

RESEARCH REPORT

The Growing Size and Incomes of the Upper Middle Class

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The Growing Size and Incomes of the Upper Middle Class

Many people talk about the conditions of the middle class but few define it, and the term *upper middle class* is equally ambiguous. Because people tend to live in communities with people with similar incomes, they view themselves as being near the middle because their neighbors' circumstances are similar to their own even if their incomes are significantly below or above the US median.

In response to six Pew Research Center polls over the past six years that ask, "Of these commonly used names for the social classes, which would you say you belong in? The upper class, upper middle class, middle class, lower middle class, or lower class?," about 9 out of 10 respondents identified as being in one of the three parts of the middle class. Of the remaining respondents, 1 to 2 percent said upper class, and 8 to 11 percent said lower class.

The concept of social class knits together multiple factors such as income, wealth, education, prestige, and cultural sophistication, so there is no agreed-upon definition of *middle class*. One way to characterize the middle class is by identifying those who clearly are not in it. The rich aren't middle class because they have resources that permit them to have the best of many things. The poor and near-poor have very limited options and often rely on means-tested government programs to meet their living expenses. Because defining by exclusion leaves a very broad middle class, many people segment it into upper, middle, and lower portions. But even these divisions leave diverse categories. Lower middle class people generally have modest living standards, while those in the upper middle class have living standards considerably above the basic necessities and discretionary income available to spend on higher-quality goods and services (e.g., bigger homes, better appliances, eating out, and foreign travel).

Studying the middle class requires an operational definition of the group. This paper uses current money income to define class because current income is closely related to all the factors associated with social class and because data on current income are readily available. Although there are no generally accepted income ranges for defining classes, there are many reasonable alternatives, and this paper considers several of them.

The paper focuses on how the upper middle and middle classes have changed between 1979 and 2014. I set class boundaries by using absolute income thresholds adjusted for inflation. This approach is analogous to how the federal poverty level is set. The federal poverty level is based on an absolute standard of need set in the 1960s that is adjusted for inflation each year. The advantage of this absolute

approach is that the size of the classes can change over time. In contrast, groups of interest that are defined by relative approaches that are based on fixed percentile ranges always stay the same size. Appendix A presents results from a variety of relative approaches to defining class divisions.

I found that the upper middle class has grown substantially, from 12.9 percent of the population in 1979 to 29.4 percent in 2014. Further, with the exception of the bottom 6 percent, real growth occurred throughout the income ladder. However, that growth was unevenly distributed in that people with higher incomes had faster growth than those with lower incomes. Consequently, these findings expand the discussion of rising inequality to focus on more than just the top 1 percent. Indeed, a massive shift has occurred in the center of gravity of the economy. In 1979, the middle class controlled a bit more than 46 percent of all incomes, and the upper middle class and rich controlled 30 percent. In contrast, in 2014 the rich and upper middle class controlled 63 percent of all incomes (52 percent for the upper middle class and 11 percent for the rich); the middle class share had shrunk to 26 percent; and the shares of the lower middle class, poor, and near-poor had declined by half.

Methodology

Tracking the evolution of the upper middle class required several significant methodological decisions, including selecting beginning and end points for the study, choosing a dataset, defining the unit of the analysis (e.g., individual, family, household), adjusting for differences in the number of individuals in each unit, and taking inflation into account.

This study used 1979 as a starting point because it was the last business cycle peak before income inequality grew dramatically in the first half of the 1980s.¹ The year 2014 was chosen as the study's end point because it was the most recent year for which income data were available. The study also examined whether the size of the upper middle class changed dramatically after the slow growth from 2000 to 2007, followed by the deep recession of 2007–09 and the slow recovery from that recession.

The data for this study came from the Annual Socioeconomic Supplement to the March Current Population Survey (CPS). This survey collects information monthly from 50,000 to 75,000 households and is used to determine the monthly unemployment rate. The March supplement contains detailed questions on personal and family incomes from different sources (e.g., earnings, interest payments, dividends, pensions, unemployment insurance, and social security).

To define the unit of analysis, the study followed the practice of *Social Stratification in the United States* (Rose 2015) and focused on “non-dependent or primary adults”—people who are family heads, spouses, or single people. Children under age 18 are excluded. Roommates or boarders are treated as separate single people, and cohabiters are treated as married with their incomes and number of children combined. Adults excluded from this approach include adult children (over age 18) living with parents, other adult relatives of the family head (e.g., elderly parents, siblings), and the 8 million people who live in group quarters (e.g., prisons, military bases, and long-term health care facilities).

The main income tables in US Census Bureau reports focus on households and combine all the incomes of everyone in a single housing unit. Other census tabulations are limited to families—two or more related people in the same household—and don’t treat cohabiters as being married. Finally, some census tables report personal (individual) income for every person, including husbands and wives. This type of report, of course, creates problems in determining how to divide the income from married couples’ joint assets. The present study looked at family incomes and treated single people as separate one-person “families.”

When defining social class categories based on income levels,² it is important to adjust for the number of people in the family. A large literature discusses this issue, and the poverty thresholds are based on the number of people in the family. To achieve a common metric of standard of living, all incomes were converted into family-of-three equivalents.³ As table 1 shows, a single person with an income of \$58,000 and a married couple with three children and an income of \$128,000 each has a family-of-three income equivalent of \$100,000. Children over and under 18 years old were included in determining adjusted family income, but they were not included as nondependent adults in terms of determining population estimates.

TABLE 1

Income Level Necessary to Equal \$100,000 Family-of-Three Equivalent Income

Family size	Actual income
1	\$57,735
2	\$81,650
3	\$100,000
4	\$115,470
5	\$129,099
6	\$141,421
7	\$152,753

The family-of-three equivalent approach has the benefit of yielding a median value close to the median of unadjusted incomes of all households and offers the closest number to the average household size of 2.6 persons.

With this basic framework of analysis, the question became how to define five social classes in 2014 (table 2). Let’s begin by defining the bottom and the top. I defined the lower class as those people living in families with incomes up to 150 percent of the federal poverty level (\$30,000 family-of-three equivalents) for the poor and near-poor. To set the boundary for the rich, I turned for guidance to recent Pew polls, which report that 1 to 2 percent of the population consider themselves upper class. In 2014, 1.8 percent of the population had incomes above \$350,000, so I used that as the lower boundary for the rich.

Next, the vast middle needed to be split into the lower middle, middle, and upper middle classes. I set the bottom threshold for the upper middle class at five times the poverty level, or \$100,000 for a family of three. This approach is similar to but a bit more exclusive than the one used in the 1970s by the Bureau of Labor Statistics, which defined a “high budget level” at 4.25 times the poverty level. To check the importance of this specific definition of the lower bound of the upper middle class, I used a variety of thresholds (10 to 20 percent above and 15 percent below \$100,000) and showed that the resulting trends in the change in the size of the upper middle class are almost identical.

Setting the lower bound of the upper middle class income at \$100,000 left incomes between \$30,000 and \$100,000 to be divided between the middle class and lower middle class. I defined the lower middle class as having size-adjusted incomes between \$30,000 and \$50,000 and for the middle class to range from \$50,000 to \$100,000. The precise demarcation between the lower middle and middle classes is not crucial for this paper because the main focus is on the upper middle class. The sensitivity analyses that changed the lowest income of the upper middle class, however, would affect the size of the middle class.

TABLE 2

Defining Five Social Classes by 2014 Incomes

Class description	Family-of-Three Equivalents	
	Lower bound	Upper bound
Poor and near-poor	\$0	\$29,999
Lower middle class	\$30,000	\$49,999
Middle class	\$50,000	\$99,999
Upper middle class	\$100,000	\$349,999
Rich	\$350,000	None

Finally, the thresholds for 2014 needed to be adjusted for inflation to make comparisons over time. This study used the personal consumption expenditure (PCE) price deflator as the main price deflator (i.e., reported incomes in 1979 are multiplied by 2.74 to convert them to 2014 dollars). The PCE is considered to be a more accurate measure of inflation than the more commonly used consumer price index (CPI), which critics argue overstates changes in the cost of living (see Congressional Budget Office [CBO] 2016 and a *Forbes* article by Scott Winship⁴). Nonetheless, a separate analysis of the sizes of the various classes in 1979 is done using the CPI-U-RS (i.e., the Consumer Price Index Research Series Using Current Methods) to adjust for inflation, which is the version of the CPI currently used by the US Census Bureau in its historical tables.

The study did not adjust for regional differences in the cost of living, the underreporting and exclusion of certain sources of material support, or taxes. First, the cost of living varies dramatically depending on where you live. Although it would be sensible to adjust each family's income to a common "area equivalent income," doing so is not possible for both 1979 and 2014. Using state adjustments does not accurately adjust incomes across the state because of cost of living differences within states. Not using area price differences certainly means that some families were incorrectly categorized in this five-level class structure. However, inaccurately placing people from Washington, DC, as upper middle class because they have incomes just above \$100,000, even though they have high local costs and would not generally be considered as being upper middle class in that location, is offset by categorizing Des Moines, IA, families with incomes just below \$100,000 as being middle class, even though those families could be considered upper middle class because costs in their area are low. Because the point of this exercise was to determine large changes in social classes, any bias one way or the other should not be large.

Second, although total earnings in the Annual Socioeconomic Supplement align with national totals, other sources of income, such as noncash benefits for the poor and elderly and capital gains for the rich, are known to be underreported.⁵ Further, it is reasonable to include employer-paid taxes and benefits for health care and retirement as part of incomes. These factors are important, and analyses of income trends by the CBO account for all these additions and underreporting. The CBO has access to Internal Revenue Service records that are unavailable publicly, and the CBO does not make its raw data available. Consequently, I did not attempt to incorporate these income sources, but I discussed the potential effects that incorporating these income flows would have on the income shares of the five social-class groups. Had these sources been included, different income cut points would probably have been required to determine the size of each group.

Third, some might argue that the best measure of well-being might involve using after-tax income. Although the income tax is quite progressive, federal payroll taxes and state and local taxes tend to be regressive. Using an elaborate model, Citizens for Tax Justice report that the bottom three income quintiles have a combined federal, state, and local tax burden less than the top 40 percent (which varies narrowly from 30 percent for the fourth income quintile to 33 percent for the richest 1 percent).⁶ Consequently, using after-tax income would rebalance the income shares slightly in favor of the bottom 60 percent.

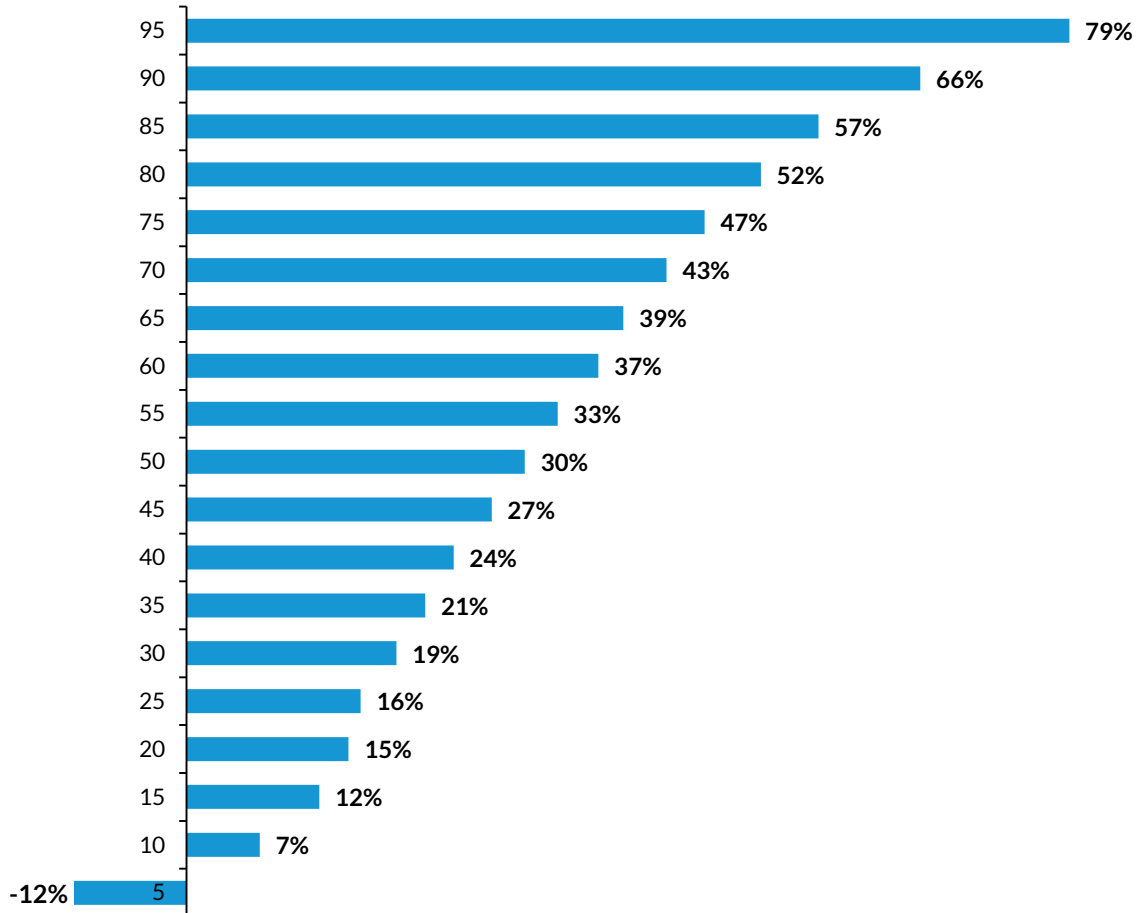
The Changing Size and Incomes of the Upper Middle Class

This study showed that, from 1979 to 2014, mean real incomes per nondependent adult grew 53 percent. Figure 1 shows how the percentage incomes changed along the income distribution from the 5th to 95th percentiles. As is clear, the higher the income was, the greater the real income growth was (although for all incomes at the 6th and lower percentiles, the 2014 real incomes were actually lower in 2014 than 1979). Even at the 30th percentile, income gain over these 35 years was a paltry 16 percent, and gains at the median 50th percentile were 30 percent. Finally, only incomes above the 80th percentile had real gains greater than the overall mean gain of 53 percent.

Between 1979 and 2014, the upper middle class more than doubled in size, from 12.9 to 29.4 percent (figure 2).⁷ While the share of the rich grew by 1.7 percentage points, there were sizable declines in each of the lower three groups, with the poor and near-poor falling from 24.3 to 19.8 percent, the lower middle class from 23.9 to 17.1 percent, and the middle class from 38.8 to 32.0 percent.

FIGURE 1

Percentage Change in Income by Income Percentiles, 1979–2014



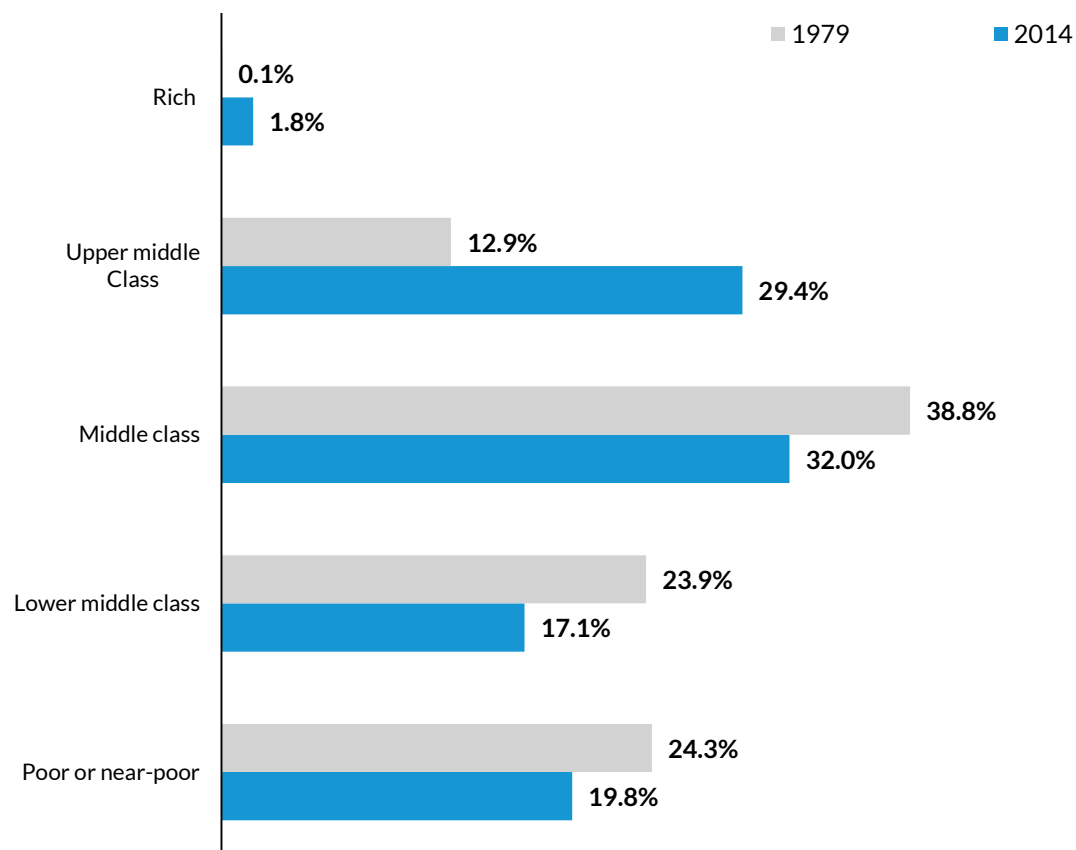
Source: Author's computations from March Supplement, 1980 and 2015 Current Population Survey.

The finding that the share of the poor and near-poor decreased differs from census figures that show that the proportion of persons living below 150 percent of the poverty level (their definition of poor and near-poor) rose from 21.1 percent in 1979 to 24.1 percent in 2014.⁸ The difference between the gain of 3 percentage points in the census numbers and the 4.2 percentage-point decline of the poor and near-poor reported in this study is driven by the adjustments for inflation. Our current definitions of poverty are based on successive yearly inflation adjustments since 1979. But if today's poverty level were converted to 1979 dollars by using a PCE price deflator, then the 1979 poverty threshold for a family of three would have been \$7,303 rather than \$5,707.⁹ With this income as the poverty level for a three-person family, the share of the poor and near-poor as defined in this paper would not have been 24.6 percent but 17.5 percent, and I would have found an increase in the proportion of poor and near-poor families of about 3 percentage points (from 17.5 to 20.4 percent). In other words, the census

finding of a three-point gain in the proportion of poor and near-poor gets converted into a 4 percentage-point decline because of the vast difference in the inflation adjustments.

FIGURE 2

Share of Each Class as a Percentage of US Population, 1979–2014



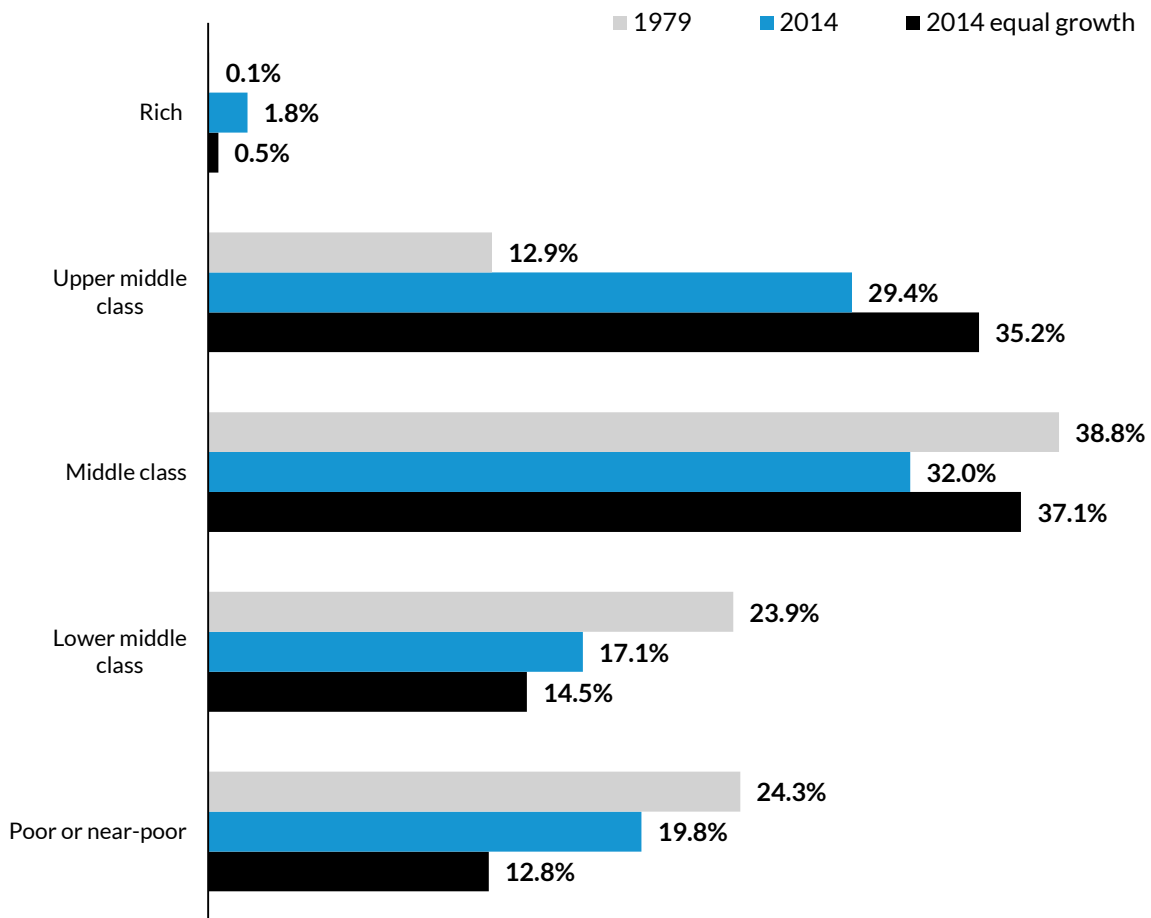
Source: Author's computations from March Supplement, 1980 and 2015 Current Population Survey.

The growth in the rich and upper middle class and the declining proportion of the population in the middle and lower classes indicate widespread economic growth between 1979 and 2014, but that growth was not distributed equally. On average, incomes grew 53 percent over the period. If the growth had been equally distributed (figure 3), then the shift upward would have been much greater. At the extremes, the proportion of the poor and near-poor population would have dropped to 12.8 percent, and the proportion that is rich would have barely increased (to only 0.5 percent of the population) because the growth among the near-rich with even growth would have been much less than what happened with uneven growth. With even growth, the size of the middle class would have declined

slightly (1.7 percentage points), but the growth in the upper middle class would have added another 6 percentage points and reached over a third (35.2 percent) of the nondependent adult population.

FIGURE 3

Changing Population Shares with and without Equal Growth, 1979–2014



Source: Author’s computations from March Supplement, 1980 and 2015 Current Population Survey.

Finally, CPS income-reporting practices are responsible for the share of the rich to be so low in 1979. First, through 1997, incomes in the CPS were “top-coded--set a maximal level--for confidentiality reasons.¹⁰ Second, CPS does not include capital gains in its income measure. Third, in 1979, the highest marginal tax rate was 70 percent while it was 28 percent rate on capital gains, creating a powerful incentive for wealthy people to realize much of their income as capital gains. The combined effect of these three factors means the estimated size of the rich class in 1979 is too small and the upper middle class is too large.

On the lower end of the income scale, low-income people receive benefits and incomes that either aren't counted as income (e.g., the earned income tax credit, food stamps, free and reduced-priced meals for children, and housing vouchers) or are underreported (e.g., pension incomes). These reporting problems existed in both 1979 and 2014, so although it is not clear that they affect the changes in social class shares, they might decrease the share of the population in the poor and near-poor in both years.

Changing Income Shares

Another way to look at the importance of these social divisions is by looking at their shares of all incomes. Because these classes are divided by income, the income shares of the lower two groups are smaller than their population shares, and the income shares of the top two groups are much larger. As figure 4 shows, the changes in shares of the five groups are even larger than the changes of income shares. The striking finding is the change in the center of gravity in the economy. In 1979, 70 percent of the incomes were controlled by the three bottom groups. In contrast, in 2014, 63 percent of incomes were held by the upper middle class and the rich and just 37 percent by the bottom three groups.

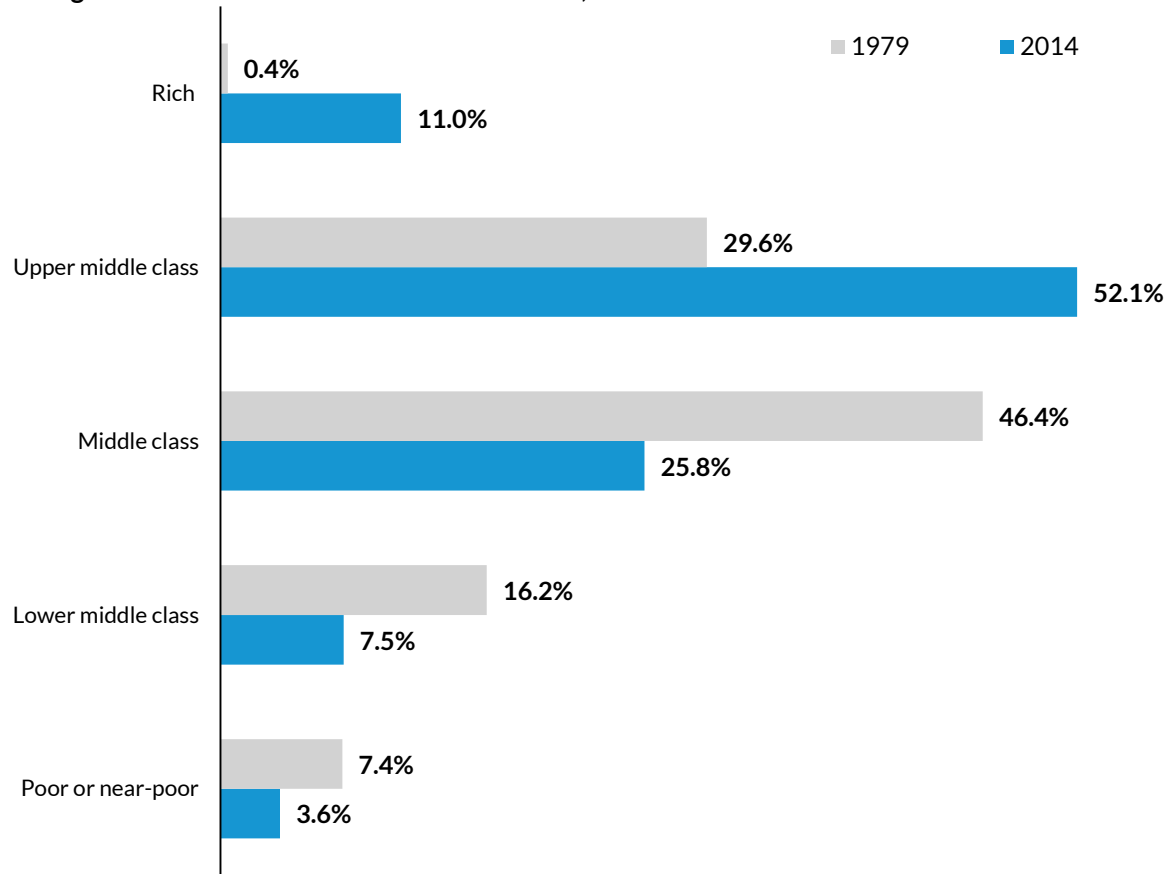
Emblematic of this shift, the income share of the middle class shrank from 46.4 percent in 1979 to 25.8 percent in 2014. This 20 percentage-point decline is much greater than the 6 percentage-point decline in the population share of the middle class. In absolute terms the declining shares of the lower middle class and poor and near-poor groups were smaller, but in relative terms the shares of these two groups declined by almost one-half.¹¹

The growth of the combined upper middle class and rich income share was driven by their increasing share of the population and higher relative income: the average income of the upper middle class versus the average income of the middle class grew from 91 percent higher in 1979 to 120 percent higher in 2014. The ratio of the rich to the middle class changed even more, going from 522 percent higher in 1979 to 661 percent higher in 2014. The main reason for the increase in the upper middle class and rich share of total income was not because of growth in income gaps or change in average incomes but because of the growing size of this group (85 percent).

This sizable increase in inequality has received little attention because few researchers defined the differences in size and incomes between the middle class, the upper middle class, and the rich (see appendix A for a discussion of four previous studies). Yet people in the middle class interact more with the upper middle class than they do with the very rich, and they may have stronger feelings of losing ground to the upper middle class versus their feelings about the inequality due to the huge income

increases of those in the top one-tenth of 1 percent of the income ladder (see *Washington Monthly* articles by Rose¹² for a discussion of how middle class responses to rising inequality have fostered the popularity of presidential candidates Bernie Sanders and Donald Trump).

FIGURE 4
Changes in Shares of Incomes of the Five Classes, 1979–2014



Source: Author's computations from March Supplement, 1980 and 2015 Current Population Survey.

Not surprisingly, the growth of the upper middle class and rich share of total income is reflected in the greater share of higher-end products of overall consumption. For example, the median size of a new single-family house went from 1,650 square feet in 1979 to 2,506 square feet in 2014,¹³ and the share of the luxury car segment in 2014 grew to 13 percent of all new cars from under 5 percent in 1979.¹⁴

As noted in the methodology section, the CPS income numbers understate various sources of income: for wealthy people, capital gains are excluded, and interest and dividend income are underreported; middle-income people are missing the value of what employers pay for their social security taxes and health and retirement benefits; and for lower- and moderate-income people, there is

underreporting of pension and government transfer income plus the exclusion of the earned income tax credit and other noncash benefits, particularly Medicare and Medicaid. Overall, it is hard to know what the distribution would be if all the data for a wider definition of income were available.¹⁵

Sensitivity Tests: Other Methods of Determining the Changing Size of the Upper Middle Class

Table 3 addresses the question of changing the minimum income level for being in the upper middle class, with one value lower than \$100,000 and two values higher than \$100,000. The lower value of \$85,000 is based on 4.25 percent of the poverty level, the level that the Bureau of Labor Statistics used to define a high budget line in the 1970s; the two upper values raise the minimum by \$10,000 and \$20,000. The far-right column of table 3 shows that the increase in the upper middle class share (from 14.4 to 17.1 percentage points) is virtually the same with all the changes in the lower-bound options.

TABLE 3

Effect of Raising Minimum Income Level of Upper Middle Class

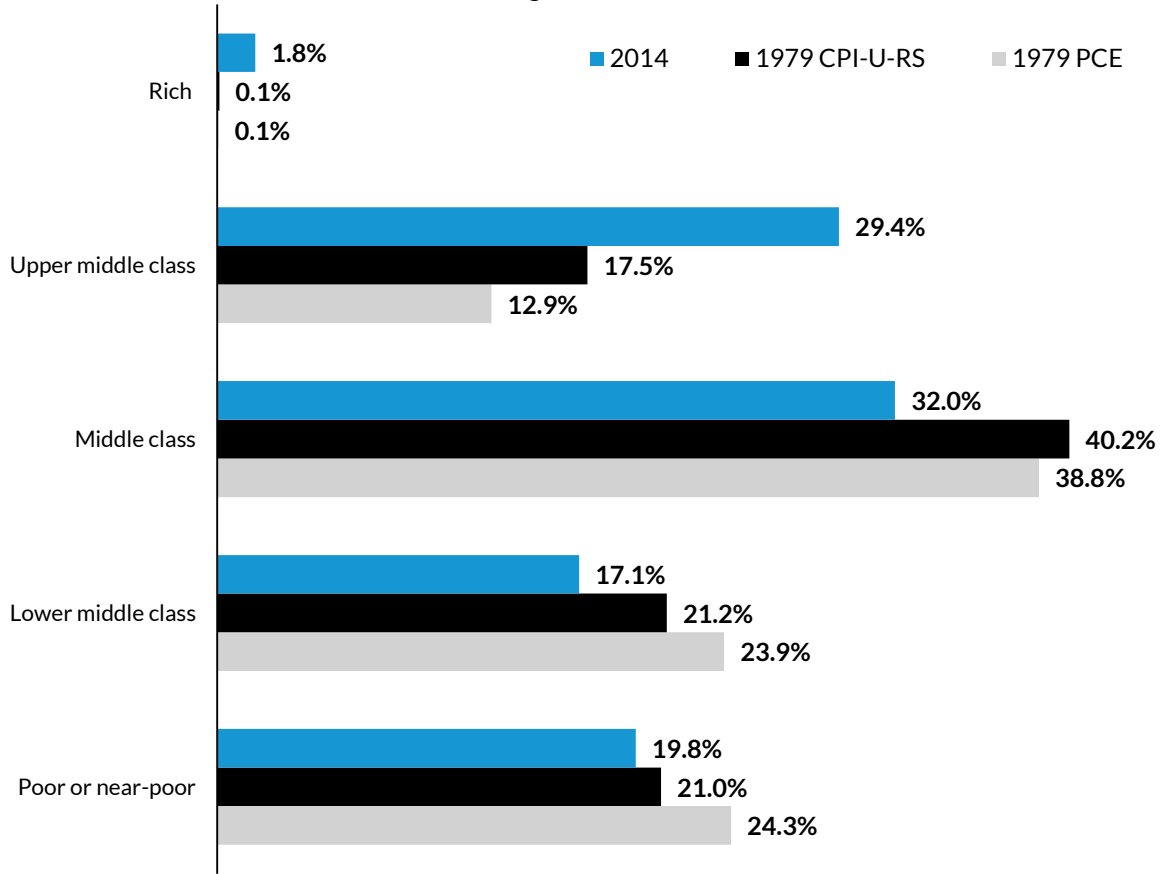
Minimum income	Share of population (%)		Percentage-point change
	1979	2014	
\$85,000	20.5	37.5	17.1
\$100,000	12.9	29.4	16.4
\$110,000	9.5	25.1	15.6
\$120,000	7.1	21.4	14.4

Source: Author's computations from March Supplement, 1980 and 2015 Current Population Survey.

The CPI-U-RS also functions as a sensitivity test that affects the entire distribution when it is used to convert 1979 prices to 2014 equivalents. Because this measure shows more inflation and less growth, its estimates show more people in the middle class and upper middle class in 1979 than the comparable estimates using the PCE as the price deflator. Consequently, the increase in the upper middle class share is 4.5 percentage points less when using the CPI-U-RS instead of the PCE. Nonetheless, the upper middle class share still grows by a healthy 12 percentage points (figure 5).

FIGURE 5

Differences in Growth of the Five Classes Using CPI-U-RS versus PCE



Source: Author's computations from March Supplement, 1980 and 2015 Current Population Survey.

Note: CPI-U-RS = the Consumer Price Index Research Series Using Current Methods; PCE = personal consumption expenditure.

The last issue to be addressed concerning the growing upper middle class share is the choice of years. Comparing 1979 to 2014 conditions might hide a period of no growth in the upper middle class because of the low growth and deep recession in the post-2000 years. This is only partially true: in unpublished yearly data, the share of the upper middle class rises steadily through 2007 (reaching 29 percent). After 2008, the upper middle class stabilizes at 27.5 percent until jumping in 2014 to 29.4 percent.

Conclusion

It is remarkable how often people talk about the upper middle class and how little we know about this group. This study found that the proportion of the population in the upper middle class went from under

13 percent in 1979 to over 29 percent in 2014. The effect of this growth was magnified by the greater income differences between this group and the rest of the population. Although wealthier people always have a greater share of total income, this report documents a major shift in the distribution of economic resources. In 1979, the bottom three income groups controlled 70 percent of all incomes, and the upper middle class and rich controlled 30 percent. By 2014, this distribution shifted to 37 percent for the bottom three groups and 63 percent for the upper middle class and rich groups. The middle class alone saw its share of income decline from 46 percent in 1979 to 26 percent in 2014.

Any discussion of inequality that is limited to the 1 percent misses a lot of the picture because it ignores the large inequality between the growing upper middle class and the middle and lower middle classes. This difference has a physical dimension in that most metropolitan areas differ greatly by the size and price of the homes in their neighborhoods and communities. We try to limit segregation by race or ethnicity, but segregation by income (which is growing) is accepted as a fact of life.¹⁶

By setting up an absolute standard of living as the defining characteristic of social classes, economic growth takes the form of people moving up from lower income groups to higher ones. As figure 1 shows, only people in the bottom five adjusted-income percentiles had lower real income in 2014 than in 1979. As incomes rise from the 7th to 99th percentile, real income growth progressively rises. So, the lower and “middle” middle class decline is because of more families qualifying for the upper middle class. As figure 3 shows, this movement would have been much larger if the 53 percent average income growth had been shared equally across the entire income distribution.

Although this study found that median income grew 29 percent (only the bottom six percentiles had no real income gains), this gain excludes the growing benefits provided by employers and other sources of income. The CBO (2016) includes these factors (adjusts for family size and uses the PCE as the price deflator) and finds that median incomes grew 37 percent from 1979 to 2013 (the last year of their published data).

Finally, ongoing research will focus on the demographic characteristics of the growth of the upper middle class and rich by family status, education, and race/ethnicity. The upper middle class and rich in 2014 were composed predominantly of people who were married or cohabiting (82 percent in 2014 and 86 percent in 1979), who had a bachelor’s or graduate degree (30 percent in 1979 and 59 percent in 2014), and who were non-Hispanic whites (79 percent in 2014 and 93 percent in 1979).

Appendix A. Income Share Changes Using a Relative Approach to Defining Social Classes

A variety of studies divide social classes by relative income versus median income or by specific percentiles of the income ladder.

First, a widely cited study from the Pew Research Center (2015) found that the share of middleclass households declined from 59 percent in 1981 to 50 percent in 2014. This finding is based on a definition of incomes that are between two-thirds and twice the current year's median value. Their broad definition of middle class in 2015 included everyone with family-of-three equivalent incomes between \$42,000 and \$126,000. In contrast, they had narrow definitions of lower and upper middle class: the lower middle class (\$31,000 to \$42,000 in 2015) was 9 percent in both 1981 and 2015, and the upper middle class (\$126,000 to \$188,000 in 2015) was 10 percent in both years. Thus the 9 percentage-point decline in the middle class was driven by a 6 percentage-point gain in the “highest” group share and a 3 percentage-point gain in the “lowest” income group [Pew (2016) applies the same methodology to metropolitan areas].

The results of the Pew study are somewhat similar to the results in this study, but there are important differences. On the one hand, the shares of those people above the middle class rose in both approaches and the shares of the middle class declined in both approaches. On the other hand, the rise of those above the middle class was 6 percentage points in the Pew approach and 16 percentage points in the approach described in this paper. For the combined lower middle class, poor, and near-poor, the Pew study found an increase of 4 percentage points, but the present study found a decline of nearly 10 percentage points. This large difference results from Pew's defining the lower group in terms of those with incomes under two-thirds the median level in that year versus an absolute standard of incomes under \$50,000. In other words, as the median rose and incomes below the median rose, the absolute approach finds the bottom two groups shrinking, but the relative approach used by Pew raises the standard-of-living bar and shows these groups increasing in size.

Second, Komlos (2016) adjusts CBO data in significant ways (making it more like CPS incomes) and finds a “hollowing out” of the middle class. But his definition of the hollowing out is that income gains are lowest in the second and third income quintiles and higher in the first, fourth, and fifth quintiles. It

should be noted that all quintiles have income gains and that the larger gains in the first quintile are caused by the greater value of social security and Medicare payments.

The problem with this approach is that the CBO does not make their microdata available, and hence Komlos (2016) must use the income quintile definitions of the CBO. His results would only be meaningful if he reordered quintiles based on his definition of income. Further, his “hollowing out” cannot mean the middle class is getting smaller, because his approach fixes the size of the middle class as the 40 percent of people in the second and third quintiles. Using this approach means the size of the middle class can’t change—only their share of income can change.

Third, Milanovic (2016, 194) reports a shrinking middle class in America from 1979 to 2010 with the share below middle class growing 3 percentage points and the share above middle class growing 2 percentage points (the middle class is defined as people with incomes plus or minus 25 percent of the median post-tax income). These results are reported without any reference to his methodological choices. However, he uses per capita income to adjust for family size (which differs from my size adjustments, which permit economies of scale). But in general, his approach to defining the middle class is similar to the Pew approach (although with a much narrower income range). Without more information about Milanovic’s approach, I can’t explain the discrepancy between his results and mine other than to note it is once again an approach based on median income.

Fourth, Reeves defines three classes according to their place on the income ladder: the upper middle class represents the top 20 percent, the middle class consists of those people with incomes in the 40th to 80th percentiles, and the lower class is those in the bottom 40 percent.¹⁷ Because the shares never change over time, Reeves tracks the average income of the three groups and shows that his upper middle class (with no separate rich group) increased its share of total incomes from 43 percent in 1970 to 51 percent in 2013.

Finally, I created a four-way distribution of adjusted family-of-three equivalent incomes based closely on the percentile distribution shown in figure 2:

- poor and near-poor: bottom 20 percentiles
- middle class: 21st to 70th percentiles
- upper middle class: 71st to 98th percentiles
- rich: top 2 percentiles

In this approach, what changes are the real income boundaries of these groups. As shown in figure 1, real income was higher at all levels along the income ladder (other than the lowest five percentiles) from 1979 to 2014. However, the gains were not the same. Rather, they followed a clear pattern of being larger with each additional percentile. Table A.1 shows how much lower 1979 levels were relative to 2014 levels at the income levels used in defining social classes in this exercise: there were very small real gains at the 20th percentile, more substantial gains at the 70th percentile, and nearly a doubling of the real incomes at the 98th percentile.

TABLE A.1

Definitions of the Social Groups in 1979 and 2014 Using 2014 Dollars

	1979	2014	Growth rate
Income at 20th percentile	\$26,158	\$29,964	15%
Income at 70th percentile	\$71,482	\$102,295	43%
Income at 98th percentile	\$167,495	\$333,067	99%

Source: Author's computations from March Supplement, 1980 and 2015 Current Population Survey.

Table A.2 reflects this pattern of real uneven gains throughout the population by presenting the average real income growth of four social class groups (far-right column): the average real income gain ranged from a paltry 4 percent for the poor and near-poor to 30 percent for the middle class, 60 percent for the upper middle class, and nearly 149 percent for the rich.

TABLE A.2

Income Growth and Shares of Total Income

Social class	Shares of Total Income		Real income gain
	1979	2014	
Poor and near-poor	5.4%	3.7%	4%
Middle class	40.5%	34.5%	30%
Upper middle class	47.0%	50.1%	62%
Rich	7.2%	11.7%	149%

Source: Author's computations from March Supplement, 1980 and 2015 Current Population Survey.

Nonetheless, these large differences, when combined with no differences in the shares (which are based on fixed percentiles) of each group, led to small changes in the shares of total incomes. The shares of the bottom two income classes declined (1.7 percentage points for the poor and near-poor and 6.0 percentage point for the middle class), and the shares of the top two categories increased 3.2 percentage points for the upper middle class and 4.6 percentage points for the rich. So the smaller effect on the upper middle class share of income shown in table A.2 in comparison to the shares of

income in figure 2 shows the effect of fixing the size of each category versus applying absolute real incomes standards (as described in the main body of the paper).

Both the relative approach discussed in this appendix and the absolute approach in the body of the paper show increasing inequality. The relative approach does so by documenting the widening of the income ranges demarking the middle class; the absolute measure does so by showing the increasing share of total income controlled by the upper middle class and rich relative to the rest of the population.

Notes

1. “The Rich, the Poor and the Growing Gap between Them,” *The Economist*, accessed May 19, 2016, <http://www.economist.com/node/7055911>.
2. Many social scientists define social classes on the basis of a combination of income, education, and occupation (sometimes referred to as *socioeconomic status*). There is a strong overlap among these three metrics, and the role of education has grown in importance in determining occupation and income. Once again, no clear way exists to combine these three social indicators into a single index, and no clear way exists to delineate among the five social groups used in this paper. Thus, using the single monetary income measure to define social classes is easier to understand and define. If I didn’t call these groups *classes* but various income ranges, people would still think of them as middle class, lower middle class, and upper middle class.
3. Family-of-three equivalents are created by dividing the square root of three by the square root of the number of family members.
4. Scott Winship, “Debunking Disagreements over Cost-of-Living Adjustments,” *Forbes*, accessed May 19, 2016, <http://www.forbes.com/sites/scottwinship/2015/06/15/debunking-disagreement-over-cost-of-living-adjustment/#23bf57da70fc>.
5. Scott Susin, “Discrepancies between Measured Income in the American Housing Survey (AHS) and the Current Population Survey (CPS),” accessed May 20, 2016, <https://www.census.gov/hhes/www/income/publications/hudmemo8a.pdf>.
6. Citizens for Tax Justice, “Who Pays Taxes in 2014?” accessed May 3, 2016, http://ctj.org/ctjreports/2014/04/who_pays_taxes_in_america_in_2014.php#.VykNuPkrKUI.
7. There are two reasons that the 2014 share of those with incomes over \$100,000 is higher than census tabulations based on household incomes. First, because this division is based on family-of-three equivalents, many single adult families and individuals have higher adjusted incomes than the cash incomes reported in the census tables. Second, the universe of this study is independent adults, which means that each married or cohabiting couple represents two observations. Because married couples have higher adjusted incomes than single-adult households, the double weighting of independent adults versus households shows a higher share with incomes over \$100,000.
8. Table 6, “Historical Poverty Tables—People,” accessed May 19, 2016, <http://www.census.gov/hhes/www/poverty/data/historical/people.html>.
9. Using the CPI-U-RS as the price deflator would have resulted in a 1979 poverty threshold for a family of three of \$6,581. Christopher Jencks makes the same point in a recent *New York Review of Books* article: “As a result of these problems [bad CPI adjustments and receipt of the Earned Income Tax Credit], roughly half the families now counted as officially poor have a higher standard of living than families with incomes at the poverty line had in 1969.” Christopher Jencks, “Why the Very Poor Have Become Poorer,” *New York Review of Books*, June 9, 2016, <http://www.nybooks.com/articles/2016/06/09/why-the-very-poor-have-become-poorer/>.
10. After 1997, the CPS reported an adjusted “average” income for high-income people rather than the exact incomes of these people.
11. The income shares presented in table 2 are based on the division of size-adjusted incomes and have married couples being represented as two people living at this standard. Another method of determining shares is to use cash incomes and count married couples as a single unit. Using this second approach means that the income breaks used in defining the five social-class groups no longer apply. To estimate the change in income shares, I picked cut points that reflected the shares of the five groups in 1979 and 2014. The results were almost identical to table 2; the share of the upper middle class and rich went from just under 30 percent and just under 62 percent, respectively.

12. Stephen Rose, "Triumph of the Untested," *Washington Monthly*, accessed May 10, 2016, http://www.washingtonmonthly.com/ten-miles-square/2016/02/the_triumph_of_the_untested059570.php. Stephen Rose, "Misplaced Nostalgia for the 'Good Old Days,'" *Washington Monthly*, accessed May 10, 2016, http://www.washingtonmonthly.com/republic3-0/2016/04/misplaced_nostalgia_for_the_go060235.php.
13. US Census Bureau, "Characteristics of New Single-Family Houses," accessed May 20, 2016, <https://www.census.gov/hhes/www/income/publications/hudmemo8a.pdf>.
14. For the most recent data, see "Market Data Center—Auto Sales," *Wall Street Journal*, accessed June 14, 2016, http://online.wsj.com/mdc/public/page/2_3022-autosales.html. Historic data for 1979 comes from *Ward's Automotive*, which shows luxury foreign brands were under 1 percent of the market and luxury American brands were limited to Cadillac and Lincoln models.
15. Without underreporting of cash income, the gain in the rich share of income may be several percentage points higher. Currently, the data show the economic effect of the upper middle class is many times that of the rich because it is so much larger in size. But even if we add 10 percentage points to the rich share and subtract 5 percentage points from the upper middle class share in 2014, the upper middle class share would be more than double the size of the rich share (a ratio that is consistent with data found on Internal Revenue Service income tables). For example, CBO (2016) finds that the share of income of the top 1 percent grew from 8.4 percent in 1979 to 15.7 percent in 2013. Piketty and Saez find that the top 1 percent share of income rose from 10 percent in 1979 to 21 percent in 2014 [Thomas Piketty and Emanuel Saez, "Income Inequality in the United States, 1913-1998" (tables and figures updated), accessed April 29, 2016, <http://eml.berkeley.edu/~saez/>]. Both of these studies, however, have different definitions of income and different units of analysis than used here.
16. Kendra Bischoff and Sean Reardon, "Residential Segregation by Income, 1970-2009," accessed May 20, 2016, <http://www.s4.brown.edu/us2010/Data/Report/report10162013.pdf>.
17. Richard Reeves, "The Dangerous Separation of the American Upper Middle Class," accessed May 18, 2016, <http://www.brookings.edu/blogs/social-mobility-memos/posts/2015/09/03-separation-upper-middle-class-reeves>.

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