

Some Background

DISTRIBUTION OF TAX BURDENS

How do taxes affect income inequality?

Q. How do taxes affect income inequality?

A. Because high-income households pay a larger share of their income in total federal taxes than low-income households, federal taxes reduce income inequality. But federal taxes have done little to offset increasing income inequality over the past 40 years.

INCREASING INCOME INEQUALITY

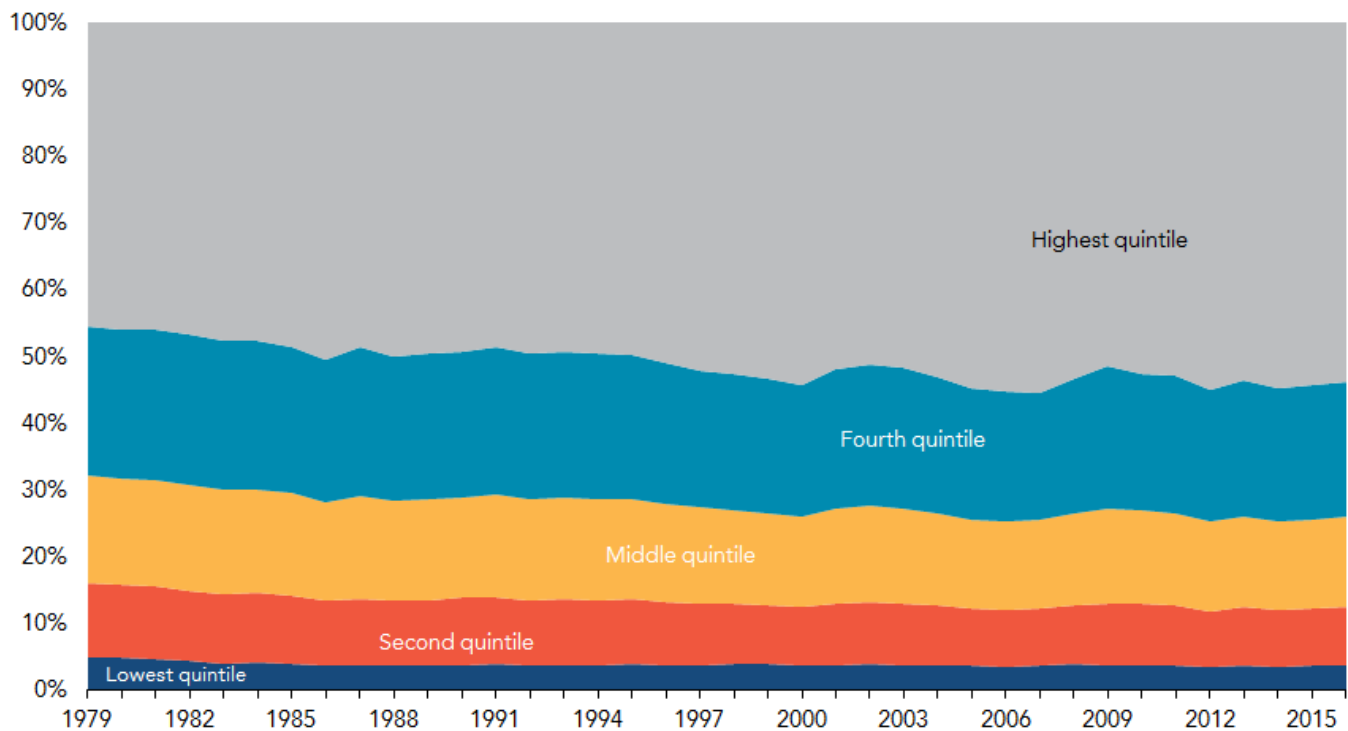
Income inequality has increased sharply over the past 40 years. A simple way to measure inequality is by looking at the share of income received by the highest-income people. Using a broad measure that includes labor, business, and capital income; and government social insurance benefits (such as Social Security, Medicare, and unemployment insurance), the Congressional Budget Office finds that the fifth of the population with the highest income saw their share rise from 46 to 54 percent between 1979 and 2016 (figure 1). This increase in income inequality came about despite the growth in Social Security and Medicare, which boost before-tax income for low- and middle-income households.

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FIGURE 1

Share of Before-Tax Income by Income Quintile
1979–2016

Source: Congressional Budget Office (CBO), *The Distribution of Household Income and Federal Taxes, 2016* (Washington, DC: CBO, 2019), supplemental data.

Notes: In 2019, the Congressional Budget Office changed their methodology for calculating income before taxes by excluding means-test transfers (such as the benefits from Medicaid, SNAP, and SSI). Thus, the numbers in this figure are not directly comparable to those in versions of our briefing book published prior to 2019.

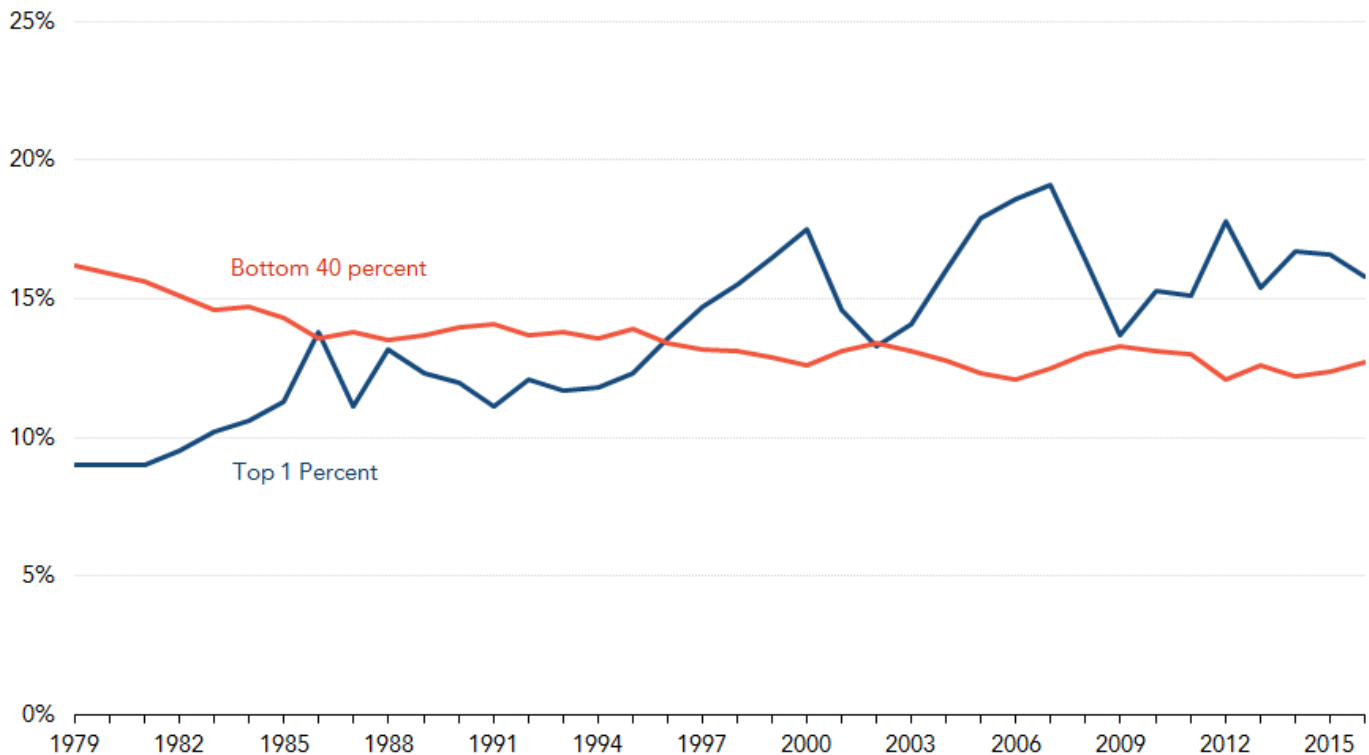
Much of the gain in the top income share went to the top 1 percent of the population. In 1979, they received 9 percent of all income. By 2016, their share grew to 16 percent, more than all the income received by the bottom 40 percent (figure 2). The income measure used in figures 1 and 2 includes realized capital gains, which are sensitive to business cycle fluctuations and to changes in tax rates. Because realized capital gains are a significant component of income for the top 1 percent, their income share is more volatile than that of other groups.

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FIGURE 2

Share of Before-Tax Income for the Top 1 and Bottom 40 Percent
1979–2016

Source: Congressional Budget Office (CBO), *The Distribution of Household Income and Federal Taxes, 2016* (Washington, DC: CBO, 2019), supplemental data.

Notes: In 2019, the Congressional Budget Office changed their methodology for calculating income before taxes by excluding means-test transfers (such as the benefits from Medicaid, SNAP, and SSI). Thus, the numbers in this figure are not directly comparable to those in versions of our briefing book published prior to 2019.

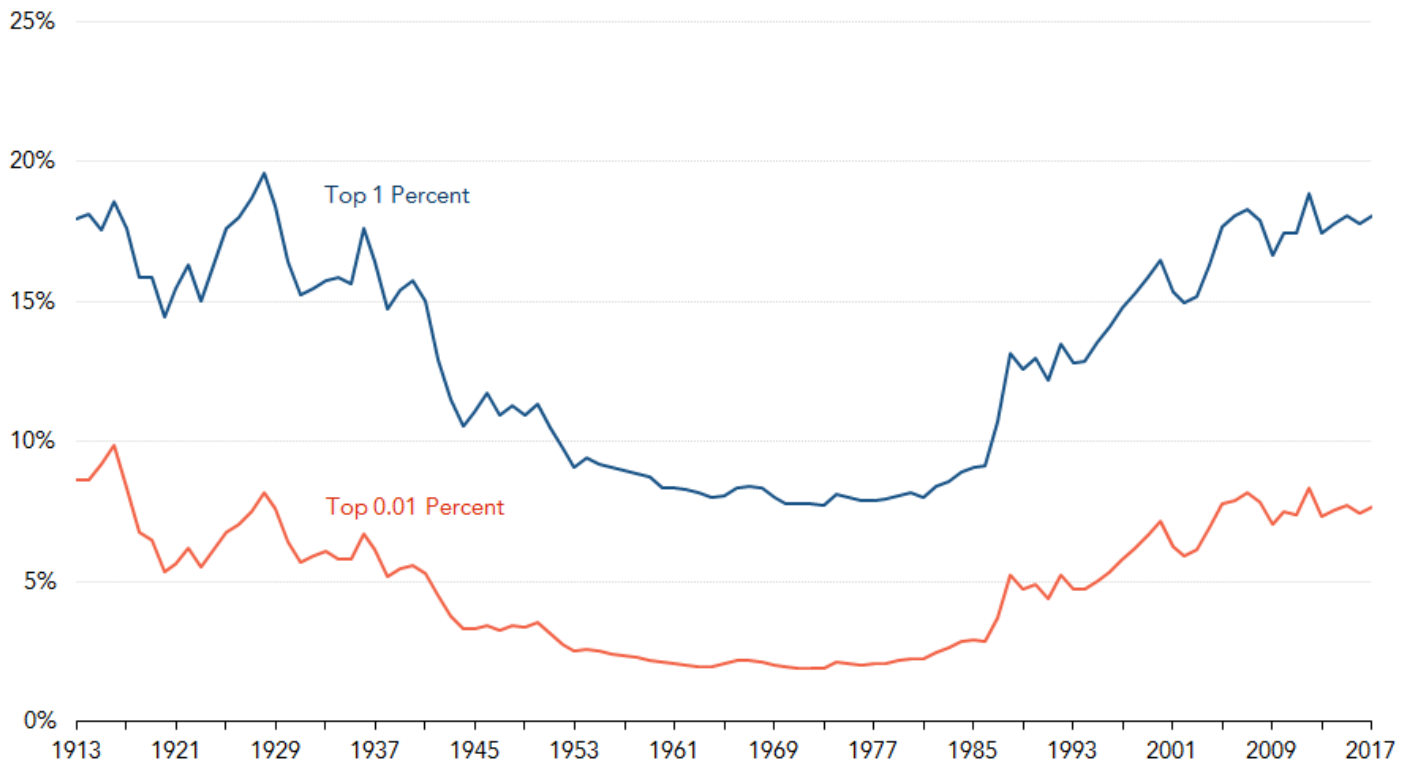
Top income shares have not reached these levels since the 1920s (figure 3). After falling precipitously during the Great Depression and World War II, the income share of the top 1 percent leveled off during the next three decades. It began climbing again in the 1980s, interrupted only by the 2001 and 2008–09 recessions. Since the stock market rebound, income shares for the top 1 percent have increased again.

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FIGURE 3

Top Income Shares in the United States
1913–2017

Source: Emmanuel Saez, "Striking It Richer: The Evolution of Top Incomes in the United States (Updated with 2017 final estimates)" (Berkeley: University of California, Berkeley, 2019).

Note: Income is annual gross income reported on individual tax returns, excluding capital gains and government transfers (such as Social Security, unemployment benefits, and welfare payments) and before individual income taxes and employees' payroll taxes.

A WORLDWIDE PHENOMENON

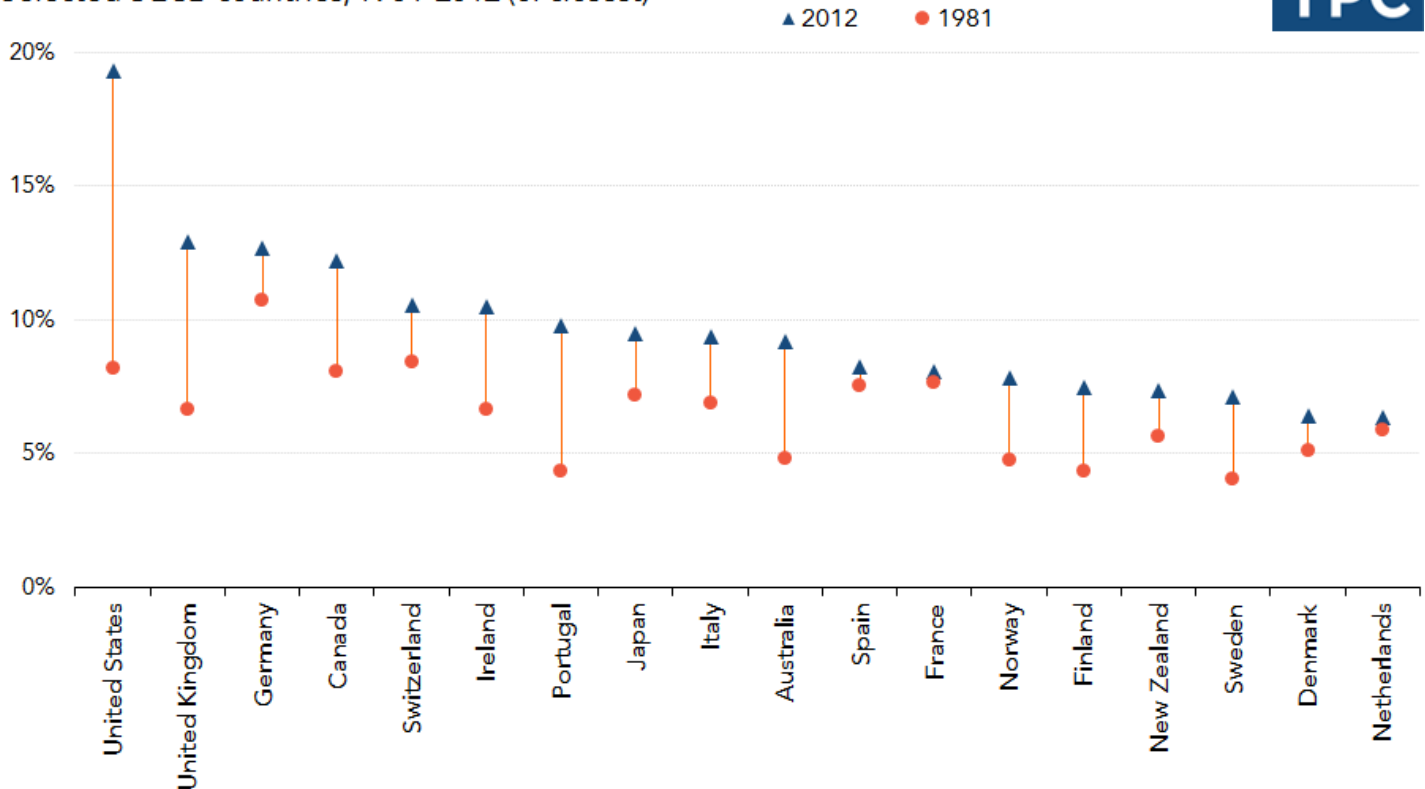
The United States is not the only country with increasing income inequality. Most member countries of the Organisation for Economic Co-operation and Development have experienced the same phenomenon, though to a lesser degree than the United States (figure 4).

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FIGURE 4

Share of Before-Tax Income for Top 1 Percent Income Group
Selected OECD countries, 1981-2012 (or closest)

Source: Organisation for Economic Co-operation and Development (OECD), "Focus on Top Income and Taxation in OECD Countries: Was the crisis a game changer?" (Paris: OECD, 2014).

Notes: Incomes refer to pretax incomes, excluding capital gains, except in Germany (which includes capital gains). Latest year refers to 2012 for the Netherlands, Sweden, and the United States; 2011 for Norway and the United Kingdom; 2009 for Finland, France, Italy, and Switzerland; 2007 for Germany; 2005 for Portugal; and 2010 for Australia, Canada, Ireland, Japan, New Zealand, and Spain.

THE ROLE OF TAXES

The figures so far only consider income before taxes. What happens after we account for taxes?

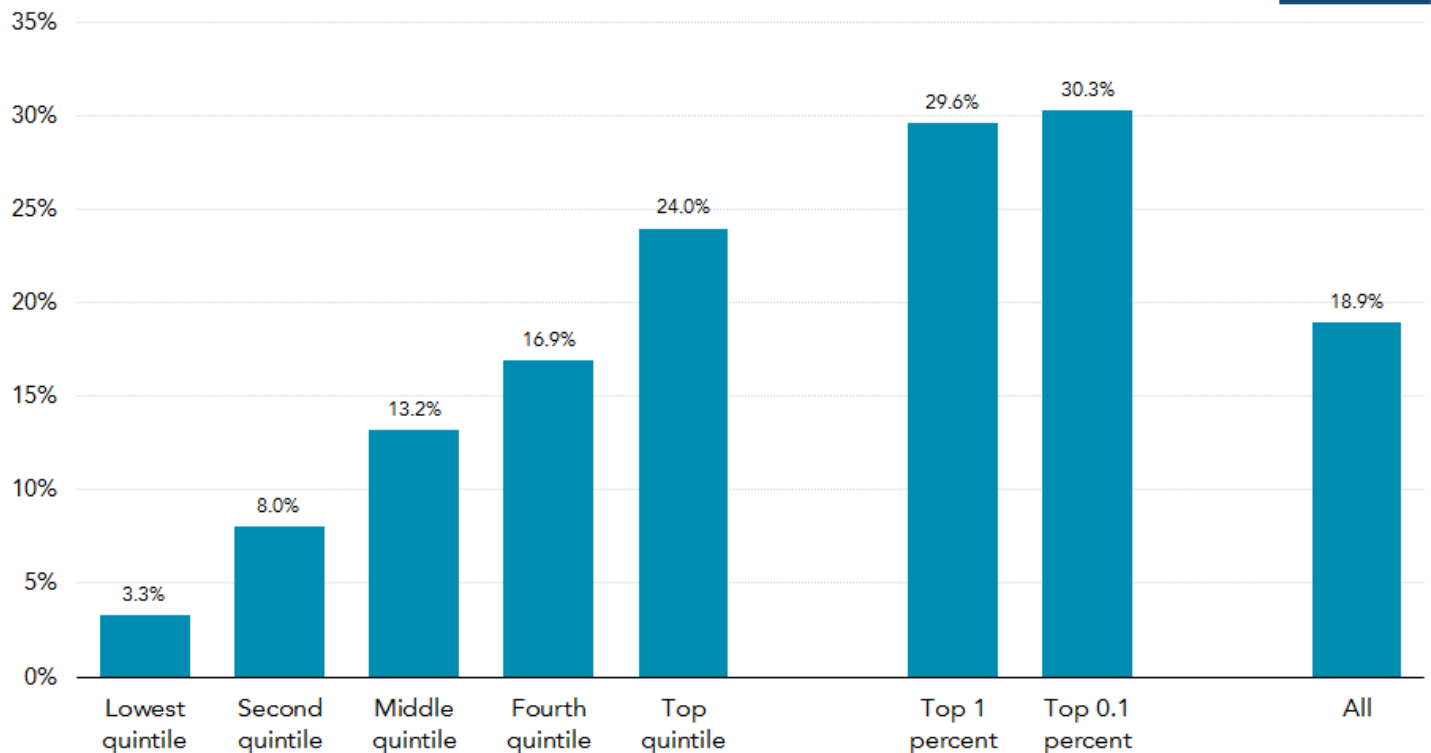
The US federal tax system is progressive. High-income households pay a larger share of their income in total federal taxes than low-income households (figure 5). State and local taxes, which are not included in this analysis, are much less progressive and some, such as sales taxes, are regressive (low-income households pay a higher share of their income in sales taxes than high-income households).

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FIGURE 5

Average Effective Federal Tax Rates by Income Percentile
2020

Source: Urban-Brookings Tax Policy Center. 2020. T20-0039. "Average Effective Federal Tax Rates—All Tax Units, by Expanded Cash Income Percentile, 2020."

Notes: The average effective federal tax rate is the sum of individual and corporate income tax, payroll taxes for Social Security and Medicare, the estate tax, and excise taxes as a percentage of expanded cash income. For a description of expanded cash income, see Urban-Brookings Tax Policy Center. "Income Measure Used in Distributional Analyses by the Tax Policy Center."

Because federal taxes are progressive, the distribution of after-tax income is more equal than income before taxes. High-income households have a slightly smaller share of total income after taxes than their share of income before taxes, while the reverse is true for other income groups (figure 6).

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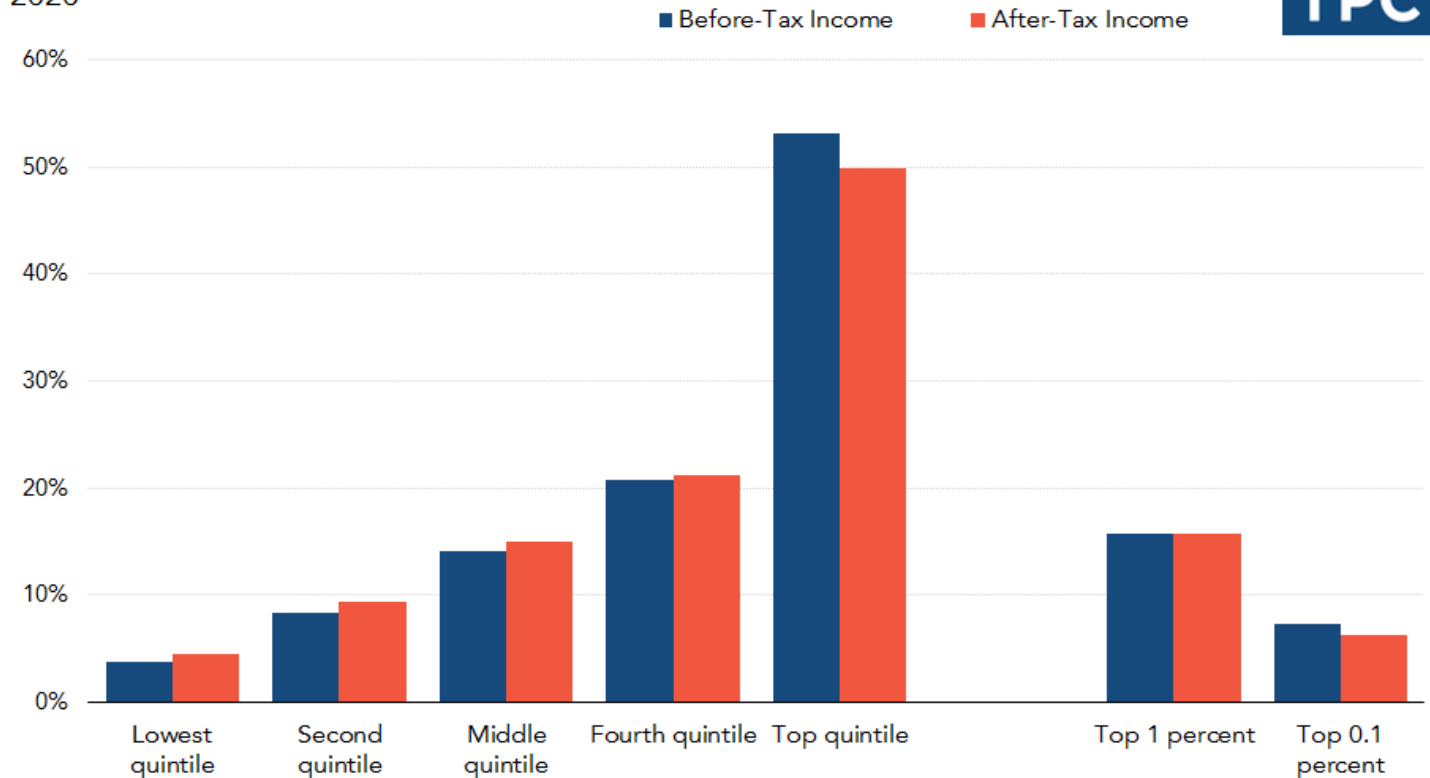
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FIGURE 6

Shares of Before-Tax and After-Tax Income by Income Percentile

2020



Source: Urban-Brookings Tax Policy Center. 2020. T20-0017. "Baseline Distribution of Income and Federal Taxes, All Tax Units, by Expanded Cash Income Percentile, 2020."

Notes: Before-tax income is measured as expanded cash income. For a description of expanded cash income, see Urban-Brookings Tax Policy Center. "Income Measure Used in Distributional Analyses by the Tax Policy Center." After-tax income is expanded cash income less individual income tax net of refundable credits, corporate income tax, payroll taxes (Social Security and Medicare), the estate tax, and excise taxes.

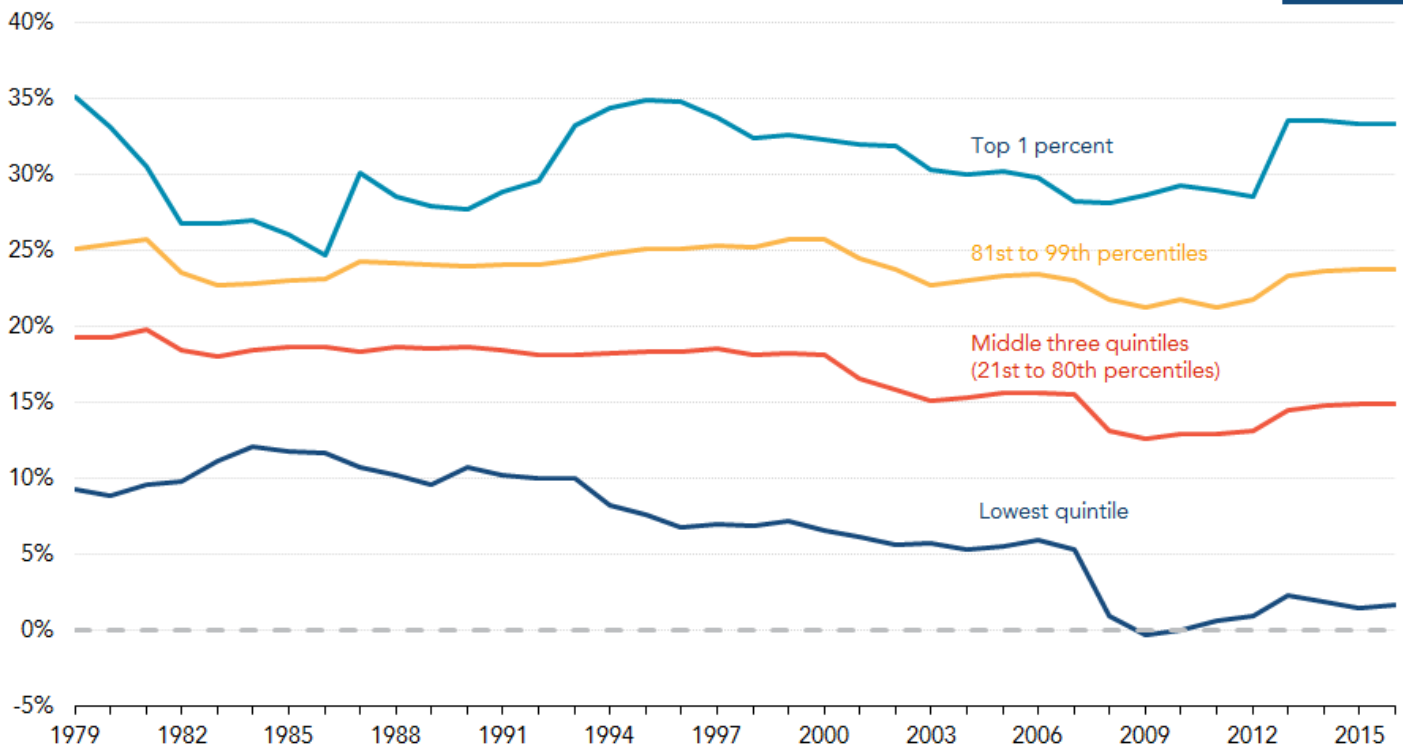
Federal taxes are more progressive than they were 35 years ago. Although the average tax rate for high-income households has varied, it is now just below its peaks in 1979 and 1995. Meanwhile, the average tax rate for middle- and low-income groups dropped incrementally from the early 1980s through 2007 and then fell dramatically from 2007 through 2009 because of temporary tax cuts enacted in response to the Great Recession. Average rates rebounded as those tax cuts expired but, by 2016, rates remained well below their 1979 values for those groups (figure 7).

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FIGURE 7

Average Federal Tax Rates by Income Group
1979-2016

Source: Congressional Budget Office (CBO), *The Distribution of Household Income and Federal Taxes, 2016* (Washington, DC: CBO, 2019), supplemental data.

Notes: In 2019, the Congressional Budget Office changed their methodology for calculating income before taxes by excluding means-test transfers (such as the benefits from Medicaid, SNAP, and SSI). Thus, the numbers in this figure are not directly comparable to those in versions of our briefing book published prior to 2019.

EFFECT OF TAXES ON INCOME INEQUALITY

A more progressive tax system would reduce income inequality if nothing else changes. But while federal taxes have become more progressive, they also began shrinking in 2001 relative to before-tax income, thanks to tax cuts during the George W. Bush and Barack Obama administrations. A lower average tax rate offset the equalizing effect of increased tax progressivity, leaving the effect of federal taxes on income inequality little changed.

A widely-used measure of income inequality is the Gini index. The index has a value of zero when income is distributed equally across all income groups and a value of one when the highest income group receives all the income. By this measure, inequality has been consistently lower for after-tax income than for before-tax income (figure 8).

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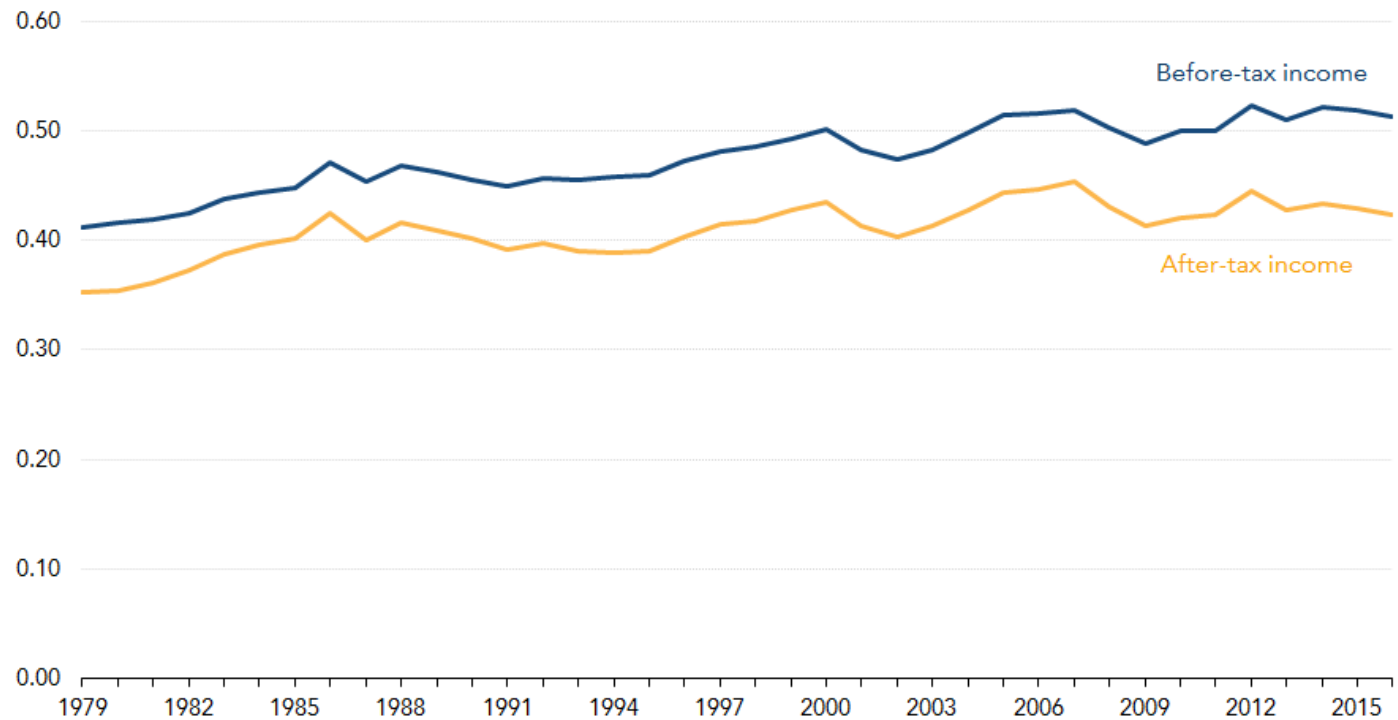
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FIGURE 8

Inequality Index for Before-Tax and After-Tax Income 1979-2016



Gini coefficient



Source: Congressional Budget Office (CBO), *The Distribution of Household Income and Federal Taxes, 2016* (Washington, DC: CBO, 2019), supplemental data.

Note: 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 received one-fifth of the income) and one indicating complete inequality (for example, if one household received all of the income).

The gap between the index for before-tax and after-tax incomes measures how much taxes reduce inequality. The bigger the difference, the more taxes equalize income. The gap narrowed during the 1980s as taxes relative to income fell more for high-income households than for low-income groups. But as federal taxes became more progressive starting in the 1990s, the gap between before-tax and after-tax income inequality widened. In percentage terms, it remains today at roughly the pre-1980 value.

The bottom line is that before-tax income inequality has risen since the 1970s, despite an increase in government transfer payments. Because high-income people pay higher average tax rates than others, federal taxes reduce inequality. But the mitigating effect of taxes is about the same today as before 1980. Thus, after-tax income inequality has increased about as much as before-tax inequality. Taxes have not exacerbated increasing income inequality, but have not done much to offset it.

Updated May 2020

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Urban-Brookings Tax Policy Center. [T20-0017. "Baseline Distribution of Income and Federal Taxes, All Tax Units, by Expanded Cash Income Percentile, 2020"](#); and [T20-0039. "Average Effective Federal Tax Rates—All Tax Units, by Expanded Cash Income Percentile, 2020."](#)

Congressional Budget Office. 2019. ["The Distribution of Household Income, 2016."](#) Supplemental data. Washington, DC: Congressional Budget Office.

Organisation for Economic Co-operation and Development. 2014. "FOCUS on Top Income and Taxation in OECD Countries: Was the Crisis a Game Changer?" Paris: OECD.

Saez, Emmanuel. 2019. "Striking It Richer: The Evolution of Top Incomes in the United States." Updated with 2017 final estimates. Berkeley: University of California, Berkeley.

Urban-Brookings Tax Policy Center. ["Income Measure Used in Distributional Analyses by the Tax Policy Center."](#)

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