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The Distribution of Household Income and the Middle Class

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Summary

Although not itself a subject of legislation, the shape of the income distribution enters Congress's decision-making process concerning such policy issues as taxes, means-tested benefits, and social insurance programs. Congress also considers legislation specifically in the name of those in the middle class, which is variously defined as some income level or income range within the distribution of U.S. households with income. After briefly analyzing the distribution of household money income in 2012, the report attempts to put the term "middle class" into greater perspective.

The first key point of the report is that, although there are a variety of ways to describe the income distribution, all show that income is concentrated among high-income households. Of the 122,459,000 households with income in 2012, 2.3% had incomes of at least $250,000. (The Census Bureau does not disaggregate income within the $250,000-or-more income class.) In addition, a large share of total money income accrues to those at the upper end of the distribution. In 2012, the top 5% of U.S. households with income accounted for 22.3% of total income, and the top 20% of households (which includes the top 5%) had 51.0% of all money income. A broader definition of household income, incorporating capital gains, the value of non-cash benefits (e.g., Food Stamps, Medicare and Medicaid, and employer paid health insurance), and subtracting estimates of federal taxes, tends to make the income distribution slightly more equal.

The second major point is that there is no official government definition of who belongs to the middle class, and the term means different things to different people. The middle class may refer to a group with a common point of view or to those having similar incomes, for example.

Third, absolute income appears to partly determine who belongs to the middle class. By combining money income data from the latest Annual Social and Economic Supplement to the Current Population Survey with results from surveys that asked people to identify their social class, the middle class may refer to households with income levels in 2012 that ranged from $39,736 (the bottom of the middle quintile, 20%, of households) and extended into the top quintile (households with income of $104,087 or more)—perhaps including households with incomes somewhat over $200,000.

Last, relative income may also be a defining characteristic of the middle class. In other words, the middle class appears to identify itself relative to the income of a reference group (e.g., their neighbors or coworkers). According to studies of self-reported well-being, those who constitute the middle class seemingly are of like minds with regard to their economic situation. Specifically, having incomes far above those at the lower end of the income distribution generally correlates with satisfaction to the middle class, but when those at the upper end of the distribution fare much better than they do, the level of middle-class satisfaction is generally lessened.

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The shape of the income distribution is not itself a subject of legislation, but Members of Congress appear to consider it in their decision-making process concerning a number of policy issues such as taxes, means-tested benefits, and social insurance programs. Congress also takes up legislation specifically in the name of those in the middle (however defined) of the income distribution who commonly are referred to as the middle class. Some Members have, for example, proposed bills to improve U.S. competitiveness as a means of increasing exports manufactured by workers in "good" (middle-class) jobs. (For example, P.L. 111-240, the Small Business Jobs Act of 2010.) Similarly, training policy generally has been crafted to provide individuals with the skills thought necessary to attain a middle-class standard of living. (For example, P.L. 105-220, the Authorization of the Workforce Investment Act.)

This report first presents a brief analysis of the distribution of income across households in 2012, the latest year for which annual data are available from the Census Bureau.[1] It then attempts to put the term middle class into greater perspective: first, by applying results from public opinion surveys on social class to the Census Bureau's data on the income distribution in 2012; and second, by reviewing findings from empirical studies on the contribution of relative (as opposed to absolute) income to the identity of the middle class.

The Distribution of Household Income

The Census Bureau conducts a survey from which it derives annual estimates of the distribution of income across households, families, and individuals with income.[2] Households, which are more numerous than families, appear to be most relevant to the discussion here because household members are assumed to pool whatever income they have and share a common standard of living.[3]

The bureau's official measure of income is "money income." It includes earnings, interest, dividends, pensions, child support, and government non means-tested income (e.g., Social Security benefits, unemployment compensation, and veterans' payments). Money income is calculated on a pre-tax basis; that is, it excludes payments for personal income taxes, Social Security, Medicare, union dues, etc. It also excludes the value of non-cash means-tested benefits (e.g., food stamps, public housing subsidies), employer-provided fringe benefits, and capital gains. Money income is the measure on which official estimates of poverty are based.[4]

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[1] For information on trends in the distribution of income, see CRS Report R42400, *The U.S. Income Distribution and Mobility: Trends and International Comparisons*, by Linda Levine.

[2] The complete Census Bureau report (*Income, Poverty, and Health Insurance: Coverage in the United States: 2012*) is available at http://www.census.gov/prod/2013pubs/p60-245.pdf.

[3] In the Current Population Survey (CPS), a household is defined as all of the individuals who occupy a housing unit as their usual place of residence. A family is defined as a group of two or more individuals who reside together and who are related by birth, marriage, or adoption. A household may be composed of one or more families or no families at all; that is, a person living alone in a housing unit is counted in the CPS as a household.

[4] The Census Bureau periodically calculates alternative measures of income which can be used to assess the effects of federal (cash and noncash) transfers, capital gains, employee health benefits, return on own-home equity, federal and state income taxes, payroll taxes, and the Earned Income Tax Credit on the shape of the income distribution and on the number of persons living below the poverty threshold. The latest estimates cover 2009, and are available at http://www.census.gov/hhes/www/cpstables/032010/rdcall/toc.htm.

Data describing the distribution of income across households can be presented in a number of ways. The top portion of **Table 1** displays the number and share of households with income by income class. The income class sizes range from about $5,000 toward the lower end of the distribution to about $50,000 at the upper end of the distribution. In 2012, 2.1% of households (2,549,000 out of 122,459,000) had incomes between $200,000 and $249,999, for example. Another 2.4% of households (2,911,000 out of 122,459,000) had incomes of $250,000 or more. (The Census Bureau does not disaggregate income within the group of households with incomes of $250,000 or more.) At the lower end of the distribution, 3.4% of households (4,204,000 out of 122,459,000) had incomes of less than $5,000.

Table 1. Distribution of Household Money Income by Selected Income Class, 2012

Income Class	# of Households (in thousands)	% of Households
All Households	122,459	100.0
Less than $5,000	4,204	3.4
$5,000 to $9,999	4,729	3.9
$10,000 to $14,999	6,982	5.7
$15,000 to $19,999	7,157	5.8
$20,000 to $24,999	7,131	5.5
$25,000 to $29,999	6,740	5.4
$30,000 to $34,999	6,354	5.2
$35,000 to $39,999	5,832	4.8
$40,000 to $44,999	5,547	4.5
$45,000 to $49,999	5,254	4.4
$50,000 to $59,999	9,358	7.6
$60,000 to $69,999	8,305	6.8
$70,000 to $79,999	7,170	5.9
$80,000 to $89,999	5,969	4.9
$90,000 to $99,999	4,901	4.0
$100,000 to $124,999	9,490	7.7
$125,000 to $149,999	5,759	4.7
$150,000 to $199,999	6,116	5.0
$200,000 to $249,999	2,549	2.1
$250,000 and above	2,911	2.4
Median Income	$51.017	
Mean Income	$71,274	

Source: U.S. Census Bureau, 2012 Annual Social and Economic Supplement to the Current Population Survey.

The concentration of income among the relatively few households in the upper tail of the income distribution can be seen by comparing two summary measures of the shape of the income distribution shown in the last two rows of **Table 1**. One summary measure, median income, is the level below and above which one-half of all households lie. It is generally considered a better indication of the income of the "typical" household than is the mean (average), which can be pulled up by a relatively small number of high income households in the upper end of the distribution. One-half of households had income above the median of $51,017 in 2012, whereas many fewer households (about one-third) had income above the mean of $71,274.

Another often-used way to describe the distribution of income is the share of total money income going to different household groups in order of increasing income. In 2012, there were a total of 122,459,000 households with income, so each quintile (fifth) in the distribution represents 24,492,000 households. The Census Bureau separately calculates the total income share of the top 5% of households. As shown in **Table 2**, the top 5% of households accounted for 22.3% of all income in 2012. By comparison, the lowest quintile (20%) of households had only 3.2% of aggregate income.

Table 2. Census Bureau Estimate: Distribution of Household Money Income by Quintile, 2012

	Quintiles					
	Lowest	**Second**	**Third**	**Fourth**	**Highest**	**Top 5%**
Number of households	24,492,000	24,492,000	24,492,000	24,492,000	24,492,000	6,126,000
Range of income class	$20,592 or less	$20,593 to $39,735	$39,736 to $64,553	$64,554 to $104,086	$104,087 or more	$191,150 or more
Share of household income (%)	3.2	8.3	14.4	23.0	51.0	22.3

Source: U.S. Census Bureau, 2012 Annual Social and Economic Supplement to the Current Population Survey.

The Congressional Budget Office (CBO) produces annual estimates of the U.S. income distribution that combines information from the CPS with Statistics of Income (SOI) compiled by the Internal Revenue Service. This richer data set allows CBO to construct a broader definition of household income than found in the Census's money income estimates. Major sources of difference in CBO's estimate of household income are the inclusion of capital gains and the value of non-cash benefits (such as Food Stamps, Medicare and Medicaid, and employer paid health insurance premiums). The use of the SOI also allows CBO to compute after-tax income by subtracting estimates of federal income and corporate taxes, social insurance (payroll) taxes, and excise taxes from before-tax income. Because SOI data are not as timely as Census data and because of the computational scope of the task, the most recent CBO income distribution estimate is for 2010 (released in December 2013).[5]

As shown in **Table 3**, CBO's estimate of the 2010 distribution of household income is broadly similar to the Census estimate. However, because of transfers and taxes, CBO's estimate of the income distribution is modestly more equal than the Census estimate (for 2012). CBO's broader treatment of transfers increases the share of income in the lowest quintile. In addition, CBO's consideration of the federal tax system decreases (relative to CBO's estimate of the before-tax share) the after-tax share of the highest quintile and increases the share of the four lower quintiles.

[5] CBO, "The Distribution of Household Income and Federal Taxes, 2010," December 2013, available at http://www.cbo.gov/sites/default/files/cbofiles/attachments/44604-AverageTaxRates.pdf.

Table 3. CBO Estimate: Distribution of Before and After-Tax Household Income by Quintile, 2010

	Quintiles					
	Lowest	Second	Third	Fourth	Highest	Top 5%
Share of *before-tax* household income (%)	5.1	9.6	14.2	20.4	51.9	27.4
Share of *after-tax* household income (%)	6.2	10.9	15.4	21.0	48.1	24.3

Source: Congressional Budget Office, Distribution of Household Income and Federal Taxes, December 2013.

The Middle Class

Although Congress often considers legislation specifically in the name of the middle class, there is no official government definition of the group, and it is not the aim of this report to develop one. What constitutes the middle class is subjective and comparative, meaning different things to different people. The term may refer to a group with a common point of view or to those having similar incomes. Most people likely have decided views as to whether they are middle class, and those who refer to the middle class have a rough idea of whom they have in mind. How closely these definitions correspond is another matter.

Absolute Income

Any discussion of the middle class necessarily starts with those at the very middle of the income distribution. As previously discussed, median household income was $51,017 in 2012. How far the middle class stretches above and below the median is the question.

A narrow view of the middle class might include only those in the middle (third) quintile, that is, those households with money income between $39,736 and $64,553 in 2012 (see **Table 2**). It seems unlikely, however, that so narrow an income range would account completely for those commonly considered to be middle class. For that reason, the three middle quintiles are often combined to broaden the definition. In 2012, according to this broader definition, the 73,476,000 households with income above $20,592 and below $104,087 might have composed the middle class. These 60% of all households in the distribution accounted for a smaller share (45.7%) of total income in 2012.

A still broader definition of middle class can be constructed by adding that part of the top quintile up to the point at which the top 5% of households begins. In 2012, then, 91,842,000 households with incomes above $20,592 and below $191,150 might have composed the middle class. These 75% of all households in the distribution accounted for a slightly smaller share (74.4%) of total household income in that year.

The results of opinion surveys offer further insight into the income bounds that may define the middle class. A few surveys asked people to indicate their social class. In a 2005 *New York Times* survey, for example, 35% of respondents identified themselves as working class and 7% said they were part of the lower class. Another 42% considered themselves to be middle class and 15% said they were part of the upper middle class, whereas 1% of respondents identified themselves as members of the upper class.[6] In contrast, the top income class ($250,000 or more) in the Census Bureau's detailed data on the household income distribution shown in **Table 1** accounted for 2.3% of all households. Assuming some correspondence between the survey responses and Census income data, this discrepancy suggests that the 15% of respondents who said they were upper-middle class includes some households with incomes over $250,000. Comparing just the 42% of respondents who reported being middle class with the Census data suggests that the upper bound of the middle class might instead be lower at somewhat under $125,000. The lower bound of the middle class might be just over $40,000, based on a comparison of the 42% of respondents who reported they were working or lower class with the Census data.

The National Opinion Research Center (NORC) at the University of Chicago began asking people in 1972 to identify their social class in the General Social Survey (GSS). The cumulative results of self-reported class divisions in the GSS can be compared with the Census income distribution as was done above with the *Times* survey. According to the 1972-2010 GSS data,[7] 3.2% of the population consider themselves to be upper class. This would put the dividing line between middle and upper class at somewhat over $200,000. The 1972-2010 GSS results further indicate that 5.7% of the population consider themselves to be lower class and 45.7% identified themselves as working class. This would put the lower income level for the middle class at just over $50,000.

As part of a larger study of the middle class, the Pew Research Center sampled opinions regarding social class in 2012. It found that 51% of surveyed adults living in households with incomes between $30,000 and $49,999 identified themselves as middle class and 65% of surveyed adults with household incomes between $50,000 and $99,999 identified themselves as middle class. Although these results suggest that the income boundaries of the middle class might extend from $30,000 to $99,999, the finding that 46% of surveyed adults with household incomes of $100,000 or more self-identified as middle class suggests that the upper bound of the middle class might exceed $100,000. But by how much? The Pew survey also found that 7% of Americans consider themselves to be lower class; 25%, lower middle class; 49%, middle class; 15%, upper middle class; and 2%, upper class.[8] If the 15% of survey respondents who considered themselves upper middle class were added to the middle class rather than upper class category as Pew has done, then the upper bound of the middle class might be somewhat over $200,000.

Taken together, the survey responses suggest that the lower bound of the middle class might start in the middle (third) quintile of the income distribution shown in **Table 2** (households with income of $39,736 to $64,553). The surveys' results further suggest that the middle class extends into the top (fifth) quintile of the income distribution (households with income of $104,087 or more)—perhaps including households with income somewhat over $200,000.[9]

[6] *The New York Times* published a series of articles in May 2005 under the title "Class Matters," which is available at http://www.nytimes.com/indexes/2005/05/15/national/class/index.html.

[7] NORC, *General Social Survey*, http://www.norc.uchicago.edu/GSS+Website/.

[8] Pew Research Center, *The Lost Decade of the Middle Class*, August 22, 2012, available at http://www.pewsocialtrends.org/files/2012/08/pew-social-trends-lost-decade-of-the-middle-class.pdf. The results from the 2012 survey are similar to those from a 2008 survey conducted by Pew, *Inside the Middle Class: Bad Times Hit the Good Life*, available at http://pewsocialtrends.org/pubs/706/middle-class-poll.

[9] If those who consider themselves to be upper class were underrepresented in the surveys, the number of those who consider themselves to be upper class would be larger. If that is the case, the actual level of income that divides the middle from the upper class would be lower than is suggested by the surveys.

Relative Income

The satisfaction (utility) that households derive from their income appears to be associated both with their absolute level of income and how that income level compares with the incomes of others.[10] While the middle class may be content with absolute income levels that afford them a much better-than-subsistence standard of living, the satisfaction of the middle class also may be affected by their income relative to a reference group. If individuals care about how their income compares with that of their neighbors or coworkers, for example, it lends support to the notion of like-income groups possessing a shared outlook on economic (and perhaps other) policy.

Since the 1990s, economists have increasingly turned their attention to identifying factors that contribute to utility (well-being or happiness), including one's position relative to others.[11] One study, for example, analyzed whether group-specific suicide rates are associated with interpersonal comparisons of income.[12] Daly and Wilson used the suicide rate as an indicator of current and expected future happiness, and developed three measures of relative income: the ratio of income at the 90th percentile to median income (90/50), the ratio of median income to income at the 10th percentile (50/10), and the ratio of income at the 90th percentile to income at the 10th percentile (90/10). Among their findings was that an increase in the 50/10 ratio was associated with a decrease in the suicide rate, and that an increase in the 90/50 ratio was associated with an increase in the suicide rate. That is to say, those in the middle-income group (the 50th percentile) were (a) happier the larger the gap was between them and those at the low end of the distribution and (b) unhappier the larger the gap was between them and those at the high end of the distribution. Daly and Wilson considered the results evidence that relative income influences a group's sense of well-being. More specifically, increases in inequality at the upper and lower tails of the income distribution appear to have opposite effects on the satisfaction of the middle-income group.

Luttmer also presented evidence that relative income is an important determinant of well-being.[13] He matched survey data on self-reported happiness and other measures of well-being (e.g., frequency of marital disagreements, score on a depression index) with income data by locality. Luttmer estimated that an increase in neighbors' income had a negative effect on one's own happiness. Dynan and Ravina built on Luttmer's study by using the GSS to assess the effect of

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[10] Disagreement in the economics literature exists about the extent to which absolute versus relative income contributes to well-being and about what is the most appropriate measure of well-being. See, for example, Richard Ball and Kateryna Chernova, "Absolute Income, Relative Income, and Happiness," *Social Indicators Research*, September 2008, pp. 497-529; Daniel Kahneman and Angus Deaton, "High Income Improves Evaluation of Life but Not Emotional Well-Being," *Proceedings of the National Academy of Sciences*, vol. 107, no 38, September 2010, pp. 16489-16493; Richard Layard, Guy Mayraz and Stephen Nickell, *Does Relative Income Matter? Are the Critics Right?*, CEP Discussion Paper No. 918, March 2009; and Betsey Stevenson and Justin Wolfers, "Economic Growth and Subjective Well-Being: Reassessing the Easterlin Paradox," *Brookings Papers on Economic Activity*, 2008, pp. 1-87.

[11] Andrew E. Clark, Paul Frijters, and Michael A. Shields, "Relative Income, Happiness, and Utility: An Explanation for the Easterlin Paradox and Other Puzzles," *Journal of Economic Literature*, vol. 46, no. 1 (2008), pp. 95-144.

[12] Mary Daly and Dan Wilson, "Keeping Up with the Joneses and Staying Ahead of the Smiths: Evidence from Suicide Data," *Federal Reserve Bank of San Francisco Working Paper 2006-12*, April 2006; and, Mary Daly, Dan Wilson, and Norman Johnson, "Relative Status and Well-Being: Evidence From U.S. Suicide Deaths," *Federal Reserve Bank of San Francisco Working Paper 2012-16,* September 2012, available at http://www.frbsf.org/economic-research/files/wp12-16bk.pdf.

[13] Erzo F.P. Luttmer, "Neighbors as Negatives: Relative Earnings and Well-Being," *Quarterly Journal of Economics*, August 2005.

differences in relative incomes over recent decades on happiness. Like Luttmer, they found that relative income is strongly associated with self-reported happiness. Dynan and Ravina further estimated that relative income most affects well-being when a group's income is above the average in its state but not at the top (90th percentile) of the income distribution. Or, as the authors put it, "relative concerns primarily affect people who have above-average income but are not extremely rich."[14]

Guven and Sorensen concluded that relative income plays a substantial role in explaining self-reported happiness among the middle-income group.[15] Because the GSS asks respondents how they think their income compares with that of the average family, the economists also were able to measure the relationship between happiness and perceived (as opposed to actual) relative income. Guven and Sorensen estimated that well-being is more affected by the perception of relative income than by actual relative income for the middle-income group. They further found that perceptions about relative income are more important in explaining the well-being of the middle-income group than the happiness of the low- and high-income groups.

The conclusions of these studies might not seem robust because they are based on self-assessments of well-being, but if they are correct, they appear relevant to the notion of like-minded income groups. Together, the studies suggest that the satisfaction of the middle class (however defined) depends not only on "keeping up with the Joneses" but also staying ahead of the Smiths, as Daly and Wilson put it in their study. In other words, whatever else they may have in common; those who may constitute the middle class seemingly have similar sentiments with regard to their economic situation. Specifically, having incomes far above those at the lower end of the income distribution generally correlates with satisfaction to the middle class, but when those at the upper end of the distribution fare much better than they do, the level of middle class satisfaction is generally lessened.

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[14] Karen E. Dynan and Enrichetta Ravina, "Increasing Income Inequality, External Habits, and Self-Reported Happiness," *AEA Papers and Proceedings*, vol. 97, no. 2 (May 2007), pp. 226-231.

[15] Cahit Guven and Bent E. Sorensen, *Subjective Well-Being: Keeping Up With the Joneses, Real or Perceived?*, November 2007, available at http://www.uh.edu/~cguven/papers/JonesesCahit_SEP262007.pdf. See also Cahit Guven and Bent E. Sorensen, "Subjective Well-Being: Keeping Up with the Perception of the Joneses," *Social Indicators Research*, August 2011, pp. 1-31.