ranch land, undeveloped land, and all other types of nonresidential real estate. Most often, nonresidential real estate properties are functionally more like a business than a residential property. They may have several owners, they are typically worth a considerable amount, and they often carry large mortgages, which appear to be paid from the revenues from the property, not the family's other income. As in the case of privately owned businesses, the value of the property in this analysis is taken to be the net value.

Business equity includes net worth in the following forms of business: sole proprietorships, limited partnerships, other types of partnerships, S corporations and other types of corporations that are not publicly traded, limited liability companies, and other types of private businesses. If the family lived on a farm or ranch used at least in part for agricultural business, then the value of that part, net of the corresponding share of associated debts, is included with other business assets. In the survey, self-employment status and business ownership are independently determined.

Debt secured by residential property consists of first-lien and junior-lien mortgages and home equity lines of credit (HELOCs) secured by the primary residence. For the purposes of this report, first- and junior-lien mortgages consist only of closed-end loans—that is, loans typically with a one-time extension of credit, a set frequency of repayments, and a required repayment size that may be fixed or vary over time in accordance with a pre-specified agreement or with changes in a given market interest rate.[47] As a type of open-ended credit, HELOCs typically allow credit extensions at the borrower's discretion subject to a prearranged limit and allow repayments at the borrower's discretion subject to a prearranged minimum size and frequency.

[46] Of families owning any type of vehicle in 2022, 99.7 percent had a car, van, sport utility vehicle, motorcycle, or truck. The remaining types of vehicles were held by 10.4 percent of families.

[47] Of all families, 40.6 percent had a first-lien mortgage in 2022 (39.6 percent in 2019), 1.2 percent had a junior-lien mortgage (1.5 percent in 2019), 6.9 percent had a HELOC (6.9 percent in 2019), and 3.5 percent had a HELOC with an outstanding balance (4.5 percent in 2019).

Lines of credit not secured by residential property are any lines of credit except HELOCs and borrowing on credit cards.

The term "installment loan" describes closed-end consumer loans—that is, loans that typically have fixed payments and a fixed term. The most common examples are education loans; automobile loans; and loans for furniture, appliances, and other durable goods. Other installment loans include all closed-end consumer loans that are not for education or a vehicle—that is, loans that typically have fixed payments and a fixed term. Beginning with the 2022 survey, balances on buy now, pay later payment plans—a type of short-term loan, usually for consumer goods, that allows an individual to spread payment for a purchase over several installments—are included with other installment loans.

Credit card balances consist of balances on bank-type cards (such as Visa, MasterCard, and Discover as well as Optima and other American Express cards that routinely allow holders to carry a balance), store cards or charge accounts, care cards, gasoline company cards, so-called travel and entertainment cards (such as American Express cards that do not routinely allow holders to carry a balance and Diners Club), other credit cards, and revolving store accounts that are not tied to a credit card. Balances exclude purchases made after paying the most recent bill.

The "other" debt category comprises loans on cash value life insurance policies, loans against pension accounts, borrowing on margin accounts, and a miscellaneous category largely composed of personal loans not explicitly categorized elsewhere.

Finally, the SCF measure of liabilities excludes debt owed by family-owned businesses and debt owed on nonresidential real estate; in this report, such debt is netted against the corresponding assets.

Measures of Debt Burden and Credit Market Experiences

The SCF includes several questions designed to capture information about respondents' debt burdens and interactions with credit markets. The specific concepts addressed in the SCF are necessarily tied to the survey question wording and associated field interviewer instructions, which can be found in the SCF codebook for the year(s) in question.[48] What follows is a general exposition of the debt burden and credit market experience measures reported in the tables.

Leverage ratios compare the total of all debts with the total of all assets. The aggregate version of this measure is the sum of all debts for all SCF respondents, divided by the sum of all assets for

[48] Codebooks for each SCF wave can be found on the Board's website at https://doi.org/10.17016/datasets.001.

SCF respondents. The median for debtors is the median of each individual family's leverage ratio and is calculated for those with positive values of total debt only.

The aggregate debt-to-income ratio is the sum of liabilities for all SCF respondents, divided by the total income for all SCF respondents. The median for debtors is the 50th percentile of an individual family's debt-to-income ratios and is calculated for those with positive values of total debt only.

Payment-to-income ratios measure total debt payments relative to the total income.[49] The aggregate version of this measure is the sum of all debt payments for all SCF respondents, divided by total income for all SCF respondents. The median for debtors is the 50th percentile of an individual family's payment-to-income ratios and is calculated for those with positive values of total debt only. For the purposes of the calculation of payment-to-income ratios, the relatively small share of families with income that was less than or equal to zero are assigned $100 of income in 2022 dollars.

The aggregate measure of the payment-to-income ratio referenced in this report can differ from other published measures that are conceptually similar, such as the debt service ratio, for several reasons.[50] First, the debt payments included in each measure are different. The aggregate-level measure includes only debts originated by depositories, finance companies, and other financial institutions, whereas the survey includes, in principle, debts from all sources. Second, the aggregate-level measure uses an estimate of disposable personal income from the national income and product accounts for the period concurrent with the estimated payments as the denominator of the ratio, whereas the survey measure uses total before-tax income reported by survey families for the preceding year; the differences in these two income measures are complex. Third, the payments in the aggregate-level measure are estimated using a formula that entails many assumptions about minimum payments and the distribution of loan terms at any given time; the survey measure of payments is directly asked of the survey respondents but may also include payments of taxes and insurance on real estate loans. Fourth, because the survey measures of payments and income are based on the responses of a sample of respondents, they may be affected both by sampling error and by various types of response errors. As mentioned earlier in this report, the survey income measure tracks the most comparable measure of income in the U.S. Census Bureau's Current Population Survey (CPS).

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[49] The definition of payment-to-income ratio in the SCF includes only debt payments, not payments on leases or rental payments. That said, the SCF collects information on vehicle lease payments and rent on primary residences. Therefore, the SCF can be used to create a broader measure of a family's payments that includes leases and rental payments. See, for example, Andrew C. Chang, Joanne W. Hsu, Sarah J. Pack, and Michael G. Palumbo (2018), "Where's the Money Going? The Importance of Accounting for Rent Payments in Measuring a Household's Financial Obligations," FEDS Notes (Washington: Board of Governors of the Federal Reserve System, June 20), https://doi.org/10.17016/2380-7172.2213.

[50] See Karen Dynan, Kathleen Johnson, and Karen Pence (2003), "Recent Changes to a Measure of U.S. Household Debt Service," *Federal Reserve Bulletin,* vol. 89 (October), pp. 417–26, www.federalreserve.gov/pubs/bulletin/2003/1003lead.pdf.

The SCF asks multiple questions intended to capture whether families are credit constrained, which is broadly defined as having difficulty accessing credit.[51] One question asks the respondent whether the respondent or the spouse or partner applied for particular types of credit in the past year. Among those that answer in the affirmative, a follow-up question asks the respondent whether a lender declined an application for credit or provided less credit than was sought at any point in the past year. Among those that answer in the negative, a follow-up question probes the rationale behind the decision not to apply for credit in the past year and, among other choices, offers "you did not think you would get approved" as a possibility. A combination of these questions is used to measure overall credit constraints.

Delinquency on debt obligations is captured by asking families that have any debt at the time of their interview whether they have been behind in any of their loan payments in the preceding year. The survey asks if respondents have been behind at all and if they have been behind in payments for 60 or more days.

Payday loans are defined as loans that are meant to be repaid in full out of the respondent's next paycheck; they are unsecured loans that are typically small, short term, and carry above-average interest rates.

Bankruptcy behavior over the past five years is based on a series of retrospective questions that ask whether the respondent or the partner or spouse has ever declared bankruptcy and, if so, the most recent year.

Foreclosure experience over the past five years is based on a series of retrospective questions that ask whether the respondent or the partner or spouse has ever had a foreclosure proceeding brought against an owned property and, if so, the most recent year.

Finally, convenience use of credit cards is determined using questions on whether a respondent had positive balances after the most recent payment for bank-type cards (such as Visa, MasterCard, and Discover as well as Optima and other American Express cards that routinely allow holders to carry a balance), store cards, gasoline company cards, and other credit cards.

Percentiles of the Distributions of Income and Net Worth

Throughout this report, references are made to various percentile groups of the distributions of income or net worth. For a given characteristic, a percentile can be used to define a family's rank relative to other families. For example, the 10th percentile of the distribution of usual income is

[51] Before 2016, these questions had asked families about their experiences over the past five years, rather than over the past year.

the amount of income received by a family for which less than 10 percent of other families have lower incomes and 90 percent have higher incomes. Table B.2 includes the percentiles of the distributions of income and net worth used to define the income and net worth groups in tables 1 and 2 and boxes 1 through 4 in the report.

The groups that are created when a distribution is divided at every 10th percentile are commonly referred to as deciles. Similarly, when a distribution is divided at every 20th (25th) percentile, the groups are known as quintiles (quartiles). Families in the first income decile, for example, are those with income below the 10th percentile.

Table B.2. Distribution of usual income and net worth by survey year, selected percentiles
2022 dollars

Item	Survey year					
	2007	2010	2013	2016	2019	2022
Percentile of usual income						
20	32,200	33,300	29,700	31,200	32,900	34,600
40	55,200	55,500	51,600	53,700	55,500	59,500
50	71,400	69,400	64,600	68,100	70,800	73,400
60	88,300	86,100	80,400	85,700	87,300	91,900
80	140,500	138,800	133,100	137,400	147,500	153,100
90	198,700	208,200	196,900	218,500	218,400	245,400
Percentile of net worth						
25	20,200	11,300	11,200	12,500	14,300	27,100
50	172,600	105,500	103,400	120,000	141,100	192,900
75	533,500	412,100	403,800	455,200	468,100	658,900
90	1,302,700	1,300,900	1,198,600	1,463,200	1,414,500	1,938,000

Racial and Ethnic Classifications

In this report, for continuity, we have classified families based on the survey respondent's self-identified race and ethnicity. Before 2022, the SCF only collected the race and ethnicity of the survey respondent. Beginning with the 2022 survey, race and ethnicity were collected for both the respondent and the spouse or partner. Using this classification instead of the reference person's race has only a small effect on the race category assigned to families.

For greater comparability with previous surveys, the data reported in this report group respondents into four classifications based on their responses to the racial identification question: white non-Hispanic, Black non-Hispanic, Hispanic or Latino, and other or multiple race. The "other or multiple race" classification includes (1) respondents identifying as Asian, American Indian, Alaska Native, Native Hawaiian, Pacific Islander, or other race; and (2) all respondents reporting more than one

racial identification.[52] Due to the racial and ethnic oversampling built into the survey design for 2022, tables 1 and 2 of this report break out, for the first time, Asian families as a separate racial/ethnic classification. Asian families were nearly 4 percent of 2022 families, and "other (non-Asian) or multiple race" families were more than 8 percent.

The questions underlying the method of classification used in the survey were changed in both 1998 and 2004. Starting in 1998, SCF respondents were allowed to report more than one racial identification; in surveys before then, only one response was recorded. For maximum comparability with earlier data, respondents reporting multiple racial identifications were asked to report their strongest racial identification first. In data reported in this report, respondents reporting multiple racial identifications in the surveys starting with 1998 are classified as "other or multiple race." In the 2022 SCF, 7.2 percent of respondents reported more than one racial identification, up from 6.7 percent in 2019, 6.1 percent in 2013, 5.4 percent in 2007, and 2.3 percent in 2004. The public release data set includes the ethnic identification and racial identification variables, enabling the construction of alternative classifications.

Beginning with the 2004 survey, the question on racial identification is preceded by a question on whether respondents consider themselves Hispanic or Latino in culture or origin; previously, such ethnic identification was captured only to the extent that it was reported as a response to the question on racial identification. The classifications in this report ignore the information on ethnic identification available in the surveys since 2004, again for greater comparability with earlier SCF data. Of those who responded affirmatively to the question on Hispanic or Latino identification in 2022, 93.8 percent also reported "Hispanic or Latino" as one of their racial identifications, and 81.6 percent reported it as their primary racial identification. Because the question on Hispanic or Latino ethnicity precedes the one on racial identification in the surveys from 2004 through 2022, the answer to the second of these two questions may have been influenced by the answer to the first.[53]

In 2022, the survey asked for the first time about the country of origin and number of years living in the U.S. for both the respondent and spouse or partner. This information is included in the microdata but is not detailed in this report.

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[52] Articles for years before the 2016 SCF reported data that classified all families into two groups: white non-Hispanic and non-white or Hispanic. The definition for white non-Hispanic in this report is consistent with that used in earlier years, while the non-white or Hispanic group has been split into three classifications (Black non-Hispanic, Hispanic or Latino, and other or multiple race).

[53] For a comprehensive discussion of standards for defining race and ethnicity, see Executive Office of the President, Office of Management and Budget (2000), "Provisional Guidance on the Implementation of the 1997 Standards for Federal Data on Race and Ethnicity," guidance document (Washington: EOP, December 15).

This all said, evolution of the racial and ethnic composition of the survey population represents important context for interpreting statistics describing the experiences of families by race or ethnicity over time. Table B.3 displays the share of the SCF population each racial or ethnic group has represented in each survey since 2007 using current survey classifications.

Table B.3. Composition of SCF families by race or ethnicity of the respondent, by survey year
Percent

Race or ethnicity of respondent	Survey year					
	2007	2010	2013	2016	2019	2022
White non-Hispanic	70.7	67.5	67.2	64.7	64.9	66.8
Black non-Hispanic	11.7	13.0	13.3	14.6	14.2	11.5
Hispanic or Latino	8.6	9.7	9.6	10.2	9.6	9.4
Other or multiple race	9.0	9.9	9.9	10.5	11.3	12.3

Note: SCF is Survey of Consumer Finances.

Classifications of Educational Attainment

In this report, the educational attainment of a family refers to the highest degree obtained by the reference person. Beginning with the 2016 survey, the SCF modified its educational attainment question to align the SCF more closely with other household surveys, including the census and CPS. For surveys before 2016, respondents were asked to list the highest grade of school or year of college completed, and follow-up questions asked the respondent about the type of degree obtained. Starting with the 2016 survey, the first educational attainment question asks about the highest degree obtained, and follow-up questions ask respondents who report a high school degree whether it was obtained by getting a General Educational Development certificate or completing another equivalency program. Follow-up questions also ask respondents who report some college about the number of years of college. It is possible this change may have prompted changes in reporting, although the educational attainment of SCF families was similar to that of CPS families in both 2013 and 2016.

Similar to race and ethnicity, evolution of the educational composition of the survey population represents important context for interpreting statistics describing the experiences of families by educational attainment over time. Table B.4 displays the share of the SCF population each education group has represented in each survey since 2007 using current survey classifications.

Table B.4. Composition of SCF families by educational attainment of the reference person, by survey year
Percent

Education of reference person	Survey year					
	2007	2010	2013	2016	2019	2022
No high school diploma	13.5	12.0	11.0	12.7	10.7	9.2
High school diploma	32.9	32.2	31.3	26.0	24.5	23.7
Some college	24.5	25.1	25.7	27.3	28.5	27.1
College degree	29.1	30.8	32.0	34.0	36.3	40.1

Note: SCF is Survey of Consumer Finances.

Age Classifications

In this report, the age of a family refers to the age of the reference person. Similar to race and ethnicity, as well as educational attainment, evolution of the age composition of the survey population represents important context for interpreting statistics describing the experiences of families by age over time. Table B.5 displays the share of the SCF population each age group has represented in each survey since 2007 using current survey classifications.

Table B.5. Composition of SCF families by age of reference person, by survey year
Percent

Age of reference person (years)	Survey year					
	2007	2010	2013	2016	2019	2022
Less than 35	21.6	21.0	20.8	20.3	20.9	20.0
35–44	19.6	18.2	17.3	16.8	16.6	17.0
45–54	20.8	21.1	19.6	18.3	17.2	16.4
55–64	16.8	17.5	18.7	19.2	18.8	18.4
65–74	10.5	11.5	12.9	14.1	15.3	16.1
75 or more	10.6	10.7	10.7	11.2	11.3	12.0

Note: SCF is Survey of Consumer Finances.

The Sampling Techniques

The survey is expected to provide a core set of data on family income, assets, and liabilities. The major aspects of the sample design that address this requirement have been largely constant since 1989. The SCF combines two techniques for random sampling. First, a standard multistage, area-probability sample (a geographically based random sample) is selected to provide good coverage of characteristics, such as homeownership, vehicles, and checking accounts, that are broadly distributed in the population.

In 2022, the survey adjusted its sampling approach for the area-probability sample to oversample households predicted to be Black non-Hispanic, Hispanic, or Asian.[54] The sampling rate for Black non-Hispanic, Hispanic, and Asian households was about 50 percent higher than a random sample solely based on geography.

Second, a supplemental sample is selected to disproportionately include wealthy families, which hold a relatively large share of such thinly held assets as noncorporate businesses and tax-exempt bonds. Called the "list sample," this group is drawn from a list of statistical records derived from tax returns. These records are used under strict rules governing confidentiality, the rights of potential respondents to refuse participation in the survey, and the types of information that can be made available. Persons listed by *Forbes* magazine as being among the wealthiest 400 people in the U.S. are excluded from sampling.[55]

Of the 4,602 interviews completed for the 2022 SCF, 3,298 were from the area-probability sample, and 1,304 were from the list sample; for 2019, 4,291 were from the area-probability sample, and 1,492 were from the list sample. Table B.6 contains the number of families represented in total by the surveys considered in this report.

Overall population growth between 2019 and 2022 was 1.6 percent, according to figures from the U.S. Census Bureau, similar to the 1.5 percent growth rate between 2016 and 2019. Also according to U.S. Census Bureau estimates, the number of households increased 1.9 percent between 2019 and 2022—slightly below the rate of household formation between 2016 and 2019, which was 2.1 percent. With the population growing at a slightly slower rate than household formation, the average number of persons per household barely changed, from 2.55 people in 2019 to 2.54 in 2022.

Table B.6. Number of families represented in the SCF, by survey year
Millions

Year	Number of families represented
2007	116.1
2010	117.6
2013	122.5
2016	126.0
2019	128.6
2022	131.3

Note: SCF is Survey of Consumer Finances.

[54] For more information, see Kevin B. Moore and Karen M. Pence (2021), "Improving the Measurement of Racial and Ethnic Disparities in the Survey of Consumer Finances," FEDS Notes (Washington: Board of Governors of the Federal Reserve System, June 21), https://doi.org/10.17016/2380-7172.2945.

[55] For more information, see Jesse Bricker, Alice Henriques, and Kevin Moore (2017), "Updates to the Sampling of Wealthy Families in the Survey of Consumer Finances," Finance and Economics Discussion Series 2017-114 (Washington: Board of Governors of the Federal Reserve System, November), https://doi.org/10.17016/FEDS.2017.114.

The Interviews

Although questions have been modified and new questions added over time, the core of the survey questionnaire has changed in only minor ways since 1989. Changes to the questionnaire generally include instances in which the structure was altered to accommodate changes in financial behaviors; changes in types of financial arrangements available to families, including those with businesses that are not publicly traded; and changes in regulations covering data collection. In 2016, interview sections on educational attainment, education loans, payment methods, and financial institutions were revised, and additional questions addressing financial literacy among respondents, parental educational attainment, and decisions under hypothetical financial situations have also been included.[56] For all changes, every effort has been made to ensure the maximum degree of comparability of the data over time. Except where noted in the report, the data are highly comparable over time.

The generosity of families in giving their time for interviews has been crucial to the ongoing success of the SCF. In the 2022 SCF, the median interview length was about 110 minutes; the increase over the 2019 SCF (100 minutes) was primarily due to the addition of a short module about experiences during the COVID-19 pandemic that began in 2020.[57] However, in some particularly complicated cases, the amount of time needed was substantially more than three hours. The role of the interviewers in this effort is also critical. Without their dedication and perseverance, the survey would not be possible.

The SCF interviews were conducted largely between the months of May and December in each survey year, with about one-fourth of interviews conducted in the first four months of the next calendar year, by the National Opinion Research Center, a social science and survey research organization at the University of Chicago. For the first time, in 2022 the majority of interviews were conducted by telephone, although in-person interviews were allowed if that method was preferred by the respondent. Each interviewer used a program running on a laptop computer to administer the survey and collect the data.

The use of computer-assisted personal interviewing has the great advantage of enforcing systematic collection of data across all cases. The computer program developed to collect the data for the SCF was tailored to allow the collection of partial information in the form of ranges whenever a respondent either did not know or did not want to reveal an exact dollar figure.

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[56] A detailed list of all changes to the questionnaire in 2016 is available on the Board's website at https://www.federalreserve.gov/econres/files/2016_scf_changes.txt.

[57] The module added for 2022 asks about families' experiences in the COVID-19 pandemic related to employment, financial struggles, government transfers, effect on childcare, and health outcomes. An upcoming FEDS Notes article discusses these questions and the results from the 2022 SCF and can be found on the Board's website at https://www.federalreserve.gov/econres/notes/feds-notes/default.htm.

The response rate in the area-probability sample is higher than in the list sample. In 2022, about 42 percent of households selected for the area-probability sample completed interviews, down from 60 percent in 2019. The list sample has targets for completed cases by wealth stratum; thus, the response rates for this part of the sample are achieved somewhat by construction. The overall response rate in 2022 for the list sample was 27 percent, slightly below the rate in 2019. The strata containing the likely wealthiest families, about half of the list sample, had a response rate around 20 percent, also down slightly compared with 2019.

Weighting

To provide a measure of the frequency with which families similar to the sample families could be expected to be found in the population of all families, an analysis weight is computed for each case, accounting for both the systematic properties of the sample design and differential patterns of nonresponse. The SCF response rates are low by the standards of some other major government surveys, and analysis of the data confirms that the tendency to refuse participation is highly correlated with net worth. However, unlike other surveys, which almost certainly also have differential nonresponse by wealthy households, the SCF has the means to adjust for such nonresponse. A major part of SCF research is devoted to the evaluation of nonresponse and adjustments for nonresponse in the analysis weights of the survey.[58]

Sources of Error

Errors may be introduced into survey results at many stages. Sampling error—the variability expected in estimates based on a sample instead of a census—is a particularly important source of error. Such error can be reduced either by increasing the size of a sample or, as is done in the SCF, by designing the sample to reduce important sources of variability. Sampling error can be estimated, and, for this report, we use replication methods to do so.

Replication methods draw samples, called replicates, from the set of actual respondents in a way that incorporates the important dimensions of the original sample design. In the SCF, weights were computed for all of the cases in each of the replicates.[59] Every value for which standard errors are provided in this report is a weighted statistic estimated using the replicate samples. To estimate the overall standard error, a measure of the variability of these estimates is combined with a measure of the variability because of imputation for missing data.

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[58] The weights used in this report are adjusted for differential rates of nonresponse across groups. See Arthur B. Kennickell (1999), "Revisions to the SCF Weighting Methodology: Accounting for Race/Ethnicity and Homeownership," working paper (Washington: Board of Governors of the Federal Reserve System, January), https://www.federalreserve.gov/econresdata/scf/files/weightrevision.pdf.

[59] See Arthur B. Kennickell (2000), "Revisions to the Variance Estimation Procedure for the SCF," working paper (Washington: Board of Governors of the Federal Reserve System, October), https://www.federalreserve.gov/econresdata/scf/files/variance.pdf.

Other errors include those that interviewers may introduce by failing to follow the survey protocol or misunderstanding a respondent's answers. SCF interviewers are given lengthy, project-specific training and ongoing coaching to minimize such problems. Respondents may introduce error by interpreting a question in a sense different from that intended by the survey. For the SCF, extensive pretesting of questions and thorough review of the data tend to reduce this source of error.

Nonresponse—either complete nonresponse to the survey or nonresponse to selected items within the survey—may be another important source of error. As noted in more detail previously, the SCF uses weighting to adjust for differential nonresponse to the survey. To address missing information on individual questions within the interview, the SCF uses statistical methods to impute missing data; the technique makes multiple estimates of missing data to allow for an estimate of the uncertainty attributable to this type of nonresponse.[60]

[60] See Arthur B. Kennickell (1998), "Multiple Imputation in the Survey of Consumer Finances," working paper (Washington: Board of Governors of the Federal Reserve System, October), https://www.federalreserve.gov/econresdata/scf/files/impute98.pdf.

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