Middle Class Security Project

An Initiative of the AARP Public Policy Institute

The Elusive Middle in America—What Has Happened to Middle-Class Income?

Gary Koenig
AARP Public Policy Institute

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At the request of CEO Barry Rand, the AARP Public Policy Institute (PPI) conducted a year-long, multi-disciplinary exploration of the well-being of America's middle class with a focus on prospects for financially secure retirement. The Middle Class Security Project offers insight, analysis, and an agenda for policymakers to consider. The project team included:

Susan C. Reinhard, *Senior Vice President, Project Lead*
Donald Redfoot, *Senior Strategic Policy Advisor, Project Team Coordinator*
Richard Deutsch, *Communications and Outreach Director*

Elizabeth Costle, *Director Consumer and State Affairs*
Enid Kassner, *Director Independent Living and Long Term Care*
Gary Koenig, *Director Economics*
Lina Walker, *Director Health*
Claire Noel-Miller, *Senior Strategic Policy Advisor*
N. Lee Rucker, *Senior Strategic Policy Advisor*
Lori Trawinski, *Senior Strategic Policy Advisor*
Mikki Waid, *Senior Strategic Policy Advisor*
Diane Welsh, *Project Specialist*

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AARP'S MIDDLE CLASS SECURITY PROJECT

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The following reports were conducted or commissioned by AARP's Public Policy Institute as part of the Middle Class Security Project:

Building Lifetime Middle-Class Security

Donald L. Redfoot, *AARP Public Policy Institute*
Susan C. Reinhard, *SVP and Director, AARP Public Policy Institute*
Debra Whitman, *EVP for Policy, Strategy and International Affairs, AARP*

What Are the Retirement Prospects of Middle-Class Americans?

Barbara Butrica, *Urban Institute*
Mikki Waid, *AARP Public Policy Institute*

Assets and Debt across Generations: The Middle-Class Balance Sheet 1989–2010

Lori A. Trawinski, *AARP Public Policy Institute*

Tracking the Decline: Middle-Class Security in the 2000s

Tatjana Meschede, *IASP Research Director, Brandeis University*
Laura Sullivan, *IASP Research Associate, Brandeis University*
Donald L. Redfoot, *AARP Public Policy Institute*
Enid Kassner, *AARP Public Policy Institute*

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The Effects of Rising Health Care Costs on Middle-Class Economic Security

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The Loss of Housing Affordability Threatens Financial Stability for Older Middle-Class Adults

Rodney Harrell, *AARP Public Policy Institute*
Shannon Guzman, *AARP Public Policy Institute*

How Older Americans Are Dealing with New Economic Realities

Tresa Undem, *Lake Research Partners*

***See also*:**

Video Portraits of Middle-Class Americans
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AARP Public Policy Institute

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AARP Public Policy Institute
601 E Street, NW, Washington, DC 20049
http://www.aarp.org/ppi

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Highlights

- The middle class today is older, more educated, and more racially and ethnically diverse than in past decades.[1]
- The percent of adults considered middle class dropped by about 10 percentage points from 1970 to 2010—from about 61 percent to 51 percent. The percent of lower-income adults increased by about 4 percentage points, and the percent of upper-income adults increased by 6 percentage points.[2]
- From 1979 to 2007, average household income for the Middle Class grew by about 16 percent, about one-third the amount for households with the highest 20 percent of income (48 percent).
- The median household income for all Americans in 2011 (after adjusting for inflation) was less than it was in 1997.

Introduction

This paper looks at one side of the middle-class ledger—income.[3] It examines how the characteristics of the middle class have changed using an income based definition and highlights trends in middle-class income in recent decades.

The middle class received significant attention in the recent presidential election—for good reason. According to a recent survey by the Pew Research Center, almost nine in ten adults classify themselves as middle, upper-middle, or lower-middle class. Among the nearly 50 percent who identified themselves as middle-class alone, 85 percent said it is harder today to maintain a middle-class life style than it was 10 years ago.[4]

Many researchers have documented the challenges facing the middle class.[5] Their primary conclusion is that incomes have not kept pace with the rising costs of important attributes that typically characterize the middle class, such as higher education attainment

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1 Pew Research Center, *Fewer, Poorer, Gloomier: The Lost Decade of the Middle Class* (Washington, DC: Pew Research Center, August 22, 2012) at http://www.pewsocialtrends.org/2012/08/22/the-lost-decade-of-the-middle-class/.

2 Ibid.

3 This report focuses on income. It does not consider the wealth (financial and nonfinancial assets) of the middle class. The primary data set used for this analysis comes from the U.S. Census Bureau's Current Population Survey (CPS). The income used is money income (excluding capital gains) received before payments for personal income taxes and payroll taxes. It does not include non-cash transfers such as food stamps, health benefits, subsidized housing, and energy assistance.

4 Pew Research Center, *Fewer, Poorer, Gloomier: The Lost Decade of the Middle Class* (Washington, DC: Pew Research Center, August 22, 2012). This question was asked of only the 49 percent (1,287) who identified themselves as middle-class alone.

5 The Middle Class Task Force, created at the direction of President Obama and headed by Vice President Biden, released the report *Middle Class in America* in January 2010. The report was prepared by the U.S. Department of Commerce Economics and Statistics Administration. One of its main conclusions was that "It is more difficult now than in the past for many people to achieve middle class status because prices for certain key goods—health care, college, and housing—have gone up faster than income." http://www.commerce.gov/sites/default/files/documents/migrated/Middle%20Class%20Report.pdf.

for themselves and their children, health care coverage, and homeownership. Attaining these ideals of a middle-class lifestyle often means taking on higher debt and/or saving less. Both can lead to a path that undermines current economic and future retirement security.

Although one may point to the Great Recession or its slow economic recovery as culprits,[6] the phenomenon of a struggling middle class is not new. Rather, the plight of the middle class—insofar as it is getting far more difficult to attain a middle-class lifestyle—reflects a longer-term trend exacerbated by recent economic conditions.

Defining the Middle Class Based on Income

No one simple or official definition of the middle class exists, but many who have studied this issue agree that the middle class is defined by more than income alone. Social scientists and other researchers often point to common aspirations for economic stability and health and retirement security. These, in turn, come from a good and secure job, access to affordable health insurance, homeownership, and opportunities to save. Middle-class Americans also desire a good education for their children, and family vacations, among other things.[7] Nonetheless, because researchers typically use government survey data for their economic analysis, they are often limited to defining the middle class based solely on income.[8]

Researchers typically define the middle class[9] using one of three household-based income measures:

(1) The middle segment of the income distribution (e.g., 50 or 60 percent of households in the middle of the income distribution);

(2) Income levels relative to median household income (e.g., 67 to 200 percent of median income); or

(3) Income levels relative to the official poverty level (e.g., 200 to 500 percent of poverty level).

Each measure has advantages and disadvantages.

The first measure, referred to here as the middle-income distribution method, allows for a comparison over time of the same proportion of households in the middle segment

6 The Great Recession officially began in December 2007 and ended in June 2009. http://www.nber.org/cycles.html.

7 The website http://www.themiddleclass.org defines a middle-class standard of living in the United States as “having a secure job; a safe and stable home; access to health care; retirement security; time off for vacation, illness and the birth or adoption of a child; opportunities to save for the future; and the ability to provide a good education, including a college education, for one’s children.”

8 Government survey data have many advantages: They provide a rich set of income and demographic information about households, include data across multiple years that enable time-series analysis, and have samples that are usually large enough to allow for subgroup analysis. The limitations of these surveys are that they typically do not ask respondents to self-identify their social class, nor do they ask about aspirations that might allow researchers to identify a middle-class household.

9 From this point forward, the terms “middle class” and “middle-income” households are used interchangeably.

of the income distribution. But it defines the middle-class population as centered around the median-income household, which presumes that a fixed proportion of households will always be able to attain middle-class status.

The second measure, referred to here as the relative-to-median-income method, allows for greater flexibility in defining the middle class. Under this metric, middle-class income does not need to be in a range centered around the median. For example, the middle class might include those with income that is two-thirds to double household median income. Because this option does not hold the percentage of middle-class households constant, it can be used to examine possible changes in the size of the middle class—which could shrink or expand over time relative to the rest of the population.

The third measure, referred to here as the relative-to-poverty method, adjusts for different size families having different resources needs by defining middle class relative to federal poverty thresholds. The thresholds increase as family size increases (they also differ by age and presence of children). One major limitation of this approach is that poverty thresholds today are based on living standards established in the early 1960s.[10] Therefore, this metric is an absolute measure—it defines the middle class based on a standard of living from 50 years ago—rather than a relative measure that reflects increasing living standards over time.

Accounting for Household Size

The standard of living that any given amount of income can support depends on the number of people relying on it. For example, a one-person household with $40,000 of income will be better off than a four-person household with the same income.

Researchers using the middle-income distribution or relative-to-median-income methods for defining the middle class may or may not adjust for household size. While this adjustment can be made, it requires an assumption about how resource needs increase with family size.

To account for different needs of different size households, researchers adjust household income by dividing by a factor called an "equivalency scale." This results in "equivalent income." Researchers use different equivalency scales to calculate equivalent income. The differences reflect different assumptions about how larger households can take advantage of economies of scale. One commonly used equivalency scale is the square root of the number of household members. In general, this is the method adopted in this Insight on the Issues.

For a detailed discussion of alternative equivalency scales and their implications, see John McNeil, U.S. Census Bureau, *Shares of Income Received by Quintiles when Equivalent Income is Used as the Measure of Income*, https://www.census.gov/hhes/www/income/publications/newydata.pdf.

[10] For a brief discussion of the problems with the official poverty measure, see Gary Koenig, "The Real Picture of Elder Poverty—painted by the numbers," *Aging Today*, May–June 2012, http://www.asaging.org/blog/real-picture-elder-poverty.

QUANTIFYING MIDDLE-CLASS INCOME

To illustrate what these three different definitions of middle class mean, table 1 shows the income range and the percentage of households and adults considered middle class under the three methods.[11] Households in the middle 60 percent of the income distribution are used under the middle-income distribution method. For the relative-to-median-income method, middle class is defined as households with incomes that are at least two-thirds but not more than twice the median household income. For the relative-to-poverty method, middle class is defined as families with income that is 200 to 500 percent of the average poverty threshold.[12]

The income amounts under the first two options are adjusted for household size by dividing by the square root of the number of members in the household. All amounts are shown for a three-person household for ease of comparison.

The middle-income distribution method provides the broadest definition of the middle class. It includes households with income between about $26,000 and $113,000—amounts that generally encompass the ranges under the other methods. Under this approach, 62 percent of the adult population is classified as middle class (column 1), compared to 51 and 39 percent under the other methods.

Meanwhile, the lower income limit under the relative-to-median-income measure (column 2) is similar to the relative-to-poverty measure (column 3) ($39,000 compared to $36,000). Using 500 percent of the poverty threshold for the third method, however, results in an upper limit ($90,000) that is significantly lower than the other measures.

Table 1
Income Ranges for a Three-Person Middle-Class Family under Alternative Definitions of Middle Class,[1] 2011

	1 Middle-Income Distribution[2]	2 Relative to Median Income[3]	3 Relative to Poverty Threshold[4]
Lower Income Limit	$25,981	$38,753	$35,832
Upper Income Limit	$112,677	$116,258	$89,580
Percentage of Households in Income range	60%	48%	40%
Percentage of Adults in Income range	62%	51%	39%

[1] All calculations are based on the Census Bureau's 2012 Current Population Survey.

[2] Adjusted for household size. Includes the middle three income quintiles (households with income in the 20th to 80th percentiles).

[3] Includes households with household-size adjusted income greater than two-thirds and no more than twice the median income.

[4] The income range is 200 to 500 percent of the average poverty thresholds for a three-person family. This metric uses family instead of household as the unit of analysis and income because family is the basis for the poverty measure.

Source: AARP Public Policy Institute.

[11] This analysis as well as the other analyses in the paper use households as the unit of analysis and the household's income. An alternative approach would be to use the individual as the unit of analysis and assign household income to each individual in the household. This latter approach results in a somewhat different income range in defining the middle class and different changes in income over time, but it does not change the general results of the paper.

[12] Because the official poverty measure compares *family* income to the poverty threshold, this method uses family instead of household as the unit of measurement and family income instead of household income.

The analysis below looks at how the characteristics and income of the middle class have changed over time using the *relative-to-median-income* and *middle-income distribution methods*. These metrics provide a better way to evaluate the changes occurring in the middle class than the relative-to-poverty method, in large part because that metric uses an outdated standard of living.

The Shrinking Middle Class

The middle class today is smaller as well as older, more educated, more racially and ethnically diverse, and more likely to be single than middle-class households in the past, according to the Pew Research Center.[13] The demographic changes of the middle class mirror the changes taking place in the population overall.

For example, defining middle-class households as those with incomes that are at least two-thirds but not more than twice the household-size adjusted median income, the Pew Research Center finds that in 1970, 80 percent of middle-class adults were non-Hispanic whites, compared to 70 percent in 2010. In addition, between 1970 and 2010, the percentage of middle-class adults with less than a high school degree dropped from 35 to 10 percent, while the percentage of middle-class adults with a college degree rose from 10 to 26 percent.

The percentage of adults in the middle class who are 65 and older increased from 9 to 16 percent from 1970 and 2010. This represents not only the growing number of older Americans in the overall U.S. population—which increased by 2 percentage points from 15 to 17 percent during those 40 years—but also the growing importance of Social Security over that period.[14]

Pew also finds that the percentage of middle-class adults who are married with a spouse in the household decreased from nearly three in four (74 percent) in 1970 to about half (55 percent) in 2010. Meanwhile, the percentage that never married increased from 16 to 27 percent.

Along with these demographic trends, fewer adults today are middle class than in previous years, according to Pew. Table 2 shows the percentage of adults in one of three income groups—lower, middle, and upper—at the start of each decade between 1970 and 2010.

The percentage of adults considered middle income dropped by about 10 points over the 40-year period—from about 61 percent to 51 percent. During this period, the percentage of lower-income adults increased by about 4 percentage points and the percentage of upper-income adults increased by 6 percentage points. This movement out of the middle has occurred during each decade from 1970 to 2010.

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[13] Pew Research Center, *Fewer, Poorer, Gloomier: The Lost Decade of the Middle Class* (Washington, DC: Pew Research Center, August 22, 2012) at http://www.pewsocialtrends.org/2012/08/22/the-lost-decade-of-the-middle-class/.

[14] Between 1970 and 2010, per capita Social Security benefits paid increased from about $7,000 to about $13,000 in 2010 dollars; an increase of 87 percent (AARP Public Policy Institute calculation based on benefits paid data from the Social Security Administration's Annual Statistical Supplement, 2011, table 4.A3 and beneficiary data from http://www.ssa.gov/oact/STATS/OASDIbenies.html and inflation data from the U.S. Department of Labor, Bureau of Labor Statistics).

Table 2
Percentage of Adults by Income Grouping, 1970–2010*

Year	Middle-Income Range (2011 dollars) Household of Three	Percentage Distribution* Lower Income	Middle Income	Upper Income	Total
1970	$29,896–$89,689	25.2	60.8	14.0	100.0
1980	$33,538–$100,613	26.2	58.6	15.2	100.0
1990	$37,546–$112,637	27.3	55.7	16.9	100.0
2000	$42,185–$126,554	27.8	53.7	18.5	100.0
2010	$39,418–$118,255	29.3	50.7	20.0	100.0
Total Percentage Point Change 1970–2010		4.1	-10.1	6.0	

* This table shows the distribution of adults by income group using the relative-to-median-income method. Middle Income is defined as two-thirds to twice median income. Income is household-size adjusted income.

Source: Pew Research Center, *Fewer, Poorer, Gloomier: The Lost Decade of the Middle Class* (Washington, DC: Pew Research Center, August 22, 2012).

MEDIAN INCOME HAS NOT RISEN OVER THE LAST 10 YEARS

Median income (the midpoint of the distribution) is often the starting point for measuring how "typical" or middle-class households have done economically over time. Real median income (i.e., income adjusted for inflation) increased from $45,145 to $50,504 from 1970 to 2011, a modest 11 percent.

The change in median income from one period to another, however, may not accurately reflect the changing well-being of the typical household, because household sizes may have changed over time, as well. In fact, household sizes have been decreasing. Between 1970 and 2011, the average number of people in a household decreased substantially (from 3.14 to 2.58, or by about 18 percent).[15]

Figure 1 shows household size-adjusted real median income between 1970 and 2011. Median income is adjusted for household size to reflect that larger families need more income than smaller families and then scaled to a three-person household.

Real median income for a three-person household increased from $44,845 to $58,129 during this period, almost 30 percent—a significantly larger increase compared to the nonadjusted median income.[16] Regardless of whether it is adjusted for household size or not, a similar pattern emerges.

Median income tends to follow the ebb and flow of the business cycle. During recessions, as shown by the gray shaded areas, median income declines. This decline often continues for years after a recession officially ends. In general, median income over this 40-year period has been on an upward trajectory, but this trend appears to have moderated beginning in 2000.

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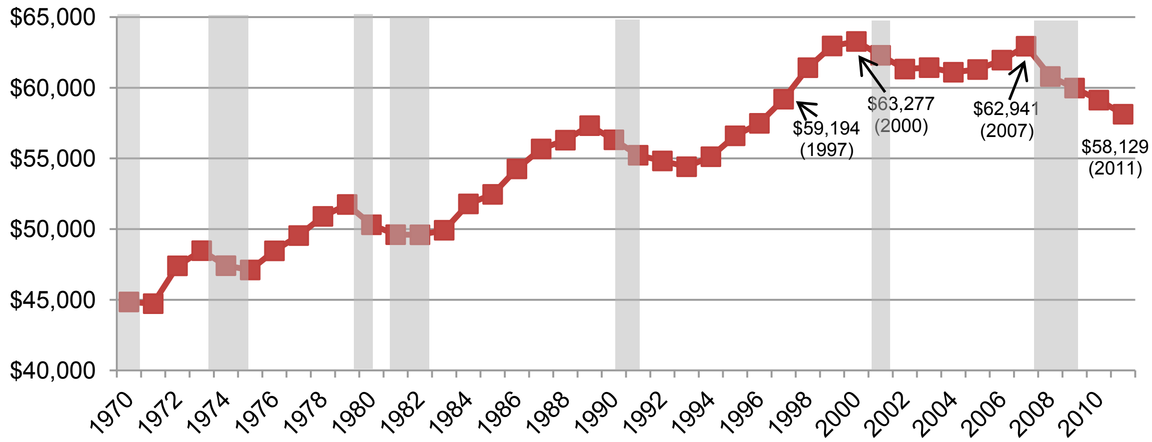
15 Information on average household size is from www.census.gov/population/socdemo/hh-fam/hh6.xls.

16 Richard V. Burkhauser, Jeff Larrimore, and Kosali I. Simon show that, in addition to adjusting for household size, changes in income are sensitive to the definition of income. *A "Second Opinion" on the Economic Health of the American Middle Class*, NBER Working Paper No. 17164 (Cambridge, MA: National Bureau of Economic Research, 2011).

Figure 1
Median Household Income for Three-Person Household 1970–2011
(2011 dollars)



Note: Median Income is adjusted for household size and scaled to a three-person household. For details, see Pew Research Center, *Fewer, Poorer, Gloomier: The Lost Decade of the Middle Class*, (Washington, DC: Pew Research Center, August 22, 2012).

Recessions shown by gray shaded areas.

Source: Pew Research Center (1970 – 2010) and AARP Public Policy Institute (2011) based on the U.S. Census Bureau's Current Population Survey.

Between 2000 and 2007, the most recent business cycle, median income was flat. It then fell during each of the four years since 2007 due to the Great Recession and the slow economic recovery. From 2000 to 2011, median income fell about 8 percent. And it was lower in 2011 than it was in 1997.

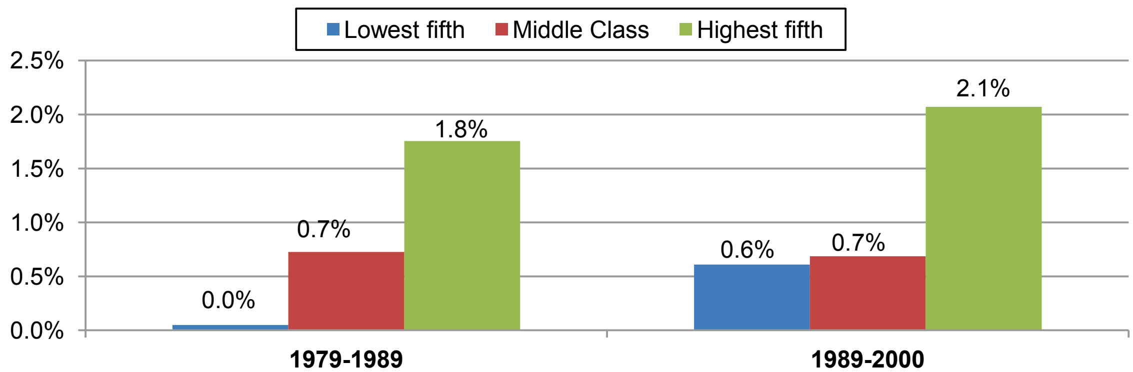
Higher-Income Households Get a Bigger Piece of the Pie

Looking at median income alone is not enough to know how middle-income households have fared over time, particularly compared to other groups. Figures 2 and 3 show year-over-year annual growth in average household size-adjusted real income by income group.[17] The middle class is defined as households with incomes between the 20th and 80th percentiles of the income distribution. The rates are shown over the three most recent business cycles (1979–1989, 1989–2000, and 2000–2007) to avoid measuring changes from peaks to troughs. Figure 3 also shows changes from 2007 to 2011 to capture the impact of the Great Recession.

The incomes of households in the top 20 percent of the income distribution (highest fifth) have grown substantially more than those of middle-class (middle) and lowest-income households (lowest fifth). From 1979 to 1989 and from 1989 to 2000, the average annual growth rate for households in the highest fifth of the income distribution was more than twice that of households in the middle class (1.8 percent compared to 0.7 percent from 1979 to 1989, and 2.1 percent compared to 0.7 percent from 1989 to 2000).

[17] The rate is the compound annual growth rate or the year-over-year growth rate. It is defined as the annual growth rate of average income if it grew at a steady rate each year over the given period.

Figure 2
Year-over-Year Growth Rates in Average Household Income, by Income Quintile Grouping 1979–1989 and 1989–2000



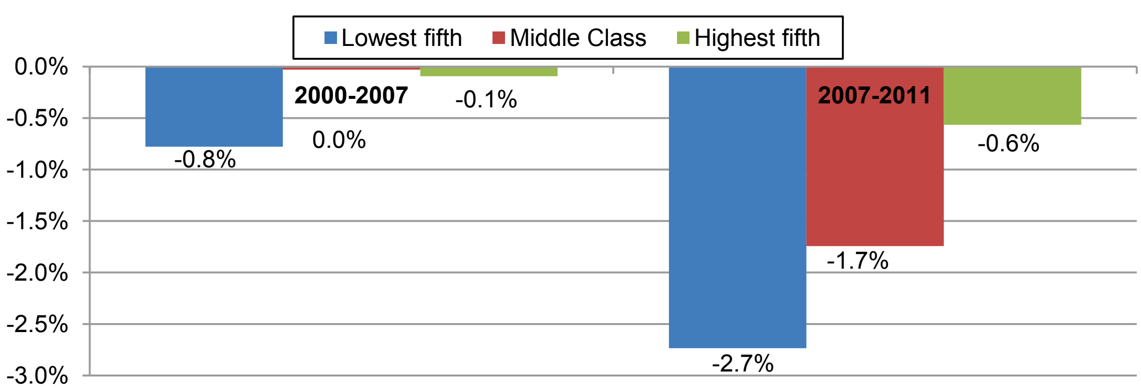
Notes: Middle class includes the 60 percent of households in the middle of the income distribution. The lowest fifth and highest fifth are the bottom and top income quintiles. The growth rates are calculated after adjusting for inflation and for household size.

Source: AARP Public Policy Institute calculation based on the U.S. Census Bureau's Current Population Survey, 1980, 1990, 2001.

All income groups experienced flat or negative year-over-year income growth from 2000 to 2007 and from 2007 to 2011. The lowest fifth of households saw their incomes shrink the most during these two periods. A slightly different pattern emerges for 2007–2011, in that all households experienced sharp declines in income over this period, with middle-class and lowest-income households experiencing the largest decreases.

Taken together over the entire period, the difference in real income growth between the different income groups is significant (figure 4). Real income grew about 16 percent for middle-class households between 1979 and 2007. Accounting for the Great Recession, middle-class incomes grew by only 8 percent from 1979 to 2011; more than the lowest-income group, which experienced negative real income growth (-9 percent), but only about one-fifth as much as the highest fifth of households (45 percent).

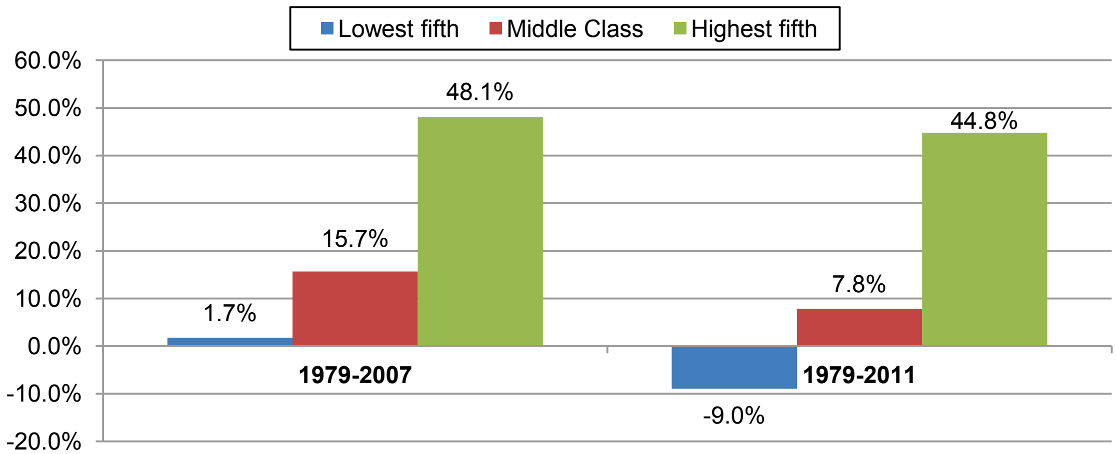
Figure 3
Year-over-Year Growth Rates in Average Household Income, by Income Quintile Grouping 2000–2007 and 2007–2011



Notes: Middle class includes the 60 percent of households in the middle of the income distribution. The lowest fifth and highest fifth are the bottom and top income quintiles. The growth rates are calculated after adjusting for inflation and for household size.

Source: AARP Public Policy Institute calculation based on the U.S. Census Bureau's Current Population Survey, 2001, 2008, 2012.

Figure 4
Cumulative Growth in Average Household Income, by Income Quintile Grouping 1979–2007 and 1979–2011



Notes: Middle class includes the 60 percent of households in the middle of the income distribution. The lowest fifth and highest fifth are the bottom and top income quintile. The growth rates are calculated after adjusting for inflation and for household size.

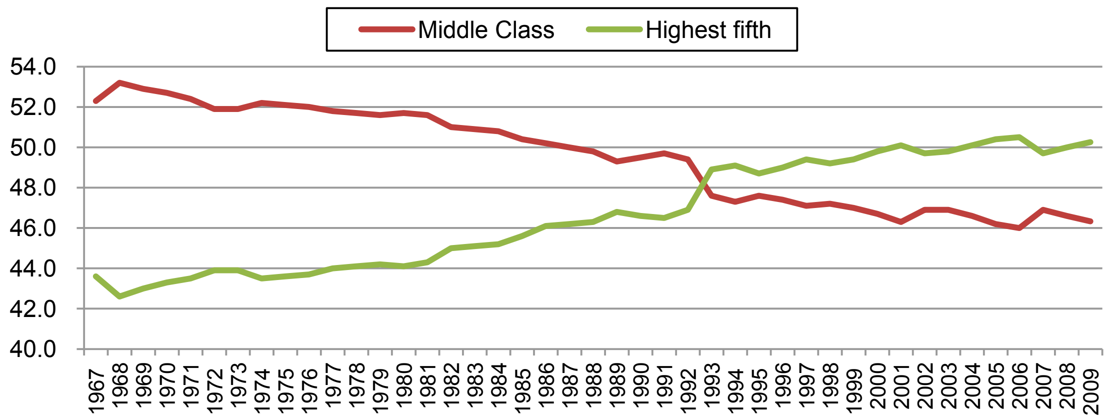
Source: AARP Public Policy Institute calculation based on the U.S. Census Bureau's Current Population Survey, 1980, 2008, 2012.

Higher income growth for the highest-income households without comparable growth for other income groups means growing income inequality. Figure 5 shows the percentage of all income accruing to the middle class and highest fifth of households between 1967 and 2011.

During this period, the percentage of income received by the middle class decreased by 6.6 percentage points (from 52.3 to 45.7 percent), while the percent received by the highest fifth increased by 7.5 percentage points (from 43.6 to 51.1 percent).[18]

[18] Although these data are not adjusted for household size, this result holds regardless. From 1969 to 1996, the share of total household income received by middle-income households decreased by 5.1 percent when using household-size adjusted income, compared to 5.9 percent when using nonadjusted income. The 5.1 percent change is tabulated from John McNeil, *Changes in Median Household Income: 1969 to 1996*, Current Population Reports Special Studies P23-196 (Washington, DC: U.S. Bureau of the Census, July 1998), http://www.census.gov.edgekey.net/prod/3/98pubs/p23-196.pdf.

Figure 5
Share of Total Household Income Received by the Middle Class and the Top 20 Percent of Households 1967–2011



Notes: Middle class includes the 60 percent of households in the middle of the income distribution. The highest fifth is the top income quintile.

Source: AARP Public Policy Institute calculation based on U.S. Census Bureau, Historical Income Tables, Table H-2, http://www.census.gov/hhes/www/income/data/historical/household/.