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COVID-19 Pandemic Pinches Finances of America's Lower- and Middle-Income Families

Nearly one-in-five middle-income families report receiving unemployment benefits in 2020

BY Rakesh Kochhar and Stella Sechopoulos

FOR MEDIA OR OTHER INQUIRIES:

Rakesh Kochhar, Senior Researcher
Tanya Ardit, Communications Manager

202.419.4372
www.pewresearch.org

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How we did this

This report analyzes data from the [Annual Social and Economic Supplements](#) (ASEC) of the [Current Population Survey](#) (CPS) to study the effects of the coronavirus pandemic on the financial wellbeing of U.S. households in the middle class and in lower- and upper-income tiers. The latest available survey data, from March 2021, records the [household income](#) and [work experience](#) of adults in 2020, the first year of the pandemic.

The CPS is the U.S. government's official source for [monthly estimates of unemployment](#) and the ASEC, conducted in March each year, is the official source for its estimates of [income and poverty](#). In this report, the ASEC files were also matched from one year to the next to examine the annual movement of adults across income tiers over the period from 2000 to 2021.

The COVID-19 outbreak has affected data collection efforts by the U.S. government in its surveys, limiting in-person data collection and affecting the response rate. It is possible that some measures of economic outcomes and [how they vary across demographic groups](#) are affected by these changes in data collection. This report makes use of [updated weights](#) released by the Census Bureau to correct for nonresponse in 2019, 2020 and 2021.

Terminology

“Middle-income” households are defined as those with an income that is two-thirds to double that of the U.S. median household income, after incomes have been adjusted for household size. For a three-person household, the middle-income range was about \$52,000 to \$156,000 annually in 2020 (in 2020 dollars). Lower-income households have incomes less than two-thirds of the median, and upper-income households have incomes that are more than double the median.

Unless otherwise noted, incomes are adjusted for household size and scaled to reflect a household size of three. Adults are placed into income tiers based on their household income in the calendar year prior to the survey year. Thus, the income data in the report refer to the 1970-2020 period, and the demographic data from the same surveys refer to the 1971-2021 period.

The terms “middle class” and “middle income” are used interchangeably in this report, as are the terms “households” and “families.” The estimates presented pertain to households and adults living in households.

White, Black and Asian adults include those who report being only one race and who are not Hispanic. Hispanics are of any race. Asians include Native Hawaiian and other Pacific Islanders. Other racial and ethnic groups are included in all totals but are not shown separately.

COVID-19 Pandemic Pinches Finances of America's Lower- and Middle-Income Families

Nearly one-in-five middle-income families report receiving unemployment benefits in 2020

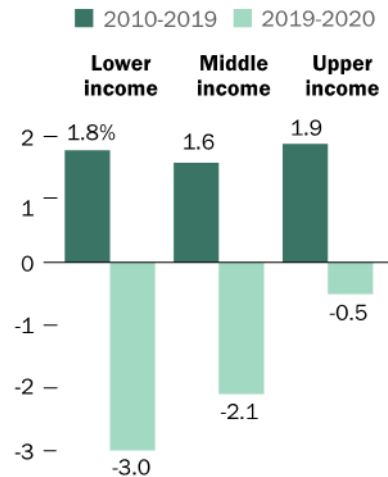
The financial hardships caused by the [COVID-19 recession](#) in the U.S. were endured mostly by lower- and middle-income families. From 2019 to 2020, the median income of lower-income households decreased by 3.0% and the median income of middle-income households fell by 2.1%. In contrast, the median income of upper-income households in 2020 was about the same as it was in 2019, according to a new Pew Research Center analysis of government data.

The setbacks to the finances of lower- and middle-income households during the pandemic mark a significant reversal from their recent experiences. From 2010 to 2019, following the end of the [Great Recession](#), the median incomes of households in all income tiers had increased at about the same pace – an annual average rate of 1.8% for lower-income families, 1.6% for middle-income families and 1.9% for upper-income families, after adjusting for inflation.

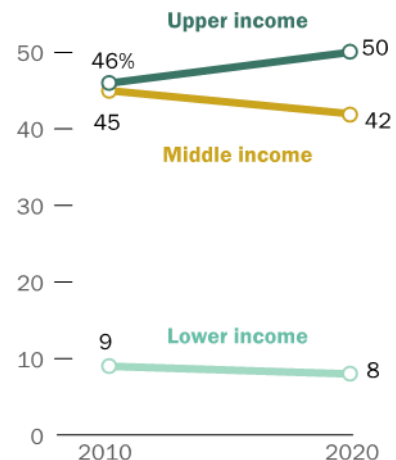
The [long-running shift](#) in the distribution of U.S. household income towards upper-income families stayed on track during the [coronavirus pandemic](#). The share of aggregate U.S. household income held by upper-income families reached 50% in 2020, up from 46% in 2010. The share held by middle-income families decreased from 45% to 42% over the same period. The share held by lower-income families also decreased, from 9% to 8%.

Finances of lower- and middle-income families took a hit in the pandemic

% change in household income, average annual rate after inflation



% of U.S. aggregate household income



Note: "Middle income" refers to household incomes two-thirds to double the national median household income, after adjusting for household size.

Source: Pew Research Center analysis of the Current Population Survey, Annual Social and Economic Supplement (IPUMS).

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The trends in income reflect the varying degrees to which adults in lower-, middle- and upper-income households were vulnerable to labor market turmoil in the COVID-19 recession. In 2020, about three-in-ten lower-income adults (28.2%) experienced unemployment at least some of the time during the year. Likewise, 13.8% of middle-income adults and 7.8% of upper-income adults had at least a spell of unemployment in 2020. Among adults overall, the rate stood at 15.0%. This rate, known as the “[work-experience unemployment rate](#),” is the number of adults who experienced unemployment at least some of the time during a year as a proportion of all adults who worked or looked for work in that year.¹

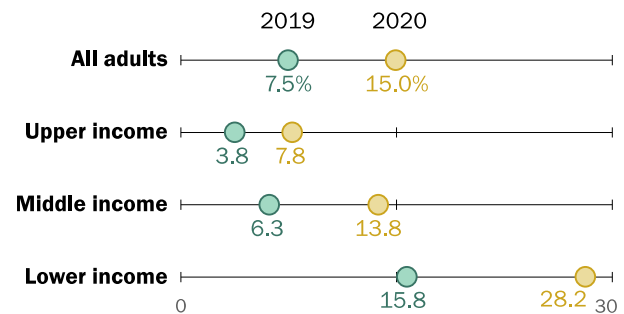
In a [Pew Research Center survey](#) conducted in January 2021, about a third of lower-income adults (31%) said their family’s situation had worsened in the last year, compared with 18% of middle-income adults and 11% of upper-income adults. At the same time, about half of lower-income adults (49%) said they or someone in their household had experienced job or wage loss since the coronavirus outbreak began in February 2020, as did 45% of middle-income adults. The share among upper-income adults (33%) was also notable, but considerably less.

The COVID-19 recession, which lasted [from February 2020 to April 2020](#), is the shortest in recorded history. But its effects were sharp. [Unemployment soared](#) to near-record highs and national output, as measured by the gross domestic product (GDP), [shrank in 2020](#). Although [employment](#) and [national output](#) have recovered to a great extent since 2020, new concerns have [emerged about inflation](#).

This report focuses on the impact of the pandemic on the financial wellbeing of households in the lower-, middle- and upper-income tiers, with comparisons to the Great Recession era. The analysis

About three-in-ten lower-income adults had an unemployment spell in 2020

% of adults who experienced unemployment at least some of the time during a calendar year



Note: The figures show the “work-experience unemployment rate,” or the ratio of adults who experienced unemployment at least some of the time during a year to all adults who worked or looked for work in that year. Only adults who worked less than 50 weeks in a year and looked for work are included among the unemployed.

Source: Pew Research Center analysis of the Current Population Survey, Annual Social and Economic Supplement (IPUMS). “COVID-19 Pandemic Pinches Finances of America’s Lower- and Middle-Income Families”

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¹ The more widely reported monthly [unemployment rate](#), which provides a snapshot of outcomes in a single week each month, averaged 8.1% over 2020. But, as reflected in the work-experience rate, encounters with unemployment over the course of a year were much more prevalent, especially among lower-income adults.

relies on the Annual Social and Economic Supplement (ASEC) of the Current Population Survey (CPS), conducted by the U.S. Census Bureau in March of each year. The [latest available survey data](#), from March 2021, records the household income and work experience of adults in 2020, the first year of the pandemic. A [related analysis](#) examines changes in the economic status of the American middle class from a historical perspective, including how the distribution of different demographic groups across the three income tiers has changed from 1971 to 2021.






Who is middle income or middle class?

In this analysis, “middle-income” adults in 2021 are those with an annual household income that was two-thirds to double the national median income in 2020, about \$52,000 to \$156,000 annually in 2020 dollars for a household of three. “Lower-income” adults have household incomes less than \$52,000 and “upper-income” adults have household incomes greater than \$156,000.

The income it takes to be middle income varies by household size, with smaller households requiring less to support the same lifestyle as larger households. The boundaries of the income tiers also vary across years with changes in the national median income.

Who is “middle income” and “upper income”?

Minimum 2020 household income needed to qualify for middle- and upper-income tiers, by household size

	1	2	3	4	5
					
UPPER INCOME	\$90,010	127,293	155,902	180,020	201,268
MIDDLE INCOME	\$30,003	42,431	51,967	60,007	67,089

Note: Middle-income Americans are adults whose annual size-adjusted household income is two-thirds to double the national median size-adjusted household income. Lower-income households have incomes less than two-thirds of the median and upper-income households have incomes that are more than double the median.

Source: Pew Research Center analysis of the 2021 Current Population Survey, Annual Social and Economic Supplement (IPUMS).

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The terms “middle income” and “middle class” are used interchangeably in this report for the sake of exposition. But being middle class can [refer to more than just income](#), be it level of education, the type of profession, economic security, home ownership, or one’s social and political values. Class also could simply be a [matter of self-identification](#).

U.S. households entered the pandemic era on the heels of robust growth in their incomes

In 2019, just before the start of the pandemic, the incomes of U.S. households were substantially higher than what they were in 2010. Among households overall, the median income had increased from \$68,004 in 2010 to \$79,475 in 2019, a gain of 17%. It stood in sharp contrast to the [reversal experienced from 2001 to 2010](#), a period encompassing the Great Recession, when incomes had decreased by 5%. The growth from 2010 to 2019 was also greater than the growth seen in any single decade since 1970. But the pandemic ate into some of the gains, causing the median income overall to fall to \$77,951 in 2020, a one-year loss of 2%.

For middle-class households, the median income had increased by 15%, from \$79,838 in 2010 to \$92,042 in 2019. The onset of the pandemic sent the median down to \$90,131 in 2020. Lower-income households had a similar experience, with their median income rising from \$26,371 in 2010 to \$30,877 in 2019, up 17%, and then falling to \$29,963 in 2020.

The finances of upper-income households were left relatively unscathed in the first year of the pandemic. Their median income in 2020 (\$219,572) was statistically no different than what it was in 2019 (\$220,783), and it stood about 18% higher than in 2010.

As a result of these trends, the income gap between upper-income and other households stretched a bit wider from 2010 to 2020. The median income of upper-income households had been 7.0 times greater than the median income of lower-income households in 2010. This ratio increased to

The COVID-19 pandemic put a stop to strong gains in income from 2010 to 2019 for households in all income tiers

Median income, in 2020 dollars and scaled to reflect a three-person household

All households



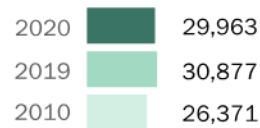
Upper income



Middle income



Lower income



Note: Households are assigned to income tiers based on their size-adjusted incomes in the calendar year prior to the survey year.

Source: Pew Research Center analysis of the Current Population Survey, Annual Social and Economic Supplement (IPUMS).

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7.3 in 2020. The ratio of the median income of upper-income households to the median income of middle-income households edged up from 2.3 in 2010 to 2.4 in 2020.

Unemployment insurance was a notable source of income for households with loss of work during the pandemic and the Great Recession

Despite the [historic spike in unemployment](#) during the COVID-19 recession, the unemployment experiences of workers during 2020 bore many similarities to their experiences in the Great Recession, which lasted from December 2007 to June 2009 but sent unemployment soaring through 2010.

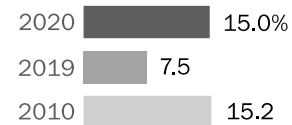
Among adults overall, the work-experience unemployment rate in 2020 (15.0%) was about the same as in 2010 (15.2%), just following the end of the Great Recession. But encounters with unemployment varied across income tiers. The work-experience unemployment rate for lower-income adults in 2020 (28.2%) was somewhat less than in 2010 (32.5%). Meanwhile, middle-income adults (13.8%) and upper-income adults (7.8%) saw slightly higher work-experience unemployment rates in 2020 than in 2010, when they stood at 12.8% and 6.6%, respectively.

Despite the sense of déjà vu evoked by the work-experience unemployment rate, the share of households reporting receipt of unemployment insurance payments was much higher in 2020 (15.4%) than in 2010 (9.6%). A key reason for this was the [extension of the eligibility for unemployment insurance](#) benefits in the pandemic. Workers usually not eligible for these benefits, such as self-employed workers and independent contractors, were allowed to receive benefits in 2020.

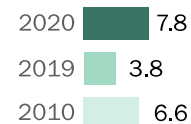
Unemployment spells in the COVID-19 pandemic were as common as in the Great Recession

% of adults who experienced unemployment at least some of the time during a calendar year

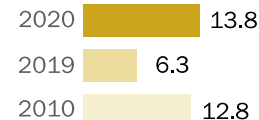
All adults



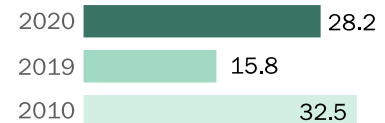
Upper income



Middle income



Lower income



Note: The figures show the “work-experience unemployment rate,” or the ratio of adults who experienced unemployment at least some of the time during a year to all adults who worked or looked for work in that year. Only adults who worked less than 50 weeks and looked for work are included among the unemployed.

Source: Pew Research Center analysis of the Current Population Survey, Annual Social and Economic Supplement (IPUMS).

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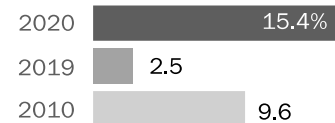
The extension of unemployment insurance benefits helped households in all income tiers. Nearly one-in-five middle-class households (18.0%) reported the receipt of these benefits in 2020, compared with 13.0% of lower-income households and 13.1% of upper-income households. These rates were higher than in 2010 for households in all income tiers. For instance, only about one-in-ten middle-income households (10.7%) received unemployment benefits in 2010.

The relatively low share of lower-income households receiving unemployment benefits in 2020, despite a higher work-experience unemployment rate, partly reflects the fact that lower-income adults are less likely to be in the labor force. In March 2020, the labor force participation rate among lower-income adults was 42.4%, compared with 69.1% among middle-income adults and 78.8% among upper-income adults. Lower-income adults are also more likely to be foreign-born, which [may affect eligibility](#), and evidence suggests that unemployment benefits [may not be reaching all who are eligible](#).

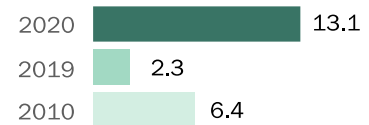
Unemployment benefits were more widespread during the pandemic than the Great Recession

% of households reporting receipt of unemployment insurance benefits

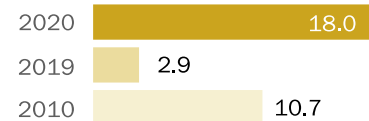
All households



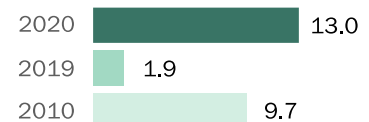
Upper income



Middle income



Lower income



Note: Households are assigned to income tiers based on their size-adjusted incomes in the calendar year prior to the survey year.

Source: Pew Research Center analysis of the Current Population Survey, Annual Social and Economic Supplement (IPUMS).

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For adults who experienced at least some joblessness, unemployment insurance payments were a valuable source of financial assistance during both the pandemic and the Great Recession. In 2020, these payments accounted for 29.5% of the aggregate income of lower-income households who received the benefits, albeit less than in 2010.

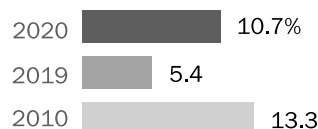
Unemployment insurance payments also accounted for 12.4% of the aggregate income of middle-income households, about the same as in 2010, and 4.6% of the aggregate income of upper-income households receiving the benefits, less than in 2010.

It should be noted that the reliance on unemployment insurance benefits may be underreported in the Current Population Survey, the source data for this analysis. Research based on personal earnings and benefits data from the IRS finds that unemployment insurance benefits replaced more of the lost personal earnings of low-income workers in 2020 than they did during the Great Recession. Regardless of the precise value of these benefits, it is evident that the estimated decline in the median incomes of lower- and middle-income households overall in 2020 may have been even greater in their absence.

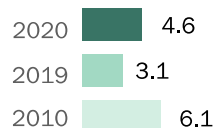
Unemployment benefits were a key source of income for lower- and middle-income households receiving them in 2020

Share of unemployment benefits in aggregate household income (%), among households receiving benefits

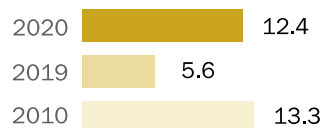
All households



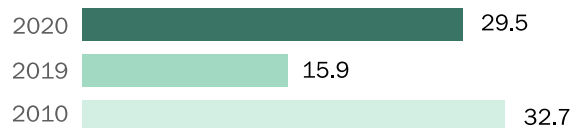
Upper income



Middle income



Lower income



Note: Households are assigned to income tiers based on their size-adjusted incomes in the calendar year prior to the survey year.

Source: Pew Research Center analysis of the Current Population Survey, Annual Social and Economic Supplement (IPUMS).

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Coronavirus economic impact payments to U.S. households in 2020

Unemployment insurance benefits were not the only source of financial relief available to U.S. households during the economic downturn in the COVID-19 pandemic. Among its many provisions, the [CARES Act](#) established two rounds of [economic impact payments](#) to U.S. households in 2020, both in the form of [refundable tax credits](#). These tax credits, amounting to about \$400 billion in direct financial assistance, are credited with a [reduction in the U.S. poverty rate](#) in 2020.

By design, the economic impact payments were directed towards lower- and middle-income families. In the 2021 CPS ASEC, some 97% of lower-income households, 100% of middle-income households and 53% of upper-income households reported that they received economic impact payments in 2020. Among households receiving the tax credits, the payments represented 13.9% of the aggregate income of lower-income households, 4.6% of the aggregate income of middle-income households, and 1.3% of the aggregate income of upper-income households.

The amount of payment received by each household in 2020, as recorded in the 2021 CPS ASEC, was [estimated by the Census Bureau](#) based on their tax model. The payments, disbursed as tax credits, boosted the disposable (after-tax) income of households, but they did not affect the gross (pre-tax) income of households, the income measure used in this report.

Americans moved across income tiers during the pandemic, but to about the same extent as in the past

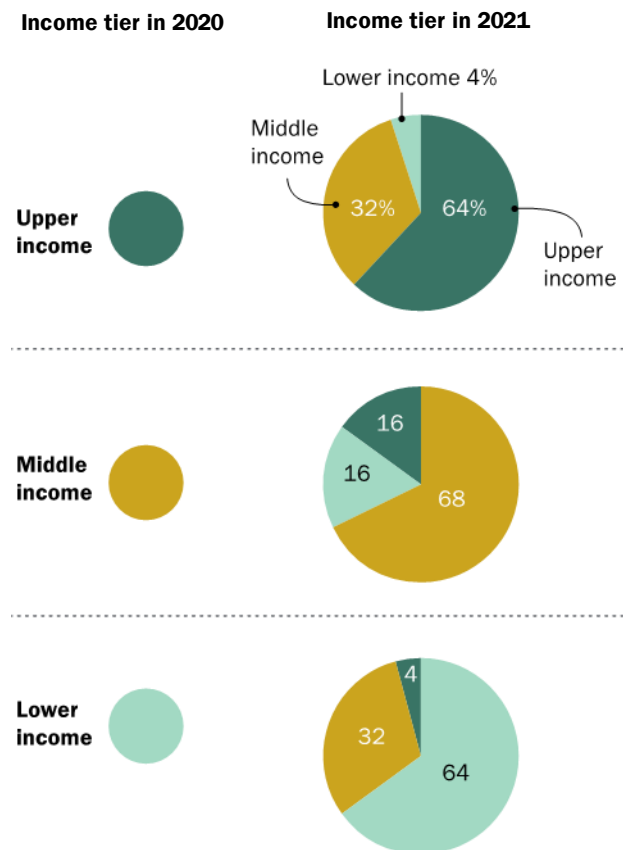
Despite the economic headwinds from the COVID-19 recession, the shares of U.S. adults who were living in lower-, middle- and upper-income households were unchanged in the pandemic. In 2021, some 50% of adults lived in middle-income households, 29% in lower-income households and 21% in upper-income households. In 2020, 51% were middle class, 29% were lower-income and 21% were upper-income. (The population shares for 2020 and 2021 are based on household incomes in 2019 and 2020, respectively. Shares may not add to 100% due to rounding.)

But the stability in the shares of American adults in the three income tiers conceals a fair degree of churn in *who* is lower-, middle- or upper income from one year to the next. Movements across income tiers are driven by changes in the earnings of households from one year to the next. These changes can be substantial, perhaps the result of a job lost or gained, or due to life cycle events, such as retirement, marriage, divorce, or a death in the family. On this score, the first year of the pandemic proved to be no different than in other years in the past two decades.

Among the adults who were in the middle class in 2020, some 68% remained in the middle class in 2021. Another 16% had moved into the upper-income tier in 2021 and 16% had slipped down to the lower-income tier. These shifts were similar in magnitude to those that have prevailed since 2000 (see more on this below).

About one-in-three middle-class adults moved to another income tier from 2020 to 2021, as did similar shares from lower- and upper-income tiers

% of adults in each income tier in 2021, by their income tier in 2020



Note: Adults are assigned to income tiers based on their size-adjusted household incomes in 2019 and 2020 as reported in the 2020 and 2021 surveys. The boundaries of income tiers are based on the median income of the full cross-section sample of households in each year.

Source: Pew Research Center analysis of the Current Population Survey, Annual Social and Economic Supplement (IPUMS).

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Similarly, among adults who were in the upper-income tier in 2020, some 64% held that status in 2021. About one-third (32%) had retreated to the middle-income tier and 4% had fallen to the lower-income tier by 2021. Among adults who were in the lower-income tier in 2020, nearly a third (32%) had progressed into the middle class and 4% had leapfrogged into the upper-income tier.

Adults who moved from the middle class in 2020 to the upper-income tier in 2021 saw a gain of 68% in their household income at the median. On the other hand, middle-class adults who moved to the lower-income tier from 2020 to 2021 experienced a loss of 52% in their household income. Similarly large changes in income characterized the experiences of lower-income adults who moved up to the middle class and upper-income adults who moved down to the middle.

The magnitude of the changes in income experienced by adults transitioning across income tiers is not unlike what has been seen in the past. [Other researchers](#) have recently examined the issue of income volatility using data from the IRS. They find that, from 2004 to 2020, about 30% of workers experienced a decline in their incomes of more than 10% from one year to the next and another 30% of workers saw an increase of more than 10%. These shares varied little over the 16-year period. Indeed, this pattern in income volatility has [prevailed for several decades](#).

Consistent with the pattern of income volatility, the rate at which adults move across income tiers from one year to the next, or stay put, has changed only modestly since 2000, the earliest year examined in this analysis. About seven-in-ten adults (74%) who were in the middle class in 2000 were still in the middle class in 2001. Slightly lower shares of adults retained their place in the middle class following the Great Recession, some 72% from 2010 to 2011, and in the first year of the pandemic, some 68% from 2020 to 2021.

The shares of middle-income adults moving up to the upper-income tier inched up across these three pairs of years, from 12% during 2000 to 2001, to 13% from 2010 to 2011, and then to 16% from 2020 to 2021. The share of middle-income adults

Shares of adults staying in their income tier from year-to-year have changed little since 2000

% of adults in an income tier in one year who did not move to another tier the next year

Upper income, no change in tier

2020-21	64%
2010-11	65
2000-01	63

Middle income, no change in tier

2020-21	68
2010-11	72
2000-01	74

Lower income, no change in tier

2020-21	64
2010-11	68
2000-01	67

Note: Adults are assigned to income tiers based on their size-adjusted household incomes in the calendar year prior to the survey year. The income-tier boundaries are based on the median income of the full cross-section sample of households in each year.

Source: Pew Research Center analysis of the Current Population Survey, Annual Social and Economic Supplement (IPUMS). "COVID-19 Pandemic Pinches Finances of America's Lower- and Middle-Income Families"

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moving down to the lower-income tier also edged up, from 14% during 2000 to 2001 to 16% from 2020 to 2021.

Retention rates in the lower-income and upper-income tiers have also changed little since 2000. From 64% to 68% of lower-income adults remained in that tier from 2000 to 2001, 2010 to 2011 or 2020 to 2021, and from 63% to 65% of upper-income adults stayed put in these years. For both groups of adults, most of the movement was either one tier up, from lower- to middle-income, or one tier down, from upper- to middle-income.

The degree to which adults moved up or down the income ladder annually since 2000 varied across some demographic groups in some instances. Among those in the middle-income tier, White and Asian adults were more likely than Black and Hispanic adults to move to the upper-income tier the next year. Adults with higher levels of education were less likely to move down from the upper-income tier and more likely to move up from the middle-income tier from one year to the next.

The share of adults in the middle class is unchanged since the Great Recession

The share of American adults in the middle class – unchanged in the pandemic – has also not changed since the Great Recession, at about 50% in both 2011 and 2021. The shares in the lower- and upper-income tiers saw little change, at 29% and about 21%, respectively.²

However, the share in the middle class had fallen from 2001 to 2011, from 54% to 51%. Over the same period, the share in the upper-income tier had edged up from 18% to 20%. A [companion report](#) looks at this issue from a historical perspective, including how different demographic groups have shifted across the three income tiers from 1971 to 2021.

Share of adults in the middle class has not changed since the Great Recession

% of adults in each income tier

	Lower income	Middle income	Upper income
2021	29%	50	21
2020	29	51	21
2011	29	51	20
2001	28	54	18

Note: Adults are assigned to income tiers based on their size-adjusted household incomes in the calendar year prior to the survey year. Shares may not add to 100% due to rounding.

Source: Pew Research Center analysis of the Current Population Survey, Annual Social and Economic Supplement (IPUMS). “COVID-19 Pandemic Pinches Finances of America’s Lower- and Middle-Income Families”

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² Although the income data in this report refer to the 2000-2020 period, the population data refer to the years in which the surveys were conducted, namely 2001 to 2021.

Acknowledgments

This report is a collaborative effort based on the input and analysis of the following individuals. Find related reports online at pewresearch.org/topic/economy-work/

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Juliana Horowitz, *Associate Director, Research*

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Stella Sechopoulos, *Research Assistant*

Rachel Minkin, *Research Associate*

Anna Brown, *Research Associate*

Tanya Ardit, *Communications Manager*

Gar Meng Leong, *Communications Associate*

Michael Keegan, *Senior Information Graphics Designer*

Travis Mitchell, *Copy Editor and Digital Producer*

Methodology

The demographic and income data in this report are derived from the Current Population Survey's Annual Social and Economic Supplements (ASEC), which are conducted in March of every year. The specific files used in this report are from March 1971 to March 2021 which contain data on the annual income of households from 1970 to 2020. Conducted jointly by the U.S. Census Bureau and the Bureau of Labor Statistics, the CPS is a monthly survey of about 60,000 households and is the source of the nation's official statistics on unemployment. The ASEC survey in March typically features a larger sample size (about 75,000 in recent years) and is the basis for the annual Census Bureau [report on income and poverty](#).

Nonresponse bias has been on the increase in the CPS in recent years and [increased substantially](#) during the coronavirus pandemic. The Census Bureau has [released updated survey weights](#), known as entropy balanced weights, to correct for nonresponse bias in the CPS. In this report, estimates from the March 2019 to March 2021 ASEC files are derived using the entropy balanced weights.

[Methodological and other revisions](#) to the CPS may also have an impact on estimated trends. For example, the 2015 ASEC introduced a [redesigned set of income questions](#), and definitions of key socioeconomic categories, such as [race](#) and [educational attainment](#), have changed over time.

The sample for this analysis is restricted to adults living in households. The CPS microdata used are the Integrated Public Use Microdata Series ([IPUMS](#)) provided by the University of Minnesota. The IPUMS assigns uniform codes, to the extent possible, to data collected in the CPS over the years. More information about the IPUMS, including variable definition and sampling error, is available at [IPUMS CPS](#).

Longitudinal analysis

The CPS data have the characteristic that, in principle, up to half the people interviewed in one year are also interviewed in the next year. Some of the analysis in this report exploits this feature to study the transitions of adults across income tiers from one year to the next over the period from 2000 to 2021.

More specifically, respondents who were in their fourth month of interviewing in the March CPS ASEC one year (Month-in-sample or MIS = 4) appear again in the March CPS ASEC the next year for their eighth and final interview (MIS = 8). Thus, respondents with MIS = 4 in March 2000 are matched to respondents with MIS = 8 in March 2001, respondents with MIS = 4 in March 2001 are matched to respondents with MIS = 8 in March 2002, and so on.

The creation and the analysis of the matched sample of adults was facilitated by the [linking variables available](#) in the IPUMS-CPS database. Additional edits were imposed to ensure that respondents who were matched from year to year were of the same sex, race and nativity. Age was allowed to advance by up to two years. Households were dropped if the identity of the household head had changed from one year to the next. See the [guidance provided](#) by the National Bureau of Economic Research (NBER) for more on the matching of CPS data over time.

The boundaries that define the income tiers in the longitudinal analysis were based on the median income of the full ASEC cross-section sample of households in each year. Thus, these boundaries vary from year to year, as in the cross-section analysis. Adults in their first year in the longitudinal sample were sorted into income tiers based on their household income in the first year and were resorted into income tiers in the second year based on their household income for that year.

It should be noted that, except for the computation of the boundaries of income tiers, the longitudinal analysis does not use the entropy balanced weights released by the Census Bureau as those pertain only to the full sample of survey respondents in a single year. Instead, the analysis uses the longitudinal weights in the IPUMS-CPS database ([LNKFW1YWT](#)). Also, longitudinal analyses may be subject to [attrition bias](#), the result of respondents exiting the sample prior to their second or subsequent rounds of interviews, perhaps because of an address change.

Income

Household income is the sum of incomes earned by all members of the household in the calendar year preceding the date of the survey. The CPS collects data on money income received (exclusive of certain money receipts, such as capital gains) before payments for such things as personal income taxes, Social Security, union dues and Medicare deductions. Non-cash transfers, such as food stamps, health benefits, subsidized housing and energy assistance, are not included. More detail on the definition of income in the CPS is available in the [documentation of the data](#). It should be noted that income data in the CPS public-use microdata files are top-coded to prevent the identification of a few individuals who might report very high levels of income.

The data on income and wealth are adjusted for inflation with the Consumer Price Index Research Series (CPI-U-RS) of the Bureau of Labor Statistics (BLS) as published in the [Census Bureau's income and poverty report](#). This is the price index series used by the Census Bureau to deflate the data it publishes on household income. Since 1978, this is the CPI-U-RS index as [published by the BLS](#). For years prior to 1978, the Census Bureau made its own adjustment to the CPI-U to approximate the trend in the CPI-U-RS.

The choice of a price index does not affect the allocation of households into lower-, middle- or upper-income categories at a point in time. That is because the same price index applies to the incomes of all households and does not affect their income-based rank. However, the choice of a price index does affect measures of absolute progress over time. For example, from 1970 to 2020, the price level rose either 567% (CPI-U) or 497% (CPI-U-RS). This means that someone earning \$10,000 per year in 1970 would be just as well off in 2020 earning either \$66,700 (using the CPI-U) or \$59,700 (using the CPI-U-RS).

When examining trends in economic indicators over time, it is generally desirable to avoid comparisons across different points of the business cycle. The income comparisons in this study are principally based on income data pertaining to 1970, 2010 and 2020. These dates encompass or are very near [periods of recessions](#) (December 1969 to November 1970, December 2007 to June 2009, and February 2020 to April 2020).

Households and families in Census data

The Census Bureau defines a household as the entire group of persons who live in a single dwelling unit. A household may consist of several persons living together or one person living alone. It includes the household head and all of their relatives living in the dwelling unit and also any lodgers, live-in housekeepers, nannies and other residents not related to the head of the household.

By contrast, a family is composed of all related individuals in the same housing unit. Single people living alone or with two or more adult roommates are not considered families according to the Census Bureau approach. In the vast majority of cases, each housing unit contains either a single family or single person living alone. In the case of roommates, one person is designated as the “householder” (usually whoever owns the unit or in whose name the lease is held), and the other person or persons are designated as secondary individuals. In a few cases, there are households with families in which neither adult is the householder. These families are designated as either related or unrelated subfamilies, depending on whether one of the adults is related to the householder.

Race, ethnicity, educational attainment, and marital status

In this report, White, Black and Asian adults are non-Hispanic. Hispanics are of any race. Asians include Native Hawaiian and Other Pacific Islanders.

“High school graduate” refers to those who have a high school diploma or its equivalent, such as a General Education Development (GED) certificate, and those who had completed 12th grade, but

their diploma status was unclear (those who had finished 12th grade but not received a diploma are excluded). Adults with “some college” include those with an associate degree and those who attended college but did not obtain a degree. In the estimates for 1971, adults with a bachelor’s degree or higher level of education are those who completed at least four years of college.

“Unmarried” includes married (spouse absent), never married, divorced, separated and widowed. “Married” refers to opposite-sex couples only in 1971 but includes same-sex couples in 2021.

Adjusting income for household size

Household income data reported in this study are adjusted for the number of people in a household. That is done because a four-person household with an income of, say, \$50,000 faces a tighter budget constraint than a two-person household with the same income. In addition to comparisons across households at a given point in time, this adjustment is useful for measuring changes in the income of households over time. That is because [average household size in the U.S.](#) decreased from 3.1 persons in 1970 to 2.5 persons in 2020, a drop of about 20%. Ignoring this demographic change would mean ignoring a commensurate loosening of the household budget constraint.

At its simplest, adjusting for household size could mean converting household income into per capita income. Thus, a two-person household with an income of \$50,000 would have a per capita income of \$25,000, double the per capita income of a four-person household with the same total income.

A more sophisticated framework for household size adjustment recognizes that there are economies of scale in consumer expenditures. For example, a two-bedroom apartment may not cost twice as much to rent as a one-bedroom apartment. Two household members could carpool to work for the same cost as a single household member, and so on. For that reason, many researchers make adjustments for household size using the method of “[equivalence scales](#).”

A common equivalence-scale adjustment is defined as follows:

Adjusted household income = Household income / (Household size)^N

By this method, household income is divided by household size exponentiated by “N,” where N is a number between 0 and 1.

Note that if $N = 0$, the denominator equals 1. In that case, no adjustment is made for household size. If $N = 1$, the denominator equals household size, and that is the same as converting household income into per capita income. The usual approach is to let N be some number between 0 and 1. Following [other researchers](#), this study uses $N = 0.5$. In practical terms, this means that household income is divided by the square root of household size – 1.41 for a two-person household, 1.73 for a three-person household, 2.00 for a four-person household and so on.

One issue with adjusting for household size is that while demographic data on household composition pertain to the survey date, income data typically pertain to the preceding year. Because household composition can change over time, for example, through marriage, divorce or death, the household size that is measured at the survey date may not be the same as that at the time the income was earned and spent.

Once household incomes have been converted to a “uniform” household size, they can be scaled to reflect any household size. The income data reported in this study are computed for three-person households, the closest whole number to the average size of a U.S. household since 1970. That is done as follows:

Three-person household income = Adjusted household income * $[(3)^{0.5}]$

Adjusting for household size does [have an effect on trends in income](#) since 1970. However, it is important to note that once the adjustment has been made, it is immaterial whether one scales incomes to one-, two-, three- or four-person households. Regardless of the choice of household size, the same results would emerge with respect to the trends in the wellbeing of lower-, middle- and upper-income groups.

The work-experience unemployment rate

The U.S. Bureau of Labor Statistics (BLS) defines the [work-experience unemployment rate](#) as “the number of persons unemployed at some time during the year as a proportion of the number of persons who worked or looked for work during the year.” This estimate is based on data collected in the March CPS ASEC surveys on the work activities of respondents during the previous calendar year. Thus, the 2021 ASEC has data on people’s work activities in 2020.

The [widely reported unemployment rate](#) has a reference period of only one week, i.e., it is based on the work activities of respondents during the reference week of the [basic monthly CPS](#). Because the March CPS ASEC has a one-year reference period, the number of persons it measures as having some employment or unemployment is greater than the number measured in a typical

monthly CPS. For example, [according to the BLS](#), the work-experience estimate shows 26.4 million people had a spell of unemployment in 2020. But the annual average of the monthly estimates of unemployment from the basic CPS was 12.9 million.

This analysis follows the BLS definition for estimating the work-experience unemployment except for two differences. First, the sample in this report is adults living in households. The BLS sample consists of people ages 16 and older, including those in group quarters. Second, in this report people who worked 50 or more weeks in a year are counted as not having experienced unemployment. The BLS counts anyone who worked less than 52 weeks during the year as unemployed as long as they also reported looking for work or being on layoff during the year.

Statistical significance

Comparisons between estimates are tested for statistical significance using the [replicate weights](#) in the CPS ASEC data. For 2019 through 2021, the replicate weights for a respondent are adjusted by the ratio of the entropy balanced weight for that respondent to the unadjusted March supplement weight. All tests for statistical significance are conducted using 95% confidence intervals.