# The Middle Class May be Under More Pressure Than You Think 

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I$t$ is common to define the "middle class" based on a simple ranking of families' incomes or wealth. For example, the middle 50 percent of families in the 2013 Survey of Consumer Finances (SCF) included all families with annual income between $\$ 24,349$-the 25 th percentile in a ranking from lowest to highest family income-and $\$ 89,887$-the 75th percentile. According to this definition, every family with an income between about $\$ 24,000$ and $\$ 90,000$ in 2013 would be in the middle class. A middle-50-percent definition based on wealth would include all families with between $\$ 8,784$ and $\$ 315,712$ of net worth (that is, assets minus liabilities) in 2013.

A ranking-based definition of the middle class is informative about the overall distribution of income or wealth and trends in these distributions over time. However, simple rankings tell us nothing about the characteristics of individual families in the middle class or how families with different characteristics fare over time. Moreover, important shifts in the composition of the population-such as the aging of the Baby Boomers, increasing average educational attainment and shifting population shares of various racial and ethnic groups-can lead to false or misleading conclusions from seemingly straightforward data patterns.

Those who study the middle class as defined by rankings of income or wealth are following the lead of economists, who believe these quantities are objective and relatively easy to measure. Sociologists, on the other hand, are more likely to define members of the middle class by evaluating demographic dimensions like race, education, occupation and status. This article
combines elements of both approaches. In common with sociologists, we examine a demographically defined middle class that holds constant three key characteristics of a family-its age, its education, and its race or ethnicity. As economists, we are interested in the evolution of income and wealth of the typical family within a demographically defined group.
Together, the three demographic dimensions we examine can account for much of the shifting fortunes of well-defined groups of families. ${ }^{1}$ Our version of the demographically defined middle class reveals that families that are neither rich nor poor may be under more downward economic and financial pressure than common but simplistic rank-based measures of income or wealth would suggest.
Purely income- or wealth-based definitions of the middle class are ambiguous and unstable. Identifying the median-that is, the family exactly in the middle of a rank-ing-of income or wealth at a point in time has the virtue of simplicity. Unfortunately, it tells us nothing about the characteristics of the median family or any other family at that moment or over time. It, therefore, can obscure underlying forces affecting individual families and groups.

The first major problem in defining the middle class with an income or wealth ranking is its ambiguity. A family may rank in the middle class in an incomebased definition but not in a ranking by wealth. Does this family belong to the middle class? If a family ranked in the middle 50 percent on both income and wealth in 2013, but it did not in 2010 or some earlier year, it has moved to a differ-


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ent class under our definition, but do we believe the family has changed fundamentally? What if that family qualifies again on both definitions in a future year? If we define the middle class as families between the 25 th and 75 th percentiles, how different do we really think families are who appear at the 24 th and 76 th percentiles?

Another important shortcoming of a middle-class definition based on an income or wealth ranking is that it can produce misleading conclusions over time. For example, according to the SCF, the median inflation-adjusted net worth of an American family declined between 1989 and 2013, falling from $\$ 85,575$ to $\$ 81,456$. Yet the median wealth within each major racial or ethnic group in the U.S. increased between 1989 and 2013. ${ }^{2}$ An apparent contradiction between a declining overall median and rising medians in each individual group can appear because the point-in-time population medians do not control for shifting population characteristics. For example, an increase in the number of low-wealth families due to immigration will cause the population median to decrease even if no individual family's wealth has changed.

A demographically defined middle class. To avoid the ambiguity and temporal instability associated with an income- or wealthbased definition of the middle class, we focus on three persistent characteristics of every family head-his or her date of birth (hence, age at a given time), highest educational attainment, and race or ethnicity. We think of a middle-class family as one whose demographic characteristics suggest it is unlikely to be persistently rich or poor.

Based on our earlier work with the SCF, the demographic characteristics that are most likely to be associated with a poor family (either in terms of income or wealth or both) include being young, having less than a high school education, and being a member of a historically disadvantaged minority, either African-American or Hispanic of any race. ${ }^{3}$ At the other extreme, the characteristics most likely to be associated with earning a high income or possessing a great deal of wealth in most years include being middle-aged or older, having a college degree and being white or Asian.

Therefore, we define three groups of families headed by someone 40 or older as follows: ${ }^{4}$

- Thrivers ( $\mathbf{3 3}$ percent of families $\mathbf{4 0}$ or older in the 2013 SCF): Families likely to have income and wealth significantly above average in most years; these families are headed by someone at least 40 years old with a two- or four-year college degree who is non-Hispanic white or Asian;
- Middle class (44 percent of families $\mathbf{4 0}$ or older in the 2013 SCF): Families likely to have income and wealth near average in most years; these families are headed by someone at least 40 years old who is white or Asian with exactly a high school diploma or black or Hispanic with a two- or four-year college degree; and
- Stragglers ( $\mathbf{2 3}$ percent of families $\mathbf{4 0}$ or older in the 2013 SCF): Families likely to have income and wealth significantly below average in most years; these families are headed by someone at least 40 years old with no high school diploma of any race or ethnicity and black or Hispanic families with at most a high school diploma.

FIGURE 1
Median Income of "Thrivers," "Middle Class" and "Stragglers"


SOURCE: Survey of Consumer Finances.
Median income of each group is calculated as the middle value in a ranking in a given year of all households we classify in that group. For example, all families in 1989 headed by someone 40 or older who was white or Asian with a college degree is placed in the thriver group. The median family income among these families is the one that ranks exactly in the middle. All families in 1989 headed by someone 40 or older who was white or Asian and had exactly a high school diploma or who was black or Hispanic with a college degree is placed in the middle class group. The median family income among these families is the one that ranks exactly in the middle. All families in 1989 headed by someone 40 or older who lacked a high school diploma or who was black or Hispanic with exactly a high school diploma is placed in the straggler group. The median family income among these families is the one that ranks exactly in the middle. We followed the same procedure for each subsequent year to generate the time series shown in the figure.

## FIGURE 2

## Median Net Worth of "Thrivers," "Middle Class" and "Stragglers"



SOURCE: Survey of Consumer Finances.
Median net worth of each group is calculated as the middle value in a ranking in a given year of all households we classify in that group. See the notes to Figure 1 for the procedure we followed to create the data shown in this figure.

We assign black and Hispanic families with college degrees to the middle class and high school-educated black and Hispanic families to the stragglers based on the well-documented fact that black and Hispanic families typically have significantly lower income and wealth than their similarly educated white and Asian counterparts. ${ }^{5}$ This may be due to the legacies of discrimination or to other factors.

Comparing rank-defined and demographically defined versions of the middle class. Figures 1 and 2 show the median incomes and wealth of the three demographically defined groups over time-thrivers, the middle class and stragglers. The median incomes of thrivers and stragglers were slightly higher in 2013 than in 1989-about 2 and 8 percent, respectively. The median income of the demographically defined middle class, on the other hand, was 16 percent lower in 2013 than in 1989. The median wealth of thrivers was 22 percent higher in 2013 than in 1989, while the typical family in each of the two other groups experienced large declines, of 27 percent among the middle class and 54 percent among stragglers.

How did the typical family fare in each of our demographically defined groups relative to the population as a whole? Figure 3 shows that the median middle-class family as we define it suffered a steady erosion of income relative to the family at the exact middle of the overall population of families in each year's ranking (termed P50, for the 50th percentile). In terms of cumulative growth, the median demographically defined middle-class family's income grew 21 percent less than the overall median income between 1989 and 2013. Whereas the median family we define as middle class in 1989 based on age, education and race or ethnicity ranked at about the 55th percentile of the overall distribution (not shown in figure), by 2013 the median middle-class family had dropped to about the 45th percentile in the overall distribution.

Figure 4 shows that the middle-class decline was slightly worse in terms of wealth. The cumulative growth shortfall for the median demographically defined middle-class family was about 24 percent compared to overall median wealth. The median demographically defined middle-class family had wealth at the 53 rd percentile in the 1989 distribution (not shown in figure). By 2013, the median middle-class family ranked at the 47th percentile. The median straggler family also fell far behind its benchmark, which we take as the 25 th percentile of the overall wealth distribution. The median straggler family ranked at the 30th percentile of wealth in 1989, falling to the 26th percentile in 2013.

Insights from a demographic definition of the middle class. The large relative declines shown in Figures 3 and 4 in both the income and wealth of the median family within our demographically defined middle class suggest that factors related to a family's age, education, and/or race and ethnicity were important drivers of change in individual families' economic and financial fortunes during the past quarter-century. Based on our earlier work and that of others, we suspect at least three major trends are behind these results:

- More than anyone else, better-educated people are living longer, healthier lives, increasing their earning power and wealth accumulation;

FIGURE 3

## Median Income of "Thrivers," "Middle Class" and "Stragglers" Relative to Families at 75th, 50th and 25th Percentiles Each Year



SOURCE: Survey of Consumer Finances.
The figure shows the ratios of the median income of each of the demographically defined groups 40 or older to a reference point in the overall distribution of family incomes 40 or older in that year. Each ratio is rebased to 100 in 1989. For example, the ratio in 1989 of the median thriver family's income $(\$ 93,901)$ to the income of the family at the 75th percentile in the overall income distribution (denoted P75) in that year ( $\$ 86,358$ ) is 108.7 ; we rebase this to 100 in 1989 for the figure. We calculate the same ratio in each subsequent year, calculate the percent change from the previous ratio and then show it as a percent change from the preceding observation's rebased value in the figure. By 2013, the ratio had declined by about 8 percent. The median middle class family's income in 1989 ( $\$ 53,927$ ) divided by median family income in the overall distribution in that year (that is, at the 50th percentile, $\$ 47,139$ ) is 14.4 ; we rebase this to 100 in 1989 . We calculate the same ratio in each subsequent year, calculate the percent change from the previous ratio and then show it as a percent change from the preceding observation's rebased value in the figure. By 2013, the ratio had declined by about 21 percent. The median straggler family's income in 1989 ( $\$ 24,512$ ) divided by the income of the family at the 25th percentile of the overall income distribution in that year ( $\$ 22,627$ ) is 108.3 ; we rebase this to 100 in 1989 for the figure. We calculate the same ratio in each subsequent year, calculate the percent change from the previous ratio and then show it as a percent change from the preceding observation's rebased value in the figure. By 2013, the ratio had declined by about 4 percent.

## FIGURE 4

## Median Net Worth of "Thrivers," "Middle Class" and "Stragglers" Relative to Families at 75th, 50th and 25th Percentiles Each Year



SOURCE: Survey of Consumer Finances.
The figure shows the ratios of the median net worth of each of the demographically defined groups 40 or older to a reference point in the overall distribution of family net worth 40 or older in that year. See the notes to Figure 3 for the procedure we followed to create the data shown in this figure.

- The job-market returns to higher education continue to increase, while better financial decision-making by bettereducated people greatly enhances their wealth accumulation ${ }^{6}$; and
- The legacies of discrimination and other deeply rooted factors that contribute to low levels of educational attainment by blacks and Hispanics have slowed their economic and financial advances. ${ }^{7}$
In effect, the bar has been rising to remain near the middle of the income and wealth distributions. The growing importance of college degrees and other advantages more commonly enjoyed by white and Asian families are contributing to significant downward pressure on the relative standing of less-educated and historically disadvantaged minority families. A simple rank-based definition of the middle class cannot shed light on any of these or the other important forces shaping the economic and financial lives of American families.

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## ENDNOTES

See Emmons and Noeth (2015a, 2015b).
2 The 1989 and 2013 inflation-adjusted levels of net worth of the median family of each of the four racial or ethnic groups were: nonHispanic whites, \$130,102 and \$134,008, respectively; Hispanics of any race, $\$ 9,229$ and $\$ 13,900$, respectively; non-Hispanic blacks, $\$ 7,736$ and $\$ 11,184$, respectively; Asians and other minorities, $\$ 64,165$ and $\$ 91,440$, respectively. See Emmons and Noeth (2015a).
3 Emmons and Noeth (2013).
4 We include here only families headed by someone at least 40 years old to abstract from life-cycle effects, which we have considered in other work. Some younger families have not reached their highest level of educational attainment, and young families' economic and financial lives often have not settled into their long-run patterns.
See Emmons and Noeth (2015a).
6 See Emmons and Noeth (2015b).
7 See Emmons and Noeth (2015a, 2015b).

## REFERENCES

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