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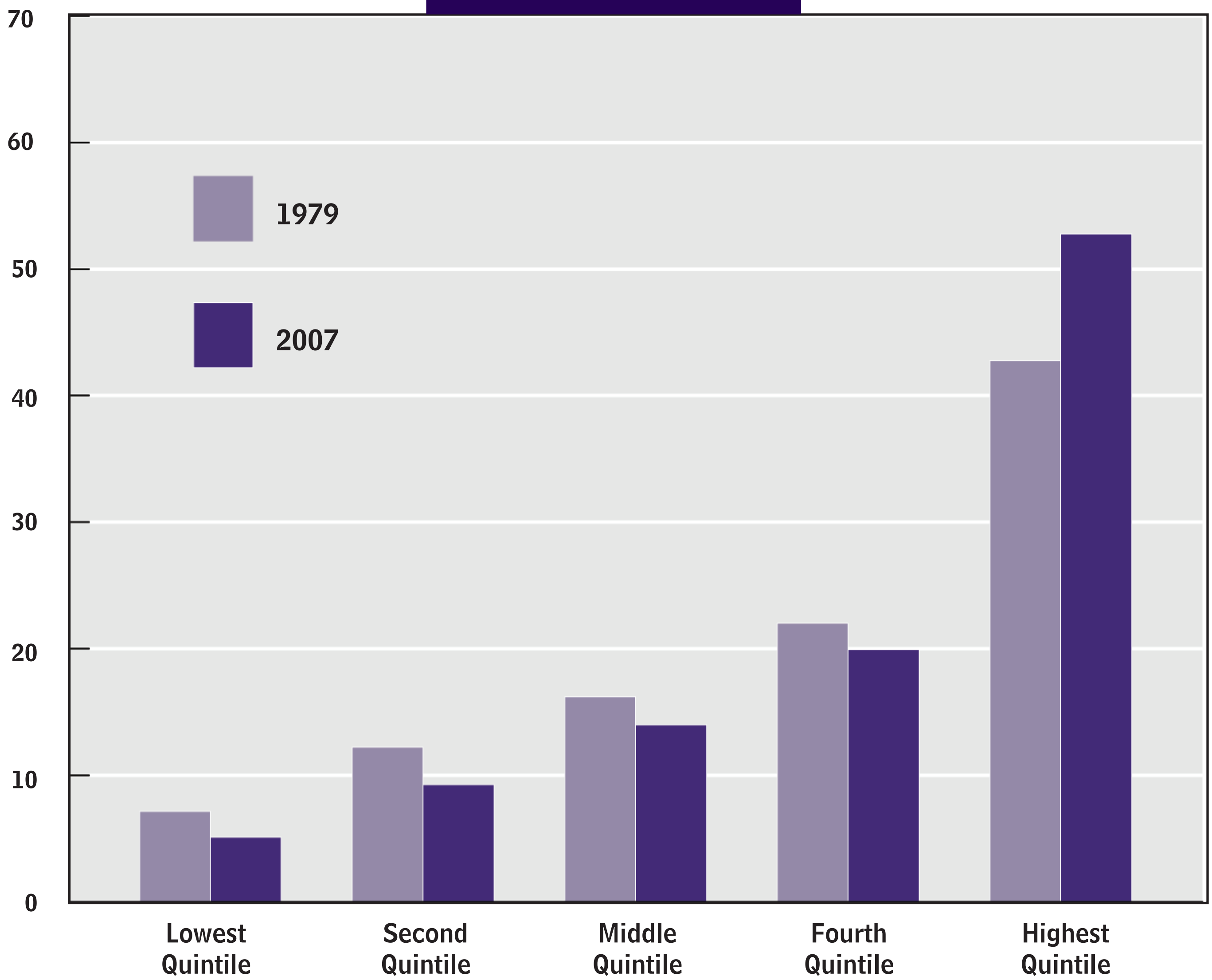
CBO

Trends in the Distribution of Household Income Between 1979 and 2007



Shares of Income After Transfers and Federal Taxes, 1979 and 2007

OCTOBER 2011

A CBO STUDY

Trends in the Distribution of Household Income Between 1979 and 2007

October 2011

The Congress of the United States ■ Congressional Budget Office

Notes and Definitions

Numbers in the text, tables, and figures may not add up to totals because of rounding.

Unless otherwise indicated, all years referred to in this study are calendar years.

Some of the figures have shaded vertical bars that indicate the duration of recessions. (A recession extends from the peak of a business cycle to its trough.)

Income is adjusted for inflation using the Bureau of Labor Statistics' research series of the consumer price index for all urban consumers (CPI-U-RS).

Income is adjusted for differences in household size—specifically, by dividing income by the square root of a household's size. (A household consists of the people who share a housing unit, regardless of their relationships.)

Income categories are defined by ranking all households by their size-adjusted income. Percentiles (hundredths) and quintiles (fifths) contain equal numbers of people. Households with negative income are excluded from the lowest income category but are included in totals.

A household with children has at least one member under age 18. An elderly childless household is headed by a person age 65 or older with no member under age 18. A nonelderly childless household is one headed by a person under age 65 and with no member under age 18.

Market income includes the following components:

- Labor income, which includes cash wages and salaries (including those allocated by employees to 401(k) plans), employer-paid health insurance premiums, and the employer's share of Social Security, Medicare, and federal unemployment insurance payroll taxes.

- Business income, which includes net income from businesses and farms operated solely by their owners, partnership income, and income from S corporations.

- Capital gains, which are profits realized from the sale of assets. Increases in the value of assets that have not been realized through sales are not included in market income.

- Capital income (excluding capital gains) comprises taxable and tax-exempt interest, dividends paid by corporations (but not dividends from S corporations, which are considered part of business income), positive rental income, and corporate income taxes. Capital gains are considered separately and not included in this measure of capital income. The Congressional Budget Office assumes in this analysis that corporate income taxes are borne by owners of capital in proportion to their income from capital; therefore, the amount of the corporate tax is included in household income measured before taxes.

- Other income, which includes income received in retirement for past services and any other sources of income.

Transfer income includes cash payments from Social Security, unemployment insurance, Supplemental Security Income, Aid to Families with Dependent Children, Temporary Assistance for Needy Families, veterans' benefits, workers' compensation, and state and local government assistance programs, as well as the value of in-kind benefits, including food stamps, school lunches and breakfasts, housing assistance, energy assistance, Medicare, Medicaid, and the Children's Health Insurance Program (health benefits are measured as the fungible value, a Census Bureau estimate of the value to recipients).

After-tax income is equal to market income plus transfer income minus federal taxes paid. In assessing the impact of various taxes, individual income taxes are allocated directly to households paying those taxes. Social insurance, or payroll, taxes are allocated to households paying those taxes directly or paying them indirectly through their employers. Corporate income taxes are allocated to households according to their share of capital income. Federal excise taxes are allocated to households according to their consumption of the taxed good or service.

Average tax rates are calculated by dividing federal taxes paid by the sum of market income and transfer income. Negative tax rates result when refundable tax credits, such as the earned income and child tax credits, exceed the other taxes owed by people in an income group. (Refundable tax credits are not limited to the amount of income tax owed before they are applied.)

The **Gini index** is a summary measure of income inequality based on the relationship between shares of income and shares of the population. It ranges in value from zero to one, with zero indicating complete equality (for example, if each fifth of the population, ranked by income, received one-fifth of total income) and one indicating complete inequality (for example, if one household received all the income). A Gini index that increases over time indicates rising income dispersion.

A **concentration index** is a measure similar to a Gini coefficient and is used in this study to express the inequality of market income from different sources. The index differs from a Gini index for an income source because in calculating the concentration index, households are ranked by total market income rather than by income from that source, as they would be in calculating the Gini index for that income source.

Preface

This Congressional Budget Office (CBO) study—prepared at the request of the Chairman and former Ranking Member of the Senate Committee on Finance—documents changes in the distribution of household income between 1979 and 2007. CBO's analysis examines the distribution of household income before and after government transfers and federal taxes, and it reports the contribution of various income components (such as wages and salaries, capital income, and business income) to the distribution of market income. The study presents information on trends in the distribution of income for all households combined and for households separated on the basis of age and the presence of children. In keeping with CBO's mandate to provide objective, impartial analysis, this study makes no recommendations.

Edward Harris and Frank Sammartino of CBO's Tax Analysis Division wrote the study. Greg Acs, Nabeel Alsalam, Mark Hadley, Jon Schwabish, and David Weiner, all of CBO, provided helpful comments, as did Sheldon Danziger of the University of Michigan and Tom DeLeire and Tim Smeeding of the University of Wisconsin-Madison. The assistance of external reviewers implies no responsibility for the final product, which rests solely with CBO.

Christine Bogusz edited the study, and Sherry Snyder proofread it. Jeanine Rees prepared the study for publication, and Maureen Costantino designed the cover. Monte Ruffin printed the initial copies, and Linda Schimmel coordinated the print distribution. The study is available on CBO's Web site (www.cbo.gov).

Douglas W. Elmendorf
Director

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Summary

From 1979 to 2007, real (inflation-adjusted) average household income, measured after government transfers and federal taxes, grew by 62 percent. During that period, the evolution of the nation's economy and the tax and spending policies of the federal government and state and local governments had varying effects on households at different points in the income distribution: Income after transfers and federal taxes (denoted as after-tax income in this study) for households at the higher end of the income scale rose much more rapidly than income for households in the middle and at the lower end of the income scale.[1] In particular:

- For the 1 percent of the population with the highest income, average real after-tax household income grew by 275 percent between 1979 and 2007 (see Summary Figure 1).

- For others in the 20 percent of the population with the highest income (those in the 81st through 99th percentiles), average real after-tax household income grew by 65 percent over that period, much faster than it did for the remaining 80 percent of the population, but not nearly as fast as for the top 1 percent.

- For the 60 percent of the population in the middle of the income scale (the 21st through 80th percentiles), the growth in average real after-tax household income was just under 40 percent.

- For the 20 percent of the population with the lowest income, average real after-tax household income was about 18 percent higher in 2007 than it had been in 1979.

As a result of that uneven income growth, the distribution of after-tax household income in the United States was substantially more unequal in 2007 than in 1979: The share of income accruing to higher-income households increased, whereas the share accruing to other households declined. In fact, between 2005 and 2007, the after-tax income received by the 20 percent of the population with the highest income exceeded the after-tax income of the remaining 80 percent.

To assess trends in the distribution of household income, the Congressional Budget Office (CBO) examined the span from 1979 to 2007 because those endpoints allow comparisons between periods of similar overall economic activity (they were both years before recessions). The growth in average income for different groups over the 1979–2007 period reflects a comparison of average income for those groups at different points in time; it does not reflect the experience of particular households. Individual households may have moved up or down the income scale if their income rose or fell more than the average for their initial group. Thus, the population with income in the lowest 20 percent in 2007 was not necessarily the same as the population in that category in 1979.

Increased Concentration of Market Income

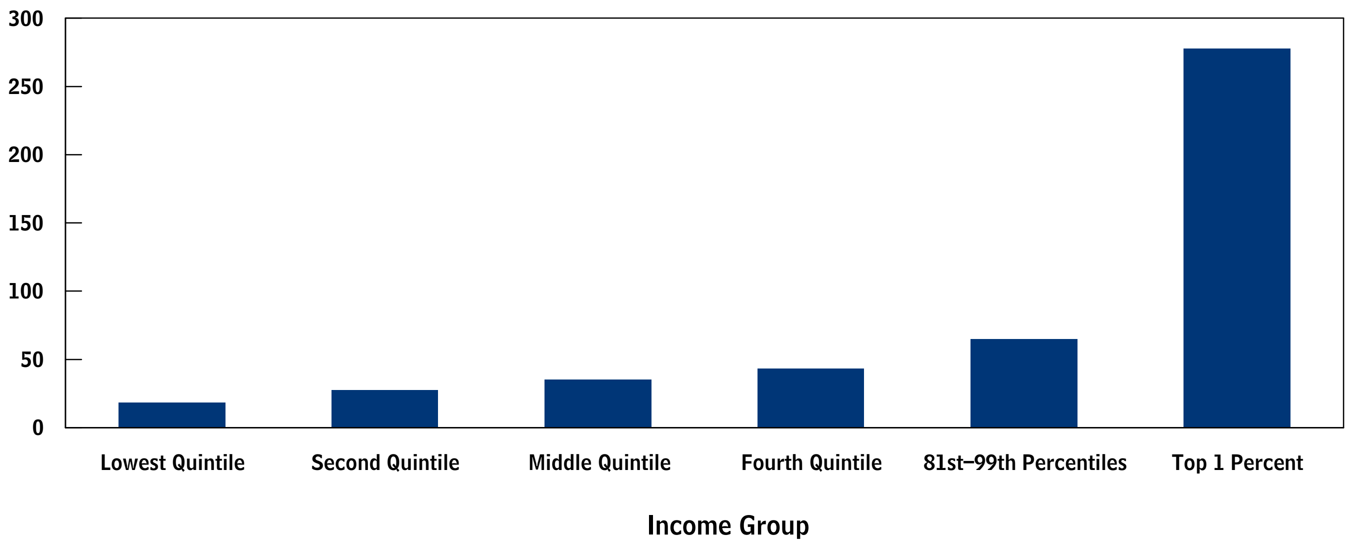
The major reason for the growing unevenness in the distribution of after-tax income was an increase in the concentration of market income (income measured

1. For information on income definitions, the ranking of households, the allocation of taxes, and the construction of inequality indexes, see "Notes and Definitions" at the beginning of this study. All measures of household income are adjusted to account for differences in household size. Appendix A provides a more detailed discussion of the methodology.

Summary Figure 1.

Growth in Real After-Tax Income from 1979 to 2007

(Percent)



Source: Congressional Budget Office.

Note: For information on income definitions, the ranking of households, the allocation of taxes, and the construction of inequality indexes, see "Notes and Definitions" at the beginning of this study.

before government transfers and taxes) in favor of higher-income households; that is, such households' share of market income was greater in 2007 than in 1979. Specifically, over that period, the highest income quintile's share of market income increased from 50 percent to 60 percent (see Summary Figure 2). The share of market income for every other quintile declined. (Each quintile contains one-fifth of the population, ranked by adjusted household income.) In fact, the distribution of market income became more unequal almost continuously between 1979 and 2007 except during the recessions in 1990–1991 and 2001.

Two factors accounted for the changing distribution of market income. One was an increase in the concentration of each source of market income, which consists of labor income (such as cash wages and salaries and employer-paid health insurance premiums), business income, capital gains, capital income, and other income. All of those sources of market income were less evenly distributed in 2007 than they were in 1979.

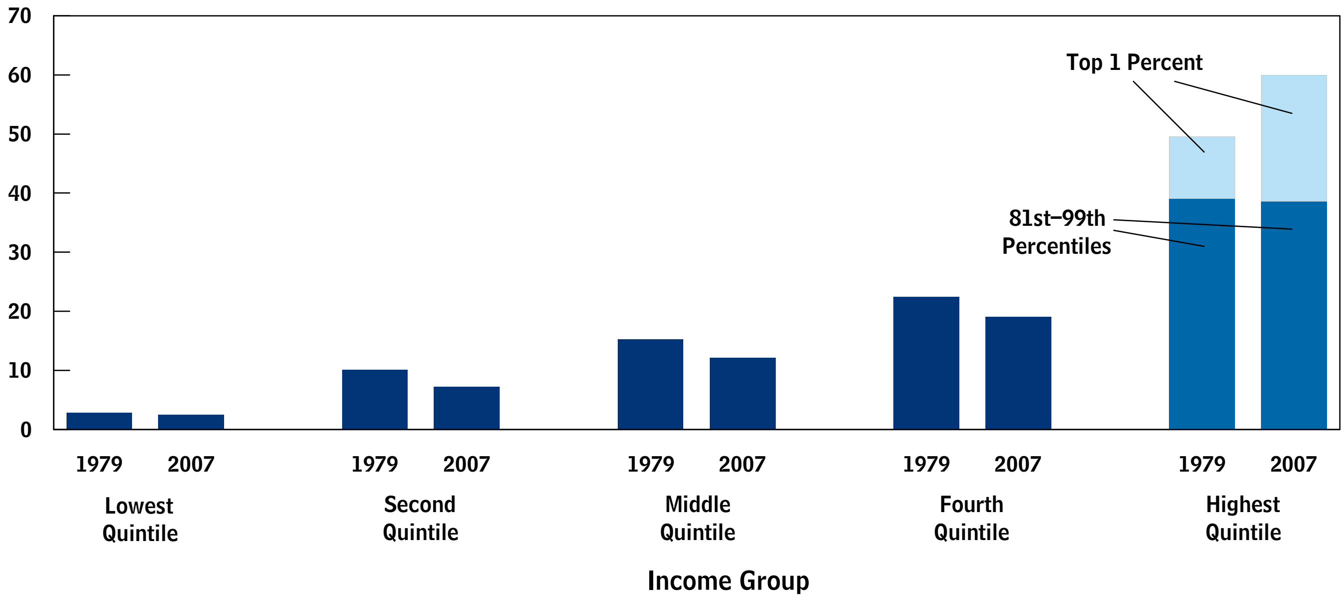
The other factor leading to an increased concentration of market income was a shift in the composition of that income. Labor income has been more evenly distributed than capital and business income, and both capital income and business income have been more evenly distributed than capital gains. Between 1979 and 2007, the share of income coming from capital gains and business income increased, while the share coming from labor income and capital income decreased.

Those two factors were responsible in varying degrees for the increase in income concentration over different portions of the 1979–2007 period. In the early years of the period, market income concentration increased almost exclusively as a result of an increasing concentration of separate income sources. The increased concentration of labor income alone accounted for more than 90 percent of the increase in the concentration of market income in those years. In the middle years of the period, an increase in the concentration within each income source accounted for about one-half of the overall increase in market income concentration; a shift to more-concentrated sources explains the other half. In the later years, an increase in the share of total income from more highly concentrated sources, in this case capital gains, accounted for about four-fifths of the total increase in

Summary Figure 2.

Shares of Market Income, 1979 and 2007

(Percent)



Source: Congressional Budget Office.

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concentration. Over the 1979–2007 period as a whole, an increasing concentration of each source of market income was the more significant factor, accounting for four-fifths of the increase in market income concentration.

Income at the Very Top of the Distribution

The rapid growth in average real household market income for the 1 percent of the population with the highest income was a major factor contributing to the growing inequality in the distribution of household income between 1979 and 2007. Average real household market income for the highest income group nearly tripled over that period, whereas market income increased by about 19 percent for a household at the midpoint of the income distribution. As a result of that uneven growth, the share of total market income received by the top 1 percent of the population more than doubled between 1979 and 2007, growing from about 10 percent to more than 20 percent. Without that growth at the top of the distribution, income inequality still would have increased, but not by nearly as much. The precise reasons for the rapid growth in income at the top are not well understood, though researchers have offered several potential rationales, including technical innovations that have changed the labor market for superstars (such as actors, athletes, and musicians), changes in the governance and structure of executive compensation, increases in firms' size and complexity, and the increasing scale of financial-sector activities.

The composition of income for the 1 percent of the population with the highest income changed significantly from 1979 to 2007, as the shares from labor and business income increased and the share of income represented by capital income decreased. That pattern is consistent with a longer-term trend: Over the entire 20th century, labor income has become a larger share of income for high-income taxpayers, while capital income has declined as a share of their income.

The Role of Government Transfers and Federal Taxes

Although an increasing concentration of market income was the primary force behind growing inequality in the distribution of after-tax household income, shifts in government transfers (cash payments to individuals and estimates of the value of in-kind benefits) and federal taxes also contributed to that increase in inequality.[2] CBO estimates that the dispersion of market income grew by about one-quarter between 1979 and 2007, while the dispersion of after-tax income grew by about one-third.[3]

This study assesses the effects of transfers and taxes on the distribution of household income by examining the differences in the dispersion of income for three types of income:

- Market income (before-transfer, before-tax income),
- Market income plus government transfers (after-transfer, before-tax income), and
- Market income plus government transfers minus federal taxes (after-transfer, after-federal-tax income)—called after-tax income in this study.

A proportional transfer and tax system would leave the dispersion of after-tax income equal to the dispersion of market income. Transfers that are a decreasing percentage of market income as income rises (progressive transfers) cause after-tax income to be less concentrated than market income, as do taxes that are an increasing percentage of before-tax household income as income rises (progressive taxes).

Transfers and taxes can also affect households' market income by creating incentives for people to change their behavior. If an additional dollar earned or saved leads to reductions in transfer payments or increases in taxes, then the after-tax return to working and saving is reduced, which may cause people to work or save less. However, those changes in transfers and taxes also reduce after-transfer, after-tax income, which may cause people to work or save more. In this analysis, CBO did not adjust market income to account for those effects of transfers and taxes.

Because government transfers and federal taxes are both progressive, the distribution of after-transfer, after-federal-tax household income is more equal than is the distribution of market income. Specifically, the dispersion of after-tax income in 2007 was about four-fifths as large as the dispersion of market income. Of the difference in dispersion between market income and after-tax income, roughly 60 percent was attributable to transfers and roughly 40 percent was attributable to federal taxes.

The equalizing effect of transfers and taxes on household income was smaller in 2007 than it had been in 1979. The equalizing effect of transfers depends on their size relative to market income and their distribution across the income scale. The size of transfer payments—as measured in this study—rose by a small amount between 1979 and 2007. The distribution of transfers shifted, however, moving away from households in the lower part of the income scale. In 1979, households in the bottom quintile received more than 50 percent of transfer payments. In 2007, similar households received about 35 percent of transfers. That shift reflects the growth in spending for programs focused on the elderly population (such as Social Security and Medicare), in which benefits are not limited to low-income households. As a result, government transfers reduced the dispersion of household income by less in 2007 than in 1979.

Likewise, the equalizing effect of federal taxes depends on both the amount of federal taxes relative to income (the average tax rate) and the distribution of taxes among households at different income levels. Over the 1979–2007 period, the overall average federal tax rate fell by a small amount, the composition of federal revenues shifted away from progressive income taxes to less-progressive payroll taxes, and income taxes became slightly more concentrated at the higher end of the income scale. The effect of the first two factors outweighed the effect of the third, reducing the extent to which taxes lessened the dispersion of household income.

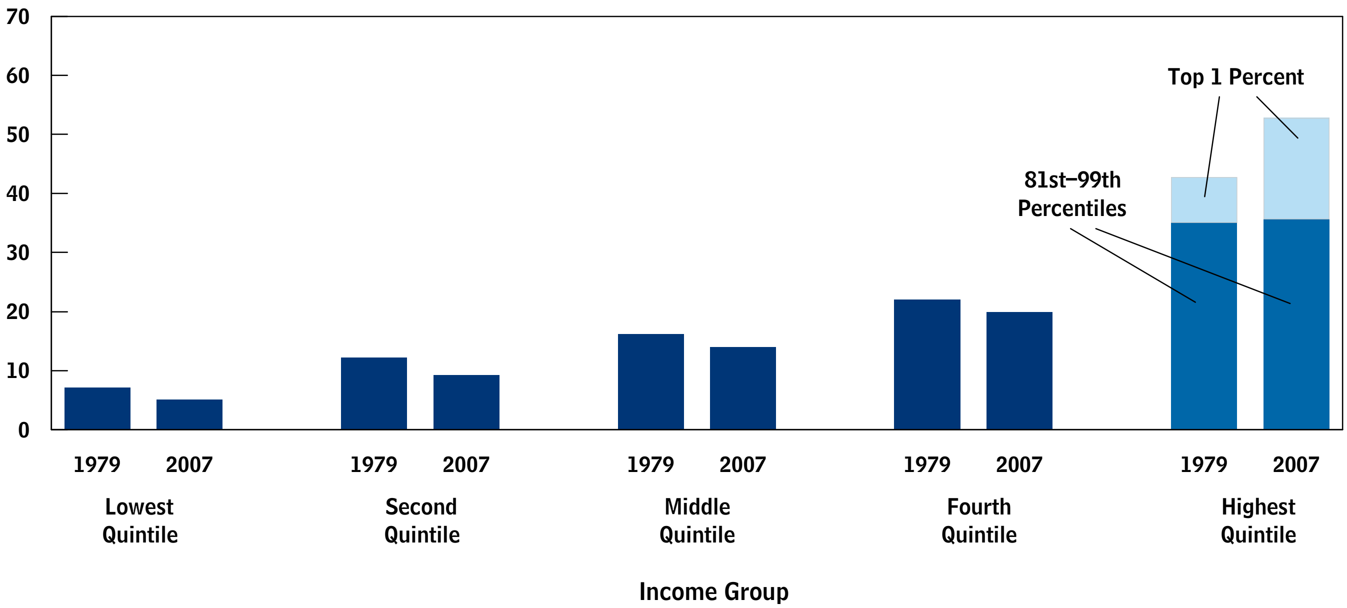
2. This study does not include state and local taxes, an issue discussed in more detail in Appendix A.

3. In this study, CBO measured dispersion using the Gini index, which takes on the value of zero if income is equally distributed and increases as incomes become more unequal.

Summary Figure 3.

Shares of Income After Transfers and Federal Taxes, 1979 and 2007

(Percent)



Source: Congressional Budget Office.

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Increased Concentration of After-Tax Income

As a result of those changes, the share of household income after transfers and federal taxes going to the highest income quintile grew from 43 percent in 1979 to 53 percent in 2007 (see Summary Figure 3). The share of after-tax household income for the 1 percent of the population with the highest income more than doubled, climbing from nearly 8 percent in 1979 to 17 percent in 2007.

The population in the lowest income quintile received about 7 percent of after-tax income in 1979; by 2007, their share of after-tax income had fallen to about 5 percent. The middle three income quintiles all saw their shares of after-tax income decline by 2 to 3 percentage points between 1979 and 2007.