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# The American Middle Class Is Losing Ground

No longer the majority and falling behind financially

#### FOR MEDIA OR OTHER INQUIRIES:

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#### **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 \$42,000 to \$126,000 annually in 2014 (in 2014 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 previous to the survey year. Thus, the income data in the report refer to the 1970-2014 period, and the demographic data from the same survey refer to the 1971-2015 period.

Whites, blacks and Asians include only the single-race, non-Hispanic component of those groups. Hispanics are of any race. Asians include Pacific Islanders. Other racial/ethnic groups are included in all totals but are not shown separately.

Adults with a high school education are those who have obtained a high school diploma or its equivalent, such as a General Educational Development (GED) certificate. Adults with "some college" education comprise those completing associate degrees as well as those completing any college at all, including less than one year. Prior to 1990, adults "with at least a college degree" refer to those who completed at least four years of college.

"Unmarried" includes "married, spouse absent," never married, divorced, separated and widowed. "Married" includes opposite-sex couples only, because trends are not available for same-sex couples. "With children at home" includes adults with at least one biological, adopted or step child of any age in the household.

"Foreign born" refers to people born outside of the United States, Puerto Rico or other U.S. territories to parents neither of whom was a U.S. citizen, regardless of legal status. The terms "foreign born" and "immigrant" are used interchangeably in this report.

"U.S. born" refers to individuals who are U.S. citizens at birth, including people born in the United States, Puerto Rico or other U.S. territories, as well as those born elsewhere to parents who were U.S. citizens.

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#### **Overview**

After more than four decades of serving as the nation's economic majority, the American middle class is now matched in number by those in the economic tiers above and below it. In early 2015, 120.8 million adults were in middle-income households, compared with 121.3 million in lower- and upper-income households combined, a demographic shift that could signal a tipping point, according to a new Pew Research Center analysis of government data.<sup>1</sup>

In at least one sense, the shift represents economic progress: While the share of U.S. adults living in both upper- and lower-income households rose alongside the declining share in the middle from 1971 to 2015, the share in the upper-income tier grew more.

Over the same period, however, the nation's aggregate household income has substantially shifted from middle-income to upper-income households, driven by the growing size of the upper-income tier and more rapid gains in income at the top. Fully 49% of U.S. aggregate income went to upper-income households in 2014, up from 29% in 1970. The share accruing to middle-income households was 43% in 2014, down substantially from 62% in 1970.<sup>2</sup>

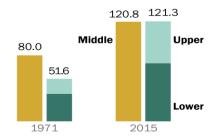
And middle-income Americans have fallen further behind financially in the new century. In 2014, the median income of these households was 4% less than in 2000. Moreover, because of the housing market crisis and the Great Recession of 2007-09, their median wealth (assets minus debts) fell by 28% from 2001 to 2013.

Meanwhile, the far edges of the income spectrum have shown the most growth. In 2015, 20% of American adults were in the

## The middle class is losing ground

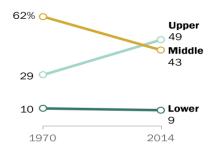
## Middle-income Americans are no longer in the majority ...

Adult population by income tier (millions)



#### ... and share of aggregate income held by middle-income households has plunged

% of U.S. aggregate household income



Note: The assignment to income tiers is based on size-adjusted household incomes in the 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 Supplements, 1971 and 2015

<sup>&</sup>lt;sup>1</sup> The difference between the two population estimates is not statistically significant.

<sup>&</sup>lt;sup>2</sup> The key data source for the report is the Current Population Survey, Annual Social and Economic Supplement for 1971 to 2015. In the survey, respondents provide household income data for the previous calendar year. Thus, income data in the report refer to the 1970-2014 period and the demographic data from the same survey refer to the 1971-2015 period.

lowest-income tier, up from 16% in 1971. On the opposite side, 9% are in the highest-income tier, more than double the 4% share in 1971. At the same time, the shares of adults in the lower-middle or upper-middle income tiers were nearly unchanged.

These findings emerge from a new Pew Research Center analysis of data from the U.S. Census Bureau and the Federal Reserve Board of Governors. In this study, which examines the changing size, demographic composition and economic fortunes of the American middle class, "middle-income" Americans are defined as adults whose annual household income is two-thirds to double the national median, about \$42,000 to \$126,000 annually in 2014 dollars for a household of three.<sup>3</sup> Under this definition, the middle class made up 50% of the U.S. adult population in 2015, down from 61% in 1971.

The state of the American middle class is at the heart of the economic platforms of many presidential candidates ahead of the 2016 election. Policymakers are engaged in debates about the need to raise the floor on wages and on how best to curb rising income inequality. Meanwhile, President Barack Obama uses the term "middle-class economics" to describe his economic agenda.<sup>4</sup> And a flurry of new research points to the potential of a larger middle class to provide the economic boost sought by many advanced economies.<sup>5</sup>

The news regarding the American middle class is not all bad. Although the middle class has not kept pace with upper-income households, its median income, adjusted for household size, has risen over the long haul, increasing 34% since 1970. That is not as strong as the 47% increase in income for upper-income households, though it is greater than the 28% increase among lower-income households.<sup>6</sup>

Moreover, some demographic groups have fared better than others in moving up the income tiers, while some groups have slipped down the ladder. The groups making notable progress include older Americans, married couples and blacks. Despite this progress, older Americans and blacks remain more likely to be lower income and less likely to be upper income than adults overall. Those Americans without a college degree stand out as experiencing a substantial loss in economic status.

In addition to changes in the size and economic standing of the American middle class, its demographic profile has changed significantly in recent decades. Some of the changes reflect long-

<sup>&</sup>lt;sup>3</sup> Incomes are first adjusted for household size.

<sup>&</sup>lt;sup>4</sup> Council of Economic Advisers (2015).

<sup>&</sup>lt;sup>5</sup> See Ostry, Berg and Tsangarides (2014), Summers and Balls (2015), Dabla-Norris et al. (2015) and Cingano (2014).

<sup>&</sup>lt;sup>6</sup> Some researchers, such as <u>Burtless (2015)</u> and <u>Feldstein (2015)</u>, make the case that the Current Population Survey data understate household income growth.

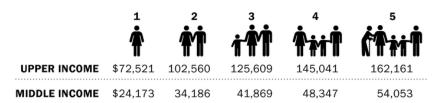
term demographic trends in the U.S., as the middle class is in many ways a mirror of the broader population. For example, the aging of the country, the growing racial and ethnic diversity, the decline in marriage rates and the overall rise in educational attainment are all reflected in the changing composition of the middle class.

## Who is middle income?

In this report, "middleincome" households are

#### Who is "middle income" and "upper income"?

Minimum 2014 household income needed to qualify for middle- and upperincome tiers, by household size



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 2015 Current Population Survey, Annual Social and Economic Supplement

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defined as those with an income that is 67% to 200% (two-thirds to double) of the overall median household income, after incomes have been adjusted for household size. Lower-income households have incomes less than 67% of the median, and upper-income households have incomes that are more than double the median.

#### Middle income or middle class?

The terms "middle income" and "middle class" are often used interchangeably. This is especially true among economists who typically define the middle class in terms of income or consumption. But being middle class can connote more than income, be it a college education, white-collar work, economic security, owning a home, or having certain social and political values. Class could also be a state of mind, that is, it could be a matter of self-identification (Pew Research Center, 2008, 2012). The interplay among these many factors is examined in studies by Hout (2007) and Savage et al. (2013), among others.

This report uses household income to group people. For that reason, the term "middle income" is used more often than not. However, "middle class" is also used at times for the sake of exposition.

<sup>&</sup>lt;sup>7</sup> See Methodology for the method used to adjust incomes for household size. The median income splits the income distribution into two halves – half the households earn less than the median and half the households earn more. The median is not affected by extreme highs and lows in reported incomes. It is also not affected by changes in the top codes assigned to income values in the public use versions of the source data, the Current Population Survey.

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. For a three-person household, the middle-income range was about \$42,000 to \$126,000 annually in 2014. However, a one-person household needed only about \$24,000 to \$73,000 to be middle income. For a five-person household to be considered middle income, its 2014 income had to range from \$54,000 to \$162,000.8

In addition, the lower-income group is divided into lowest-income households (with income less than half of the overall median) and lower-middle income households (with incomes from half to less than two-thirds of the overall median). In 2014, a lowest-income household with three people lived on about \$31,000 or less, and a lower-middle income household lived on about \$31,000 to \$42,000.9

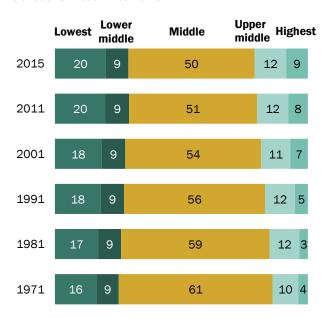
Likewise, upper-income households are divided into upper-middle income households (with more than twice the overall median income and up to three times the median) and highest-income households (with more than three times the overall median income). In 2014, an upper-middle income household with three people lived on about \$126,000 to \$188,000, and a highest-income household lived on more than \$188,000.

#### The middle class shrinks

The hollowing of the American middle class has proceeded steadily for more than four decades. Since 1971, each decade has ended with a smaller share of adults living in middle-income households than at the beginning of the decade, and no single decade stands out as having triggered or hastened the decline in the middle.

## Share of adults living in middle-income households is falling

% of adults in each income tier



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

Source: Pew Research Center analysis of the Current Population Survey, Annual Social and Economic Supplements

<sup>&</sup>lt;sup>8</sup> All dollar figures in the report are expressed in 2014 prices.

<sup>&</sup>lt;sup>9</sup> Unless otherwise noted, incomes are adjusted for household size and converted to reflect a household size of three.

Based on the definition used in this report, the share of American adults living in middle-income households has fallen from 61% in 1971 to 50% in 2015. The share living in the upper-income tier rose from 14% to 21% over the same period. Meanwhile, the share in the lower-income tier increased from 25% to 29%. Notably, the 7 percentage point increase in the share at the top is nearly double the 4 percentage point increase at the bottom.

The rising share of adults in the lower- and upper-income tiers is at the farthest points of the income distribution, distant from the vicinity of the middle. The share of American adults in the lowest-income tier rose from 16% in 1971 to 20% in 2015. Over the same period, the share of American adults in lower-middle income households did not change, holding at 9%.

The growth at the top is similarly skewed. The share of adults in highest-income households more

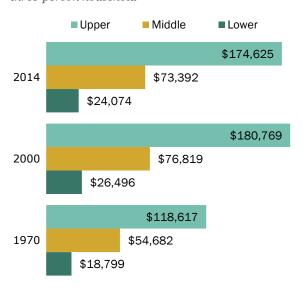
than doubled, from 4% in 1971 to 9% in 2015. But the increase in the share in upper-middle income households was modest, rising from 10% to 12%. Thus, the closer look at the shift out of the middle reveals that a deeper polarization is underway in the American economy.

# The middle class falls further behind upper-income households financially

The gaps in income and wealth between middle- and upper-income households widened substantially in the past three to four decades. As noted, one result is that the share of U.S. aggregate household income held by upper-income households climbed sharply, from 29% in 1970 to 49% in 2014. More recently, upper-income families, which had three times as much wealth as middle-income families in 1983, more than doubled the wealth gap; by 2013, they had seven times as much wealth as middle-income families.

# Growth in income for middle-income households is less than the growth for upper-income households since 1970

Median income, in 2014 dollars and scaled to reflect a three-person household



Note: Households are assigned to income tiers based on their sizeadjusted income in the calendar year prior to the survey year.

Source: Pew Research Center analysis of the Current Population Survey, Annual Social and Economic Supplements, 1971, 2001 and 2015

<sup>10</sup> The shrinking share of adults in middle-income households also plays a role in this transfer of aggregate income.

#### **Trends in income**

Households in all income tiers experienced gains in income from 1970 to 2014. But the gains for middle- and lower-income households lagged behind the gains for upper-income households.

The median income of upper-income households increased from \$118,617 in 1970 to \$174,625 in 2014, or by 47%. That was significantly greater than the 34% gain for middle-income households, whose median income rose from \$54,682 to \$73,392. Lower-income households fell behind even more as their median income increased by only 28% over this period.

Although 2014 incomes are generally higher than in 1970, all households experienced a lengthy period of decline in the 21st century thanks to the 2001 recession and the Great Recession of

2007-09. The greatest loss was felt by lower-income households, whose median income fell 9% from 2000 to 2014, followed by a 4% loss for middle-income households and a 3% loss for upper-income households.

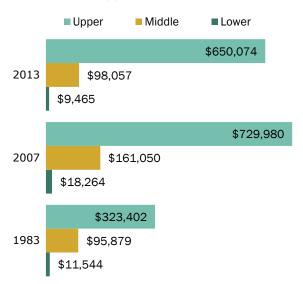
#### Trends in wealth

The Great Recession of 2007-09, which caused the latest downturn in incomes, had an even greater impact on the wealth (assets minus debts) of families. The losses were so large that only upper-income families realized notable gains in wealth over the span of 30 years from 1983 to 2013 (the period for which data on wealth are available).<sup>11</sup>

Before the onset of the Great Recession, the median wealth of middle-income families increased from \$95,879 in 1983 to \$161,050 in 2007, a gain of 68%. But the economic downturn eliminated that gain almost entirely. By 2010, the median wealth of middle-income families had fallen to about \$98,000, where it

## The wealth gap between upper- and middle-income families is growing

Median net worth of families, in 2014 dollars



Note: Net worth is the difference between the value of assets owned by a family and the liabilities it holds. Families are assigned to income tiers based on their size-adjusted income. Net worth is not adjusted for family size.

Source: Pew Research Center analysis of Survey of Consumer Finances public-use data

<sup>&</sup>lt;sup>11</sup> The data on wealth are from the Survey of Consumer Finances and pertain to families, not households. Although often the same, the two are slightly different units of analysis as explained in Methodology. Wealth is not adjusted for family size.

still stood in 2013.

Upper-income families more than doubled their wealth from 1983 to 2007 as it climbed from \$323,402 to \$729,980. Despite losses during the recession, these families recovered somewhat since 2010 and had a median wealth of \$650,074 in 2013, about double their wealth in 1983.

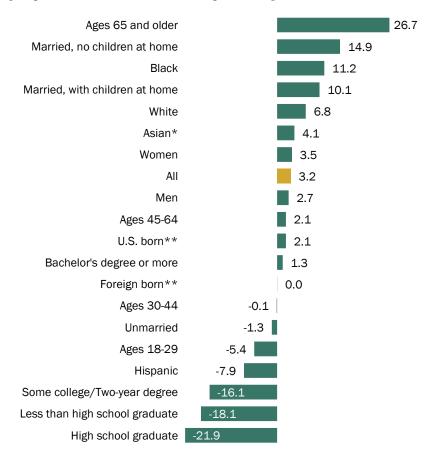
The disparate trends in the wealth of middle-income and upper-income families are due to the fact that housing assumes a greater role in the portfolios of middle-income families. The crash in the housing market that preceded the Great Recession was more severe and of longer duration than the turmoil in the stock market. Thus, the portfolios of upperincome families performed better than the portfolios of middle-income families from 2007 to 2013. When all is said and done, upper-income families, which had three times as much wealth as middle-income families in 1983, had seven times as much in 2013.

## Demographic winners and losers

As the middle has hollowed, some demographic groups have been more likely to advance up the income tiers (winners) while others were

# Older people, married couples and black adults improved their income status more than other groups from 1971 to 2015

Change in a group's share that is upper income minus the change in the group's share that is lower income (% point change)



Note: \* Change was calculated from 1991 to 2015 because data were not available in 1971. \*\* Change was calculated from 2001 to 2015. Whites, blacks and Asians include only single-race non-Hispanics. Hispanics are of any race. Asians include Pacific Islanders.

Source: Pew Research Center analysis of the Current Population Survey, Annual Social and Economic Supplements

more likely to retreat down the economic ladder (losers).

Nationally, the share of adults in the upper-income tier increased from 14% in 1971 to 21% in 2015, a gain of 7 percentage points. Meanwhile, the share of adults in the lower-income tier also rose, from 25% to 29%, an increase of 4 percentage points. The difference – 3 percentage points – is the *net* gain for American adults. By the same measure, the net gain in economic status varied across demographic groups.<sup>12</sup>

The biggest winners since 1971 are people 65 and older. This age group was the only one that had a smaller share in the lower-income tier in 2015 than in 1971. Not coincidentally, the poverty rate among people 65 and older fell from 24.6% in 1970 to 10% in 2014. Evidence shows that rising Social Security benefits have played a key role in improving the economic status of older adults. The youngest adults, ages 18 to 29, are among the notable losers with a significant rise in their share in the lower-income tiers.

The economic status of adults with a bachelor's degree changed little from 1971 to 2015, meaning that similar shares of these adults were lower-, middle- or upper-income in those two years. Those without a bachelor's degree tumbled down the income tiers, however. Among the various demographic groups examined, adults with no more than a high school diploma lost the most ground economically.

Winners also include married adults, especially couples where both work. On the flip side, being unmarried is associated with an economic loss. This coincides with a period in which marriage overall is on the decline but is increasingly linked to higher educational attainment.

Gains for women edged out gains for men, a reflection of their streaming into the labor force in greater numbers in the past four decades, their educational attainment rising faster than among men, and the narrowing of the gender wage gap.<sup>15</sup>

Among racial and ethnic groups, blacks and whites came out winners, but Hispanics slipped down the ladder. Although blacks advanced in income status, they are still more likely to be lower income and less likely to be upper income than whites or adults overall. For Hispanics, the overall loss in income status reflects the rising share of lower-earning immigrants in the adult population,

<sup>&</sup>lt;sup>12</sup> An increase in a group's share that is upper income or a decrease in a group's share that is lower income signals an improvement in economic status. A decrease in a group's share that is upper income or an increase in a group's share that is lower income signals a deterioration in economic status. A 1 percentage point increase or decrease in a group's share that is lower income is given the same weight as a 1 percentage point increase or decrease in the group's share that is upper income.

<sup>&</sup>lt;sup>13</sup> <u>U.S. Census Bureau</u> (Table 3).

<sup>&</sup>lt;sup>14</sup> Engelhardt and Gruber (2004).

<sup>&</sup>lt;sup>15</sup> Pew Research Center (2013).

from 29% in 1970 to 49% in 2015. Considered separately, both U.S.-born and foreign-born Hispanics edged up the economic tiers.

#### Road map to the report

This report divides households into three income tiers – lower income, middle income and upper income – depending on how their income compares with overall median household income. The analysis focuses on changes in the size and demographic composition of the three income tiers and on trends in their economic wellbeing. Unless otherwise noted, incomes are adjusted for household size and scaled to reflect a household size of three.

Households that are in the lower-, middle- or upper-income tier in one year are compared with households that are in one of those tiers in another year. The analysis does not follow the same households over time, and some households that were middle income in one year, say, may have moved to a different tier in a later year. The demographic composition of each income tier may also have changed from one year to the next.

The next section of the report describes the size of the U.S. adult population in each income tier and analyzes how it changed from 1971 to 2015. The lower- and upper-income tiers are also subdivided into two tiers each for a closer examination of the dispersion of the adult population: lowest income, lower-middle income, upper-middle income and highest income.

The report then turns to a demographic analysis of the three main income tiers. First, the report examines how changes in the size of lower-, middle- and upper-income tiers have played out differently across demographic groups. The key demographic breaks include age, marital status, gender, race and ethnicity, nativity, education, occupation and industry. Next, the report briefly examines the demographic composition of the middle-income population and how it compares with the population of adults overall and adults in lower- and upper-income tiers.

The final two sections of the report focus on the economic wellbeing of middle-income households, including how it has changed over time and how it compares with the wellbeing of lower- and upper-income households. The first of these two sections examines trends in household income and the second focuses on family wealth, assets and debts.

#### 1. The hollowing of the American middle class

The share of the American adult population that is middle income is falling, and rising shares are living in economic tiers above and below the middle. The hollowing of the middle has proceeded steadily for four decades, and it may have reached a tipping point. Once in the clear majority, adults in middle-income households (based on the definition of "middle income" used in this report) in 2015 were matched in number by those in lower- and upper-income households combined.

The analysis also finds that the movement out of the middle has not simply been at the margins – the growth has been at the extreme ends of the income ladder. The shares of adults living in lower-middle income or upper-middle income brackets are relatively unchanged since 1971. Meanwhile, the fastest-growing numbers are in the very lowest and very highest income tiers.

The diminishing size of the middle is not all bad news, however. The share of U.S. adults living in both upper- and lower-income households rose from 1971 to 2015, but the share in the upper-income tier grew more. On balance, there is more economic progress than regression.

These findings emerge from Pew Research Center's analysis of data from the Census Bureau's Current Population Survey for 1971 to 2015. The specific data analyzed are from the Annual Social and Economic Supplement, conducted in March of each year, in which respondents provide household income data for the previous calendar year. For this reason, adults who were surveyed in a given year are classified as lower, middle or upper income based on their household income in the previous year. In this report, income data refer to the 1970-2014 period and the demographic data from the same survey refer to the 1971-2015 period.

#### What it takes to be middle income has changed over time

Middle-income households are defined as those with an income that is 67% to 200% (two-thirds to double) of the overall median household income, after incomes have been adjusted for household size. Lower-income households have incomes less than 67% of the median, and upper-income households have incomes that are more than double the median.<sup>17</sup>

<sup>&</sup>lt;sup>16</sup> The data files used in this report are sourced from the <u>Integrated Public Use Microdata Series (IPUMS)</u> provided by the University of Minnesota (Flood, King, Ruggles and Warren, 2015).

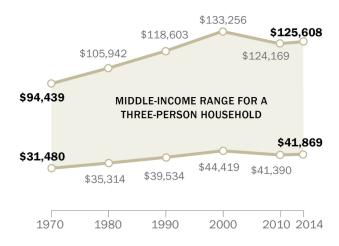
<sup>&</sup>lt;sup>17</sup> The basic conclusion that a shrinking share of the adult population lives in the middle has been found to be true under a range of middle-income definitions. They include defining the middle as incomes between 75% and 150% of the overall median (Pew Research Center, 2008), income between 75% and five times the U.S. poverty line (Burkhauser, Cutts, Daly and Jenkins, 1999), and income within 50% of the median (Krueger, 2012).

Because overall median household income in the U.S. has changed over time, the minimum amount it takes to be middle income has also changed. As shown in more detail in section 4, household incomes overall increased from 1970 to 2000 and then fell thereafter. The setbacks since 2000 may be traced to two recessions – the 2001 recession and the Great Recession of 2007-09 – and the slow economic recoveries after each.

As the median income overall increased in the years prior to 2000, the threshold for attaining middle-income status increased, from about \$31,000 in 1970 to about \$44,000 in 2000, for three-person households. With the economic reversals in the 21st century, the threshold fell to \$41,000 in 2010. The economic stability more recently has pushed the threshold closer to \$42,000 in 2014.

#### Who is middle income?

In 2014 dollars and scaled to three-person household



Source: Pew Research Center analysis of the Current Population Survey, Annual Social and Economic Supplements, 1971, 1981, 1991, 2001, 2011 and 2015

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The top end of the middle-income range has changed similarly over time. In 1970, middle-income households could have an income as high as \$94,000. This limit rose to \$133,000 by 2000, but then decreased to \$126,000 by 2014.

#### How many adults are middle income?

The share of adults who live in middle-income households has fallen since 1971. In 2015, 50% of American adults were middle income, compared with 61% in 1971. The shrinking of the middle has been a steadily ongoing process, through the ups and downs of the U.S. economy.

As the share of middle-income adults has decreased, the shares at the high and low ends of the income distribution have grown. The share of the adult population in the upper-income tier rose from 14% in 1971 to 21% in 2015. The share in the lower-income tier also increased, from 25% in 1971 to 29% in 2015.

Thus, from 1971 to 2015, the distribution of adults by income has hollowed in the middle, with greater shares living at the top and the bottom. The 7 percentage point gain at the top is nearly double the 4 percentage point growth at the bottom.

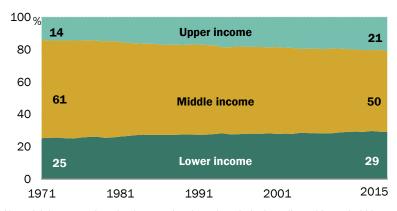
In terms of numbers,
American adults who lived in
middle-income households in
2015 were matched by those
who did not. Of the total
adult population of 242.1
million in 2015, 120.8 million
were middle income and
121.3 million were either low
income or upper income. By

contrast, in 1971, the 80 million middle-income adults greatly outnumbered the other 51.6 million adults. 18

As the middle-income population hovers near minority status, the population of upper-income adults is growing more rapidly than the population of lower-income adults. From 1971 to 2015, the number of adults in upper-income households increased from 18.4 million to 51 million, a gain of 177%. During the same period, the number of adults in lower-income households increased from 33.2 million to 70.3 million, a gain of 112%.

#### Share of adults living in middle-income households is in steady decline, and share in lower- and upperincome households is rising

% of adults in each income tier



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

Source: Pew Research Center analysis of the Current Population Survey, Annual Social and Economic Supplements

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# Adults in middle-income households are now fewer in number than adults in other households

Adult population by income tier (millions)

	Lower	Middle	Upper	AII
2015	70.3	120.8	51.0	242.1
2011	68.0	117.6	46.6	232.2
2001	57.6	111.2	38.3	207.0
1991	50.1	102.1	31.0	183.2
1981	42.4	94.8	24.6	161.7
1971	33.2	80.0	18.4	131.6

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

Source: Pew Research Center analysis of the Current Population Survey, Annual Social and Economic Supplements

<sup>18</sup> The group quarters population (for example, residents of dormitories or nursing homes) is excluded from these counts.

#### A closer look at the rise of lower- and upper-income populations

A more detailed analysis of the income distribution of adults reveals that a deeper polarization is underway in the American economy. The movement out of the middle-income tier has been more than just a step in one direction or the other. The fastest-growing segments are the ones at the extremes, the very lowest and highest ends of the income distribution.

This finding emerges from a division of the lower- and upper-income tiers into two groups each. The lower-income group is divided into lowest-income households (with income less than half the overall median) and lower-middle income households (with incomes from half to less than two-thirds of the overall median). In 2014, a lowest-income household lived on about \$31,000 or less, and a lower-middle income household lived on about \$31,000 to \$42,000.

In a similar fashion, upper-income households are divided into upper-middle income households (whose income is more than two and up to three times the overall median income) and highest-income households (with more than three times the overall median income). In 2014, an upper-middle income household lived on about \$126,000 to \$188,000, and a highest-income household lived on more than \$188,000.

The division of the adult population into five income tiers shows that the number of lowest-income adults grew more sharply than the number of lower-middle income adults from 1971 to 2015. Among upper-income adults, the number in the highest-income tier grew more than the number in the upper-middle tier over the same period.

#### Income range for middle-income households and households in other income tiers

In 2014 dollars and scaled to reflect a three-person household

	Lowest	Lower middle	Middle	Upper middle	Upper
2014	< \$31,402	\$31,402 - \$41,868	\$41,869 - \$125,608	\$125,609 - \$188,412	> \$188,412
2010	< \$31,042	\$31,042 - \$41,389	\$41,390 - \$124,169	\$124,170 - \$186,253	> \$186,253
2000	< \$33,314	\$33,314 - \$44,418	\$44,419 - \$133,256	\$133,257 - \$199,884	> \$199,884
1990	< \$29,651	\$29,651 - \$39,533	\$39,534 - \$118,603	\$118,604 - \$177,905	> \$177,905
1980	< \$26,486	\$26,486 - \$35,313	\$35,314 - \$105,942	\$105,943 - \$158,913	> \$158,913
1970	< \$23,610	\$23,610 - \$31,479	\$31,480 - \$94,439	\$94,440 - \$141,659	> \$141,659

Source: Pew Research Center analysis of the Current Population Survey, Annual Social and Economic Supplements, 1971, 1981, 1991, 2001, 2011 and 2015

<sup>&</sup>lt;sup>19</sup> Incomes are scaled to a household size of three. The poverty threshold for a household of three was \$18,850 in 2014, as determined by the <u>U.S. Census Bureau</u>.

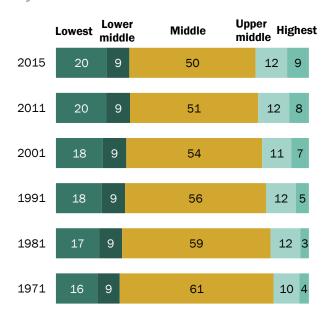
In 2015, 20% of U.S. adults lived in the lowest-income households, compared with 16% in 1970. Just 9% of the adult population lived in lower-middle income households in 2015 and 1971. Thus, the growth in the nation's lower-income tier was concentrated at the very bottom.

Mirroring the change at the low end of the distribution, the growth of the upper-income adult population skews to the very top. The share of adults in highest-income households more than doubled, from 4% in 1971 to 9% in 2015. Meanwhile, the increase in the share of adults in upper-middle income households was more modest, from 10% in 1971 to 12% in 2015.

Thus, the distribution of adults by income is thinning in the middle and bulking up at the edges. The number of adults in highest-income households quadrupled from 5 million in 1971 to 20.9 million in 2015, and the number in upper-middle income households more than doubled, from 13.4 million in 1971 to 30.2 million in 2015. The number of adults

# Share of adults living in lowest- and highest-income households has risen the most

% of adults in each income tier



Note: Adults are assigned to income tiers based on their sizeadjusted household income in the calendar year prior to the survey year. Figures may not add to 100% due to rounding.

Source: Pew Research Center analysis of the Current Population Survey, Annual Social and Economic Supplements

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in lowest-income households also rose sharply, from 21.6 million in 1971 to 48.9 million in 2015. The growth in numbers in between – in lower-middle and middle-income households – was more modest. The adult population in lower-middle income households increased from 11.6 million in 1971 to 21.4 million in 2015, and the number of adults in middle-income households increased from 80 million to 120.8 million over the period.

# 2. Changes in income status vary across demographic groups

The shrinkage of the middle-income tier among American adults, and the growth of the upper-

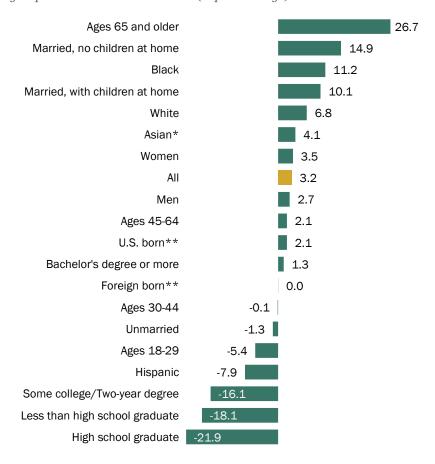
and lower-income tiers, has played out differently among demographic groups. This section identifies upwardly and downwardly mobile groups (winners and losers) by comparing changes in their income status over two time periods.

From 1971 to 2015, adults overall experienced more movement up the economic ladder than down the ladder. The upper-income share increased 7 percentage points, from 14% to 21%, and the lower-income share increased 4 percentage points, from 25% to 29%. Thus, the net gain in income status from 1971 to 2015 is 3 percentage points.

The gain in economic status was more modest in the shorter term. From 2001 to 2015, the share of adults in the upper-income tier increased 3 percentage points, from 18% to 21%, and the share in the lower-income tier increased 1 percentage point, from 28%

# Older people, married couples and black adults improved their income status more than other groups from 1971 to 2015

Change in a group's share that is upper income minus the change in the group's share that is lower income (% point change)



Note:  $^*$  Change was calculated from 1991 to 2015 because data were not available in 1971.  $^*$  Change was calculated from 2001 to 2015. Whites, blacks and Asians include only single-race non-Hispanics. Hispanics are of any race. Asians include Pacific Islanders.

Source: Pew Research Center analysis of the Current Population Survey, Annual Social and Economic Supplements

to 29%. The net gain in income status from 2001 to 2015 is 1 percentage point (calculated before rounding).

The biggest winners overall are people ages 65 and older. They are most likely to have moved up the income ladder since both 1971 and 2001. They are less likely to be lower income and more likely to be upper income than they used to be. Other age groups gained only slightly or lost ground.

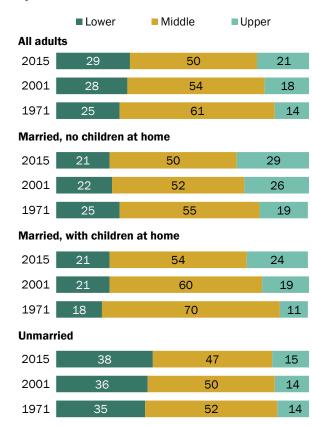
Among the contributors to increased income status of older adults is that relatively more of them are working.<sup>20</sup> In addition, Social Security continues to provide a reliable source of income – more than 55% of total income on average – and is linked to the long-term decline in poverty among older adults.<sup>21</sup> Despite their improving economic status, though, older adults lag behind adults overall in the shares that are middle income or upper income.

Married adults, whether with or without children at home, also were winners, while their unmarried counterparts lost ground. (This is somewhat related to the differences by age, since married adults tend to be older than unmarried adults.) U.S.-born adults gained more ground than foreign-born adults. And women, helped by their increasing educational attainment, fared somewhat better than men.

This section also explores differences by race and ethnicity, educational attainment,

## Married adults are more likely to be upper income than unmarried adults

% of adults in each income tier



Note: Adults are assigned to income tiers based on their size-adjusted household income in the calendar year prior to the survey year. Figures may not add to 100% due to rounding. "Unmarried" includes married, spouse absent; never married; divorced; separated; and widowed. "With children at home" includes biological, adopted or step child of any age in the household.

Source: Pew Research Center analysis of the Current Population Survey, Annual Social and Economic Supplements

<sup>&</sup>lt;sup>20</sup> Fry, Cohn, Livingston and Taylor (2011).

<sup>&</sup>lt;sup>21</sup> Social Security Administration (2014), Engelhardt and Gruber (2004) and Burtless (2015).

occupation and industry.

Gender and marriage: Married adults (both with and without children at home) are more likely than unmarried adults to live in upper-income households and less likely to be in lower-income households. Married adults overall moved up the income ladder since 2001 and over the past four decades, while unmarried adults slipped slightly during both periods.

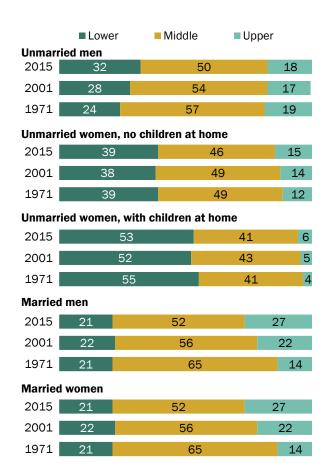
One factor explaining this divergence is that marriage increasingly is linked to higher educational attainment, and higher education offers the highest financial rewards.<sup>22</sup> And, in fact, among married couples, the largest gains have been among those where both spouses work.

The loss among unmarried adults was concentrated among men, in both time periods.<sup>23</sup> The income status of unmarried men slipped from 2001 to 2015 because their lower-income share rose more than their upper-income share. Over the longer term, from 1971 to 2015, unmarried men became more likely to live in lower-income households and slightly less likely to live in upper-income households.

The decline in men's economic status has occurred during an era in which women's earnings growth and educational attainment

# Unmarried women with children are more likely than other groups to be lower income

% of adults in each income tier



Note: Adults are assigned to income tiers based on their size-adjusted household income in the calendar year prior to the survey year. Figures may not add to 100% due to rounding. "Unmarried" includes married, spouse absent; never married; divorced; separated; and widowed. "With children at home" includes biological, adopted or step child of any age in the household.

Source: Pew Research Center analysis of the Current Population Survey, Annual Social and Economic Supplements

<sup>&</sup>lt;sup>22</sup> Fry (2010 and 2013).

<sup>&</sup>lt;sup>23</sup> Unmarried adults include those who never married and those who were married in the past (as well as those who are married but living apart from their spouse). They include people living alone, as well as those living with others.

have outpaced those of men.<sup>24</sup> Despite these changes, unmarried men have higher economic status than unmarried women; they are more likely to be in the upper-income tier and less likely to be in the lower-income tier.

Among unmarried women, those with a child at home are less likely than those without a child at home to be in the upper-income tier and more likely to be in the lower-income tier. More than half of unmarried women with a child at home (53% in 2015) are in the lower-income tier, compared with 39% of their counterparts without children at home.

<sup>&</sup>lt;sup>24</sup> Fry and Cohn (2010),

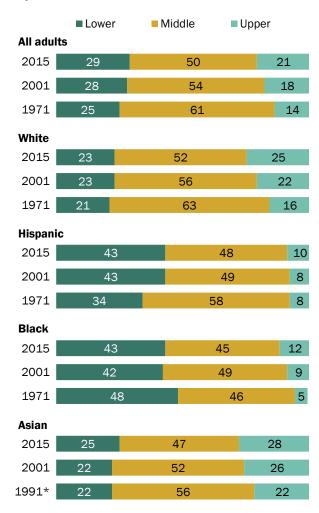
Race/ethnicity and nativity: White and Asian adults are more likely than black and Hispanic adults to be in the upper-income tier, and they are less likely to be in the lower-income tier. Since 2001, blacks, Hispanics and whites have all experienced a small increase in income status – that is, their share in the upper-income tier bumped up, while their share in the lower-income tier was flat (for whites and Hispanics) or ticked up by 1 percentage point (for blacks). The income status of Asians ticked down from 2001 to 2015 due to slightly more growth in the lower-income tier than the upper-income tier.

Over the longer term, black adults sustained the largest increase in income status from 1971 to 2015 and were the only major racial or ethnic group to experience a decline in their lower-income share. The share living in lower-income households among black adults declined from 48% in 1971 to 43% in 2015, and the share of upper-income households grew to 12% from 5% over the same period. This progress notwithstanding, blacks are still significantly less likely than adults overall to be middle income or upper income.

Hispanic adults have slipped down the income ladder since 1971, driven by an increase from 34% to 43% in their lower-income share. This is likely due to the rising share of immigrants in the Hispanic adult population, from 29% in 1970 to 49% in 2015. Economically, Hispanic immigrants trail U.S.-born Hispanics, as

#### Among American adults, there are large differences in income status by race and ethnicity

% of adults in each income tier



Note: \* 1991 data shown because 1971 data are not available. Adults are assigned to income tiers based on their size-adjusted household income in the calendar year prior to the survey year. Figures may not add to 100% due to rounding. Whites, blacks and Asians include only single-race non-Hispanics. Hispanics are of any race. Asians include Pacific Islanders.

Source: Pew Research Center analysis of the Current Population Survey, Annual Social and Economic Supplements

covered below.

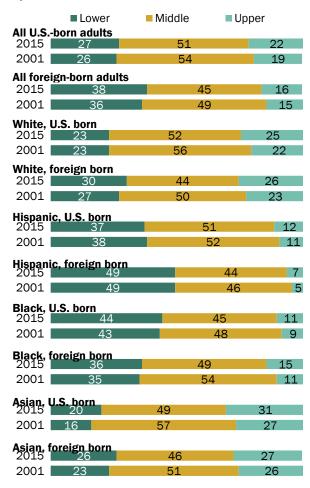
White adults have moved up in income status since 1971, due to higher growth at the top than the bottom of the income distribution. Asians experienced a rise in income status since 1991, the first year for which data have become available.

In terms of differences by nativity, foreignborn adults are more likely than U.S.-born adults to be lower income (38% to 27% in 2015), and less likely to be upper income (16% to 22%). Overall, U.S.-born adults had a small rise in income status since 2001, while foreign-born adults had no change in their income status. Among U.S.-born adults, only Asians experienced a small loss in income status since the turn of the century.<sup>25</sup>

Foreign-born Asians also experienced a small loss in income status. However, foreign-born black and Hispanic adults sustained increases in income status since 2001. One factor behind the short-term trends for Hispanic adults could be the slowdown in immigration from Mexico, especially of unauthorized immigrants, who tend to be less educated. Among black foreign-born adults, a recent wave of immigration has helped to increase the educational attainment of this group (and though median household income has declined, the decrease

# U.S.-born adults are higher up in income status than immigrants, except for black adults

% of adults in each income tier



Note: Adults are assigned to income tiers based on their size-adjusted household income in the calendar year prior to the survey year. Figures may not add to 100% due to rounding. Whites, blacks and Asians include only single-race non-Hispanics. Hispanics are of any race. Asians include Pacific Islanders.

Source: Pew Research Center analysis of the Current Population Survey, Annual Social and Economic Supplements

<sup>&</sup>lt;sup>25</sup> Data on nativity are available only sporadically prior to 1995.

<sup>&</sup>lt;sup>26</sup> Gonzalez-Barrera (2015).

is about equal to that of the population overall).27

**Age:** Americans ages 65 and older have been the greatest economic gainers in this century, as well as in the four decades since 1971. They were the only age group that had a lower share who were

lower income in 2015 (36%) than in 2001 (46%), or in 2015 than in 1971 (54%), and the decline has been notable. The share of older adults in the upper-income tier grew more than that of any other age group during both time periods. (Older adults also were the only age group where the share in the middle-income tier grew during both eras.) Despite these gains, only 17% of older adults were in the upper-income tier in 2015, the same as the share of young adults ages 18 to 29 and less than other age groups.<sup>28</sup>

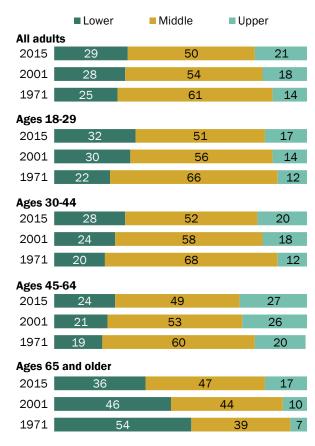
Other age groups experienced either smaller gains in income status or no change or losses during both periods. Since the turn of the century, no age group other than older adults decisively climbed the income ladder. Young adults, ages 18 to 29, essentially stayed even from 2001 to 2015: Their share in the upper tier grew by only 1 percentage point more than their share in the lower tier.

Young adults have slipped down the income ladder since 1971, with the share in the lower-income tier climbing substantially to 32% in 2015 from 22% in 1971.

Middle-age adults (ages 30 to 44 and 45 to 64) have lost ground in income status since the

# Despite gains in income status, older adults are most likely to be lower income

% of adults in each income tier



Note: Adults are assigned to income tiers based on their sizeadjusted household income in the calendar year prior to the survey year. Figures may not add to 100% due to rounding.

Source: Pew Research Center analysis of the Current Population Survey, Annual Social and Economic Supplements

<sup>&</sup>lt;sup>27</sup> Anderson (2015).

<sup>&</sup>lt;sup>28</sup> The economic status of older adults may be understated if only income is included, and not wealth. Older adults typically have more wealth than younger ones and may supplement their reported income by drawing down their accumulated assets, especially in retirement. As noted elsewhere in this report, only upper-income households realized notable gains in wealth from 1983 to 2013.

turn of the century, experiencing more growth in the lower-income tier than the upper-income tier. Over the longer term, from 1971 to 2015, the income status of 30- to 44-year-olds has been flat. The distribution of 45- to 64-year-olds has moved upward in recent decades; 27% of this group was upper income in 2015, compared with 20% in 1971.

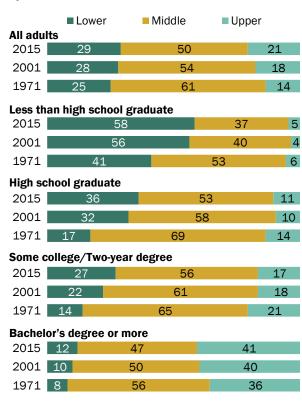
Education: There were no income status winners among educational attainment groups from 2001 to 2015, though the least educated adults (those with less than a high school diploma) and the most educated adults (those with at least a college degree) had the smallest losses. However, from 1971 to 2015, only one educational attainment group did not lose income status: college graduates.

College graduates also have higher income status than other groups. They are eight times as likely as adults who did not graduate from high school to live in upper-income households, and they are more than twice as likely as high school graduates or adults with some college education to be in the upper-income tier. The share of college graduates in lower-income households has grown to 12% in 2015, but this is a fraction of the share of less-educated adults who live in lower-income households.

As the U.S. economy increasingly rewards those with job skills, college-educated Americans have an economic edge over other adults, even when the costs of going to college are factored in. They have a growing earnings advantage over those with no more than a high

## College-educated adults are more likely than others to be upper income

% of adults in each income tier



Note: Adults are assigned to income tiers based on their size-adjusted household income in the calendar year prior to the survey year. Figures may not add to 100% due to rounding. High school graduate includes those who attained a high school diploma or its equivalents such as a GED certificate.

Source: Pew Research Center analysis of the Current Population Survey, Annual Social and Economic Supplements

school diploma.<sup>29</sup> Even recently, when wages of college-educated adults have declined, those of less-educated adults have declined more, so college-educated adults preserved their advantage.<sup>30</sup>

These changes have taken place as educational attainment of the overall U.S. population has risen to record levels.<sup>31</sup> Even though no individual educational attainment category gained income status since the 21st century began, the rise in overall educational attainment contributed to a

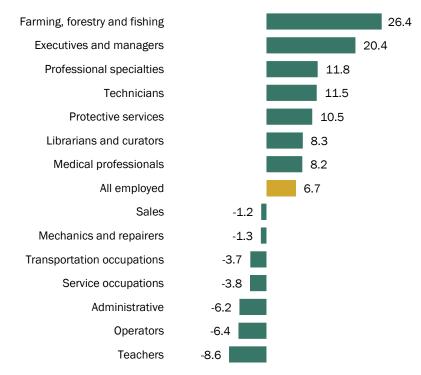
narrow societal gain in income status.

# Occupation: The change in income status among occupations of employed adults matches data that show growing wage inequality over time.<sup>32</sup> Beginning in the early 1990s and intensifying during the following decade, jobs increasingly have been concentrated in high-skilled and low-skilled occupations.<sup>33</sup>

Several of the occupational categories that experienced the largest increase in income status are those that demand high skills and those whose share of total employment has grown in recent decades. They include executives and managers; professional specialty jobs such as engineers; and medical

## From 1971 to 2014, higher-skilled occupations were among those that rose in income status

Change in a group's share that is upper income minus the change in the group's share that is lower income (% point change)



Note: Adults are assigned to income tiers based on their size-adjusted household income in the calendar year prior to the survey year. See Appendix C for details on the occupational classification. The data shown are for employed adults only.

Source: Pew Research Center analysis of the Current Population Survey, Annual Social and Economic Supplements

<sup>&</sup>lt;sup>29</sup> Daly and Bengali (2014).

<sup>30</sup> Abel and Deitz (2014).

<sup>31</sup> Fry and Parker (2012).

<sup>32</sup> Jones (2009).

<sup>33</sup> See Autor (2010). This section looks only at employed adults.

professionals such as physicians and radiology technicians. These occupational groups all moved up the income tier ladder from both 1971 to 2014, and since the turn of the century.<sup>34</sup>

The improving economic status of farming occupations is also notable. That has occurred in the

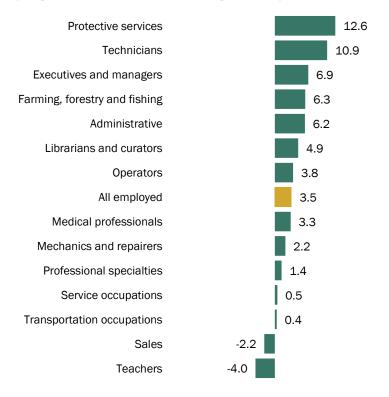
context of an industry that has steadily improved productivity and wages as it moved from small, laborintensive farms to large, mechanized and more specialized farms.<sup>35</sup>

Nonetheless, farming and fishing occupations were about twice as likely to be lower income and about half as likely to be upper income as employed adults overall in 2015.

Other job categories with growing shares of employment did not fare so well. Teachers, a category that includes all levels of instruction, have lost ground since 1971 and since the turn of the century. Sales occupations, which encompass retail clerks as well as real estate agents and others, ticked downward in income status in both periods.

## Teachers and salespeople slid down in income status from 2001 to 2014, while other job categories rose

Change in a group's share that is upper income minus the change in the group's share that is lower income (% point change)



Note: Adults are assigned to income tiers based on their size-adjusted household income in the calendar year prior to the survey year. See Appendix C for details on the occupational classification. The data shown are for employed adults only.

Source: Pew Research Center analysis of the Current Population Survey, Annual Social and Economic Supplements

<sup>&</sup>lt;sup>34</sup> The occupational categories for all years are matched to the 1990 Census Bureau classification system. The time-consistent occupational categories are available through 2014 in the Integrated Public Use Microdata Series (IPUMS) that is used in this report. Thus, the analysis in this section covers the periods from 1971 to 2014. See Appendix C for details.

<sup>35</sup> Dimitri, Effland and Conklin (2005).

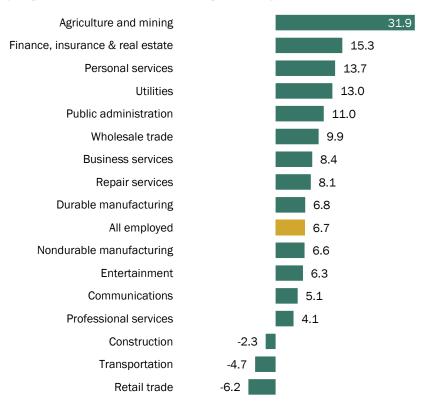
Job groupings with shrinking shares of overall employment generally lost income status since 1971. These include mechanics, laborers and transportation occupations, although these all have improved income status or their income status stayed steady since the turn of the century. The

same trend is true of administrative support, a category with shrinking employment shares that includes typists and file clerks.

**Industry:** Looking at income status change by industry, overall employment shares in half a dozen sectors have declined over the past four decades, even as income status climbed in the long term and since the turn of the century.36 Among these sectors are manufacturing; agriculture and mining; utilities; wholesale trade; and personal services. Manufacturing accounted for 26% of employed adults in 1971, compared with 11% in 2014. In 1971, 15% of workers in nondurable goods manufacturing and

## Big income status gains in some industries contrast with losses in others from 1971 to 2014

Change in a group's share that is upper income minus the change in the group's share that is lower income (% point change)



Note: Adults are assigned to income tiers based on their size-adjusted household income in the calendar year prior to the survey year. See Appendix C for details on the industrial classification. The data shown are for employed adults only.

Source: Pew Research Center analysis of the Current Population Survey, Annual Social and Economic Supplements

<sup>&</sup>lt;sup>36</sup> The industrial categories for all years are matched to the 1990 Census Bureau classification system. The time-consistent industrial categories are available through 2014 in the Integrated Public Use Microdata Series (IPUMS) that is used in this report. Thus, the analysis in this section covers the periods from 1971 to 2014. See Appendix C for details.

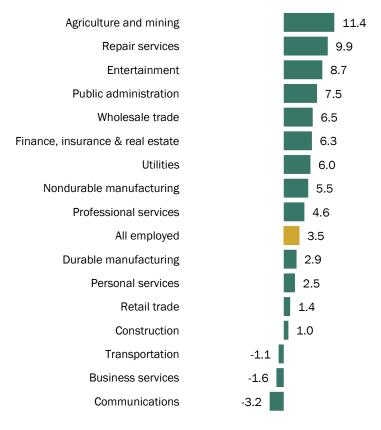
16% of workers in durable goods manufacturing had upper-tier incomes, compared with 26% and 27% who did so in 2014, respectively.<sup>37</sup>

These changes have taken place within a larger context of change in the manufacturing workforce, where the sector itself has shrunk and the jobs within it increasingly are highskilled work.38 As noted, the move to bigger, more mechanized farms has led to large improvements in productivity and wages in agriculture. But workers in agriculture and mining are more likely to be lower income and less likely to by upper income than employed adults overall in 2015.

In other industry sectors, employment shares and income status both have grown. Among these

## Income status gains in most industry sectors from 2001 to 2014

Change in a group's share that is upper income minus the change in the group's share that is lower income (% point change)



Note: Adults are assigned to income tiers based on their size-adjusted household income in the calendar year prior to the survey year. See the Appendix C for details on the industrial classification. The data shown are for employed adults only.

Source: Pew Research Center analysis of the Current Population Survey, Annual Social and Economic Supplements

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sectors are professional services, a category that includes hospitals, clinics and schools. This sector employed 29% of U.S. working adults in 2014, compared with 18% in 1971. About a third of workers in this sector (32%) were upper income in 2014, compared with 26% in 1971. Other sectors that have had employment growth and income status growth are entertainment and finance, insurance and real estate.

<sup>&</sup>lt;sup>37</sup> This section looks only at employed adults, not all adults.

<sup>38</sup> Deitz and Orr (2006).

Among the sectors where income status has declined since the turn of the century are business services, communications and transportation. In the communications sector, for example, 11% of employed workers were in the lower tier in 2001, and 12% were in 2014. An additional 37% were in the upper-income tier in 2001, compared with 36% in 2014.

## 3. Middle-income adults largely reflect the nation's demographics

As a group, middle-income adults look much like U.S. adults overall, in terms of their demographic and socioeconomic characteristics. By some measures, middleincome adults are more similar to all adults today than was true in 1971. For example, adults ages 65 and older were underrepresented in the middle-income population in 1971. But that is no longer the case because older adults experienced greater gains in economic status than other age groups from 1971 to 2015.

This chapter explores the demographics of middle-income adults, with some comparisons to lower-income and upper-income adults. The tables in Appendix B show the demographics of each income tier in greater detail.

As noted, "middle-income adults" are defined as those with household incomes that are between two-thirds and

## Demographics of middle-income adults look like those of U.S. adults overall

	% of all adults	% of middle-income adults		
Education	2015	1971	2015	% point change
Less than high school graduate	12	35	9	-25
High school graduate	30	41	31	-10
Some college/Two-year degree	28	14	32	+18
Bachelor's degree or more	30	10	28	+18
Age				
18 to 29	21	30	22	-9
30 to 44	25	29	26	-2
45 to 64	34	31	34	+2
65 and older	19	9	18	+9
Race/Ethnicity				
White	65	80	67	-13
Hispanic	15	11	15	+3
Black	12	7	11	+4
Asian*	6	3	6	+3
Nativity				
U.S. born**	84	87	85	-2
Foreign born**	16	13	15	+2
Marital status				
Married, no children at home	24	22	24	+2
Married, with children at home	28	51	30	-21
Unmarried	49	26	46	+20

Note: \* Data are from 1991 and 2015 because 1971 data are not available. \*\* Data are from 2001 and 2015. Adults are assigned to income tiers based on their size-adjusted household income in the calendar year prior to the survey year. Percentage point change calculated prior to rounding. Figures may not add to 100% due to rounding. Whites, blacks and Asians include only single-race non-Hispanics. Hispanics are of any race. Asians include Pacific Islanders.

Source: Pew Research Center analysis of the Current Population Survey, Annual Social and Economic Supplements

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twice the median household income overall. These adults accounted for 50% of all adults in 2015, down from 61% in 1971. Their incomes for a three-person household ranged from about \$42,000 to \$126,000 in 2014.

**Education:** As is true of U.S. adults overall, most middle-income adults now have at least some college education, but the opposite was the case in 1971. From 1971 to 2015, the share of middle-income adults with some college education or a two-year degree increased from 14% to 32%. Over the same period, the share with a bachelor's degree or more rose from 10% to 28%. The educational attainment of middle-income adults in 2015 mirrors that of society overall. As shown in Appendix B, lower-income adults are the least likely to have at least some college education, and upper-income adults are the most likely to have at least some college education.

**Age:** Older adults, whose economic status improved markedly from 1971 to 2015, make up a larger share of middle-income adults today. The share of middle-income adults who are ages 65 and older doubled from 9% in 1971 to 18% in 2015. The age profile of middle-income adults now closely resembles that of adults overall. But middle-income adults (and lower-income adults) are younger than upper-income adults (see the tables in Appendix B).

**Race and ethnicity:** As the nation has become more racially and ethnically diverse in recent decades, so have middle-income adults. Whites are now about two-thirds of middle-income adults (67%), a decline from their 80% representation in 1971. This trend parallels the pattern for all adults, as does the increase in Hispanics and blacks as a share of middle-income adults. Hispanics, 15% of middle-income adults in 2015, were 11% of this group in 1971. Blacks, 11% of middle-income adults in 2015, were 7% in 1971. The share of Asians among middle-income adults, 6% in 2015, has doubled since 1991, the earliest year that data are available for this racial group.

Middle-income adults in 2015 were more likely to be white (67%) than lower-income adults (52%) but less likely than upper-income adults (77%). Middle-income adults in 2015 were less likely to be black or Hispanic than lower-income adults, but more likely than upper-income adults.

**Nativity:** As is true of the country overall, middle-income adults include a growing share of immigrants. In 2015, 15% of middle-income adults were foreign born, about the same as for all adults (16%). The share of foreign born is markedly higher for lower-income adults (22%) and slightly lower for upper-income adults (13%). Since 2001, the share of foreign born has risen slightly for the total adult population as well as for all income groups.

**Marriage:** The declining share of married adults in the U.S. has played a role in reshaping the makeup of middle-income adults. Unmarried adults were 26% of middle-income adults in 1971 and 46% in 2015 (slightly below their 49% representation in the overall adult population). Married adults with children at home, who were half (51%) of middle-income adults in 1971, were 30% of the category in 2015. Married adults without children at home accounted for 22% of middle-income adults in 1971, and rose slightly to 24% in 2015.

A striking difference between the income groups is in the share who are not married – 63% of lower-income adults, 46% of middle-income adults and 35% of upper-income adults. A similar pattern is true for married adults without children at home, who make up 24% of the middle-income group, higher than their 17% of lower-income adults and less than their 33% of upper-income adults. Married people with children at home make up a higher share of middle-income adults (30% in 2015) and upper-income adults (32%) than of lower-income adults (20%).

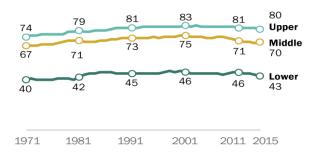
#### **Labor Market Status**

Employment status: Generally speaking, labor force participation is higher and other measures of employment are better at each step up the income ladder.<sup>39</sup> In 2015, 70% of middle-income adults were either working or actively looking for work (the definition of who is in the labor force), compared with 43% of lower-income adults and 80% of upper-income adults. The share of adults who are employed – the employment-population ratio – ranged from 38% among lower-income adults to 66% among middle-income adults to 78% among upper-income adults.

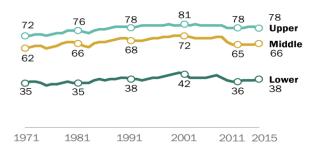
A similar pattern exists for the unemployment rate, the share of the labor force that is without work and actively looking for work. The unemployment rate of all middle-income adults, 4% in March of 2015, was much closer

#### On work-related measures, U.S. middleincome adults rank between lower- and upper-income adults

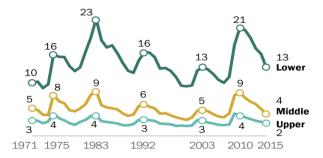
% of adults who are in the labor force



% of adults who are employed



% of adults in the labor force who are unemployed



Note: Adults are assigned to income tiers based on their size-adjusted household income in the calendar year prior to the survey year. Estimates are not seasonally adjusted.

Source: Pew Research Center analysis of the Current Population Survey, Annual Social and Economic Supplements

<sup>39</sup> The labor force measures discussed in this section are for the month of March in each year and are not seasonally adjusted.

to the 2% rate of upper-income adults than to the 13% rate for lower-income adults.

Unemployment rose for all income groups during the Great Recession, but lower-income adults have not recovered to the same extent as middle- and upper-income adults. The unemployment rate remains higher in 2015 for lower-income adults (13%) compared with their 10% rate in 2007, while rates for middle- and upper-income adults are the same as in 2007. The Great Recession began in December 2007 and ended in June 2009.

## 4. Middle class incomes fall further behind upper-tier incomes

The dispersion of American adults out of the middle is accompanied by rising inequality. Trends in household income show rising prosperity overall from 1970 to 2014, but median income increased the most for upper-income households and by less for middle-income and lower-income households.<sup>40</sup> That development, coupled with the more rapid growth in the number of upper-income households than of other types, pushed the share of U.S. aggregate household income held by upper-income households in 2014 to 49%, its highest level since 1970.

Overall, Americans are less well-to-do now than at the start of the 21st century. For all income tiers, median incomes in 2014 were lower than in 2000. These reversals are the result of two recessions – the downturn in 2001 and the Great Recession of 2007-09 – and economic recoveries that have been too anemic to fully repair the damage. There are signs the financial bleeding may have stopped, however, as median household income in 2014 was about the same as in 2010. But the direction ahead is uncertain as some leading economists argue that negligible or no economic growth is here to stay.<sup>41</sup>

This chapter examines changes in the incomes of America's lower-, middle- and upper-income households from 1970 to 2014. As noted, estimates of income are adjusted for household size and scaled to reflect a three-person household. The impact of adjusting for household size on income trends is discussed in the accompanying text box. The data source is the U.S. Census Bureau's Current Population Survey. Income represents the annual flow of what a household earns through work, receipt of interest and dividends, retirement funds and so on.<sup>42</sup>

#### Trends in the income of lower-, middle- and upper-income households

Long-term trends in the incomes of lower-, middle- and upper-income households lead to three key findings: households in all income tiers experienced gains in income from 1970 to 2014; the incomes of upper-income households increased the most, followed by middle-income and lower-

<sup>&</sup>lt;sup>40</sup> In this report, "income" refers to pre-tax household income as reported in the Current Population Survey. Some researchers have adjusted the data to account for non-cash benefits, tax transfers and tax payments (Meyer and Sullivan, 2009 and Burkhauser, Larrimore and Simon, 2011). Wolff, Zacharias and Masterson (2012) also account for imputed income from wealth, among other things. All estimates, however, point to a general rise in inequality over the past several decades.

<sup>&</sup>lt;sup>41</sup> Summers (2014) and Gordon (2014).

<sup>&</sup>lt;sup>42</sup> See Methodology for details on what is included or not included in income as measured in the Current Population Survey.

#### The impact of adjusting income for household size

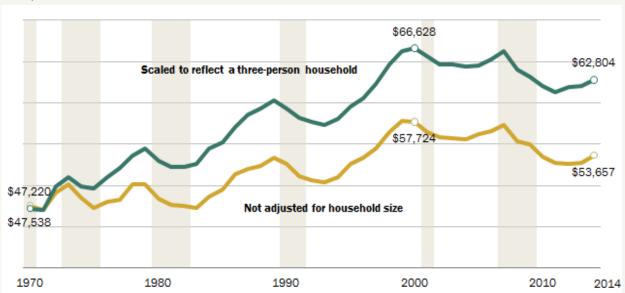
The measure of how much household income changed from 1970 to 2014 is affected by changes in the size of U.S. households. The typical household in 1970 consisted of 3.2 people; the typical household in 2015 had 2.5 people, or 21% fewer. Because smaller households can support a better standard of living with the same income as larger households, it is desirable to account for changes in the size of households when evaluating changes in their wellbeing.

Making an adjustment for household size means revising upward the income of households that are of below-average size (fewer people to support) and revising downward the income of households that are of above-average size (more people to support). In this manner, incomes are scaled up or down to arrive at an estimate of how much a household would have at its disposal if it consisted of three people, the assumed norm for household size (see Methodology for details on the method). The assumption regarding household size is for reporting purposes only. It has no impact on trends in household income or on the assignment of a household to an income tier.

According to the U.S. Census Bureau, which does not adjust incomes for household size, the median income of U.S. households rose from \$47,538 in 1970 to \$53,657 in 2014, or by 13%. After adjustments are made for changes in household size, the median income of U.S. households is estimated to have increased from \$47,220 in 1970 to \$62,804 in 2014, or by 33%. Thus, this adjustment has a substantial impact on estimates of how much the wellbeing of American households has changed over time. The greatest impact is in the 1970s, when average household size fell from 3.2 to 2.7.

# Median household income in the U.S. rises faster when adjusted for the decrease in household size since 1970





Note: Shaded areas represent periods of recession. See Methodology for the procedure used to adjust incomes for household size.

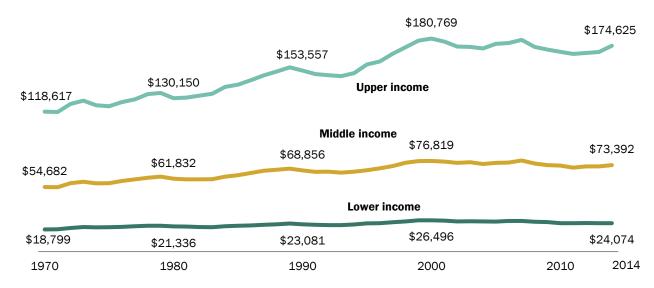
Source: U.S. Census Bureau, Current Population Survey, Annual Social and Economic Supplements, <u>Historical Income Tables</u>, Table H-5 and Pew Research Center analysis of the Current Population Survey, Annual Social and Economic Supplements, 1971 to 2015

income households, respectively; and incomes of all households increased from 1970 to 2000 but fell from 2000 to 2014.43

Households in each income tier experienced the ups and downs of business cycles, but all stood on higher ground in 2014 than in 1970. The median income of middle-income households increased from \$54,682 in 1970 to \$73,392 in 2014, a gain of 34%, and the median income of lower-income households increased from \$18,799 to \$24,074, or by 28%. Upper-income households realized the greatest increase, from \$118,617 in 1970 to \$174,625 in 2014, up 47%.

# Median income of upper-income households has risen more than the median income of middle- and lower-income households from 1970 to 2014

In 2014 dollars and scaled to reflect a three-person household



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

Source: Pew Research Center analysis of the Current Population Survey, Annual Social and Economic Supplements, 1971 to 2015

<sup>&</sup>lt;sup>43</sup> As noted, households that are in a lower-, middle- or upper-income tier in one year are compared with households that are in those tiers in another year. The analysis does not follow the same households over time, and some households that were middle income in one year, say, may have moved to a different tier in a later year. As described in earlier sections, the demographic composition of each income tier has changed over time.

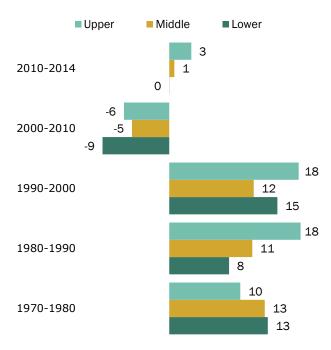
The overall income trend from 1970 to 2014 is composed of two distinct episodes – steadfast gains from 1970 to 2000 and losses from 2000 to 2014. From 1970 to 2000, the median income of middle-income households increased from \$54,682 to \$76,819, the median income of lower-income households increased from \$18,799 to \$26,496, and the median income for upper-income households rose from \$118,617 to \$180,769.

In percentage terms, households typically experienced double-digit gains in each of the three decades from 1970 to 2000. Middle-income household income increased by 13% in the 1970s, 11% in the 1980s, and 12% in the 1990s. Lower-income households had gains of 13% in the 1970s, 8% in the 1980s and 15% in the 1990s. Upper-income households registered a 10% gain in the 1970s followed by much stronger gains in later decades – 18% in both the 1980s and 1990s.

By 2014, households in all income tiers were worse off than in 2000. The median income of middle-income households fell 4% from 2000 to 2014, from \$76,819 to \$73,392. The loss for

# Incomes rose for all households in each decade from 1970 to 2000, but have languished from 2000 to 2014

% change in median household income, by income tier



Note: Households are assigned to income tiers based on their sizeadjusted income in the calendar year prior to the survey year.

Source: Pew Research Center analysis of the Current Population Survey, Annual Social and Economic Supplements, 1971 to 2015

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upper-income households was similar, at 3%. Their median income dropped from \$180,769 in 2000 to \$174,625 in 2014. The reversal for lower-income households was the greatest as their income fell from \$26,496 to \$24,074, or by 9%.

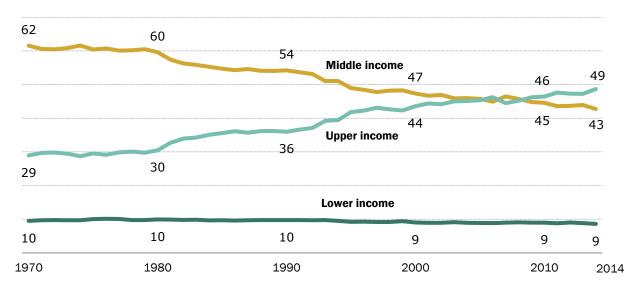
Overall, the economic stagnation that has characterized this century so far has set the welfare of households back by at least 15 years. For upper-income households, the median income in 2014 was comparable to its level in 1998. The median for middle-income households in 2014 is similar to its level in 1997, and for lower-income households the median income has retreated to its level in 1996.

## Distribution of U.S. aggregate household income

The share of U.S. aggregate household income held by middle-income households has eroded significantly over time, while the share held by lower-income households has remained relatively static. Upper-income households now command the greatest share of aggregate income and are on the verge of holding more in total income than all other households combined.<sup>44</sup> This shift is partly because upper-income households constitute a rising share of the population and partly because their incomes are increasing more rapidly than those of other tiers.

# The share of aggregate income held by middle-income households plunged from 1970 to 2014 and is now less than the share held by upper-income households

% of U.S. aggregate household income held by lower-, middle- and upper-income households



Note: Households are assigned to income tiers based on their size-adjusted income in the calendar year prior to the survey year. Their unadjusted incomes are then totaled to compute the share of an income tier in the U.S. aggregate household income. Shares may not add to 100% due to rounding

Source: Pew Research Center analysis of the Current Population Survey, Annual Social and Economic Supplements, 1971 to 2015

<sup>&</sup>lt;sup>44</sup> "Aggregate household income" is the total income of all households in the U.S. prior to taxes and not including non-cash transfers (such as supplemental nutrition assistance program benefits and low-income housing assistance). A distribution of post-tax incomes that also fully accounted for public transfers would likely look a little different because of the progressivity of the tax code. Also, household income data in the public-use versions of the Current Population Survey is top-coded. This means that the actual incomes of some upper-income households are higher than the levels recorded in the Current Population Survey. That leads to a slight understatement of the share of upper-income households in aggregate household income. The Census Bureau also notes that wages and salaries (relatively more important for the lower and middle tiers) are well reported but that public assistance (more important for lower-income households) and interest and dividend income (potentially more relevant for upper-income households) are not as well covered.

In 2014, upper-income households accounted for 49% of U.S. aggregate household income. That was more than double the share of adults living in those households (21%). Middle-income households held 43% of aggregate household income in 2014, less than the 50% share of adults living in those households. And although 29% of adults lived in lower-income households, they commanded only 9% of aggregate income.<sup>45</sup>

Over the past 45 years, the share of aggregate income held by upper-income households has risen consistently, and the share held by middle-income households has fallen just as steadily. In 1970, the upper-income tier accounted for 29% of aggregate income, the middle-income tier had a 62% share, and the lower-income tier held 10%. At the time, the share of the middle-income tier in aggregate income was about the same as its share in the adult population (61%). Upper- and lower-income households accounted for 14% and 25% of the adult population, respectively.

In the past four decades, the share of aggregate income going to upper-income households has risen by 20 percentage points — more than the 7 percentage point increase in the share of upper-income households in the adult population. Meanwhile, the share of aggregate income going to middle-income households has fallen more sharply — by 19 percentage points — than the 11 percentage point decrease in their share of the adult population. The share of aggregate income held by lower-income households has fallen by 1 percentage point despite a 4-point increase in their share in the adult population.

The end result of the trends in income and the distribution of the adult population is that nearly half of aggregate income today is in the hands of households where only one-in-five adults lives. Much of this redistribution of income occurred in the 1980s and the 1990s. In those two decades, the growth in income for upper-income households greatly outdistanced the growth in income for middle-income households.

<sup>&</sup>lt;sup>45</sup> Adults are placed into income tiers based on their household income in the calendar year previous to the survey year. Thus, the income data in this section refer to the 1970-2014 period and the shares of adults in income tiers refer to the 1971-2015 period.

# 5. Wealth gap between middle-income and upper-income families reaches record high

The gaps in the wealth (assets minus debts) of lower-, middle- and upper-income families are much wider than the gaps in income.<sup>46</sup> There is one other stark difference: only upper-income families realized notable gains in wealth from 1983 to 2013, the period for which data on wealth are available, while gains in income over that period were felt across all income groups, albeit at different rates. The wealth holdings of lower-income and middle-income families are virtually unchanged, and these families fell further behind upper-income families in the past three decades.

The widening gaps in wealth, measured as the ratios of median wealth, across income tiers are the

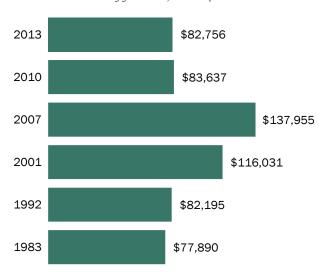
consequence of the crash in the housing market and the Great Recession of 2007-09. These two closely intertwined events wiped out all of the gains in wealth experienced by lower- and middle-income families from 1983 to 2007.

Wealth and income together provide a more complete financial portrait of U.S. adults. The former is a stock of financial resources accumulated over time, while the latter is an annual inflow of financial means. Some adults, such as retirees, may have low income but high levels of wealth. Meanwhile, younger workers may have a high inflow of income but low levels of wealth.

Unlike income, wealth data are not adjusted for family size because it is difficult to associate a current family size with a stock of wealth. In part, that is because wealth is accumulated and potentially spent over an extended period of time during which family structure may change significantly. It is also

# The wealth of U.S. families increased from 1983 to 2007, fell sharply since

Median net worth of families, in 2014 dollars



Note: Net worth is the difference between the value of assets owned by a family and the liabilities it holds. Families are assigned to income tiers based on their size-adjusted income. Net worth is not adjusted for family size.

Source: Pew Research Center analysis of Survey of Consumer Finances public-use data

<sup>&</sup>lt;sup>46</sup> Data on wealth are collected for families, as opposed to households. Technically, they are slightly different. As per the Census Bureau, a family consists of all related people living in the same dwelling unit. A household is all people who live in the same dwelling unit. See Methodology for more detail.

typical for at least part of a family's wealth to be passed on to future generations.

Changes in wealth are measured from 1983 to 2013 using the Survey of Consumer Finances. Because of the way the data are collected and reported, the unit of analysis for wealth is the family, not the household. Families in the Survey of Consumer Finances are divided into three income tiers based on their income level after it has been adjusted for differences in family size.

Because the Survey of Consumer Finances is conducted triennially, the estimates presented in this section are for different time periods than in the analysis of income. The years 1983, 1992, 2001 and 2010 immediately follow recessions or represent the tail ends of recessions. The year 2007 was a business cycle peak, prior to the onset of the Great Recession. Changes in wealth since 2007 reveal the impact of this downturn.

The fortunes of U.S. families overall swung like a yo-yo from 1983 to 2013. The ride up lasted through 2007 as median wealth overall increased to \$137,955 from \$77,890 in 1983, a gain of 77%. Most of these gains were registered during the record-long economic expansions in the 1990s and the housing market boom that followed.

The wealth of U.S. families plunged as home prices began a rapid descent in 2006. By 2013, overall median wealth had decreased to \$82,756, a loss of 40% in the space of just six years. Almost all of this erasure took place from 2007 to 2010, but there was no sign of a recovery from 2010 to 2013. Over the entire span from 1983 to 2013, the median wealth of U.S. families was up only 6%.

Not surprisingly, the wealth of a family is

# There is a large gap in the wealth of upper-income families and other families

Median net worth of families, by income tier and in 2014 dollars



Note: Net worth is the difference between the value of assets owned by a family and the liabilities it holds. Families are assigned to income tiers based on their size-adjusted income. Net worth is not adjusted for family size.

Source: Pew Research Center analysis of Survey of Consumer Finances public-use data

related to its income. In 1983, the median wealth of middle-income families was \$95,879. This was much higher than the \$11,544 wealth of lower-income families, but it was far less than the \$323,402 wealth of upper-income families. Thus, in 1983, upper-income families had nearly 30 times as much wealth as lower-income families and about three times as much wealth as middle-income families.

The wealth gaps across families in the three income tiers widened greatly from 1983 to 2013. The

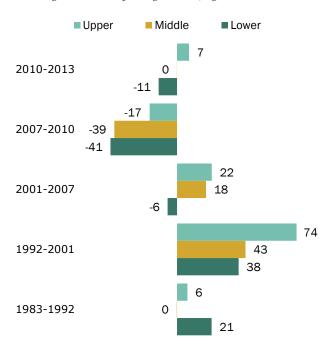
wealth of lower-income families in 2013 was \$9,465 – 18% less than they had in 1983. The wealth of middle-income families was essentially unchanged, rising only 2% to \$98,057. However, the wealth of upper-income families doubled to \$650,074 in 2013. Thus, in 2013, upper-income families had almost 70 times as much wealth as lower-income families and nearly seven times as much as middle-income families.

The increase in wealth gaps across income tiers occurred after an initial period of gains for lower-income families. From 1983 to 1992, the wealth of lower-income families increased from \$11,544 to \$14,024, or 21%. The median wealth of middle-income families was unchanged at around \$96,000 in this period. Moreover, the gain for upper-income families was modest as their wealth increased 6%, to \$344,162 in 1992.

A period of prosperity ruled from 1992 to 2001 as the wealth of all families rose sharply. For middle-income families, median wealth increased by 43%, from \$95,657 to \$136,445. Lower-income families experienced similar gains as their median wealth increased from \$14,024 to \$19,397, a boost of 38%. But gains

# Families in all income tiers lost wealth since 2007, but only upper-income families have started to recover

% change in median family wealth, by income tier



Note: Net worth is the difference between the value of assets owned by a family and the liabilities it holds. Families are assigned to income tiers based on their size-adjusted income. Net worth is not adjusted for family size.

Source: Pew Research Center analysis of Survey of Consumer Finances public-use data

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for upper-income families were much sharper as their wealth almost doubled, from \$344,162 in 1992 to \$600,089 in 2001.

Lower- and middle-income families have continued to fall behind upper-income families in the 21st century. Heading into the Great Recession, lower-income families lost 6% of their wealth, edging down from \$19,397 in 2001 to \$18,264 in 2007. Middle-income families strengthened their position, raising their wealth by 18%, to \$161,050 in 2007. Upper-income families fared the best, as their median wealth increased by 22%, to \$729,980 in 2007.

The Great Recession had a negative impact on all families, with the greatest damage inflicted upon lower- and middle-income families. From 2007 to 2010, median wealth fell to \$10,688 for lower-income families, to \$98,084 for middle-income families, and to \$605,228 for upper-income families. In percentage terms, these represented losses of 41%, 39% and 17%, respectively. Once again, upper-income families stretched their advantage, this time by losing proportionately less than other families.

The harmful effects of the Great Recession are showing signs of dissipating, but the clock is far from being rewound completely. Lower-income families continued to experience losses from 2010 to 2013 as their median wealth slipped an additional 11%. The wealth of middle-income families held steady, at about \$98,000. Meanwhile, upper-income families stitched together gains in this period as their wealth rose to \$650,074 in 2013, an increase of 7%.

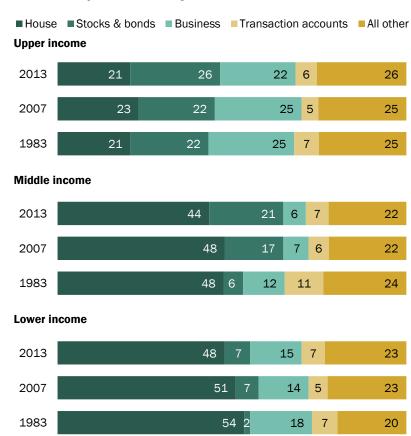
## Assets owned by lower-, middle- and upper-income families

Differences in the types of assets owned by families in the three income tiers likely contributed to the differences in the recent ups and downs of their respective portfolios. An owned home is a sizable asset for most American families.47 But while a home is the single most important asset of lower- and middleincome families, upperincome families have a wider variety of assets. For upperincome families, stocks and bonds and business assets are equally important.

In 2007 and 2013, the equity held in an owned home accounted for about 45% to 50% of the total mean value of assets owned by lower-and middle-income families. As Stocks and bonds account for about 20% of the total assets of middle-income families but for less than 10% of the assets of lower-income families. Equity in an owned business is more important to lower-income families than to middle-income

# The asset portfolios of upper-income families are more diversified

% distribution of assets owned, by income tier



Note: This chart shows the percentage distribution of the mean value of assets of families, including families that own no assets. Stocks and bonds include indirect holdings in mutual funds, pension accounts, and so on. Transaction accounts include money market accounts, checking accounts, savings accounts, call accounts and certificates of deposit. "All other" includes other assets, such as vehicles, secondary properties, personal property and the cash value of life insurance. Families are assigned to income tiers based on their size-adjusted income.

Source: Pew Research Center analysis of Survey of Consumer Finances public-use data

<sup>&</sup>lt;sup>47</sup> See Kochhar, Fry and Taylor (2011) for more detailed data on rates of asset ownership among U.S. households.

<sup>&</sup>lt;sup>48</sup> Equity in a home is the difference between the current price of the home and the mortgage debt outstanding.

families, by a factor of about 2-to-1. For both income tiers, transaction accounts and other assets, such as vehicles and other personal property, account for about 30% of assets.

For upper-income families, an owned home represents only about 20% of the total value of assets. Stocks and bonds and business assets each account for 20% to 25% of total assets for these families, and other assets, including transaction accounts, make up an additional 30% or so. It is likely that the greater diversity of assets owned by these families is in itself a result of the greater financial means at their disposal.

The distribution of assets held by American families did not change much from 1983 to 2013. Stocks and bonds gained more importance in the portfolios of lower- and middle-income families from 1983 to 2001 as defined contribution pension plans, such as 401(k) plans, became more prevalent.

The greater reliance on home equity as a source of wealth proved to be detrimental to the financial health of lower- and middle-income families in the 21st century. The most significant economic events in this century have been the crash in the housing market in 2006, a meltdown in the financial markets in 2007-08, and the Great Recession of 2007-09.<sup>49</sup>

From December 2007 to December 2010, the Standard & Poor's 500 index fell 14%, and the Case-Shiller national home price index declined by 19%. Thus, as noted, families in all income tiers experienced significant losses in wealth.

In the post-Great Recession period, the stock market recovered more quickly than the housing market. The S&P 500 index rose 47% from December 2010 to December 2013 compared with a rise of 13% in the Case-Shiller national home price index. Overall, these trends in asset values favored families who owned relatively more financial assets than those who owned relatively more housing. Thus, during the course of the latest economic downturn and recovery, the wealth gap between upper-income families and other families grew.

#### Assets and debts

A family's wealth, or net worth, is the difference between the value of its assets and the value of its liabilities. Thus, in addition to asset prices, the amount of debt taken on by a family plays a key role in determining its net worth. Although the absolute value of assets rose more than the absolute level of debt in the years leading up to the Great Recession, the rate of growth typically

<sup>&</sup>lt;sup>49</sup> These developments and their implications for household wealth are analyzed in greater detail in Kochhar, Fry and Taylor (2011).

# Families reduced debt in the wake of the Great Recession of 2007-09, but losses in asset values cut deeper

Changa

Mean net worth, assets and debts of families, by income tier and in 2014 dollars

					Cha	ange		
1983	2001	2007	2010	2013	1983- 2001	2001- 2007	2007- 2010	2010- 2013
270,862	531,813	635,989	537,576	537,226	260,951	104,176	-98,414	-349
311,508	604,736	746,863	643,630	629,889	293,227	142,127	-103,233	-13,741
40,647	72,923	110,874	106,054	92,663	32,276	37,951	-4,820	-13,391
e families								
994,716	1,900,405	2,326,061	1,914,611	1,958,981	905,690	425,655	-411,449	44,369
1,111,671	2,080,887	2,585,767	2,158,440	2,181,623	969,216	504,881	-427,327	23,183
116,955	180,481	259,707	243,829	222,643	63,526	79,225	-15,877	-21,186
ne families								
167,671	292,862	316,123	248,121	228,420	125,190	23,261	-68,002	-19,702
202,908	359,837	424,102	344,476	310,099	156,928	64,265	-79,626	-34,377
35,237	66,975	107,979	96,354	81,679	31,738	41,004	-11,624	-14,675
e families								
63,279	95,912	119,208	110,994	86,382	32,633	23,296	-8,214	-24,613
73,023	116,470	149,890	146,325	114,004	43,447	33,420	-3,565	-32,321
9,744	20,558	30,682	35,331	27,623	10,814	10,124	4,649	-7,708
	270,862 311,508 40,647 e families 994,716 1,111,671 116,955 ne families 167,671 202,908 35,237 e families 63,279 73,023	270,862 531,813 311,508 604,736 40,647 72,923 e families 994,716 1,900,405 1,111,671 2,080,887 116,955 180,481 ne families 167,671 292,862 202,908 359,837 35,237 66,975 e families 63,279 95,912 73,023 116,470	270,862 531,813 635,989 311,508 604,736 746,863 40,647 72,923 110,874  e families  994,716 1,900,405 2,326,061 1,111,671 2,080,887 2,585,767 116,955 180,481 259,707  ne families  167,671 292,862 316,123 202,908 359,837 424,102 35,237 66,975 107,979  e families  63,279 95,912 119,208 73,023 116,470 149,890	270,862 531,813 635,989 537,576 311,508 604,736 746,863 643,630 40,647 72,923 110,874 106,054 e families  994,716 1,900,405 2,326,061 1,914,611 1,111,671 2,080,887 2,585,767 2,158,440 116,955 180,481 259,707 243,829 ne families  167,671 292,862 316,123 248,121 202,908 359,837 424,102 344,476 35,237 66,975 107,979 96,354 e families  63,279 95,912 119,208 110,994 73,023 116,470 149,890 146,325	270,862 531,813 635,989 537,576 537,226 311,508 604,736 746,863 643,630 629,889 40,647 72,923 110,874 106,054 92,663  e families  994,716 1,900,405 2,326,061 1,914,611 1,958,981 1,111,671 2,080,887 2,585,767 2,158,440 2,181,623 116,955 180,481 259,707 243,829 222,643  ne families  167,671 292,862 316,123 248,121 228,420 202,908 359,837 424,102 344,476 310,099 35,237 66,975 107,979 96,354 81,679  e families  63,279 95,912 119,208 110,994 86,382 73,023 116,470 149,890 146,325 114,004	1983         2001         2007         2010         2013         2001           270,862         531,813         635,989         537,576         537,226         260,951           311,508         604,736         746,863         643,630         629,889         293,227           40,647         72,923         110,874         106,054         92,663         32,276           e families         994,716         1,900,405         2,326,061         1,914,611         1,958,981         905,690           1,111,671         2,080,887         2,585,767         2,158,440         2,181,623         969,216           16,955         180,481         259,707         243,829         222,643         63,526           ne families         167,671         292,862         316,123         248,121         228,420         125,190           202,908         359,837         424,102         344,476         310,099         156,928           35,237         66,975         107,979         96,354         81,679         31,738           e families         63,279         95,912         119,208         110,994         86,382         32,633           73,023         116,470         149,890         146,325	1983         2001         2007         2010         2013         1983-2001         2001-2007           270,862         531,813         635,989         537,576         537,226         260,951         104,176           311,508         604,736         746,863         643,630         629,889         293,227         142,127           40,647         72,923         110,874         106,054         92,663         32,276         37,951           e families           994,716         1,900,405         2,326,061         1,914,611         1,958,981         905,690         425,655           1,111,671         2,080,887         2,585,767         2,158,440         2,181,623         969,216         504,881           116,955         180,481         259,707         243,829         222,643         63,526         79,225           ne families           167,671         292,862         316,123         248,121         228,420         125,190         23,261           202,908         359,837         424,102         344,476         310,099         156,928         64,265           35,237         66,975         107,979         96,354         81,679         31,738         41,004	1983         2001         2007         2010         2013         2001         2007         2010           270,862         531,813         635,989         537,576         537,226         260,951         104,176         -98,414           311,508         604,736         746,863         643,630         629,889         293,227         142,127         -103,233           40,647         72,923         110,874         106,054         92,663         32,276         37,951         -4,820           e families         994,716         1,900,405         2,326,061         1,914,611         1,958,981         905,690         425,655         -411,449           1,111,671         2,080,887         2,585,767         2,158,440         2,181,623         969,216         504,881         -427,327           16,955         180,481         259,707         243,829         222,643         63,526         79,225         -15,877           Ine families         167,671         292,862         316,123         248,121         228,420         125,190         23,261         -68,002           35,237         66,975         107,979         96,354         81,679         31,738         41,004         -11,624

Note: Net worth is the difference between the value of assets owned by a family and the liabilities it holds. Families are assigned to income tiers based on their size-adjusted income. Net worth is not adjusted for family size.

Source: Pew Research Center analysis of Survey of Consumer Finances public-use data

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was faster for debt – leaving families vulnerable when the economy weakened.<sup>50</sup> In this respect, especially with regard to changes in the level of debt, there are notable differences across the income tiers.

From 1983 to 2001, asset values increased by more than the increase in debt levels for families in all income tiers. Among middle-income families the mean value of assets increased by \$156,928, compared with an increase of \$31,738 in their debt level. Thus, their mean wealth increased by \$125,190 from 1983 to 2001.<sup>51</sup> The pattern of asset values increasing more than debt levels also prevailed from 2001 to 2007.

<sup>&</sup>lt;sup>50</sup> An exception to this trend is that the value of assets held by upper-income families increased at a faster rate than the level of their debt from 1983 to 2001.

<sup>&</sup>lt;sup>51</sup> The analysis in this section is based on mean wealth, not median wealth. This is because mean wealth equals mean asset values less mean debt levels. A similar arithmetic relationship does not hold for medians.

But even as the mean wealth of families was climbing, lower- and middle-income families were accumulating debt at a faster rate than their asset levels were increasing. From 1983 to 2001, the mean level of debt owed by middleincome families increased by 90% and mean asset values increased by 77%. Lowerincome families raised their debt level by 111% over the same period, nearly double the increase in their asset values (59%). Only upper-income families experienced a greater increase in the value of their assets (87%) than in their level of debt (54%).

The practice of accumulating debt at a faster rate than the rise in asset values continued from 2001 to 2007. Moreover,

# Families in all income tiers accumulated debt at a rapid pace from 1983 to 2007

% change in mean net worth, assets and debts, by income tier

	1983-2001	2001-2007	2007-2010	2010-2013
All families				
Net worth	96	20	-15	0
Assets	94	24	-14	-2
Debts	79	52	-4	-13
Upper-income families				
Net worth	91	22	-18	2
Assets	87	24	-17	1
Debts	54	44	-6	-9
Middle-income families				
Net worth	75	8	-22	-8
Assets	77	18	-19	-10
Debts	90	61	-11	-15
Lower-income families				
Net worth	52	24	-7	-22
Assets	59	29	-2	-22
Debts	111	49	15	-22

Note: Net worth is the difference between the value of assets owned by a family and the liabilities it holds. Families are assigned to income tiers based on their size-adjusted income. Net worth is not adjusted for family size.

Source: Pew Research Center analysis of Survey of Consumer Finances public-use data

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it became entrenched among upper-income families as well. Middle-income families raised their debt level by a further 61% from 2001 to 2007, compared with an increase of only 18% in the mean value of their assets. This trend likely placed families in a more vulnerable position prior to the Great Recession than they might have been if the growth in debt and asset values had been more balanced.

Families in all income tiers put the brakes on debt accumulation after the onset of the Great Recession. But these attempts were in vain from 2007 to 2010 as asset values plunged even more. Middle-income families cut their mean debt level by \$11,624, or by 11%. But the value of their assets fell by \$79,626 (19%). Thus, their mean wealth dropped by \$68,002 with the Great Recession. Upper-income families were not immune to the downturn. They reduced their debt burden by 6%, but their asset holdings lost 17% in value.

Lower-income families, with more limited financial resources in general and greater exposure to job losses, were unable to reduce their debt burden from 2007 to 2010. Their level of debt increased 15% in this period. This increase was more modest than in previous periods, but it was damaging in light of a loss of 2% in asset values. Thus, the mean wealth of lower-income families fell by \$8,214 with the recession.

Families in all income tiers succeeded in continuing to reduce debt burdens from 2010 to 2013. Middle-income families knocked off \$14,675 of their debt, but even that did not keep up with a loss of an additional \$34,377 in their asset holdings. Likewise, lower-income families cut their debt by \$7,708, but that was insufficient in the face of a loss of \$32,321 in asset values. Thus, the mean wealth of lower- and middle-income families dropped again from 2010 to 2013.

Only upper-income families experienced a gain in mean wealth from 2010 to 2013. Their debt level decreased by \$21,186, and their asset values increased by \$23,183 in this period. Thus, the mean wealth of upper-income families increased \$44,369 from 2010 to 2013. But the mean net worth of upper-income families remains less than in 2007, and that is also the situation among middle- and lower-income families.

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## Methodology

#### **Data Sources**

The demographic and income data in this report are derived from the <u>Current Population Survey</u>, Annual Social and Economic Supplements (ASEC), which is conducted in March of every year. The specific files used in this report are from March 1971 to March 2015. Conducted jointly by the U.S. Census Bureau and the Bureau of Labor Statistics, the CPS is a monthly survey of approximately 55,000 households and is the source of the nation's official statistics on unemployment. The ASEC survey in March typically features a larger sample size. Data on income and poverty from the ASEC survey serve as the basis for the <u>well-known Census Bureau report on income and poverty</u> in the United States. <sup>52</sup> The ASEC surveys collect data on the income of a household in the preceding calendar year. Thus, the 1971 to 2015 files used in this report contain data on income from 1970 to 2014.

The 2015 ASEC utilized a redesigned set of income questions, so the household income figures reported for calendar year 2014 may not be fully comparable to earlier years. The 2014 ASEC tested the new redesigned income questions by offering five-eighths of the sample the traditional income questions and three-eighths of the sample the redesigned questions. Median household income for calendar year 2013 was \$53,585 (in 2013 dollars) based on the redesigned income questions compared with an estimated \$51,939 using the traditional income questions. The difference reflects both the different questionnaire and the different sampled households responding to the questionnaires.

Methodological revisions in the CPS may also have an impact on the trends in household income. In particular, the 1993 revisions have an impact on the comparability of income data before and after that date.<sup>53</sup>

The CPS microdata used in this report 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 <a href="http://cps.ipums.org/cps/documentation.shtml">http://cps.ipums.org/cps/documentation.shtml</a>.

The wealth analysis is based on the <u>Survey of Consumer Finances</u> (SCF) that is sponsored by the Federal Reserve Board of Governors and the Department of Treasury. It has been conducted every

<sup>52</sup> DeNavas-Walt and Proctor, (2015).

<sup>53</sup> Burkhauser, Larrimore and Simon (2011).

three years since 1983 and is designed to provide detailed information on the finances of U.S. families. The SCF sample typically consists of approximately 4,500 families, but the 2013 survey included about 6,000 families. Unlike the CPS, the sampling unit in the SCF is the "primary economic unit" (PEU), not the household. As stated by the Federal Reserve Board, "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."

There are notable differences between the SCF data the Federal Reserve Board releases for public use and the data it uses to publish estimates of family income and wealth. One difference is that estimates published by the Federal Reserve Board are often based on preliminary data, while the public-use files represent edited versions of the data. Also, prior to public release, the Federal Reserve Board alters the data using statistical procedures that may affect the estimates, albeit not significantly. That is done for reasons of confidentiality.

#### Income and wealth

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.

Wealth, or net worth, is the difference between the value of assets owned by households and the value of the liabilities (or debt) held by the household. Assets include items such as the value of an owned home, value of a business, accounts in financial institutions, stocks and bonds, 401(k) and thrift accounts, individual retirement accounts and Keogh accounts, rental properties, motor vehicles and other personal property. Liabilities include home mortgages, credit card debt, student loans, vehicle loans and business debt. The SCF does not account for the discounted values of Social Security benefits or defined benefit pension plans.

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 <u>Census Bureau's income and poverty report</u>. This is the price index series used by the U.S. Census Bureau to deflate the data it publishes on household income. Since 1978, this is the CPI-U-RS index as <u>published</u> 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 2014, the price level rose either 510% (CPI-U) or 444% (CPI-U-RS). This means that someone earning \$10,000 per year in 1970 would be just as well off in 2014 earning either \$61,014 (using the CPI-U) or \$54,429 (using the CPI-U-RS).

## The choice of time periods

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 based on data pertaining to 1970, 1980, 1990, 2000, 2010, and 2014. The first three dates encompass periods of recessions (December 1969 to November 1970, January to July 1980, and July 1990 to March 1991). However, 2000 represents the peak of a business cycle, 2010 follows on the heels of the Great Recession (December 2007 to June 2009), and 2014 was the fifth year of economic expansion. Thus, changes in income from 1990 to 2000, from 2000 to 2010, and from 2010 to 2014 reflect, in part, the shorter-run effects of business cycles.

With regard to the wealth analysis, the dates of reference are 1983, 1992, 2001, 2007, 2010 and 2013. The first three dates represent the tail ends of recessions, 2007 is in the midst of an expansion, 2010 is again at the tail end of a recession, and 2013 is in the midst of an expansion. Data for 2007 are included to capture the impact of the Great Recession.

#### 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 his or her 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 two or more adult roommates are not considered families according to the Census

<sup>&</sup>lt;sup>54</sup> Business cycle dates are from the National Bureau of Economic Research (NBER).

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 the "householder" (usually whoever owns the unit or in whose name the lease is held), and the other person or persons are designated 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.

## 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 United States decreased from 3.2 persons in 1970 to 2.5 persons in 2015, a drop of 21%. 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, most researchers make adjustments for household size using the method of "equivalence scales." 55

A common equivalence-scale adjustment is defined as follows:

Adjusted household income = Household income / (Household size)<sup>N</sup>

By this method, household income is divided by household size exponentiated by "N," where N is a number between o and 1.

<sup>&</sup>lt;sup>55</sup> See Garner, Ruiz-Castillo and Sastre (2003) and Short, Garner, Johnson and Doyle (1999).

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=0.5.56 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.<sup>57</sup>

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 \*  $[(3)^{0.5}]$ 

As discussed in the main body of the report, adjusting for household size has had 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.

<sup>&</sup>lt;sup>56</sup> For example, see Johnson, Smeeding and Torrey (2005).

<sup>&</sup>lt;sup>57</sup> 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 (Debels and Vandecasteele, 2008).

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# Appendix B: Demographics of adults in lower-, middle- and upper-income tiers

#### Characteristics of the adult population in lower-, middle- and upper-income households

%

		All a	dults		lowe		lts in e househ	olds	mide	Adul dle-incom		olds	Adults in upper-income households				
	1971	2001	2011	2015	1971	2001	2011	2015	1971	2001	2011	2015	1971	2001	2011	2015	
18 to 29	28	22	22	21	25	24	25	24	30	23	22	22	25	17	17	17	
30 to 44	26	31	26	25	20	27	24	24	29	34	27	26	22	31	24	24	
45 to 64	31	31	35	34	24	23	28	29	31	30	35	34	45	43	47	44	
65 and older	15	16	17	19	31	27	23	24	9	13	16	18	7	9	12	15	
Married, with children at home	44	31	28	28	32	24	21	20	51	35	31	30	36	32	31	32	
Married, no children at home	25	24	24	24	25	20	17	17	22	23	24	24	34	34	34	33	
Unmarried	31	44	48	49	43	57	62	63	26	41	45	46	30	33	34	35	
White	78	70	67	65	65	58	54	52	80	73	69	67	88	82	80	77	
Hispanic	12	13	14	15	16	21	22	23	11	12	13	15	7	6	6	7	
Black	9	11	11	12	18	17	17	17	7	10	10	11	4	6	5	6	
Asian/Pacific Islander	NA	4	5	6	NA	3	4	5	NA	4	5	6	NA	6	7	8	
Foreign born	NA	14	16	16	NA	18	21	22	NA	13	14	15	NA	11	12	13	
Less than high school grad	40	17	13	12	64	34	27	24	35	12	10	9	18	4	3	3	
High school grad	36	32	30	30	25	36	37	37	41	35	32	31	36	18	16	15	
Some college/Two-year degree	13	27	28	28	7	21	25	26	14	31	32	32	20	26	25	24	
Bachelor's degree or more	11	24	28	30	3	8	11	12	10	22	26	28	27	52	56	58	

Note: Households are assigned to income tiers based on their size-adjusted income in the calendar year prior to the survey year. Percentages may not add to 100% due to rounding. Whites, blacks and Asians include only the single-race, non-Hispanic component of those groups. Hispanics are of any race. Other racial/ethnic groups are not shown. "Unmarried" includes "married, spouse absent," never married, divorced, separated or widowed. "With children" includes adults with a biological, adopted or step child of any age residing in the household.

Source: Pew Research Center analysis of the Current Population Survey, Annual Social and Economic Supplements

### Industries of the employed adult population in lower-, middle- and upper-income households

%

	All employed adults						l adults i e househ			Employed adults in middle-income households				Employed adults in upper-income households				
	1971	2001	2011	2014	1971	2001	2011	2014	1971	2001	2011	2014	1971	2001	2011	2014		
Agriculture and mining	5	3	3	3	13	5	5	5	3	2	3	3	2	2	2	3		
Construction	6	7	6	6	7	8	9	8	6	7	6	7	5	5	4	4		
Nondurable manufacturing	10	5	4	4	9	5	4	4	11	5	4	4	9	5	4	4		
Durable manufacturing	15	9	7	7	11	7	5	5	17	10	7	7	14	10	7	7		
Transportation	5	5	4	5	4	4	4	5	5	5	5	5	5	4	3	4		
Communications	2	2	1	1	1	1	1	1	2	1	1	1	2	2	2	2		
Utilities	2	1	1	1	1	1	1	1	2	1	1	1	1	1	2	1		
Wholesale trade	4	4	3	3	3	3	2	2	4	4	3	3	5	5	3	3		
Retail trade	15	15	17	17	18	23	26	26	15	16	17	18	12	9	10	10		
Finance, insurance & real estate	5	7	7	7	3	4	3	3	5	7	6	7	7	10	10	10		
Business services	1	6	5	6	1	6	6	6	1	5	5	5	1	8	6	7		
Repair services	1	2	1	1	2	3	2	2	1	2	2	2	1	1	1	1		
Personal services	5	3	3	3	12	6	5	5	4	3	3	3	2	2	2	2		
Entertainment	1	2	2	2	1	2	2	2	1	2	2	2	1	2	2	2		
Professional services	18	25	30	29	14	20	22	22	17	25	29	28	27	31	36	35		
Public administration	5	5	5	5	2	2	2	2	5	5	5	5	6	6	7	6		

Note: Households are assigned to income tiers based on their size-adjusted income in the calendar year prior to the survey year. Based on adults who were employed in the week prior to the survey date. Percentages may not add to 100% due to rounding. For a listing of each industry included in the categories shown, see Appendix C.

Source: Pew Research Center analysis of the Current Population Survey, Annual Social and Economic Supplements

## Occupations of the employed adult population in lower-, middle- and upper-income households

%

	AI	l emplo	yed adı	ılts			l adults i e housel				l adults i e house		Employed adults in upper-income households				
	1971	2001	2011	2014	1971	2001	2011	2014	1971	2001	2011	2014	1971	2001	2011	2014	
Executives and managers	13	15	15	15	8	5	5	5	11	14	12	13	22	27	27	27	
Professional specialties	2	4	4	3	<0.5	1	1	1	2	3	3	3	5	8	7	7	
Medical professionals	2	3	4	4	1	1	1	1	2	3	3	4	5	6	8	7	
Teachers	5	5	7	7	2	2	4	4	4	5	7	7	9	7	8	8	
Librarians and curators	3	4	4	4	1	2	3	2	2	4	4	4	5	6	6	7	
Technicians	2	3	4	4	1	2	2	2	3	4	4	4	3	4	5	5	
Sales	8	12	11	11	6	12	12	12	8	11	11	11	8	13	10	10	
Administrative	16	14	13	13	9	13	12	11	17	16	15	15	19	10	10	10	
Protective services	1	2	2	2	1	2	2	2	2	2	2	2	1	2	2	2	
Service occupations	11	11	14	14	22	23	28	28	10	11	14	13	5	4	5	5	
Farming, forestry and fishing	4	2	2	3	13	5	4	5	3	2	2	2	1	1	1	1	
Mechanics and repairers	12	11	9	9	10	12	11	9	13	12	11	10	9	7	5	6	
Operators	12	6	4	4	12	8	6	5	14	6	4	5	6	2	1	2	
Transportation occupations	9	8	7	7	13	12	11	12	10	8	7	8	4	3	3	3	

Note: Households are assigned to income tiers based on their size-adjusted income in the calendar year prior to the survey year. Based on adults who were employed in the week prior to the survey date. Percentages may not add to 100% due to rounding. For a listing of each occupation included in the categories shown, see Appendix C.

Source: Pew Research Center analysis of the Current Population Survey, Annual Social and Economic Supplements

## **Appendix C: Industry and occupation**

### Industry

The industry categories are based on the 1990 Census Bureau industrial classification scheme. The industry variable on the 1990 basis is not available for the 2015 CPS ASEC data at the Integrated Public Use Microdata Series. As a result the 2014 ASEC was used in the industry analysis. The analysis collapsed the adults' detailed industry into 16 industrial aggregates. The specific industries comprising the 16 industrial composites are as follows (note: n.e.c. refers to "not elsewhere classified"; n.s. refers to "not specified"):

#### **Industry categories**

#### **Agriculture and mining**

Agricultural production, crops
Agricultural production, livestock

Veterinary services

Landscape and horticultural services

Agricultural services, n.e.c.

Forestry

Fishing, hunting, and trapping

Metal mining Coal mining

Oil and gas extraction

Nonmetallic mining and quarrying, except fuels

#### Construction

All construction

#### Transportation

Railroads

Bus service and urban transit

Taxicab service
Trucking service

Warehousing and storage

U.S. Postal Service
Water transportation
Air transportation

Pipe lines, except natural gas Services incidental to transportation

Continued on next page

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#### **Communications**

Radio and television broadcasting and cable

Wired communications

Telegraph and miscellaneous communications services

#### **Utilities**

Electric light and power

Gas and steam supply systems

Electric and gas, and other combinations

Water supply and irrigation

Sanitary services Utilities, n.s.

#### Finance, insurance, and real estate

Banking

Savings institutions, including credit unions

Credit agencies, n.e.c.

Security, commodity brokerage, and investment companies

Insurance

Real estate, including real estate-insurance offices

#### **Business services**

Advertising

Services to dwellings and other buildings

Personnel supply services

Computer and data processing services

Detective and protective services

Business services, n.e.c.

#### **Industry categories**

Repair services

Automotive rental and leasing, without drivers

Automobile parking and carwashes

Automotive repair and related services

Electrical repair shops

Miscellaneous repair services

**Personal services** 

Private households

Hotels and motels

Lodging places, except hotels and motels

Laundry, cleaning, and garment services

Beauty shops Barber shops

Funeral service and crematories

Shoe repair shops Dressmaking shops

Miscellaneous personal services

**Entertainment and recreation services** 

Theaters and motion pictures

Video tape rental Bowling centers

Miscellaneous entertainment and recreation services

Museums, art galleries, and zoos

**Public administration** 

Executive and legislative offices

General government, n.e.c.

Justice, public order, and safety

Public finance, taxation, and monetary policy

Administration of human resources programs

Administration of environmental quality and housing

programs

Administration of economic programs

National security and international affairs

Nondurable manufacturing

Meat products

Dairy products

Canned, frozen, and preserved fruits and vegetables

Grain mill products

Bakery products

Sugar and confectionery products

Beverage industries

Misc. food preparations and kindred products

Food industries, n.s.

Tobacco manufactures

Knitting mills

Dyeing and finishing textiles, except wool and knit goods

Carpets and rugs

Yarn, thread, and fabric mills

Miscellaneous textile mill products

Apparel and accessories, except knit

Miscellaneous fabricated textile products

Pulp, paper, and paperboard mills

Miscellaneous paper and pulp products

Paperboard containers and boxes

Newspaper publishing and printing

Printing, publishing, and allied industries, except newspapers

Plastics, synthetics, and resins

Drugs

Soaps and cosmetics

Paints, varnishes, and related products

Agricultural chemicals

Industrial and miscellaneous chemicals

Petroleum refining

Miscellaneous petroleum and coal products

Tires and inner tubes

Other rubber products, and plastics footwear and belting

Miscellaneous plastics products

Leather tanning and finishing

Footwear, except rubber and plastic

Leather products, except footwear

Manufacturing, non-durable-allocated

Continued on next page

#### **Industry categories**

#### **Durable manufacturing**

Logging

Sawmills, planing mills, and millwork Wood buildings and mobile homes

Miscellaneous wood products

Furniture and fixtures

Glass and glass products

Cement, concrete, gypsum, and plaster products

Structural clay products
Pottery and related products

Misc. nonmetallic mineral and stone products

Blast furnaces, steelworks, rolling and finishing mills

Iron and steel foundries
Primary aluminum industries

Other primary metal industries

Cutlery, handtools, and general hardware

Fabricated structural metal products

Screw machine products

Metal forgings and stampings

Ordnance

Miscellaneous fabricated metal products

Metal industries, n.s. Engines and turbines

Farm machinery and equipment

Construction and material handling machines

Metalworking machinery

Office and accounting machines Computers and related equipment Machinery, except electrical, n.e.c.

Machinery, n.s.

Household appliances

Radio, TV, and communication equipment

Electrical machinery, equipment, and supplies, n.e.c.

Electrical machinery, equipment, and supplies, n.s.

Motor vehicles and motor vehicle equipment

Aircraft and parts

Ship and boat building and repairing Railroad locomotives and equipment

Continued on next page

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#### **Durable manufacturing (continued)**

Guided missiles, space vehicles, and parts

Cycles and miscellaneous transportation equipment

Scientific and controlling instruments

Medical, dental, and optical instruments and supplies

Photographic equipment and supplies

Watches, clocks, and clockwork operated devices

Toys, amusement, and sporting goods Miscellaneous manufacturing industries

Manufacturing industries, n.s.

#### Wholesale trade

Motor vehicles and equipment Furniture and home furnishings

Lumber and construction materials

Professional and commercial equipment and supplies

Metals and minerals, except petroleum

Electrical goods

Hardware, plumbing and heating supplies

Machinery, equipment, and supplies

Scrap and waste materials

Miscellaneous wholesale, durable goods

Paper and paper products

Drugs, chemicals, and allied products

Apparel, fabrics, and notions Groceries and related products Farm-product raw materials

Petroleum products Alcoholic beverages Farm supplies

Miscellaneous wholesale, nondurable goods

Wholesale trade, n.s.

#### **Industry categories**

**Retail trade** 

Lumber and building material retailing

Hardware stores

Retail nurseries and garden stores

Mobile home dealers Department stores Variety stores

Miscellaneous general merchandise stores

Grocery stores

Dairy products stores

Retail bakeries Food stores, n.e.c. Motor vehicle dealers

Auto and home supply stores

Gasoline service stations
Miscellaneous vehicle dealers

Apparel and accessory stores, except shoe

Shoe stores

Furniture and home furnishings stores

Household appliance stores
Radio, TV, and computer stores

Music stores

Eating and drinking places

Drug stores Liquor stores

Sporting goods, bicycles, and hobby stores

Book and stationery stores

Jewelry stores

Gift, novelty, and souvenir shops

Sewing, needlework, and piece goods stores

Catalog and mail order houses Vending machine operators Direct selling establishments

Fuel dealers Retail florists

Miscellaneous retail stores

Retail trade, n.s.

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**Professional services** 

Offices and clinics of physicians
Offices and clinics of dentists
Offices and clinics of chiropractors
Offices and clinics of optometrists

Offices and clinics of health practitioners, n.e.c.

Hospitals

Nursing and personal care facilities

Health services, n.e.c.

Legal services

Elementary and secondary schools

Colleges and universities

Vocational schools

Libraries

Educational services, n.e.c.

Job training and vocational rehabilitation services

Child day care services Family child care homes

Residential care facilities, without nursing

Social services, n.e.c.

Labor unions

Religious organizations

Membership organizations, n.e.c.

Engineering, architectural, and surveying services
Accounting, auditing, and bookkeeping services
Research, development, and testing services
Management and public relations services
Miscellaneous professional and related services

### Occupation

The occupational categories are based on a modified version of the 1990 Census Bureau occupational classification scheme. The original version has 514 categories. The Integrated Public Use Microdata Series (IPUMS) version has 389 categories. The occupational variable on the 1990 basis is not available for the 2015 CPS ASEC data at IPUMS. As a result the 2014 ASEC was used in the occupational analysis. The analysis collapsed the adult's detailed occupation into 14 occupational aggregates. The specific occupations comprising the 14 occupational composites are as follows (note: n.e.c. refers to "not elsewhere classified"; n.s. refers to "not specified"):

### **Occupation categories**

**Executives and managers** 

Legislators

Chief executives and public administrators

Financial managers

Human resources and labor relations managers

Managers and specialists in marketing, advertising, and public relations

Managers in education and related fields

Managers of medicine and health occupations

Postmasters and mail superintendents

Managers of food-serving and lodging establishments

Managers of properties and real estate

**Funeral directors** 

Managers of service organizations, n.e.c.

Managers and administrators, n.e.c.

Accountants and auditors Insurance underwriters

Other financial specialists

Management analysts

Personnel, HR, training, and labor relations specialists

Purchasing agents and buyers, of farm products

Buyers, wholesale and retail trade

Purchasing managers, agents and buyers, n.e.c.

Business and promotion agents

Construction inspectors

Inspectors and compliance officers, outside construction

Management support occupations

Continued on next page

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**Professional specialties** 

Architects

Aerospace engineer

Metallurgical and materials engineers, variously phrased

Petroleum, mining, and geological engineers

Chemical engineers

Civil engineers

Electrical engineer

Industrial engineers

Mechanical engineers

Not-elsewhere-classified engineers

Computer systems analysts and computer scientists

Operations and systems researchers and analysts

Actuaries

Statisticians

Mathematicians and mathematical scientists

Physicists and astronomers

Chemists

Atmospheric and space scientists

Geologists

Physical scientists, n.e.c.

Agricultural and food scientists

**Biological scientists** 

Foresters and conservation scientists

Medical scientists

Medical professionals

Physicians

Dentists

Veterinarians Optometrists

Podiatrists

Other health and therapy

Registered nurses

**Pharmacists** 

Dietitians and nutritionists

Respiratory therapists

Occupational therapists
Physical therapists

Speech therapists
Therapists, n.e.c.

Physicians' assistants

**Teachers and professors** 

Earth, environmental, and marine science instructors

Biological science instructors

Chemistry instructors

Physics instructors

Psychology instructors

**Economics instructors** 

History instructors

Sociology instructors

Engineering instructors

Math instructors

Education instructors

Law instructors

Theology instructors

Home economics instructors

Humanities profs/instructors, college, n.e.c.

Subject instructors (HS/college)

Kindergarten and earlier school teachers

Primary school teachers

Secondary school teachers

Special education teachers

Teachers, n.e.c.

Vocational and educational counselors

Continued on next page

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Librarians and curators

Librarians

Archivists and curators

Economists, market researchers, and survey researchers

Psychologists

Sociologists

Social scientists, n.e.c.

Urban and regional planners

Social workers

Recreation workers

Clergy and religious workers

Lawyers

Judges

Writers and authors

Technical writers

Designers

Musician or composer

Actors, directors, producers

Art makers: painters, sculptors, craft-artists, and print-makers

Photographers

Dancers

Art/entertainment performers and related

Editors and reporters

Announcers

Athletes, sports instructors, and officials

Professionals, n.e.c.

Sales

Supervisors and proprietors of sales jobs

Insurance sales occupations

Real estate sales occupations

Financial services sales occupations

Advertising and related sales jobs

Sales engineers

Salespersons, n.e.c.

Retail sales clerks

Cashiers

Door-to-door sales, street sales, and news vendors

Sales demonstrators / promoters / models

Sales workers—allocated (1990 internal census)

**Administrative** 

Office supervisors

Computer and peripheral equipment operators

Secretaries

Stenographers

**Typists** 

Interviewers, enumerators, and surveyors

Hotel clerks

Transportation ticket and reservation agents

Receptionists

Information clerks, n.e.c.

Correspondence and order clerks

Human resources clerks, except payroll and timekeeping

Library assistants

File clerks

Records clerks

Bookkeepers and accounting and auditing clerks

Payroll and timekeeping clerks

Cost and rate clerks (financial records processing)
Billing clerks and related financial records processing

Duplication machine operators / office machine operators

Mail and paper handlers

Office machine operators, n.e.c.

Telephone operators

Other telecom operators

Postal clerks, excluding mail carriers

Mail carriers for postal service

Mail clerks, outside of post office

Messengers Dispatchers

Inspectors, n.e.c.

Shipping and receiving clerks

Stock and inventory clerks

Continued on next page

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Administrative (continued)

Meter readers

Weighers, measurers, and checkers

Customer service reps, investigators and adjusters, except

insurance

Eligibility clerks for government programs; social welfare

Bill and account collectors

General office clerks

Bank tellers

Proofreaders

Data entry keyers

Statistical clerks

Teacher's aides

Administrative support jobs, n.e.c.

Professional, technical, and kindred workers-allocated (1990

internal census)

Clerical and kindred workers-allocated (1990 internal

census)

Material recording, scheduling, production, planning, and

expediting clerks

Insurance adjusters, examiners, and investigators

Farming, forestry and fishing

Farmers (owners and tenants)

Horticultural specialty farmers

Farm managers, except for horticultural farms

Managers of horticultural specialty farms

Farmworkers

Farm laborers and farm foreman—allocated (1990 internal

census)

Marine life cultivation workers

Nursery farming workers

Supervisors of agricultural occupations

Gardeners and groundskeepers

Animal caretakers except on farms

Graders and sorters of agricultural products

Inspectors of agricultural products

Timber, logging, and forestry workers

Fishers, hunters, and kindred

**Mechanics and repairers** 

Supervisors of mechanics and repairers

Automobile mechanics

Bus, truck, and stationary engine mechanics

Aircraft mechanics
Small engine repairers
Auto body repairers

Heavy equipment and farm equipment mechanics

Industrial machinery repairers

Machinery maintenance occupations

Repairers of industrial electrical equipment Repairers of data processing equipment

Repairers of household appliances and power tools

Telecom and line installers and repairers Repairers of electrical equipment, n.e.c.

Heating, air conditioning, and refrigeration mechanics

Precision makers, repairers, and smiths

Locksmiths and safe repairers

Office machine repairers and mechanics Repairers of mechanical controls and valves

Elevator installers and repairers

Millwrights

Mechanics and repairers, n.e.c. Supervisors of construction work Masons, tilers, and carpet installers

Carpenters
Drywall installers
Electricians

Electric power installers and repairers
Painters, construction and maintenance

Paperhangers Plasterers

Plumbers, pipe fitters, and steamfitters

Concrete and cement workers

Glaziers

Insulation workers

Paving, surfacing, and tamping equipment operators

Roofers and slaters

Sheet metal duct installers

Continued on next page

PEW RESEARCH CENTER

Mechanics and repairers (continued)

Structural metal workers

Drillers of earth

Construction trades, n.e.c.

Drillers of oil wells Explosives workers

Miners

Other mining occupations

Production supervisors or foremen

Tool and die makers and die setters

Machinists Boilermakers

Precision grinders and filers

Patternmakers and model makers

Lay-out workers

Engravers

Tinsmiths, coppersmiths, and sheet metal workers

Cabinetmakers and bench carpenters

Furniture and wood finishers
Other precision woodworkers
Dressmakers and seamstresses

Tailors
Upholsterers
Shoe repairers

Other precision apparel and fabric workers Hand molders and shapers, except jewelers

Optical goods workers

Dental laboratory and medical appliance technicians

Bookbinders

Other precision and craft workers Butchers and meat cutters

**Bakers** 

Batch food makers
Adjusters and calibrators

Water and sewage treatment plant operators

Power plant operators

Plant and system operators, stationary engineers

Other plant and system operators

**Operators** 

Lathe, milling, and turning machine operatives Punching and stamping press operatives Rollers, roll hands, and finishers of metal

Drilling and boring machine operators

Grinding, abrading, buffing, and polishing workers

Forge and hammer operators

Fabricating machine operators, n.e.c. Molders, and casting machine operators

Metal platers

Heat treating equipment operators

Wood lathe, routing, and planing machine operators

Sawing machine operators and sawyers

Shaping and joining machine operator (woodworking)

Nail and tacking machine operators (woodworking)

Other woodworking machine operators
Printing machine operators, n.e.c.
Photoengravers and lithographers
Typesetters and compositors

Winding and twisting textile/apparel operatives Knitters, loopers, and toppers textile operatives

Textile cutting machine operators
Textile sewing machine operators
Shoemaking machine operators
Pressing machine operators (clothing)

Laundry workers

Misc. textile machine operators

Cementing and gluing machine operators

Packers, fillers, and wrappers

Extruding and forming machine operators Mixing and blending machine operatives

Separating, filtering, and clarifying machine operators

Painting machine operators

Roasting and baking machine operators (food)
Washing, cleaning, and pickling machine operators

Paper folding machine operators

Furnace, kiln, and oven operators, apart from food

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**Operators (continued)** 

Crushing and grinding machine operators Slicing and cutting machine operators

Motion picture projectionists
Photographic process workers
Machine operators, n.e.c.

Welders and metal cutters

Solderers

Assemblers of electrical equipment

Hand painting, coating, and decorating occupations

Production checkers and inspectors Graders and sorters in manufacturing

**Technicians** 

Clinical laboratory technologies and technicians

Dental hygienists

Health record tech specialists Radiologic tech specialists Licensed practical nurses

Health technologists and technicians, n.e.c. Electrical and electronic (engineering) technicians

Engineering technicians, n.e.c.

Mechanical engineering technicians

**Drafters** 

Surveyors, cartographers, mapping scientists and technicians

Biological technicians Chemical technicians Other science technicians Airplane pilots and navigators

Air traffic controllers

Broadcast equipment operators Computer software developers

Programmers of numerically controlled machine tools

Legal assistants, paralegals, legal support, etc.

Technicians, n.e.c.

**Service occupations** 

Housekeepers, maids, butlers, stewards, and lodging quarters

cleaners

Private household cleaners and servants

Private household workers—allocated (1990 internal census)

Bartenders

Waiter/waitress

Cooks, variously defined

Food counter and fountain workers

Kitchen workers Waiter's assistant

Misc. food prep workers

Dental assistants

Health aides, except nursing Nursing aides, orderlies, and attendants

Supervisors of cleaning and building service

**Janitors** 

Elevator operators
Pest control occupations

Supervisors of personal service jobs, n.e.c.

Barbers

Hairdressers and cosmetologists

Recreation facility attendants

Guides

Ushers

Public transportation attendants and inspectors

Baggage porters Welfare service aides

Personal service occupations, n.e.c.

**Protective services** 

Child care workers

Supervisors of guards

Firefighting, prevention, and inspection

Police, detectives, and private investigators

Other law enforcement: sheriffs, bailiffs, correctional institution

officers

Crossing guards and bridge tenders Guards, watchmen, doorkeepers

Protective services, n.e.c.

**PEW RESEARCH CENTER** 

**Transportation occupations** 

Supervisors of motor vehicle transportation

Truck, delivery, and tractor drivers

Bus drivers

Taxi cab drivers and chauffeurs

Parking lot attendants

Transport equipment operatives—allocated (1990 internal

census)

Railroad conductors and yardmasters

Locomotive operators (engineers and firemen)
Railroad brake, coupler, and switch operators

Ship crews and marine engineers

Water transport infrastructure tenders and crossing guards

Operating engineers of construction equipment Crane, derrick, winch, and hoist operators Excavating and loading machine operators

Misc. material moving occupations

Helpers, constructions
Helpers, surveyors
Construction laborers
Production helpers

Garbage and recyclable material collectors

Materials movers: stevedores and longshore workers

Stock handlers

Machine feeders and offbearers
Freight, stock, and materials handlers

Garage and service station related occupations Vehicle washers and equipment cleaners

Packers and packagers by hand Laborers outside construction

Laborers, except farm—allocated (1990 internal census)