Q. What is the standard deduction?

A. The standard deduction reduces a taxpayer's taxable income. It ensures that only households with income above certain thresholds will owe any income tax.

Taxpayers can claim a standard deduction when filing their tax returns, thereby reducing their taxable income and the taxes they owe. In addition to the regular standard deduction, taxpayers can claim an additional deduction if they or their spouse are 65 or older or blind.

Rather than taking the standard deduction, taxpayers can choose to itemize their deductions. In the past, about 70 percent of taxpayers chose to take the standard deduction (figure 1). Most chose it because it was larger than the itemized deductions they could claim, but some did so because it was easier than identifying and totaling the expenses they could itemize or because they did not realize that itemizing would reduce their tax liability.

The Tax Cuts and Jobs Act (TCJA) increased the standard deduction amounts for 2018 well beyond what they would have been in that year, raising the deduction from $6,500 to $12,000 for singles, from $13,000 to $24,000 for married couples, and from $9,550 to $18,000 for heads of household. The additional deduction for those 65 and over or blind is $1,300 in 2018 ($1,600 if the person is unmarried and not filing as a surviving spouse). As under prior law, the deduction amounts are indexed for inflation.

By raising the standard deduction together with other restrictions on itemized deductions, TCJA will increase the percentage of taxpayers who will take the standard deduction. The Urban-Brookings Tax Policy Center estimates that about 90 percent of households will take the standard deduction rather than itemizing their deductions in 2018.

THE EFFECT OF TCJA ON TAXABLE INCOME THRESHOLDS

Before 2018, taxpayers could also claim a personal exemption for themselves and their dependents in addition to the standard deduction. Together, the standard deduction and personal exemptions created taxable income thresholds, ensuring that taxpayers with income below those thresholds would not pay any income tax.

For example, in 2017 the standard deduction was $12,700 for a married couple, $6,350 for a single filer, and $9,350 for a head of household and each personal exemption was $4,050. Thus, the taxable income threshold for a married couple without dependents was $20,800 (the standard deduction plus two personal exemptions) and the threshold for a single person was $10,400 (the standard deduction plus one exemption). Couples and singles with income below those amounts did not owe any income tax.

Key Elements of the U.S. Tax System

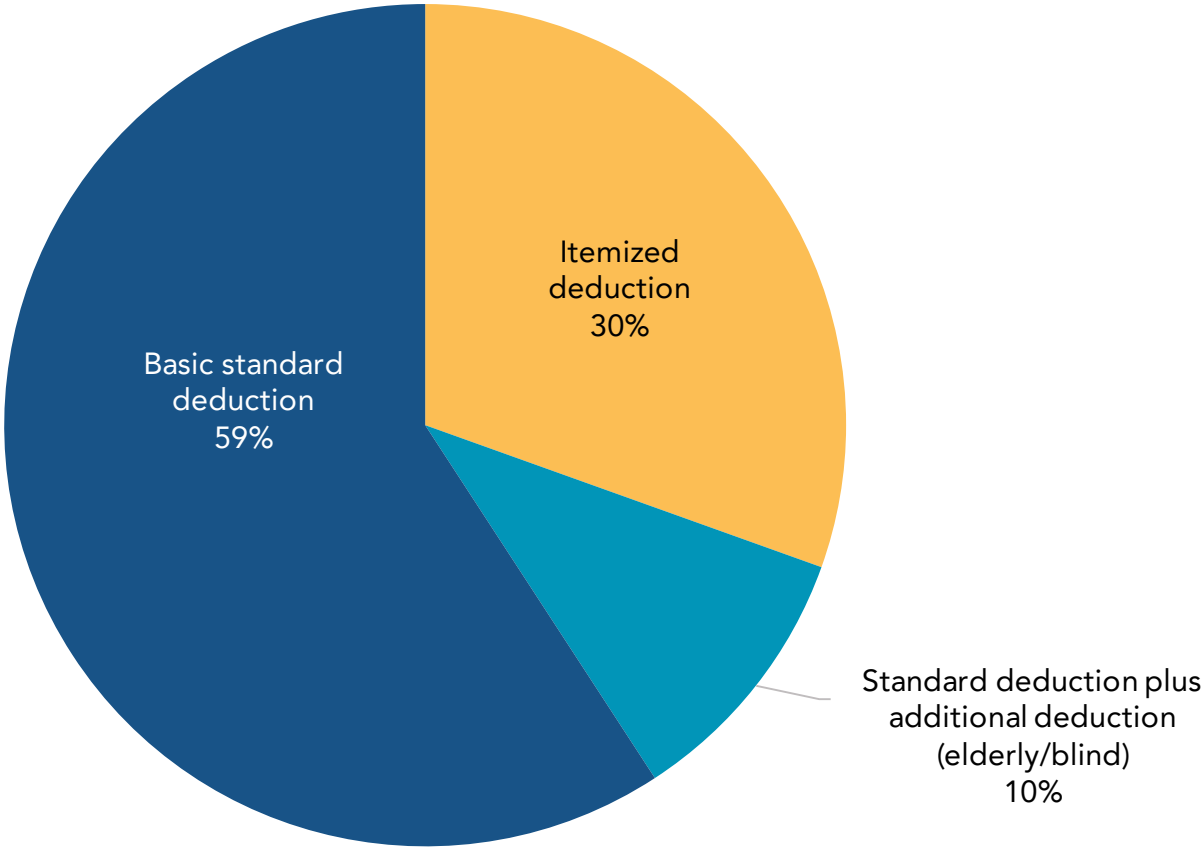
What is the standard deduction?

TCJA raised the stand deduction but also set the personal exemption amount, which would have been $4,150 in 2018, to zero. The loss of personal exemptions offset some of the gain from higher standard deductions, but the net result was a small increase in the taxable income threshold for both singles and couples (table 1). Because most of the individual income tax provisions of TCJA expire after 2025, the taxable income thresholds will revert to what they would have been under prior law unless Congress extends or makes permanent current law.

The zero personal exemption amount also applies to the exemptions taxpayers could claim for each of their dependents. However, TCJA also increased the child tax credit, which offset the loss of personal exemptions for many taxpayers with dependents. In many cases, taxpayers with income above the taxable income thresholds can still pay no income tax if they qualify for tax credits such as the child tax credit and the earned income tax credit.

FIGURE 1

Returns by Type of Deduction, Tax Year 2016



Source: Internal Revenue Service. Statistics of Income. Table A. "Selected Income and Tax Items for Selected Years (in Current and Constant Dollars)," Tax Year 2016.

Key Elements of the U.S. Tax System

What is the standard deduction?

TABLE 1

Taxable Income Threshold for a Single Filer and a Married Couple with No Dependents

Dollars, 2018

Status	Prior Law			Current Law (post-TCJA)		
	Standard Deduction	Personal Exemption	Taxable Income Threshold	Standard Deduction	Personal Exemption	Taxable Income Threshold
Single	6,500	4,150	10,650	12,000	-	12,000
Married Couple	13,000	4,150	21,300	24,000	-	24,000

Data Sources

Internal Revenue Service. *Statistics of Income*. Table A. "Selected Income and Tax Items for Selected Years (in Current and Constant Dollars)," Tax Year 2016; and Individual Income Tax Returns. Table 1.2. "All Returns: Adjusted Gross Income, Exemptions, Deductions, and Tax Items, by Size of Adjusted Gross Income and by Marital Status," Tax Year 2016.

Urban-Brookings Tax Policy Center. Table T18-0002. "Impact on the Number of Itemizers of H.R.1, the Tax Cuts and Jobs Act (TCJA), by Expanded Cash Income Percentile, 2018."

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Gale, William G., Hilary Gelfond, Aaron Krupkin, Mark J. Mazur, and Eric Toder. 2018. "Effects of the Tax Cuts and Jobs Act: A Preliminary Analysis." Urban-Brookings Tax Policy Center.

Q. What are itemized deductions and who claims them?

A. Taxpayers can choose to itemize deductions on their tax returns in lieu of claiming a standard deduction. In recent years about 30 percent of taxpayers, mostly high income, have chosen to itemize, but increases in the standard deduction and limits to itemized deductions starting in 2018 will greatly reduce the number of itemizers.

Taxpayers can either take a standard deduction or itemize their deductions to reduce the taxable income on their federal income tax return. Taxpayers typically choose to itemize when the itemized deductions they can claim are greater than the standard deduction. In recent years, about 30 percent of taxpayers chose to itemize (figure 1).

The most common itemized deductions are those for state and local taxes, mortgage interest, charitable contributions, and medical and dental expenses. The revenue cost of those four deductions was just under $240 billion in 2017 (table 1).

THE EFFECT OF TCJA ON ITEMIZED DEDUCTIONS

The 2017 Tax Cuts and Jobs Act will significantly reduce the number of taxpayers who claim itemized deductions, because it substantially increased the standard deduction while also restricting or eliminating some itemized deductions in 2018 through 2025. The Urban-Brookings Tax Policy Center estimates that the percentage of all households that itemize (including nonfilers) will shrink from 26 percent in 2017 to about 10 percent in 2018.

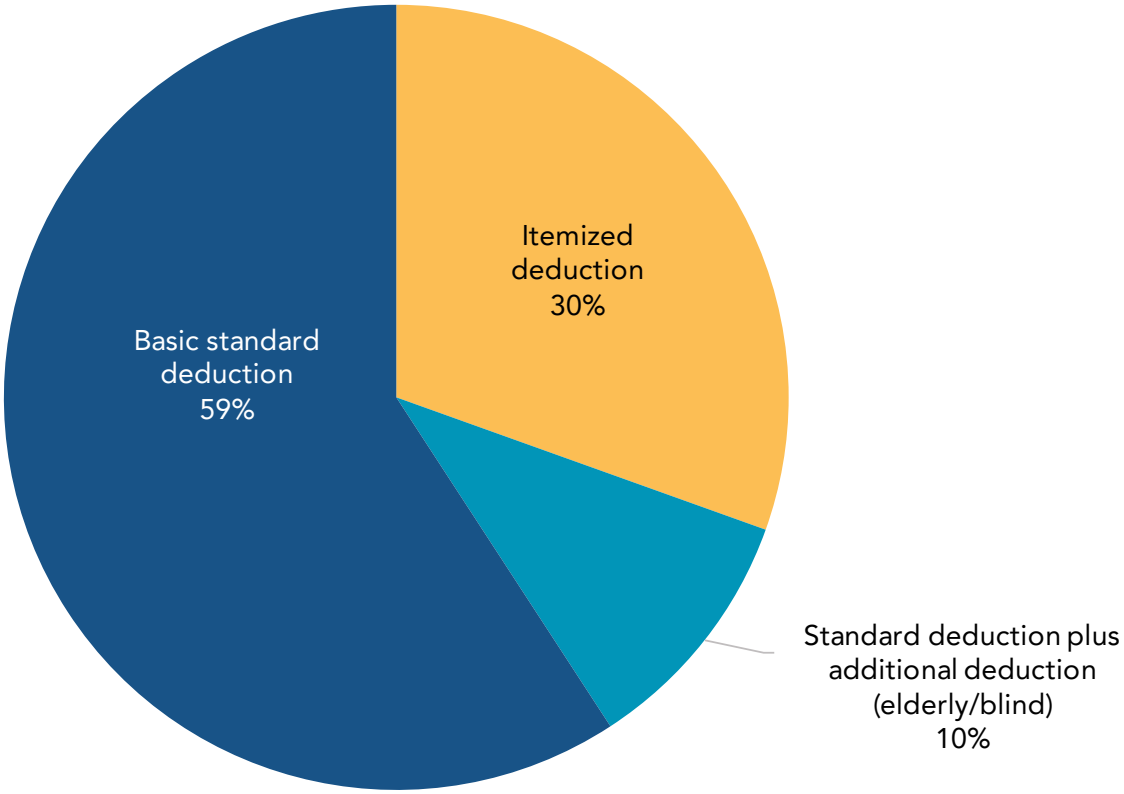
These changes also will substantially lower the revenue cost of all itemized deductions because fewer taxpayers will claim them and, in some cases, the amount they claim will fall. The revenue cost of the four largest deductions is estimated to fall by about $100 billion (table 1).

Key Elements of the U.S. Tax System

What are itemized deductions and who claims them?

FIGURE 1

Returns by Type of Deduction, Tax Year 2016



Source: Internal Revenue Service. Statistics of Income. Table A. "Selected Income and Tax Items for Selected Years (in Current and Constant Dollars)," Tax Year 2016.

TABLE 1

Cost of Selected Itemized Deductions

Billions of dollars

Tax expenditure	FY 2017	FY 2018
Deduction for all nonbusiness state and local taxes	$100.9	$36.6
Deduction for mortgage interest on owner-occupied residences	$66.4	$40.7
Deduction for charitable contributions	$57.0	$54.3
Deduction for medical expenses and long-term care expenses	$13.8	$10.5

Source: Joint Committee on Taxation (2018).

Key Elements of the U.S. Tax System

What are itemized deductions and who claims them?

WHO ITEMIZES?

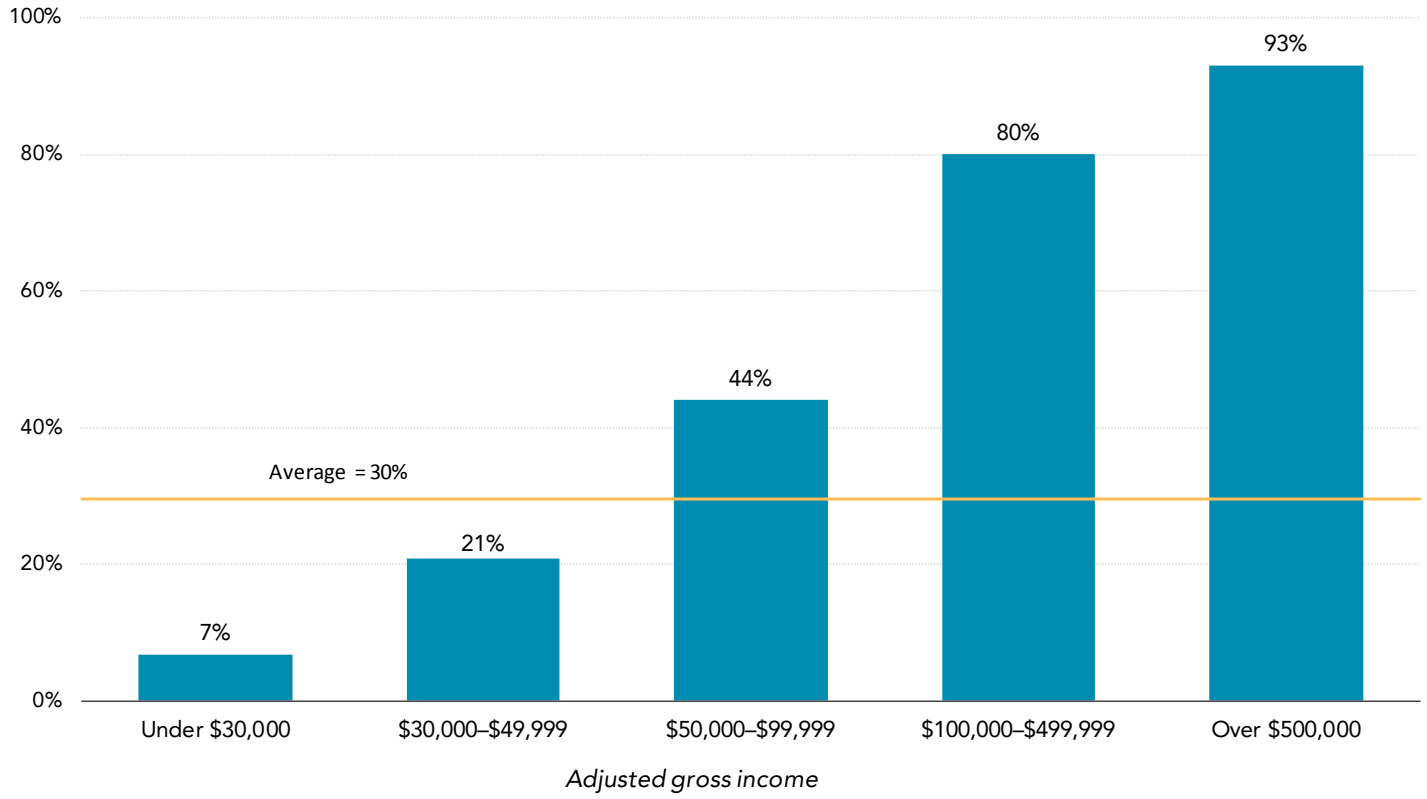
The following sections present 2016 Internal Revenue Service data reporting the percentage of taxpayers who itemized and the type and amount of itemized deductions they claimed. The changes made by the Tax Cuts and Jobs Act will significantly affect comparable estimates for 2018.

High-income taxpayers are much more likely to itemize. In 2016, more than 90 percent of tax returns reporting adjusted gross income (AGI) over $500,000 itemized deductions, compared with under half of those with AGI between $50,000 and $100,000 and less than 10 percent of those with AGI under $30,000 (figure 2).

FIGURE 2

Distribution of Returns Claiming Itemized Deductions

Share of All Returns in AGI Class, Tax Year 2016



Source: Internal Revenue Service. Statistics of Income. Table 1.2. "All Returns: Adjusted Gross Income, Exemptions, Deductions, and Tax Items, by Size of Adjusted Gross Income and by Marital Status," Tax Year 2016.

Key Elements of the U.S. Tax System

What are itemized deductions and who claims them?

WHAT EXPENSES DO ITEMIZERS DEDUCT?

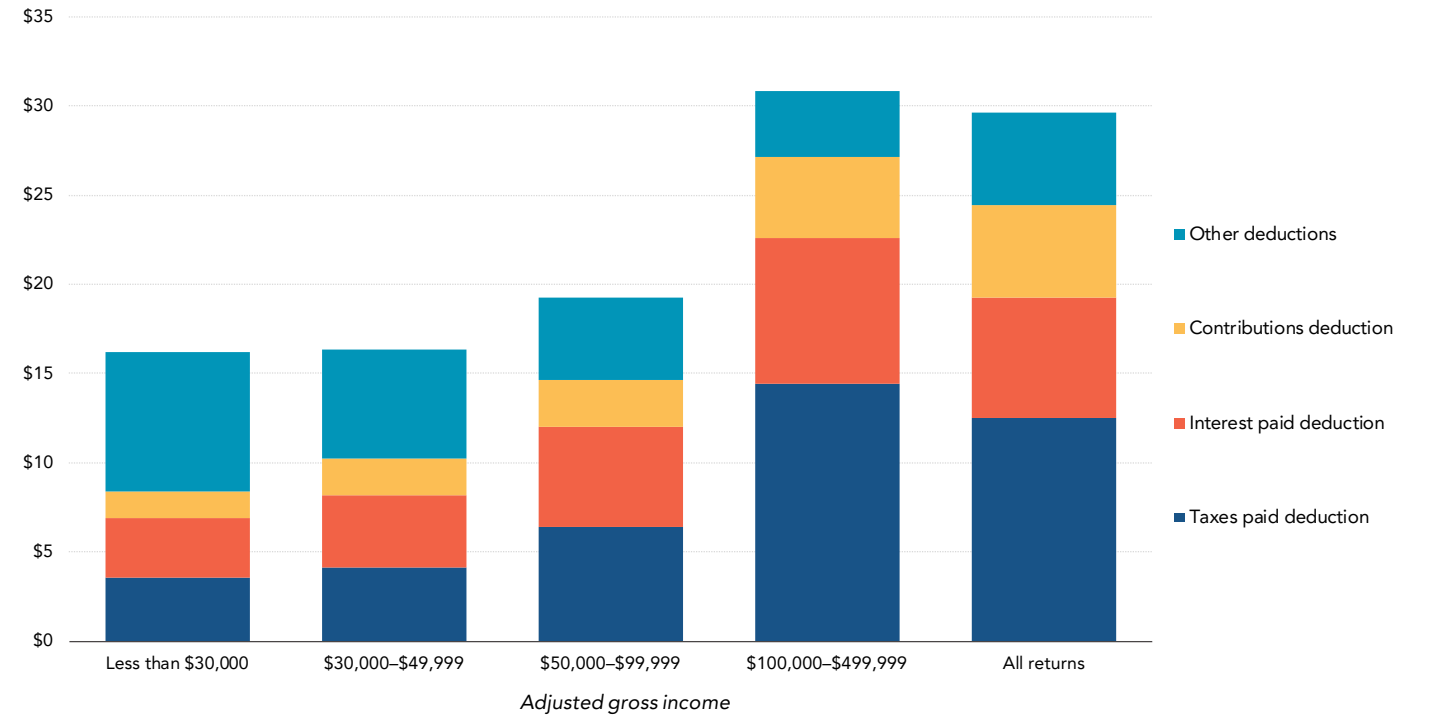
Itemized deductions averaged about $28,600 in 2016 for the 45 million tax units claiming them. The amount claimed rises with income, from about $16,000 for taxpayers with AGI under $50,000, to under $19,000 for those with AGI between $50,000 and $100,000, to over $30,000 for those with AGI between $100,000 and $500,000, to more than $206,000 for those with AGI over $500,000 (figure 3).

State and local taxes accounted for over 40 percent of average itemized deductions in 2016, or about $12,500. The mortgage and other interest deductions made up another 23 percent, averaging about $6,800. Charitable contributions and miscellaneous deductions averaged about $5,200 each, or about 18 percent of total itemized deductions (figure 3).

FIGURE 3

Average Itemized Deductions by Type and Adjusted Gross Income (AGI)

Thousands of dollars, tax year 2016



Source: Internal Revenue Service. Statistics of Income. Basic Tables: Exemptions and Itemized Deductions. Table 2.1. "Returns with Itemized Deductions: Sources of Income, Adjustments, Itemized Deductions by Type, Exemptions, and Tax Items by Size of Adjusted Gross Income," Tax Year 2016.
Note: This figure omits the "over $500,000" AGI class due to scaling; average of total deductions for those with AGI over $500,000 exceeds $200,000.

Key Elements of the U.S. Tax System

What are itemized deductions and who claims them?

HOW HAS THE SHARE OF ITEMIZERS CHANGED OVER TIME?

The share of returns that itemize deductions climbed from a low of 28 percent in 1994 to a peak of 36 percent in 2005 before dropping to 30 percent in 2016. A closer look at the three largest deductions—state and local taxes, home mortgage interest, and charitable contributions—helps explain why (figure 4.1).

- **State and local taxes**: Nearly all itemizers deduct state and local taxes. A 2004 law that allowed taxpayers to deduct state and local sales taxes in lieu of income taxes slightly increased the number of itemizers taking this deduction.

- **Home mortgage interest**: Before 2006, between 81 and 83 percent of itemizers deducted mortgage interest. But that share steadily dropped to a low of 73 percent in 2016, consistent with the decline in homeownership following the housing bubble collapse and falling mortgage interest rates. The amount of mortgage interest deducted by taxpayers increased sharply from 2004 to 2008 but fell through 2016 because of falling housing values and historically low mortgage rates.

- **Charitable contributions**: The share of itemizers reporting charitable contributions declined from 91 percent in 1988 to 82 percent in 2016. Much of that drop occurred between 2005 and 2007, after Congress required written confirmations of cash gifts and limited deductions for donations of clothing and used vehicles.

A change in any one of these deductions could affect the overall number of itemizers. For example, a decline in home mortgage interest might be enough to discourage a taxpayer from itemizing at all. Thus, the number of taxpayers itemizing state and local taxes or charitable contributions would also decrease.

FIGURE 4.1

Returns Itemizing Selected Deductions

Share of All Itemizers, 1988–2016

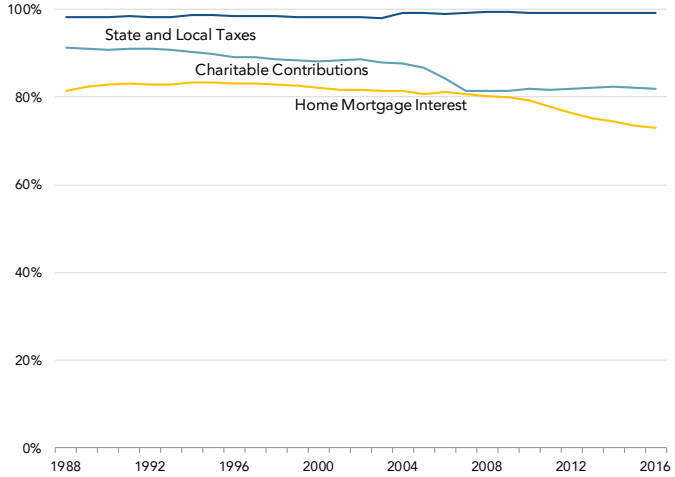
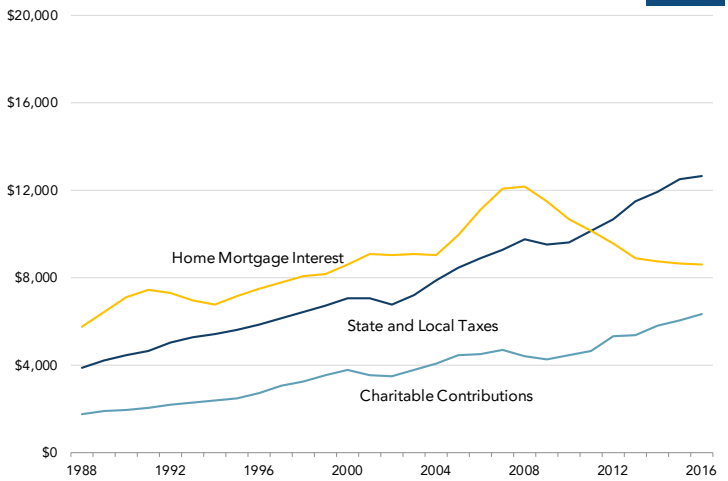


FIGURE 4.2

Average Amount Claimed of Selected Deductions

2016 dollars, 1988–2016



Source: Internal Revenue Service. Statistics of Income. Basic Tables: Exemptions and Itemized Deductions. Table 2.1. "Returns with Itemized Deductions: Sources of Income, Adjustments, Itemized Deductions by Type, Exemptions, and Tax Items by Size of Adjusted Gross Income," Tax Year 2016.

Note: Real amounts are calculated using GDP deflators (Federal Reserve Bank of St. Louis, "Gross Domestic Product: Implicit Price Deflator," https://fred.stlouisfed.org/series/GDPDEF#0).

What are itemized deductions and who claims them?

Data Sources

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Internal Revenue Service. *Statistics of Income*. Table A. "Selected Income and Tax Items for Selected Years (in Current and Constant Dollars)," Tax Year 2016; Individual Income Tax Returns. Table 1.2. "All Returns: Adjusted Gross Income, Exemptions, Deductions, and Tax Items, by Size of Adjusted Gross Income and by Marital Status," Tax Year 2016; Table 1.3. "All Returns: Sources of Income, Adjustments, Deductions, Credits, and Tax Items, by Marital Status," Tax Year 2016; and Basic Tables: Exemptions and Itemized Deductions. Table 2.1. "Returns with Itemized Deductions: Sources of Income, Adjustments, Itemized Deductions by Type, Exemptions, and Tax Items by Size of Adjusted Gross Income," Tax Year 2016.

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President's Advisory Panel on Federal Tax Reform. 2005. *Simple, Fair, and Pro-Growth: Proposals to Fix America's Tax System*. Washington, DC: President's Advisory Panel on Tax Reform. (especially chapters 3 and 5)

Q. How did the TCJA change the standard deduction and itemized deductions?

A. The Tax Cuts and Jobs Act nearly doubled the standard deduction and eliminated or restricted many itemized deductions in 2018 through 2025. It also eliminated the "Pease" limitation on itemized deductions for those years.

THE STANDARD DEDUCTION

The Tax Cuts and Jobs Act (TCJA) increased the standard deduction from $6,500 to $12,000 for individual filers, from $13,000 to $24,000 for joint returns, and from $9,550 to $18,000 for heads of household in 2018. As before, the amounts are indexed annually for inflation. TCJA changed the measure used for inflation indexing from the consumer price index for all urban consumers (CPI-U) to the chained CPI-U—a more accurate measure but one that results in a smaller upward adjustment each year.

ITEMIZED DEDUCTIONS

TCJA eliminated or restricted many itemized deductions in 2018 through 2025. This, together with a higher standard deduction, will reduce the number of taxpayers who itemize deductions. TPC estimates that in 2018 the share of all households that itemize will shrink to 10 percent because of the tax overhaul.

State and local taxes (SALT). Taxpayers can still deduct state and local real estate, personal property, and either income or sales taxes in 2018, but TCJA capped the total SALT deduction at $10,000.

Mortgage interest. TCJA limited the deduction to the home mortgage interest on the first $750,000 of mortgage debt (reduced from the pre-TCJA limit of $1 million of mortgage debt) for mortgage loans taken out after December 15, 2017. In addition, homeowners may no longer deduct interest paid on home equity loans, which was allowed for loans up to $100,000 before TCJA, unless the debt is used to buy, build, or substantially improve the taxpayer's home that secures the loan. Homeowners may still deduct mortgage interest on their primary residence and a second home.

Charitable contributions. TCJA increased the limit on deductions for charitable contributions from 50 percent to 60 percent of adjusted gross income (AGI).

Medical expenses. Under the TCJA, taxpayers may deduct unreimbursed medical expenses that exceed 7.5 percent of their AGI in 2017 and 2018, rather than the pre-TCJA floor of 10 percent of AGI.

Key Elements of the U.S. Tax System

How did the TCJA change the standard deduction and itemized deductions?

Other itemized deductions. TCJA eliminated deductions for unreimbursed employee expenses, tax preparation fees, and other miscellaneous deductions. It also eliminated the deduction for theft and personal casualty losses, although taxpayers can still claim a deduction for certain casualty losses occurring in federally declared disaster areas.

Limitation on itemized deductions. TCJA eliminated the "Pease" limitation on itemized deductions. Before TCJA, taxpayers reduced their itemized deductions by 3 percent of every dollar of taxable income above certain thresholds. The total reduction was capped at 80 percent of the total value of itemized deductions.

THE EFFECT OF THE TCJA ON MAJOR ITEMIZED DEDUCTIONS

The TCJA will significantly decrease the number of taxpayers claiming itemized deductions and the average tax saving from claiming them. The following figures compare the estimated percentage of taxpayers with a tax benefit from the three major itemized deductions—state and local taxes, mortgage interest, and charitable contributions—and the tax saving from claiming them in 2017 and 2018, before and after the new law is in place. The tax benefit is measured as the reduction in tax liability from the deduction, which takes into account the applicable tax rates in each year, the effects of the alternative minimum tax (which disallows the SALT deduction), and the overall limit on itemized deductions (the "Pease" limit) that was in place in 2017 but eliminated for 2018 by TCJA.

The percentage of taxpayers with a tax benefit from the SALT deduction will fall from about 25 percent in 2017 to 10 percent in 2018, from 20 percent to 8 percent for the mortgage interest deduction, and from 21 percent to 9 percent for the charitable contributions deduction (figure 1).

The decline in the tax benefit from the deductions is even more dramatic. Measured as a percentage of after-tax income, the tax saving from the SALT deduction in 2018 will be about one-quarter of what it was in 2017 overall. For taxpayers in the top 1 percent of the income distribution, the tax saving in 2018 will be about one-tenth of the tax saving in 2017 (figure 2).

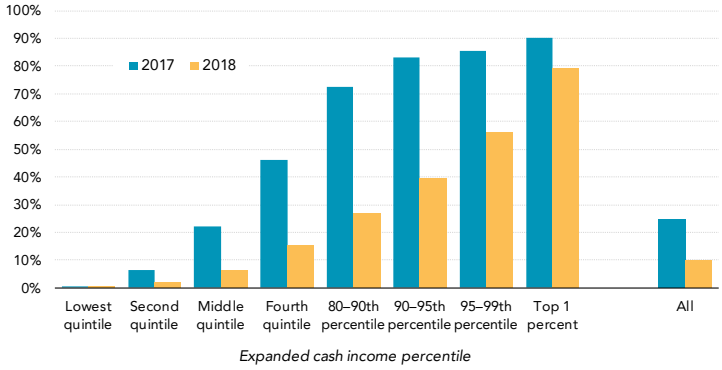
Key Elements of the U.S. Tax System

How did the TCJA change the standard deduction and itemized deductions?

FIGURE 1.1

Itemized Deduction for State and Local Taxes

Share of tax units with benefit, 2017 and 2018

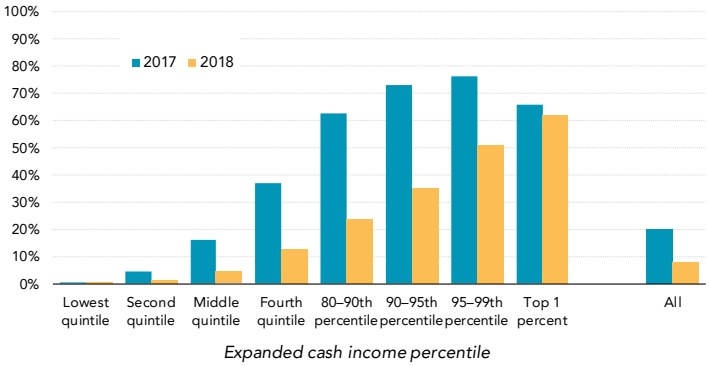


Source: Urban-Brookings Tax Policy Center Microsimulation Model (version 0718-1).

FIGURE 1.2

Itemized Deduction for Home Mortgage Interest

Share of tax units with benefit, 2017 and 2018

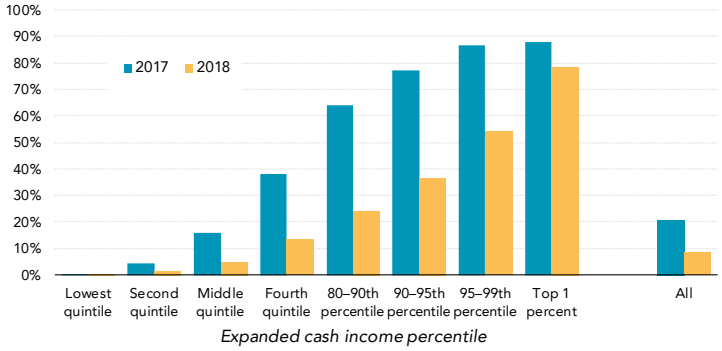


Source: Urban-Brookings Tax Policy Center Microsimulation Model (version 0718-1).

FIGURE 1.3

Itemized Deduction for Charitable Contributions

Share of tax units with benefit, 2017 and 2018



Source: Urban-Brookings Tax Policy Center Microsimulation Model (version 0718-1).

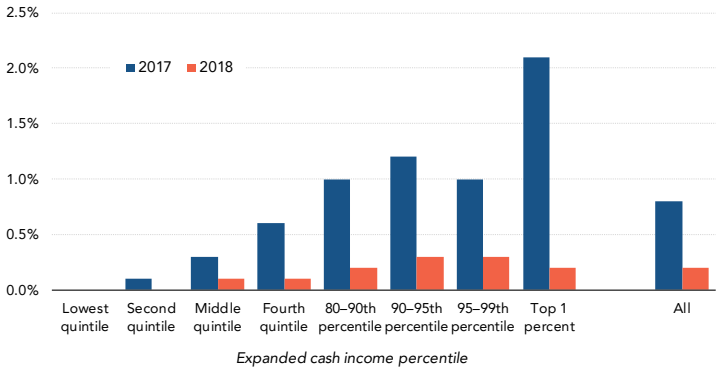
Key Elements of the U.S. Tax System

How did the TCJA change the standard deduction and itemized deductions?

FIGURE 2.1

Itemized Deduction for State and Local Taxes

Benefit as a share of after-tax income, 2017 and 2018

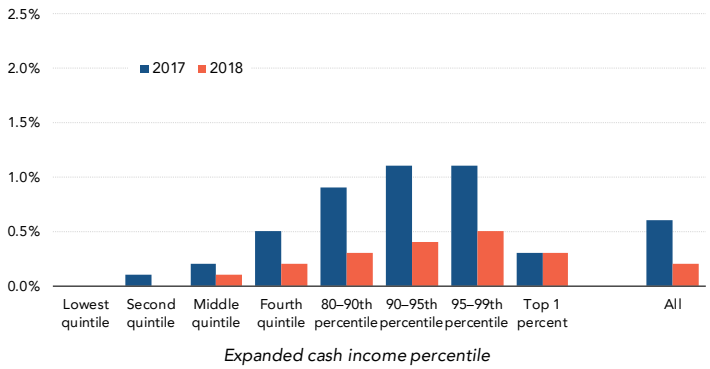


Source: Urban-Brookings Tax Policy Center Microsimulation Model (version 0718-1).

FIGURE 2.2

Itemized Deduction for Home Mortgage Interest

Benefit as a share of after-tax income, 2017 and 2018

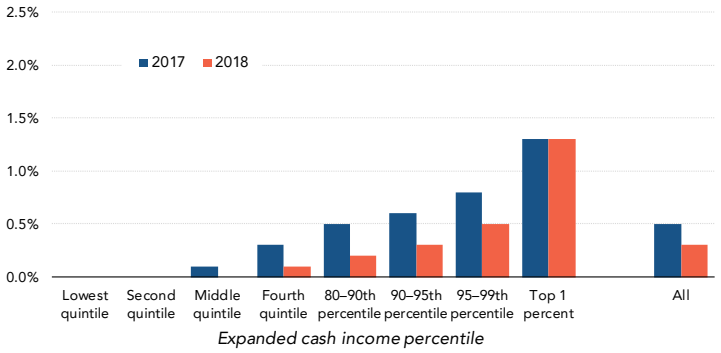


Source: Urban-Brookings Tax Policy Center Microsimulation Model (version 0718-1).

FIGURE 2.3

Itemized Deduction for Charitable Contributions

Benefit as a share of after-tax income, 2017 and 2018



Source: Urban-Brookings Tax Policy Center Microsimulation Model (version 0718-1).

Data Sources

Urban-Brookings Tax Policy Center. Table T18-0161. "Tax Benefit of the Itemized Deduction for State and Local Taxes, Baseline: Current Law, Distribution of Federal Tax Change by Expanded Cash Income Percentile, 2017"; Table T18-0163. "Tax Benefit of the Itemized Deduction for State and Local Taxes, Baseline: Current Law, Distribution of Federal Tax Change by Expanded Cash Income Percentile, 2018"; Table T18-0169. "Tax Benefit of the Itemized Deduction for Home Mortgage Interest, Baseline: Current Law, Distribution of Federal Tax Change by Expanded Cash Income Percentile, 2017"; Table T18-0171. "Tax Benefit of the Itemized Deduction for Home Mortgage Interest, Baseline: Current Law, Distribution of Federal Tax Change by Expanded Cash Income Percentile, 2018"; Table T18-0177. "Tax Benefit of the Itemized Deduction for Charitable Contributions, Baseline: Current Law, Distribution of Federal Tax Change by Expanded Cash Income Percentile, 2017"; and Table T18-0179. "Tax Benefit of the Itemized Deduction for Charitable Contributions, Baseline: Current Law, Distribution of Federal Tax Change by Expanded Cash Income Percentile, 2018."

Further Reading

Gale, William G., Hilary Gelfond, Aaron Krupkin, Mark J. Mazur, and Eric Toder. 2018. "Effects of the Tax Cut and Jobs Act: A Preliminary Analysis." Washington DC: Urban-Brookings Tax Policy Center.

Q. What are personal exemptions?

A. Along with the standard deduction, personal exemptions provide that only income above a basic level is subject to tax, helping ensure that the poorest households are not subject to the income tax. They also link income tax liabilities to family size, reducing taxes for families with more dependents. The Tax Cuts and Jobs Act eliminated personal exemptions, but raised the standard deduction and the child credit as substitutes.

Before 2018, taxpayers could claim a personal exemption for themselves and each of their dependents. The amount would have been $4,150 for 2018, but the Tax Cuts and Jobs Act (TCJA) set the amount at zero for 2018 through 2025. TCJA increased the standard deduction and child tax credits to replace personal exemptions.

Personal exemptions have been part of the modern income tax since its inception in 1913. Congress originally set the personal exemption amount to $3,000 (worth more than $70,000 in today's dollars), so that very few persons were expected to pay the income tax. While the amount was substantially lower both in real terms and relative to average incomes by 2017, the tax code has added other features since 1913, such as the standard deduction and various tax credits, that have partly offset the exemption's decline in value.

In addition to helping ensure that very low income households do not pay income tax (and alleviating the administrative burden of collecting the tax on small amounts of income), personal exemptions also link tax liability to household size. For instance, in 2017 when the personal exemption amount was $4,050 and the standard deduction for a married couple was $12,700, a married couple with three children and income of $92,950 (before subtracting five personal exemptions and the standard deduction) and a married couple without dependents and $80,800 (before subtracting two personal exemptions and the standard deduction) were deemed to have the same taxable income—in this case, $60,000.

As with other deductions and exemptions, however, the tax benefit from personal exemptions depends upon a taxpayer's marginal tax rate. For instance, a single taxpayer in the 12 percent tax bracket would save $498 of taxes with a personal exemption of $4,150, whereas a single taxpayer in the 32 percent tax bracket would save $1,328. Thus, under a progressive income tax, exemptions are worth more to high-income taxpayers than to low-income taxpayers. In contrast, tax credits can have the same value for all taxpayers. By replacing personal exemptions for dependents with expanded child tax credits, TCJA moved toward equalizing the tax benefit for children and other dependents across households with different incomes.

Key Elements of the U.S. Tax System

What are personal exemptions?

There were certain limits on personal exemptions under prior law. Since 1990, personal exemptions phased out at higher income levels. In 2017, the phaseout began at $261,500 for singles and $313,800 for married couples filing a joint return. Personal exemptions were completely phased out at $384,000 for singles and $436,300 for married couples.

In addition, the alternative minimum tax denied taxpayers the use of personal exemptions, making larger families more likely to owe the alternative minimum than smaller families.

Data Source

Internal Revenue Service. *Statistics of Income, Appendix to Selected Historical and Other Data Tables*. Table 23. "US Individual Income Tax: Personal Exemptions and Lowest and Highest Bracket Tax Rates, and Tax Base for Regular Tax."

Further Reading

Carasso, Adam, and C. Eugene Steuerle. 2003. "Personal Exemption Not What It Used to Be." Tax Notes. April 28.

Q. How do federal income tax rates work?

A. The federal individual income tax has seven tax rates that rise with income. Each rate applies only to income in a specific range (tax bracket).

CURRENT INCOME TAX RATES AND BRACKETS

The federal individual income tax has seven tax rates ranging from 10 percent to 37 percent (table 1). The rates apply to *taxable income*—adjusted gross income minus either the standard deduction or allowable itemized deductions. Income up to the standard deduction (or itemized deductions) is thus taxed at a zero rate.

Federal income tax rates are progressive: As taxable income increases, it is taxed at higher rates. Different tax rates are levied on income in different ranges (or brackets) depending on the taxpayer's filing status. In 2018, the top tax rate (37 percent) applies to taxable income over $500,000 for single filers and over $600,000 for married couples filing jointly. Additional tax schedules and rates apply to taxpayers who file as heads of household and to married individuals filing separate returns. A separate schedule of tax rates applies to capital gains and dividends. Tax brackets are adjusted annually for inflation.

TABLE 1

2018 Tax Schedule and Rates

Single filers			Married couples filing jointly		
Taxable income ($)		Current marginal rate (%)	Taxable income ($)		Current marginal rate (%)
Over	But not over		Over	But not over	
0	9,525	10	0	19,050	10
9,525	38,700	12	19,050	77,400	12
38,700	82,500	22	77,400	165,000	22
82,500	157,500	24	165,000	315,000	24
157,500	200,000	32	315,000	400,000	32
200,000	500,000	35	400,000	600,000	35
500,000	and over	37	600,000	and over	37

Source: Internal Revenue Service. Rev. Proc. 2017-58: Inflation adjustments for 2018.

Key Elements of the U.S. Tax System

How do federal income tax rates work?

BASICS OF PROGRESSIVE INCOME TAX RATES

Each tax rate applies only to income in a specific tax bracket. Thus, if a taxpayer earns enough to reach a new bracket with a higher tax rate, his or her total income is not taxed at that rate, just the income in that bracket. Even a taxpayer in the top bracket has some portion of income taxed at the lower rates in the tax schedule. For example, a single filer with $50,000 in taxable income falls into the 22 percent bracket but does not pay tax of $11,000 (22 percent of $50,000). Instead, he or she pays 10 percent of $9,525 plus 12 percent of $29,175 plus 22 percent of $11,300 for a total of $6,939.50.

All tax brackets for married taxpayers are twice the size of those for singles, except for the penultimate bracket. This can cause a "marriage penalty" for some taxpayers in the highest tax bracket, as some couples pay more tax filing a joint return than they would if each spouse could file as a single person. Conversely, because most tax brackets for married couples are twice the size of those for singles, many married couples enjoy a "marriage bonus," paying less in tax by filing jointly than they would if each partner filed as a single person.

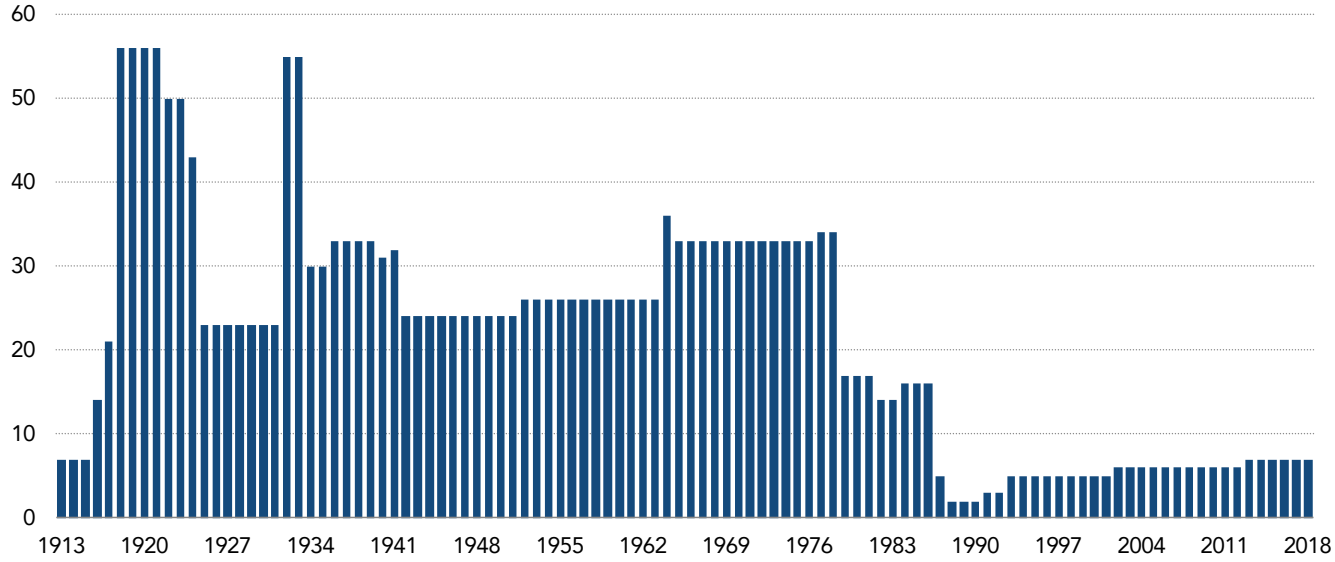
HISTORY OF FEDERAL INCOME TAX BRACKETS AND RATES

Over the 100-plus year history of the modern federal income tax (short-lived income taxes existed before Congress ratified the 16th Amendment in 1913), the number of brackets and rates have changed dramatically and frequently. The federal income tax began with seven brackets but that number exploded to more than 50 by 1920 (figure 1). From then until the late 1970s, there were never fewer than 20 brackets. The last major federal tax reform, the Tax Reform Act of 1986, reduced the number of brackets from 16 to two, but that number has crept up to the current seven over the last three decades.

FIGURE 1

Number of Federal Income Tax Brackets

1913–2018



Source: Tax Foundation. "US Federal Individual Income Tax Rates History, 1862–2013 (Nominal and Inflation-Adjusted Brackets)."
Note: The figure shows the largest number of tax brackets for any filing status in each year.

Key Elements of the U.S. Tax System

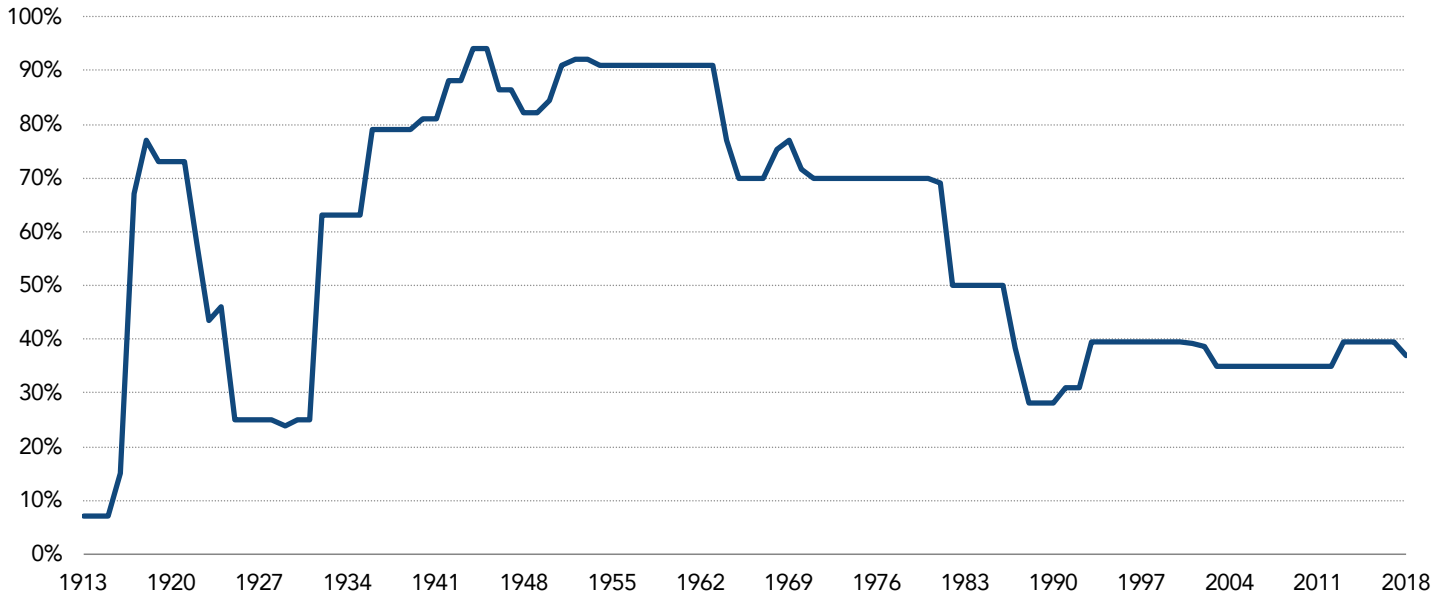
How do federal income tax rates work?

The top marginal federal income tax rate has varied widely over time (figure 2). The top rate was 91 percent in the early 1960s before the Kennedy/Johnson tax cut dropped it to 70 percent. In 1981, the first Reagan tax cut further reduced the top rate to 50 percent, and the 1986 tax reform brought it down to 28 percent. Subsequent legislation increased it to 31 percent in 1991 and to 39.6 percent in 1993. George W. Bush's tax cuts lowered the top rate to 35 percent, but it reverted to 39.6 percent when the American Taxpayer Relief Act of 2012 let the reduced top rate expire as scheduled. The Tax Cuts and Jobs Act lowered the top rate to 37 percent starting in 2018.

FIGURE 2

Top Marginal Federal Individual Income Tax Rates

1913–2018



Source: Urban-Brookings Tax Policy Center. Statistics. "Historical Individual Income Tax Parameters: 1913 to 2018."

Data Sources

Internal Revenue Service. "2018 Cost-of-Living Adjustments for Inflation for Certain Items." Revenue Procedure 2017-58.

Tax Foundation. "US Federal Individual Income Tax Rates History, 1862–2013 (Nominal and Inflation-Adjusted Brackets)."

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Q. What are tax credits and how do they differ from tax deductions?

A. Credits reduce taxes directly and do not depend on tax rates. Deductions reduce taxable income; their value thus depends on the taxpayer's marginal tax rate, which rises with income.

TAX CREDITS

Tax credits are subtracted directly from a person's tax liability; they therefore reduce taxes dollar for dollar. Credits have the same value for everyone who can claim their full value.

Most tax credits are nonrefundable; that is, they cannot reduce a filer's tax liability below zero. As a result, low-income filers often cannot receive the full benefit of the credits for which they qualify. For example, the child and dependent care credit is nonrefundable, so a married couple with income under $24,000 in 2018 would not be able to use the credit because they have no income tax liability.

Some tax credits, however, are fully or partially refundable: if their value exceeds income tax liability, the tax filer is paid the excess. The earned income tax credit (EITC) is fully refundable; the child tax credit (CTC) is refundable only if the filer's earnings exceed a $2,500 threshold. The refundable portion of the CTC is commonly called the Additional Child Tax Credit.

MOST POPULAR TAX CREDITS

The EITC is the most commonly claimed credit, showing up on more than 18 percent of 2016 tax returns. The CTC is nearly as popular, claimed on about 15 percent of 2016 tax returns (figure 1).

The EITC is also the costliest tax credit, totaling about $67 billion in 2016. The CTC (including the refundable portion) was the next largest at roughly $52 billion (figure 2).

TAX DEDUCTIONS

Tax filers have the choice of claiming the standard deduction or itemizing deductible expenses from a list that includes state and local taxes paid, mortgage interest, and charitable contributions. In either case, filers decrease their taxable income by the amount of the allowed deduction.

Tax filers may claim some deductions in addition to the standard deduction or itemized deductions. These deductions (technically "adjustments to income") are sometimes called "above the line" deductions because they come before the line that determines adjusted gross income on tax return form 1040. Adjustments to income include contributions to individual retirement accounts, educator expenses, and interest on student loans.

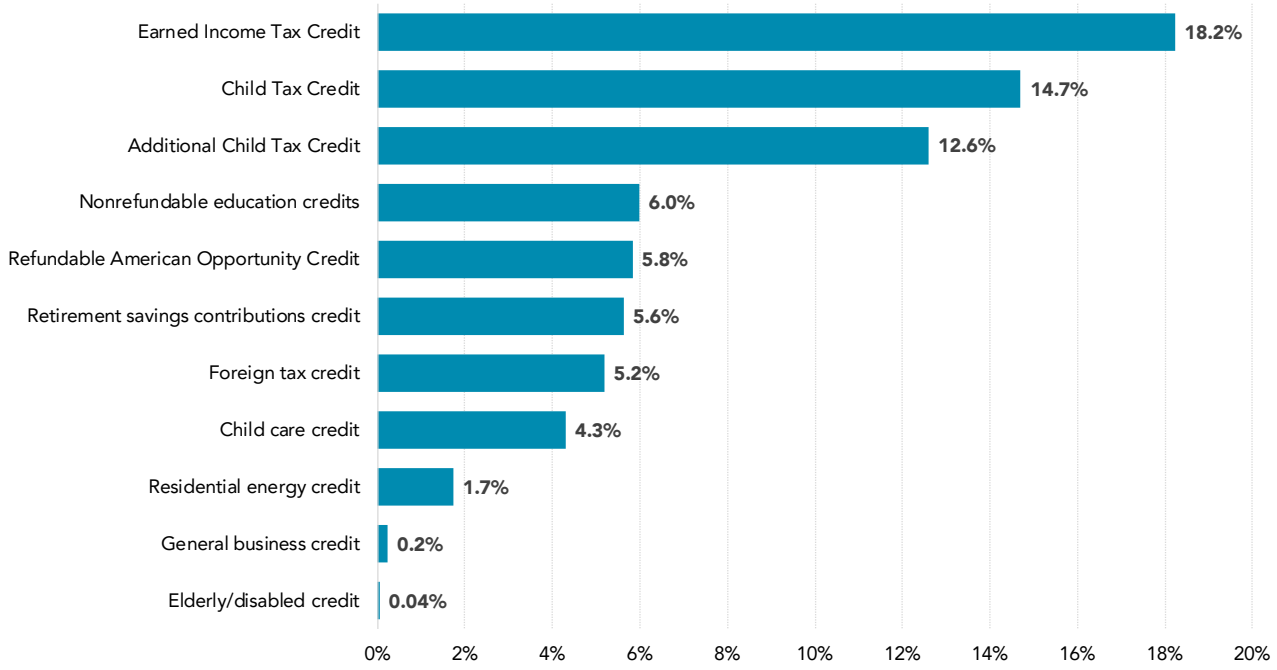
Key Elements of the U.S. Tax System

What are tax credits and how do they differ from tax deductions?

FIGURE 1

Total Returns Claiming Selected Credits

Share of all returns, tax year 2016

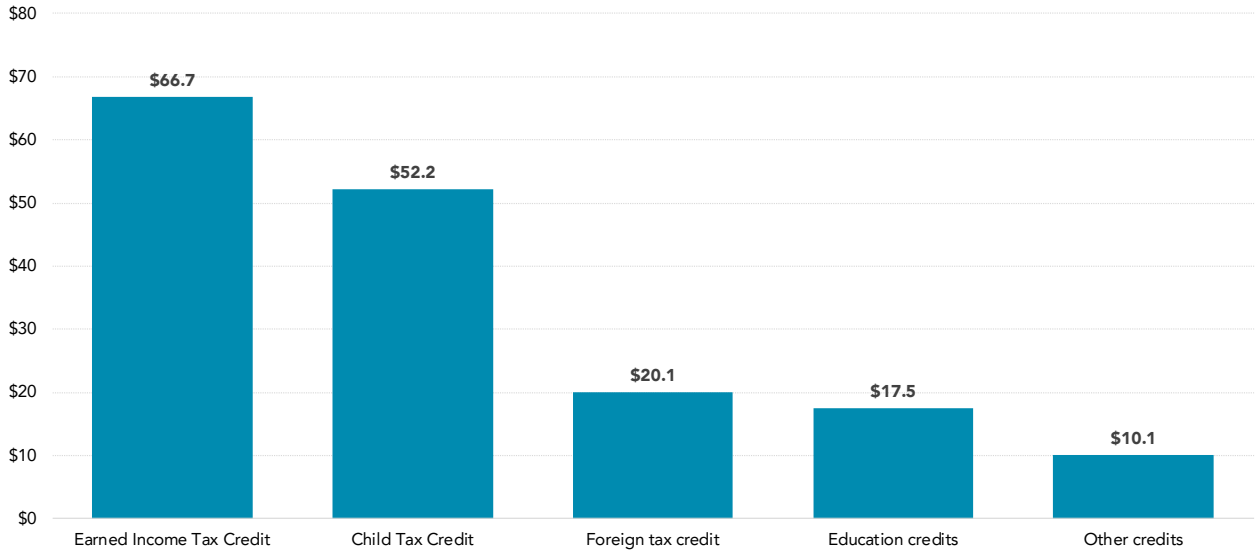


Source: Internal Revenue Service. Statistics of Income. Table A. "All Returns: Selected Income and Tax Items in Current and Constant Dollars," Tax Year 2016.

FIGURE 2

Total Amount Claimed for Selected Credits

Billions of dollars, tax year 2016



Source: Internal Revenue Service. Statistics of Income. Table A. "All Returns: Selected Income and Tax Items in Current and Constant Dollars," Tax Year 2016.
Note: "Child Tax Credit" = Child Tax Credit + Additional Child Tax Credit; "Education Credits" = Nonrefundable Education Credits + American Opportunity Credit; "Other Credits" = General Business Credit + Child Care Credit + Residential Energy Credit + Credit for the Elderly/Disabled.

Key Elements of the U.S. Tax System

What are tax credits and how do they differ from tax deductions?

The value of all deductions, itemized or otherwise, depends on the taxpayer's tax liability and marginal tax rate. A deduction cannot reduce taxable income below zero, so taxpayers lose the value of excess deductions once they reach that limit. Taxpayers can, however, carry over some unused deductions into future years. By reducing taxable income, a deduction lowers tax liability by the amount of the deduction times the taxpayer's marginal tax rate. Deductions are thus worth more to taxpayers in higher tax brackets. For example, a $10,000 deduction reduces taxes by $1,200 for people in the 12 percent tax bracket, but by $3,200 for those in the 32 percent tax bracket.

The alternative minimum tax (AMT) disallows the standard deduction and some itemized deductions. For example, AMT taxpayers may not deduct state and local tax payments. The AMT reduces but does not eliminate other deductions.

Data Sources

Internal Revenue Service. *Statistics of Income*. Table A. "All Returns: Selected Income and Tax Items in Current and Constant Dollars," Tax Year 2016; and *Basic Tables*: Tax Computation. Table 3.3. "All Returns: Tax Liability, Tax Credits and Tax Payments, by Size of Adjusted Gross Income," Tax Year 2016.

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Q. How do phaseouts of tax provisions affect taxpayers?

A. Many preferences in the tax code phase out for high-income taxpayers—their value falls as income rises. Phaseouts narrow the focus of tax benefits to low- and middle-income households while limiting revenue costs, but raise marginal tax rates for affected taxpayers.

Many preferences in the tax code phase out for higher-income taxpayers, meaning their value declines after income reaches a certain level. Phaseouts target tax benefits on middle- and lower-income households and limit the loss of revenue. Phaseouts, however, not only claw back benefits from the more affluent, but also increase the effective marginal tax rate these taxpayers face, decreasing the after-tax gains of earning more income.

Some taxpayers are affected by multiple tax provisions phasing out at the same time, compounding the negative impact on their earning incentives. More broadly, phaseouts complicate the tax code and make taxes more difficult to understand.

HOW DO PHASEOUTS WORK?

Phaseouts are structured in different ways and thus have different effects. Some reduce credits and thus have the same impact on all affected taxpayers. Others reduce deductions, in which case their dollar impact depends on the taxpayer's marginal tax rate: the higher the tax rate, the greater the value of the lost deduction.

Phaseouts reduce tax benefits at different rates depending on their structure and range. Most phaseouts reduce benefits at a constant rate over an income range; that rate depends on the width of the range. For example, for single tax filers, the American Opportunity Tax Credit phases out evenly over a $10,000 range, so the maximum $2,500 credit phases out at a 25 percent rate ($25 per $100 of income above the phaseout thresholds). In contrast, the adoption credit phases out over a $40,000 range, so the maximum $13,840 credit phases out at nearly a 35 percent rate ($34.6 per $100 of income above the threshold).

Some phaseouts, however, reduce benefits by a specified amount for each fixed increment of income. For example, the child tax credit decreases by $50 for every $1,000 or part of $1,000 in additional income above the phaseout threshold. Whether income exceeds the threshold by $1 or by $999, the credit falls by the same $50, so earning a few more dollars could make a taxpayer worse off.

Some phaseouts have more pronounced cliffs, so the benefit drops in large increments when income exceeds the threshold. For example, in 2018, the limit on the deduction for higher education tuition and fees drops

from $4,000 to $2,000 for a single tax filer whose income exceeds $65,000 by even $1. Then the limit drops to zero for filers whose income tops $80,000. Again, just a few dollars of additional income could leave a taxpayer whose income is near the cliff much worse off.

Many phaseouts are indexed for inflation so that the phaseout ranges remain fixed in real terms. Phaseouts that are not adjusted for inflation affect more taxpayers over time, as inflation raises nominal incomes and thus lifts more taxpayers above the phaseout thresholds.

In addition to phaseouts, the tax code also contains phase-ins. For example, a portion of Social Security benefits becomes taxable only when a taxpayer's income reaches certain thresholds, and the taxable portion increases (up to a maximum of 85 percent) as the amount by which income exceeds those thresholds increases.

TABLE 1.1

Family Benefits

Selected phase-ins and phaseouts in 2018 individual income tax code

Description	Effect on marginal tax rate	Filing status	Phaseout begins	Phaseout ends
Earned Income Tax Credit (EITC)[a]				
Credit phases in from first dollar of earnings; phase-in and phaseout rates vary with number of children.	Decreases by credit percentage during phase-in; increases at phaseout.	Single/HoH		
		No children	8,490	15,270
		One child	18,660	40,320
		Two children	18,660	45,802
		Three or more children	18,660	49,194
		MFJ		
		No children	14,200	20,950
		One child	24,350	46,010
		Two children	24,350	51,492
		Three or more children	24,350	54,884
		MFS	Credit not allowed	
Child Tax Credit (CTC)				
$2,000 credit for each qualifying citizen child; $500 credit for each other dependent.	Increases by 5 percentage points throughout phaseout range.	Single/HoH	$200,000	N/A
		MFJ	$400,000	N/A
		MFS	$200,000	N/A
Child and Dependent Care Credit				
Credit of up to $3,000 for each of up to two children; rate falls from 35% to 20% at rate of 1% for each $2,000 of income above threshold.	Increases by up to 3 percentage points, depending on number of children and spending on child care.	Single/HoH	$15,000	$43,000
		MFJ	$15,000	$43,000
		MFS	Credit not allowed	

Source: Various publications from Urban-Brookings Tax Policy Center; Congressional Research Service (2018); Internal Revenue Service (2018); Social Security Administration (2018); and Young (2007).

HoH = head of household; MFJ = married filing jointly; MFS = married filing separately; N/A = not applicable

a) indexed for inflation.

Key Elements of the U.S. Tax System

How do phaseouts of tax provisions affect taxpayers?

WHERE ARE PHASEOUTS MOST COMMON?

Phaseouts are most common in three areas of the tax code: family benefits, education provisions, and retirement savings provisions (table 1). The beginning and ending points of the phaseout range determine who is eligible for these credits or deductions. For example, the earned income tax credit (EITC) begins to phase out at income of $18,660 for single parents and at $24,350 for married couples with children, limiting EITC eligibility to low-income families. In contrast, the child tax credit (CTC) begins to phase out at income of $200,000 for single parents and at $400,000 for married couples with children, extending CTC eligibility to high-income families.

TABLE 1.2

Education Provisions

Selected phase-ins and phaseouts in 2018 individual income tax code

Description	Effect on marginal tax rate	Filing status	Phaseout begins	Phaseout ends
American Opportunity Tax Credit (AOTC)[a]				
Credit of 100% of first $2,000 and 25% of next $2,000 of eligible expenses, up to $2,500; cannot take both AOTC and LLC.	Increases by up to 25 percentage points (12.5 for MFJ), depending on expenses.	Single/HoH	$80,000	$90,000
		MFJ	$160,000	$180,000
		MFS	Credit not allowed	
Lifetime Learning Credit (LLC)[a]				
Credit of 20% of eligible expenses up to $10,000; cannot take both AOTC and LLC.	Increases by up to 20 percentage points (10 for MFJ), depending on expenses.	Single/HoH	$57,000	$67,000
		MFJ	$114,000	$134,000
		MFS	Credit not allowed	
Education tuition and fees deduction				
Maximum deduction of $4,000 below lower threshold; $2,000 between thresholds; zero above upper threshold.	Large discrete increases at each threshold income value.	Single/HoH	$65,000	$80,000
		MFJ	$130,000	$160,000
		MFS	Deduction not allowed	
Coverdell Education Savings Accounts				
Maximum contribution of $2,000, reduced evenly over phaseout range.	No effect on current tax rate, but increases if withdrawn funds not used for educational purposes or exceed qualified expenses.	Single/HoH	$95,000	$110,000
		MFJ	$190,000	$120,000
		MFS	$95,000	$110,000
Student loan interest deduction[a]				
Up to $2,500 of student loan interest deductible.	Increases by up to 16.7 percentage points (8.3 for MFJ) of statutory tax rate.	Single/HoH	$65,000	$80,000
		MFJ	$135,000	$165,000
		MFS	Credit not allowed	
Education Savings Bonds Program[a]				
Interest on savings bonds tax-free if used for higher education.	Depends on amount of interest on redeemed bonds and statutory tax rate.	Single/HoH	$79,700	$94,700
		MFJ	$119,550	$149,550
		MFS	Credit not allowed	

Source: Various publications from Urban-Brookings Tax Policy Center; Congressional Research Service (2018); Internal Revenue Service (2018); Social Security Administration (2018); and Young (2018).

HoH = head of household; MFJ = married filing jointly; MFS = married filing separately; N/A = not applicable

a) indexed for inflation.

TABLE 1.3

Retirement Provisions

Selected phase-ins and phaseouts in 2018 individual income tax code

Description	Effect on marginal tax rate	Filing status	Phaseout begins	Phaseout ends
Saver's Credit[a]				
Credit of up to $2,000 per taxpayer; credit rate falls in steps from 50% to 0%.	No effect on current tax rate, but increases when funds are withdrawn.	Single/MFS	$19,000	$31,500
		MFJ	$38,000	$63,000
		HoH	$28,500	$47,250
Roth IRA Contribution Limits				
Maximum $5,500 for all IRAs.	Increases by up to 20 percentage points (10 for MFJ), depending on expenses.	Single/HoH/MFS[a]	$120,000	$135,000
		MFJ[a]	$189,000	$199,000
		MFS (if lived together at all)	$0	$10,000
Traditional IRA Contribution Limits (own)				
Maximum $5,500 for all IRAs.	Increases by up to 25% of statutory tax rate.	Single/HoH/MFS[a]	$63,000	$73,000
		MFJ[a]	$101,000	$121,000
		MFS (if lived together at all)	$0	$10,000
Traditional IRA Contribution Limits (spouse)				
Maximum $5,500 for all IRAs.	Increases by up to 25% of statutory tax rate.	MFJa	$189,000	$199,000
		MFS (if lived together at all)	$0	$10,000

Source: Various publications from Urban-Brookings Tax Policy Center; Congressional Research Service (2018); Internal Revenue Service (2018); and Young (2018).

HoH = head of household; MFJ = married filing jointly; MFS = married filing separately; IRA = Individual Retirement Account; a) indexed for inflation.

PHASEOUTS CAN CREATE MARRIAGE BONUSES AND PENALTIES

Phaseouts can create both marriage bonuses and penalties. A marriage bonus reduces a couple's combined tax bill compared to what they would pay if they were not married and filed separate returns. For example, in 2018, phaseout of the CTC begins at $400,000 for married taxpayers and $200,000 for all other taxpayers. If one spouse in a couple with a child has $300,000 of income and the other has none, their combined income is under the joint filers' threshold for phaseout of CTC and they can claim a child tax credit. If they were not married, the higher-income spouse could not claim the CTC because his or her income was too high, and the lower-income spouse could not claim the credit because he or she had no income.

Before the TCJA, married couples faced significant marriage penalties because their phaseout range was less than twice that for single tax filers. Under TCJA, most phaseouts for joint filers are exactly twice that for single filers, so many of the marriage penalties are gone.

However, phaseouts still impose marriage penalties on low-income families, and those penalties are often a larger percentage of income than the marriage penalties caused by phaseouts for higher-income taxpayers. For example, in 2018, a single mother who earns $18,000 and has one child pays no income tax and

receives two refundable credits—a $1,400 CTC and a $3,461 EITC (table 2). (In 2018, a single parent with one child begins paying income tax (before credits) when his or her income exceeds $18,000—the standard deduction for a head of household.) If she marries a man making $40,000—whose 2018 income tax as a single person would be $3,170—she would lose all her EITC (the couple's income would cause the credit to phase out completely) but would get more CTC. (In 2018, CTC is worth up to $2,000 per qualifying child. The refundable portion of the credit is limited to $1,400.) Losing the EITC means that the couple would pay $1,699 in income tax when married, compared with receiving a net payment of $1,691 (her $4,861 combined credit minus his $3,170 tax) if they remained single. That difference is a marriage penalty of $3,390, or 5.8 percent of the couple's adjusted gross income.

TABLE 2

Marriage Bonus and Penalty Tax Calculator Example

2018

	Mother	Spouse	Couple
Adjusted gross income	**$18,000**	**$40,000**	**$58,000**
Standard deduction	$18,000	$12,000	$24,000
Taxable income	**$0**	**$28,000**	**$34,000**
Tax before credits	$0	$3,170	$3,699
Child Tax Credit	$1,400	$0	$2,000
Earned Income Tax Credit	$3,461	$0	$0
Tax net of credits	**-$4,861**	**$3,170**	**$1,699**

Tax as two individuals
-$1,691
Tax as a married couple
$1,699
Marriage penalty
$3,390
Difference as a percent of couple's AGI
5.8%

Source: Tax Policy Center Marriage Bonus and Penalty Calculator, 2018.

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Q. How are capital gains taxed?

A. Capital gains are profits from the sale of a capital asset, such as shares of stock, a business, a parcel of land, or a work of art. Capital gains are generally included in taxable income, but in most cases, are taxed at a lower rate.

A capital gain is realized when a capital asset is sold or exchanged at a price higher than its basis. Basis is an asset's purchase price, plus commissions and the cost of improvements less depreciation. A capital loss occurs when an asset is sold for less than its basis. Gains and losses (like other forms of capital income and expense) are not adjusted for inflation.

Capital gains and losses are classified as long term if the asset was held for more than one year, and short term if held for a year or less. Short-term capital gains are taxed as ordinary income at rates up to 37 percent; long-term gains are taxed at lower rates, up to 20 percent. Taxpayers with modified adjusted gross income above certain amounts are subject to an additional 3.8 percent net investment income tax (NIIT) on long- and short-term capital gains.

The Tax Cuts and Jobs Act (TCJA), enacted at the end of 2017, retained the preferential tax rates on long-term capital gains and the 3.8 percent NIIT. TCJA separated the tax rate thresholds for capital gains from the tax brackets for ordinary income for taxpayers with higher incomes (table 1). The thresholds for the new capital gains tax brackets are indexed for inflation, but, as under prior law, the income thresholds for the NIIT are not. TCJA also eliminated the phaseout of itemized deductions, which raised the maximum capital gains tax rate above the 23.8 percent statutory rate in some cases.

TABLE 1

Tax Rate on Long-Term Capital Gains
2018

Prior law	Tax Cuts and Jobs Act
Zero rate for taxpayers below the 25 percent tax bracket; 15 percent rate for taxpayers in the 25 to 35 pecent tax brackets; 20 percent rate for taxpayers above the 35 percent tax bracket.	Zero rate if taxable income is below $38,600 (single), $77,200 (joint); 15 percent rate if taxable income is between $38,600 and $425,800 (single), $77,200 and $479,000 (joint); 20 percent rate if taxable income is above $425,800 (single), $479,000 (joint).
3.8 percent NIIT at AGI above $200,000 (single), $250,000 (joint).	3.8 percent NIIT at AGI above $200,000 (single), $250,000 (joint).

AGI = adjusted gross income; NIIT = net investment income tax

Key Elements of the U.S. Tax System

How are capital gains taxed?

There are special rules for certain types of capital gains. Gains on art and collectibles are taxed at ordinary income tax rates up to a maximum rate of 28 percent. Up to $250,000 ($500,000 for married couples) of capital gains from the sale of principal residences is tax-free if taxpayers meet certain conditions including having lived in the house for at least 2 of the previous 5 years. Up to the greater of $10 million of capital gains or 10 times the basis on stock held for more than five years in a qualified domestic C corporation with gross assets under $50 million on the date of the stock's issuance are excluded from taxation. Also excluded from taxation are capital gains from investments held for at least 10 years in designated Opportunity Funds. Gains on Opportunity Fund investments held between 5 and 10 years are eligible for a partial exclusion.

Capital losses may be used to offset capital gains, along with up to $3,000 of other taxable income. The unused portion of a capital loss may be carried over to future years.

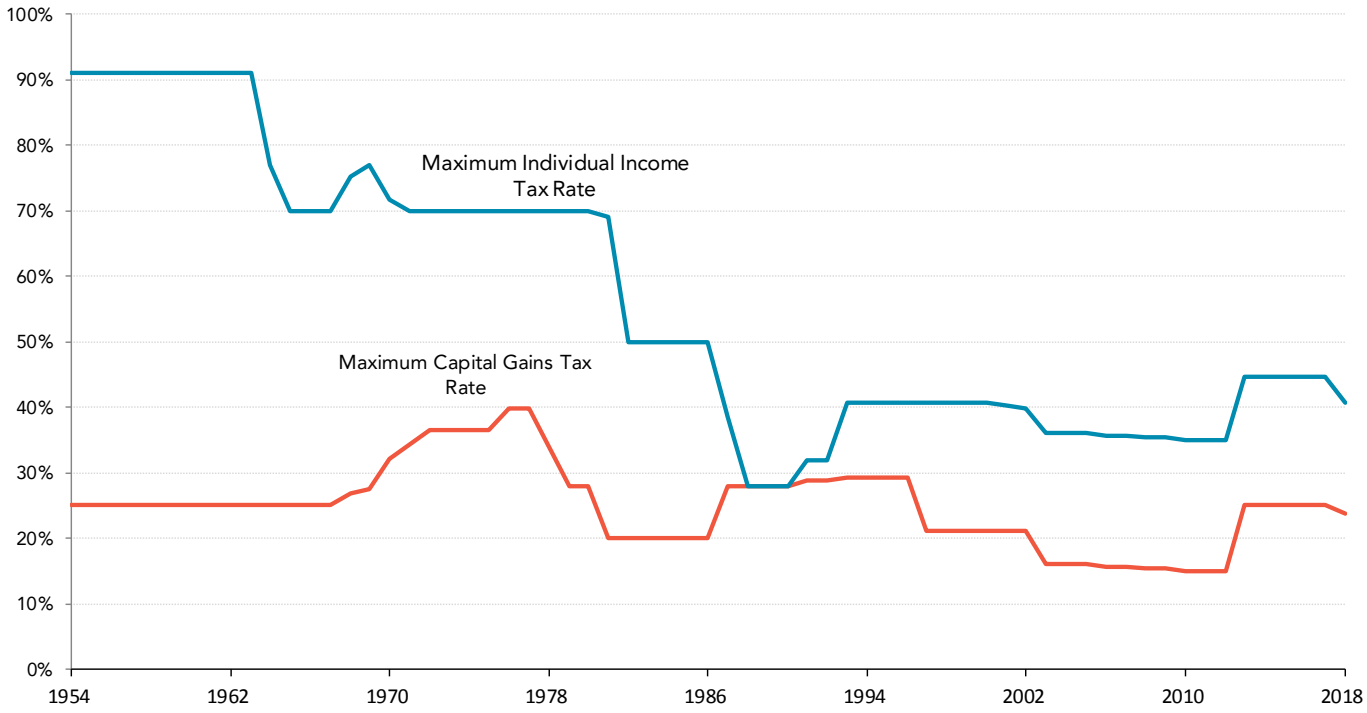
The tax basis for an asset received as a gift equals the donor's basis. However, the basis of an inherited asset is "stepped up" to the value of the asset on the date of the donor's death. The step-up provision effectively exempts from income tax any gains on assets held until death.

C corporations pay the regular corporation tax rates on the full amount of their capital gains and may use capital losses only to offset capital gains, not other kinds of income.

FIGURE 1

Maximum Capital Gains and Individual Income Tax Rate

Tax years 1954–2018



Sources: US Department of the Treasury, Office of Tax Analysis (2016); Urban-Brookings Tax Policy Center calculations.
Note: The maximum rates include the 3.8 percent tax on net investment income (2013-) and adjusts for the phaseout of itemized deductions (1991–2009, 2013–2017).

Key Elements of the U.S. Tax System

How are capital gains taxed?

MAXIMUM TAX RATE ON CAPITAL GAINS

For most of the history of the income tax, long-term capital gains have been taxed at lower rates than ordinary income (figure 1). The maximum long-term capital gains and ordinary income tax rates were equal in 1988–2000. Since 2003, qualified dividends have also been taxed at the lower rates.

Data Source

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Q. What is the effect of a lower tax rate for capital gains?

A. It does not appear to spur economic growth significantly. But lower rates foster tax avoidance strategies and complexity.

Throughout the history of the income tax, capital gains have been taxed at lower rates than ordinary income. Since 2003, qualified dividends have also been taxed at the lower rates. Proponents of the tax preference argue that lower tax rates for capital gains and dividends offset taxes already paid at the corporate level, spur economic growth, encourage risk taking and entrepreneurship, offset the effects of inflation, prevent "lock-in" (the disincentive to sell assets), and mitigate the tax penalty on savings under the income tax. Critics, for their part, complain that the lower tax rate disproportionately benefits the wealthy and encourages tax-sheltering schemes.

The double-taxation argument goes only so far. Capital gains from the sale of stock are only about half of all capital gains. And even when a gain arises from the sale of corporate stock, corporate profits can often escape full taxation through business tax preferences.

ECONOMIC GROWTH

Do lower taxes on capital gains spur economic growth? Figure 1 shows the top tax rates on long-term capital gains along with real economic growth from 1954 to 2017. Of course, many factors determine growth, but the tax rate on capital gains does not appear to be a major factor.

Capital gains may arise from risky investments, and a lower capital gains tax rate might encourage such risk taking. Even without a tax preference, taxing gains while allowing full current deductions for losses on a symmetric basis would reduce risk by reducing after-tax variance of returns. However, deductibility of losses is limited, which limits the risk-reduction benefit of capital gains taxation for some taxpayers. Under current law, taxpayers can use capital losses to offset capital gains and, for noncorporate taxpayers, up to $3,000 of additional taxable income other than capital gains. Noncorporate taxpayers also can carry any remaining capital losses forward to future years indefinitely.

It is true that inflation causes part of almost any nominal capital gain. But inflation actually affects the returns on currently taxed assets (interest, dividends, rents, and royalties) more than it affects capital gains, which are taxed upon disposition.

BENEFICIARIES OF A LOWER TAX RATE

Critics are correct that low tax rates on capital gains and dividends accrue disproportionately to the wealthy. The Urban-Brookings Tax Policy Center estimates that in 2018, more than 70 percent of the tax benefit of the lower rates will go to taxpayers with incomes over $1 million (table 1).

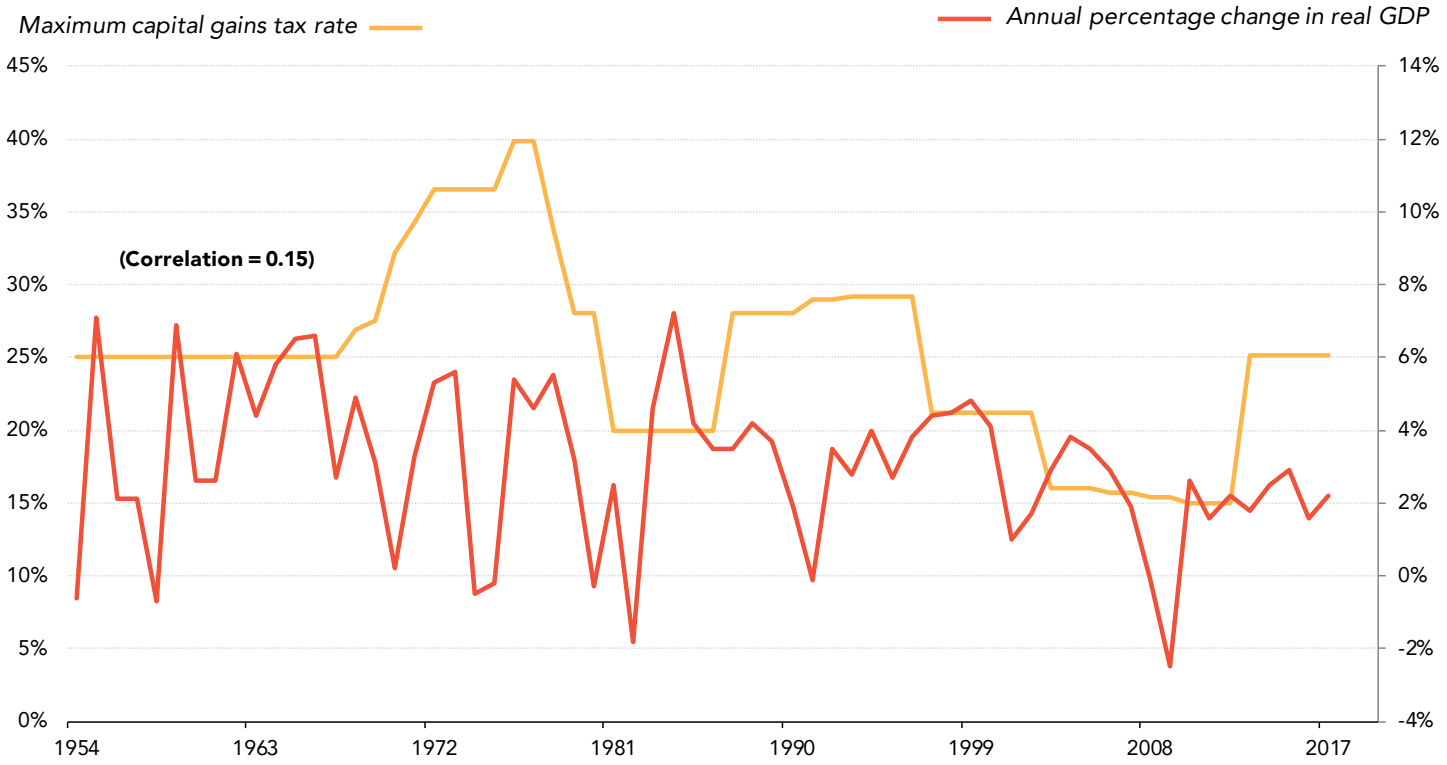
Key Elements of the U.S. Tax System

What is the effect of a lower tax rate for capital gains?

FIGURE 1

Maximum Capital Gain Tax Rate and Economic Growth

Tax years 1954–2017



Source: Urban-Brookings Tax Policy Center calculations; US Bureau of Economic Analysis, "National Economic Accounts"; and US Department of the Treasury, Office of Tax Analysis, "Taxes Paid on Capital Gains for Returns with Positive Net Capital Gains 1954–2014.".
Note: The maximum capital gains tax rate includes the 3.8 percent tax on net investment income (2013–) and adjusts for the phaseout of itemized deductions (1991–2009, 2013–2017).

Low tax rates on capital gains contribute to many tax shelters that undermine economic efficiency and growth. These shelters employ sophisticated financial techniques to convert ordinary income (such as wages and salaries) to capital gains. For top-bracket taxpayers, tax sheltering can save up to 17 cents per dollar of income sheltered. The resources that go into designing, implementing, and managing tax shelters could otherwise be used for productive purposes.

Finally, the low rate on capital gains complicates the tax system. A significant portion of tax law and regulations is devoted to policing the boundary between lightly taxed returns on capital assets and fully taxed ordinary income.

Key Elements of the U.S. Tax System

What is the effect of a lower tax rate for capital gains?

TABLE 1

Benefit of Lower Tax Rates on Long-Term Capital Gains and Qualified Dividends

Current law, 2018

Cash income level	Share of returns with tax benefit	Benefit as share of after-tax income	Share of total tax benefit	Average tax savings
Less than $10,000	0.0%	0.0%	0.0%	$0
$10,000 – $20,000	0.6%	0.0%	0.0%	*
$20,000 – $30,000	1.8%	0.0%	0.1%	$10
$30,000 – $40,000	3.0%	0.0%	0.1%	$10
$40,000 – $50,000	5.7%	0.1%	0.3%	$30
$50,000 – $75,000	10.1%	0.1%	1.2%	$70
$75,000 – $100,000	17.3%	0.2%	1.6%	$140
$100,00 – $200,000	25.3%	0.2%	5.4%	$260
$200,000 – $500,000	45.5%	0.6%	11.4%	$1,280
$500,000 – $1,000,000	73.1%	1.4%	8.3%	$7,260
More than $1,000,000	86.5%	6.7%	71.3%	$145,130
All	**13.0%**	**1.1%**	**100.0%**	**$820**

Source: Urban-Brookings Tax Policy Center Microsimulation Model (version 0718-1).
* Nonzero value rounded to zero.

Data Sources

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Q. How might the taxation of capital gains be improved?

A. Taxing capital gains at the same rates as ordinary income would simplify the tax system by removing major incentives for tax sheltering and other attempts to manipulate the system.

The Tax Reform Act of 1986, signed by President Ronald Reagan, raised tax rates on capital gains and lowered rates on ordinary income but set the same 28 percent top rate for both. The goal: reducing tax planning devoted to converting ordinary income to capital gains. The policy worked—briefly. Successive congresses raised the top rate on ordinary income (now 40.8 percent) and reduced the top rate on capital gains (now 23.8 percent). As the gap between the two rates grew, so did the incentives to manipulate the system. Now might be a good time to once again tax capital gains and ordinary income at the same rate, which could be higher than today's rate on capital gains but lower than the current rate on ordinary income.

In the 1980s, taxpayers exploited the ordinary income/capital gain gap by making investments that generated ordinary deductions—such as interest, lease payments, and depreciation—to reduce their current income tax liability. These taxpayers got their money back (and presumably more) in the form of long-term capital gains. The Tax Reform Act targeted these arrangements by limiting passive loss, interest, and accelerated depreciation deductions. Most importantly, it also eliminated the ordinary income/capital gain gap, thus making many tax shelter schemes unprofitable.

With the return of the ordinary/capital income tax differential, schemes to convert ordinary income into capital gains have followed. The Senate investigated one such scheme, basket options, which used the tax alchemy of derivatives to convert short-term into long-term capital gains. Private equity and other investment managers are often compensated with "carried interest," which allows them to claim long-term gains rather than salaries.

These planning opportunities are available only to the well-off, who hold the vast majority of capital assets and face the highest tax rates, thus deriving the most benefit from lower tax rates on capital gains (figure 1).

Some may object that reducing the tax rate on capital gains is necessary to prevent "lock in"—holding property to defer tax liability (perhaps until death, when the heirs can completely avoid taxation of accrued gains on inherited assets). But if Congress is concerned about the lock-in effect, it could either tax capital gains at death or instate carryover basis so that heirs retain the lower basis of inherited assets. Either step would reduce the tax incentive to keep assets until death—and could raise substantial revenue that would make it possible to reduce tax rates or the deficit.

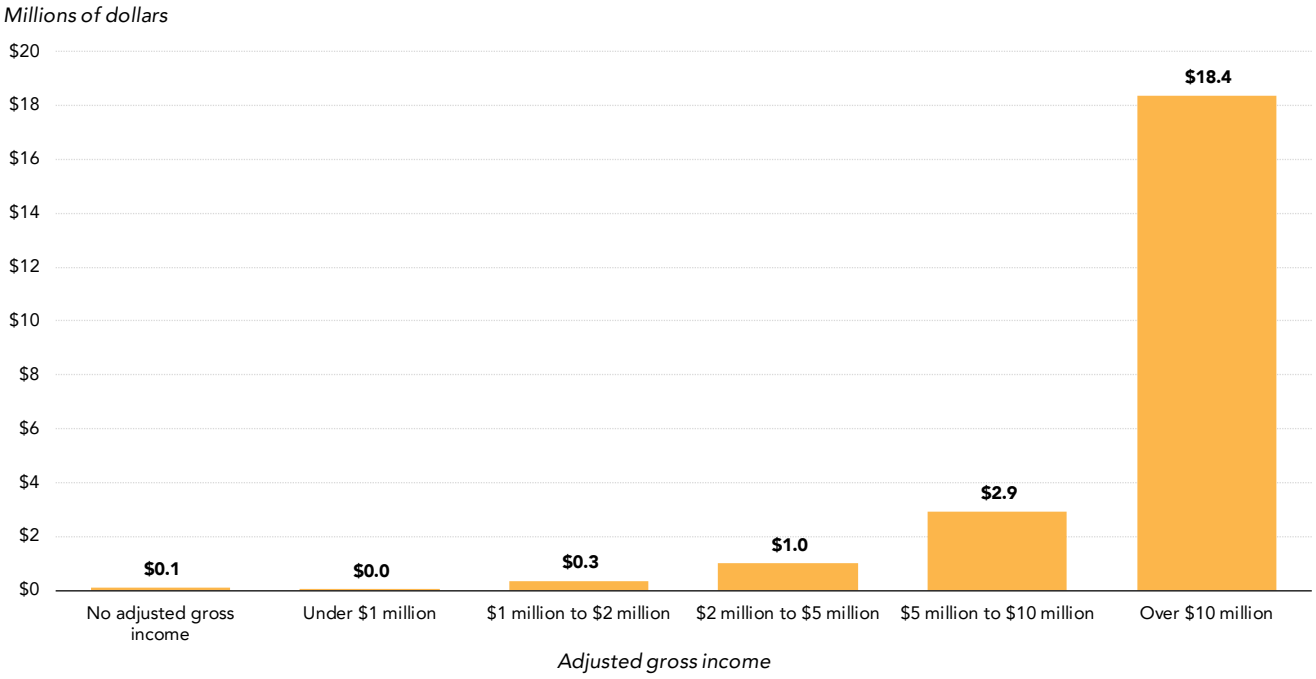
How might the taxation of capital gains be improved?

Finally, if Congress is concerned about the potential double taxation of corporate earnings, it might integrate the two levels of taxes on corporate income. That is, Congress could tax corporate earnings only once, taxing the corporation or its shareholders but not both. The US Department of the Treasury (1992) has laid out several options for such integration.

FIGURE 1

Average Taxable Net Gain from Sales of Capital Assets

Tax year 2016



Source: Internal Revenue Service. *Statistics of Income. Basic Tables: Returns Filed and Sources of Income.* Table 1.4. "All Returns: Sources of Income, Adjustments, and Tax Items," Tax Year 2016.

Data Sources

Internal Revenue Service. *Statistics of Income. Basic Tables: Returns Filed and Sources of Income*. Table 1.4. "All Returns: Sources of Income, Adjustments, and Tax Items," Tax Year 2016.

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Q. What is carried interest, and should it be taxed as capital gain?

A. Carried interest, income flowing to the general partner of a private investment fund, often is treated as capital gains for the purposes of taxation. Some view this tax preference as an unfair, market-distorting loophole. Others argue that it is consistent with the tax treatment of other entrepreneurial income.

Carried interest is a contractual right that entitles the general partner of an investment fund to share in the fund's profits. These funds invest in a wide range of assets, including real estate, natural resources, publicly traded stocks and bonds, and private businesses. Hedge funds, for example, typically trade stocks, bonds, currencies, and derivatives. Venture capital funds invest in start-up businesses. And private equity funds invest in established businesses, often buying publicly traded companies and taking them private.

Depending on the investment, the general partner's share of the profits can take a variety of forms: interest, royalties, long- or short-term capital gains, and dividends. There is ongoing debate about whether partners receiving long-term capital gains and qualified dividends as carried interest should receive the preferential tax rates accorded to regular investors.

The preferential tax rate is especially important for a private equity fund and its managers. A private equity fund typically uses carried interest to pass through a share of its net capital gains to its general partner which, in turn, passes the gains on to the investment managers (figure 1). The managers pay a federal personal income tax on these gains at a rate of 23.8 percent (20 percent tax on net capital gains plus 3.8 percent net investment income tax).

The general partner receives its carried interest as compensation for its investment management services. (Typically, the general partner also receives a separate annual fee based on the size of the fund's assets.) The limited partners receive the balance of the fund's profits in proportion to their capital investment. A typical division for a private equity fund is 20 percent of the profits to the general partner and 80 percent to the limited partners.

Private equity funds managed $2.8 trillion in 2017, a massive increase over the $100 billion managed in 1994. They use their capital to buy companies and improve their operations, governance, capital structure, and market positioning. Then they sell the companies and pass any profits to the partners.

Many commentators argue that it would be fairer and more efficient economically to tax carried interest like wage and salary income, which is subject to a top rate of 37 percent. They draw an analogy between the general partners and investment bankers, who pay tax at ordinary rates on their wages, salaries, and

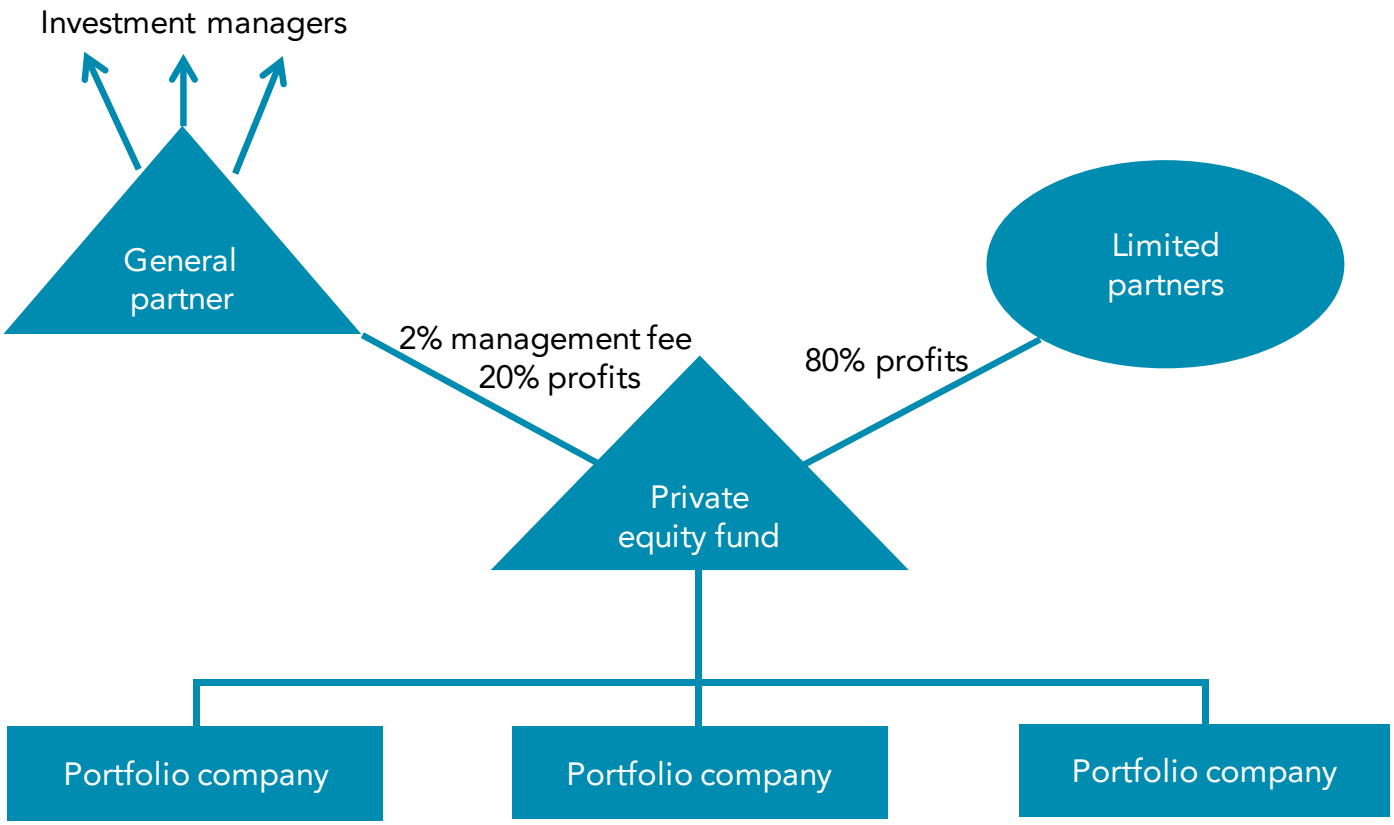
bonuses. They also object that most service providers are not able to treat their income as capital gains. Some commentators add, if we treat carried interest like wage and salary income for the general partners, we also should allow the limited partners to deduct the carried interest as an ordinary expense.

But others believe that the general partners are more like entrepreneurs who start a new business and may, under current law, treat part of their return as capital—not as wage and salary income—for their contribution of "sweat equity." Our tax system largely accommodates this conversion of labor income to capital because it cannot measure and time the contribution of the sweat equity.

The Tax Cuts and Jobs Act slightly curtailed the tax preference for carried interest, requiring an investment fund to hold assets for more than three years, rather than one year, to treat any gains allocated to its investment managers as long term. Gains from the sale of assets held three years or less would be short term, taxed at a top rate of 40.8 percent. However, most private equity funds hold their assets for more than five years, so the longer holding period requirement may not affect them much.

FIGURE 1

A Typical Private Equity Fund



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Q. What is the AMT?

A. The individual alternative minimum tax (AMT) operates alongside the regular income tax. It requires some taxpayers to calculate their liability twice—once under the rules for the regular income tax and once under the AMT rules—and then pay the higher amount. Originally in-tended to prevent perceived abuses by a handful of the very rich, the AMT affected roughly 5 million filers in 2017. The Tax Cuts and Jobs Act dramatically reduced the reach of the AMT, albeit temporarily, so that the tax will hit only 200,000 filers in 2018.

In January 1969, Treasury Secretary Joseph W. Barr informed Congress that 155 taxpayers with incomes exceeding $200,000 had paid no federal income tax in 1966. The news created outrage. That year, members of Congress received more constituent letters about the 155 taxpayers than about the Vietnam War. Congress subsequently enacted an "add-on" minimum tax that house-holds paid in addition to regular income tax. It applied to certain income items ("preferences") taxed lightly or not at all under the regular income tax. The largest preference item was the por-tion of capital gains excluded from the regular income tax.

Congress enacted the modern alternative minimum tax (AMT) in 1979 to operate in tandem with the add-on minimum tax. The main preference items, including capital gains, moved from the add-on tax to the AMT. Congress finally repealed the add-on tax, effective in 1983.

The original minimum tax and the AMT affected fewer than 1 million taxpayers annually through the late 1990s. In 2001, Congress passed the Economic Growth and Tax Relief Reconciliation Act, which substantially reduced regular income taxes but provided only temporary relief from the AMT. Over the following decade, Congress repeatedly passed legislation—often at the last possible moment—to temporarily "patch" the AMT by increasing the AMT exemption amount.

Although the patches prevented an AMT explosion, the number of taxpayers affected by the AMT continued to grow throughout the decade (figure 1) because (1) the regular income tax was indexed for inflation, but the AMT was not; and (2) Congress enacted substantial cuts to the regular income tax.

The American Taxpayer Relief Act of 2012 enacted a permanent AMT fix by establishing a higher AMT exemption amount, indexing the AMT parameters for inflation, and allowing specified tax credits under the AMT. As a result, the number of AMT taxpayers fell from 4.5 million in 2012 to about 4.0 million in 2013. That number grew modestly to 5.0 million in 2017.

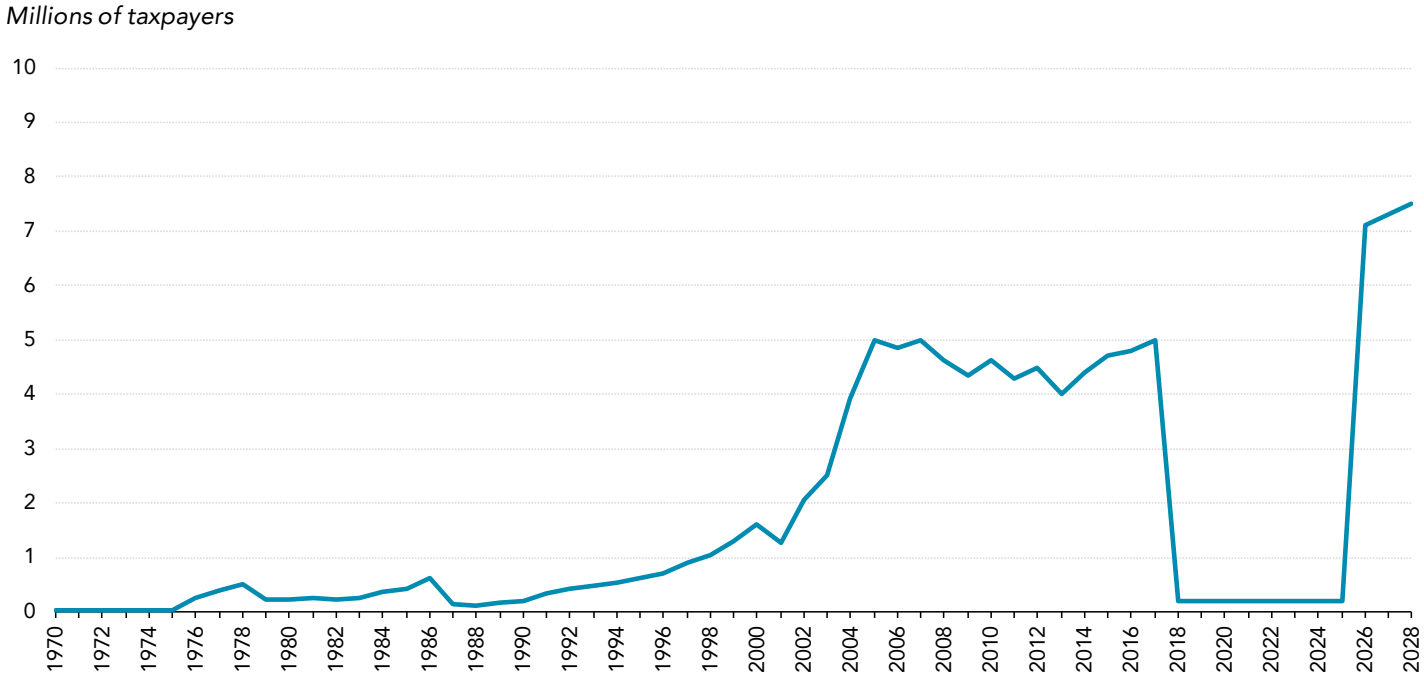
Key Elements of the U.S. Tax System

What is the AMT?

FIGURE 1

Alternative Minimum Tax

Number of taxpayers affected, 1970–2028



Source: Urban-Brookings Tax Policy Center Microsimulation Model (versions 0304-3, 0308-4, 1006-1, 0613-1, 0718-1); Harvey and Tempalski (1997); private communication from Jerry Tempalski; and SOI Division of Internal Revenue Service.
Note: Data includes those with direct AMT liability on Form 6251, those with lost credits, and (for years 2001-2028) those with a reduced deduction. Tax units that are dependents of other taxpayers are excluded from the analysis.

The 2017 Tax Cuts and Jobs Act (TCJA), included provisions that significantly reduced the im-pact of the AMT. TCJA enacted a higher AMT exemption and a large increase in the income at which the exemption begins to phase out. It also repealed or scaled back some of the largest AMT preference items—personal exemptions, the state and local tax deduction, and miscellane-ous deductions subject to the 2 percent of adjusted gross income floor—further limiting the AMT's scope. As a result, TPC projects that the number of AMT taxpayers will fall to just 200,000 in 2018 and remain roughly constant through 2025.

The AMT provisions, along with almost all other individual income tax measures in TCJA, are set to expire at the end of 2025. Thus, barring legislation from Congress, the AMT will return in force in 2026, affecting 7.1 million taxpayers. That number will rise to 7.5 million by 2028.

Key Elements of the U.S. Tax System

What is the AMT?

STRUCTURE

After calculating their regular income tax, some middle- and upper-income taxpayers must add AMT "preference items" to their taxable income, subtract an AMT exemption amount, and recal-culate their tax using the AMT tax rate structure. AMT liability is the excess, if any, of this amount over the amount of tax owed under the regular income tax rules.

Before the enactment of TCJA, some of the larger AMT preference items included the deduction for state and local taxes (62 percent of all preferences in 2012 according to data from the US Department of the Treasury), personal exemptions (21 percent), and the deduction for miscella-neous business expenses (9.5 percent). Because TCJA temporarily repealed the latter two provi-sions and capped the deduction for state and local taxes at $10,000, other preferences, such as the standard deduction and the special AMT rules for the treatment of net operating losses, de-preciation, and passive losses, will become more important through 2025.

The AMT exemption for 2018 is $109,400 for married couples filing jointly, up from $84,500 in 2017 (table 1). For singles and heads of household, the exemption rises from $54,300 in 2017 to $70,300 in 2018.

The AMT has two tax rates. In 2018, the first $191,100 of income above the exemption is taxed at a 26 percent rate, and income above that amount is taxed at 28 percent. The AMT exemption begins to phase out at $1 million for married couples filing jointly and $500,000 for singles, heads of household, and married couples filing separate returns. TCJA dramatically increased the exemption phaseout threshold, which was $160,900 for married couples ($120,700 for singles and heads of households) in 2017. Because the exemption phases out at a 25 percent rate, it cre-ates a top effective AMT tax rate of 35 percent (125 percent of 28 percent). All values are in cur-rent dollars, and the 2018 values are indexed annually for inflation using the chain-weighted con-sumer price index.

TABLE 1

Alternative Minimum Tax (AMT) Parameters

Dollars, 2017 and 2018

AMT Parameter	Single	Married Filing Jointly	Head of Household	Married Filing Separately
		2018		
Exemption	$70,300	$109,400	$70,300	$54,700
28 Percent Bracket Threshold	$191,100	$191,100	$191,000	$95,500
Exemption Phaseout Threshold	$500,000	$1,000,000	$500,000	$500,000
		2017		
Exemption	$54,300	$84,500	$54,300	$42,250
28 Percent Bracket Threshold	$187,800	$187,800	$187,800	$93,900
Exemption Phaseout Threshold	$120,700	$160,900	$120,700	$80,450

Source: Internal Revenue Code.
Note: All parameters are indexed annually for inflation.

Data Sources

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Q. Who pays the AMT?

A. Before the 2017 Tax Cuts and Jobs Act (TCJA), the individual alternative minimum tax (AMT) primarily affected well-off households, but not those with the very highest incomes. It was also more likely to hit taxpayers with large families, those who were married, and those who lived in high-tax states. TCJA shields almost all upper-middle and high-income taxpayers from the reach of the AMT. The AMT is now most likely to hit those at the top of the income scale who are engaged in certain sheltering activities.

Taxpayers pay the higher of their tax calculated under regular income tax rules or under the rules for the alternative minimum tax (AMT). In 2017—before enactment of the Tax Cuts and Jobs Act (TCJA)— the 39.6 percent top rate under the regular income tax was much higher than the 28 percent top statutory AMT rate. Thus, households with very high incomes who did not at-tempt to shelter much income typically paid the regular income tax. Households not at the very top of the income scale but still with high income faced somewhat lower statutory tax rates under the regular tax and were therefore more likely to pay the AMT.

Only about 3 percent of households overall were on the AMT in 2017 but the percentage was much higher among high-income groups. The AMT increased taxes for 27.2 percent of house-holds with "expanded cash income" (a broad measure of income) between $200,000 and $500,000, 61.9 percent of those with incomes between $500,000 and $1 million, and 20.6 per-cent of households with incomes greater than $1 million.

THE AMT AFTER TCJA

TCJA enacted a higher AMT exemption and a large increase in the income at which the exemp-tion begins to phase out. The act also repealed or scaled back some of the largest AMT "prefer-ence items"—items allowable under the regular tax but not the AMT—such as personal exemp-tions, job-related and other miscellaneous expenses, and the deduction for state and local taxes. As a result, TCJA shielded almost all upper-middle and high-income taxpayers from the AMT. The tax is now most likely to affect those at the top of the income scale who take advantage of certain tax shelters allowed under the regular tax but not the AMT.

In 2018, the AMT will impact just 0.1 percent of households overall. This includes 0.4 percent of households with income between $200,000 and $500,000, 2.2 percent of those with incomes be-tween $500,000 and $1 million, and 11.5 percent of households with incomes greater than $1 million (table 1).

TABLE 1

Share of Tax Units Affected by the AMT

Expanded cash income (2018$)[a]	2017	2018	2025	2026
Less than $50,000	*	*	*	*
$50,000 – $75,000	*	*	*	0.1%
$75,000 – $100,000	0.3%	*	*	0.3%
$100,000 – $200,000	1.9%	*	*	2.6%
$200,000 – $500,000	27.2%	0.4%	0.3%	29.5%
$500,000 – $1,000,000	61.9%	2.2%	1.9%	61.9%
More than $1,000,000	20.6%	11.5%	8.7%	16.8%

Source: Urban-Brookings Tax Policy Center Microsimulation Model (version 0718-1).
Notes: Includes AMT liability on Form 6251, lost credits, and the value of reduced deductions. Tax units that are dependents of other tax units are excluded fom the analysis.
(a) Tax units with negative adjusted gross income are excluded from their respective income classes but are included in the totals.
* Less than 0.05%

The AMT provisions in TCJA, along with almost all of its other individual income tax measures, are set to expire at the end of 2025. Thus, barring congressional legislation, the AMT will return in force in 2026. It will increase taxes for almost 30 percent of taxpayers in the $200,000 to $500,000 income range and more than 60 percent of those with incomes between $500,000 and $1 million. It will again be less likely to affect those at the top of the income scale, hitting only about 17 percent of taxpayers with incomes greater than $1 million.

THE AMT AND MARRIAGE PENALTIES

Under the regular income tax, many married couples receive a "marriage bonus" because they pay less tax than they would if they were single. This is not true under the AMT, which imposes sig-nificant marriage penalties. AMT tax brackets are identical for married and single taxpayers, and the AMT exemption for married couples is only about one and a half times as large as the exemp-tion for singles.

In contrast, the standard deduction for married couples under the regular income tax is twice that for singles, and all but the highest tax brackets for married couples are twice as wide as those for singles. TCJA reduced AMT marriage penalties somewhat by increasing and adjusting the in-come at which the exemption begins to phase out so that it is twice as large for married couples as for singles. AMT marriage penalties, combined with married couples tending to have higher incomes than single individuals, make married couples more likely to pay the AMT than singles (table 2).

TABLE 2

Share of Tax Units Affected by the AMT

Filing status	2017	2018	2025	2026
Single	1.0%	*	*	1.3%
Married filing jointly	5.6%	0.2%	0.2%	7.5%
Head of household	2.1%	*	*	2.8%
Married filing separately	7.1%	0.4%	0.3%	8.1%

Source: Urban-Brookings Tax Policy Center Microsimulation Model (version 0718-1).
(a) Includes AMT liability on Form 6251, lost credits, and the value of reduced deductions. Tax units that are dependents of other tax units are excluded fom the analysis.
* Less than 0.05%

Data Sources

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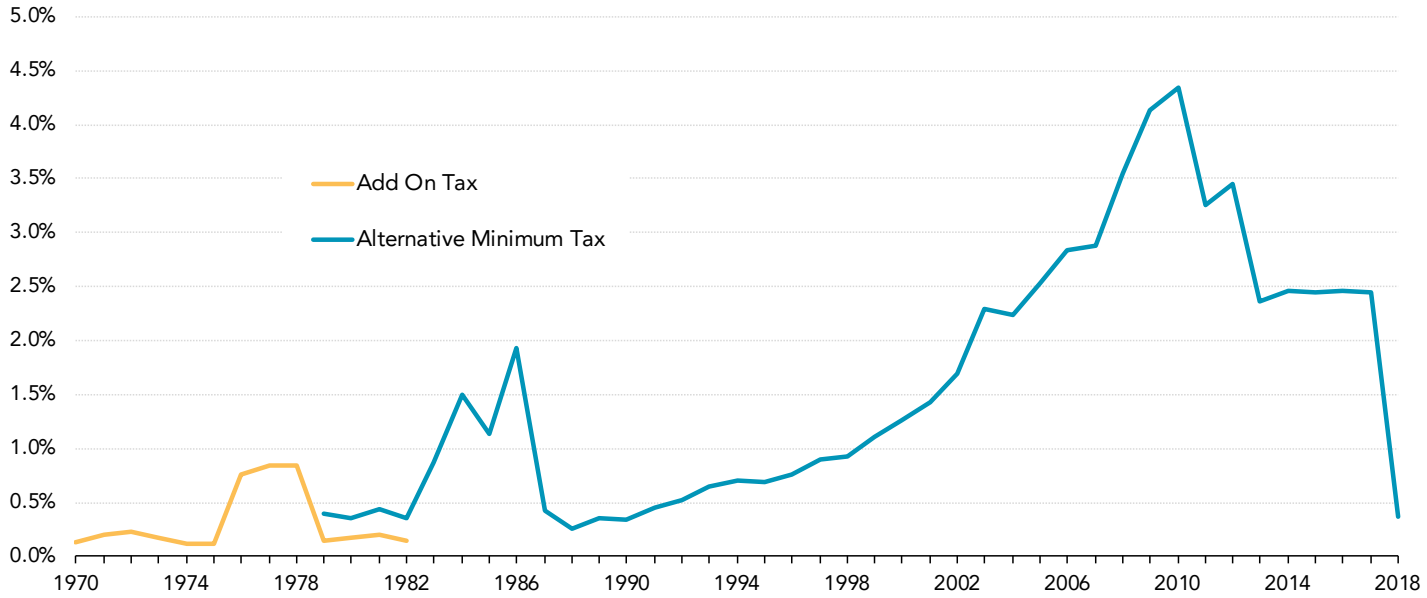
Q. How much revenue does the AMT raise?

A. About $5.2 billion in 2018, or 0.4 percent of all individual income tax revenue. That is down significantly from $36.2 billion—2.4 percent of income tax revenue—in 2017, primarily be-cause of the 2017 Tax Cuts and Jobs Act (TCJA). Since most TCJA individual income tax provisions expire at the end of 2025, AMT revenue will soar to $68.9 billion by 2028, or 2.6 percent of all individual income tax revenue.

Congress enacted the original minimum tax in 1969. It was an "add-on" tax households paid in addition to any regular income tax they owed. It applied to certain income items ("preferences") taxed lightly or not at all under the regular income tax. The largest preference item was the por-tion of capital gains excluded from the regular income tax. Revenue from the add-on tax grew from $122 million (0.14 percent of aggregate individual income tax revenue) in 1970 to $1.5 billion (0.84 percent) by 1978 (figure 1).

FIGURE 1
Individual Alternative Minimum Tax Revenue as a Share of All Individual Income Tax Revenue
1970–2018



Source: Urban-Brookings Tax Policy Center Microsimulation Model (versions 0304-3, 1006-1, 0308-7, 0309-1, 0509-2, 0411-1, 0718-1); Harvey and Tempalski (1997); private communication from Jerry Tempalski; IRS.

Key Elements of the U.S. Tax System

How much revenue does the AMT raise?

Congress enacted the modern individual alternative minimum tax (AMT) in 1979 to operate alongside the add-on minimum tax. The main preference items, including capital gains, moved from the add-on tax to the new AMT. As a result, revenue from the add-on tax plummeted to $300 million in 1979. Congress subsequently repealed the add-on tax, effective in 1983. Revenue from the new AMT climbed rapidly from $870 million (about 0.4 percent of all individual income tax revenue) in its inaugural year of 1979 to $6.7 billion (2.0 percent) in 1986.

The Tax Reform Act of 1986 (TRA86) changed both the regular income tax and the AMT. The TRA eliminated much tax-sheltering activity and thus shifted much of the AMT base to the regu-lar income tax system. In particular, TRA86 eliminated the partial exclusion of capital gains, which had accounted for 85 percent of total AMT preferences in 1985. As a result, AMT revenue fell to $1.7 billion in 1987, back to the same 0.4 percent of aggregate individual income tax reve-nue that it had raised in 1979.

Unlike the regular income tax system, Congress did not index the AMT for inflation. Each year, the standard deduction, personal exemptions, and tax bracket thresholds in the regular income tax would rise to keep pace with inflation. In contrast, the AMT exemption and brackets stayed fixed. Thus, over time, as a taxpayer's income rose with inflation, AMT liability rose relative to regular income tax liability. Because taxpayers paid the larger of the two taxes, inflation pushed more people onto the AMT, and AMT revenue increased steadily after 1987.

In 2001, Congress passed the Economic Growth and Tax Relief Reconciliation Act, which sub-stantially reduced regular income taxes but provided only temporary relief from the AMT. Over the following decade, Congress repeatedly passed legislation—known as the AMT "patch"—to prevent an explosion in the number of AMT payers. Despite the annual patches, AMT revenue continued to grow, reaching $37.6 billion—or 3.5 percent of individual income tax revenue—in 2012.

The American Taxpayer Relief Act of 2012 (ATRA) enacted an AMT "fix" by establishing a higher AMT exemption, indexing the AMT parameters for inflation, and allowing certain tax credits under the AMT. Combined with the fact that ATRA raised regular income taxes on high-income taxpayers, the permanent AMT fix reduced AMT revenue to $27 billion, or 2.4 percent of income tax revenue, in 2013.

The 2017 Tax Cuts and Jobs Act (TCJA), included provisions that greatly reduce the revenue the AMT will generate. For 2018, TCJA enacted a higher AMT exemption and a large increase in the income level at which the exemption begins to phase out. It also repealed or scaled back some of the largest AMT preference items, further limiting the tax's scope. As a result, AMT revenue will fall from $36.2 billion in 2017 to just $5.2 billion in 2018—a drop from 2.4 percent to 0.4 percent of all individual income tax revenue.

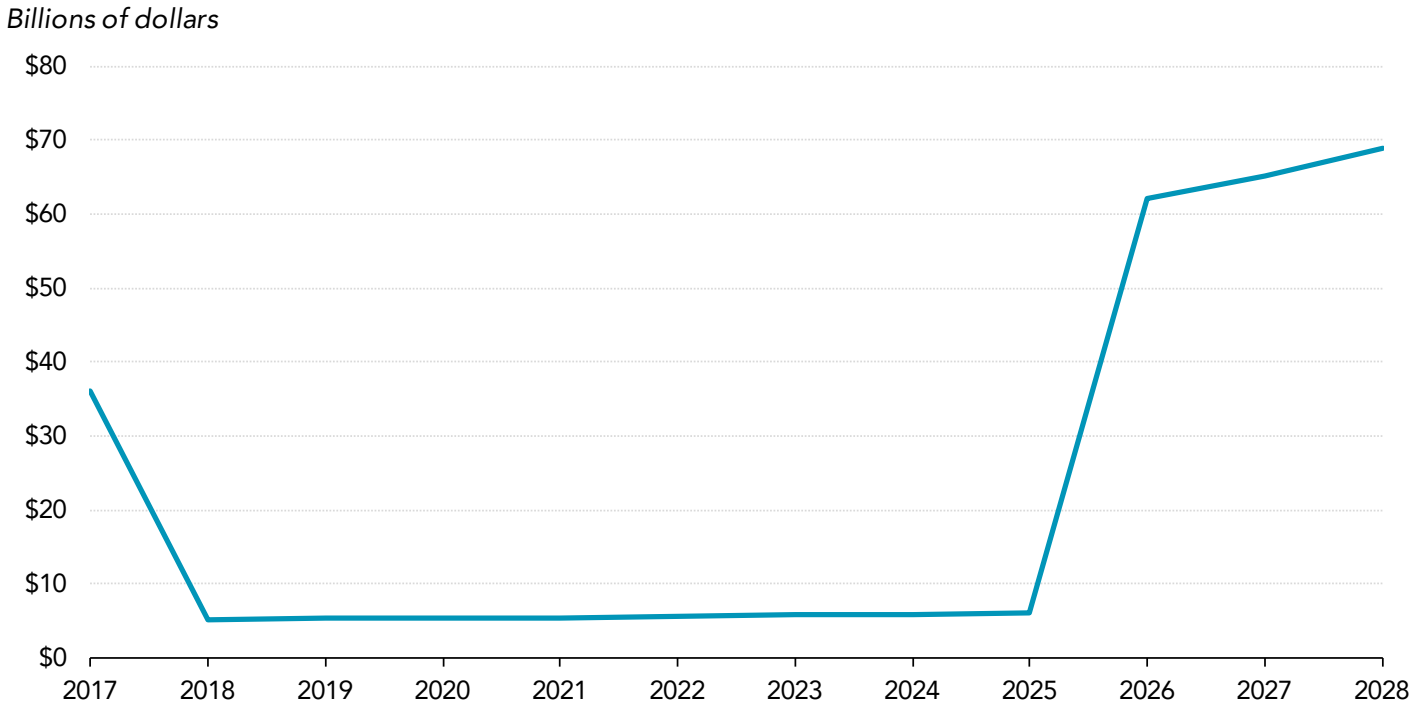
PROJECTIONS

The AMT provisions in TCJA, along with almost all its other individual income tax measures, are set to expire at the end of 2025. Thus, barring new legislation, AMT revenue will explode from $6.2 billion in 2025 to $62.1 billion in 2026. It will continue to rise to $68.9 billion—2.6 percent of all individual income tax revenue—by 2028 (figure 2).

How much revenue does the AMT raise?

FIGURE 2

Projected Individual Alternative Minimum Tax Revenue
2017–28



Source: Urban-Brookings Tax Policy Center Microsimulation Model (version 0718-1).

Data Sources

Urban-Brookings Tax Policy Center. "Microsimulation Model, versions 0304-3, 1006-1, 0308-7, 0309-1, 0509-2, 0411-1, and 0718-1."

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Key Elements of the U.S. Tax System

What is the child tax credit?

Q. What is the child tax credit?

A. The child tax credit provides a credit of up to $2,000 per child under age 17. If the credit exceeds taxes owed, families may receive up to $1,400 per child as a refund. Other dependents—including children ages 17–18 and full-time college students ages 19–24—can receive a nonrefundable credit of up to $500 each.

HOW THE CHILD TAX CREDIT WORKS TODAY

Taxpayers can claim a child tax credit (CTC) of up to $2,000 for each child under age 17 who is a citizen. The credit is reduced by 5 percent of adjusted gross income over $200,000 for single parents ($400,000 for married couples). If the credit exceeds taxes owed, taxpayers can receive up to $1,400 of the balance as a refund, known as the additional child tax credit (ACTC) or refundable CTC. The ACTC is limited to 15 percent of earnings above $2,500 (figure 1).

For the most part, the CTC is not indexed for inflation. The exception to this is the amount of the credit families with children under 17 can receive as a refund. This amount (currently $1,400) will increase with inflation after 2018 until it becomes equal to the full value of the credit ($2,000).

Starting in 2018, a $500 credit is available to dependents who are not eligible for the $2,000 CTC for children under 17 (figure 1). Before 2018, these individuals would not have qualified for a tax credit but would have qualified for a dependent exemption, which was eliminated by the 2017 Tax Cuts and Jobs Act (TCJA). These include children ages 17–18 or those 19–24 and in school full time in at least five months of the year. Also included are older dependents—representing about 6 percent of dependents eligible for the CTC.

After 2025, the CTC is scheduled to revert to its pre-TCJA form. At that point, taxpayers will be able to claim a credit of up to $1,000 for each child under age 17 and the credit will be reduced by 5 percent of adjusted gross income over $75,000 ($110,000 for married couples). If the credit exceeds taxes owed, taxpayers will be able to receive the balance as a refund. The refundable portion of the credit will be limited to 15 percent of earnings above $3,000.

IMPACT OF THE CTC

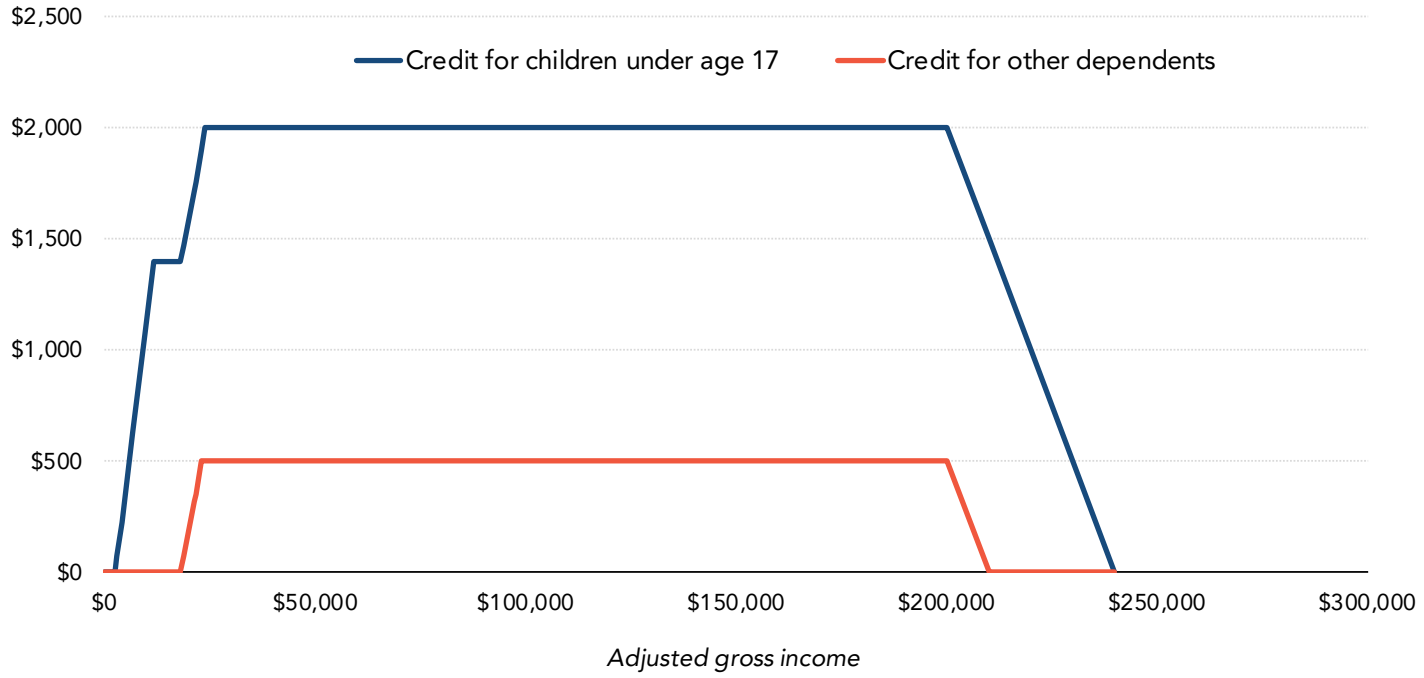
The Tax Policy Center estimates that 91 percent of families with children will receive an average CTC of $2,420 in 2018 (the average credit can exceed the maximum per child credit because families can have more than one child). Families with children in all income groups will benefit from the CTC, but families in the lowest income quintile are least likely to benefit from the credit because more of them will not have sufficient earnings to qualify for the credit. Just over three-quarters of families in the lowest income quintile

Key Elements of the U.S. Tax System

What is the child tax credit?

FIGURE 1

Child Tax Credit, Single Parent
For one child, tax year 2018



Source: Urban-Brookings Tax Policy Center calculations.
Notes: Assumes all income comes from earnings, and child meets all tests to be a CTC-qualifying dependent. Credit for married parents begins to phase out at $400,000 of income. Only citizen children qualify for the $2,000 CTC for children under 17. Noncitizens under age 17 who meet the dependency tests of eligibility can qualify for the credit for dependents over age 17.

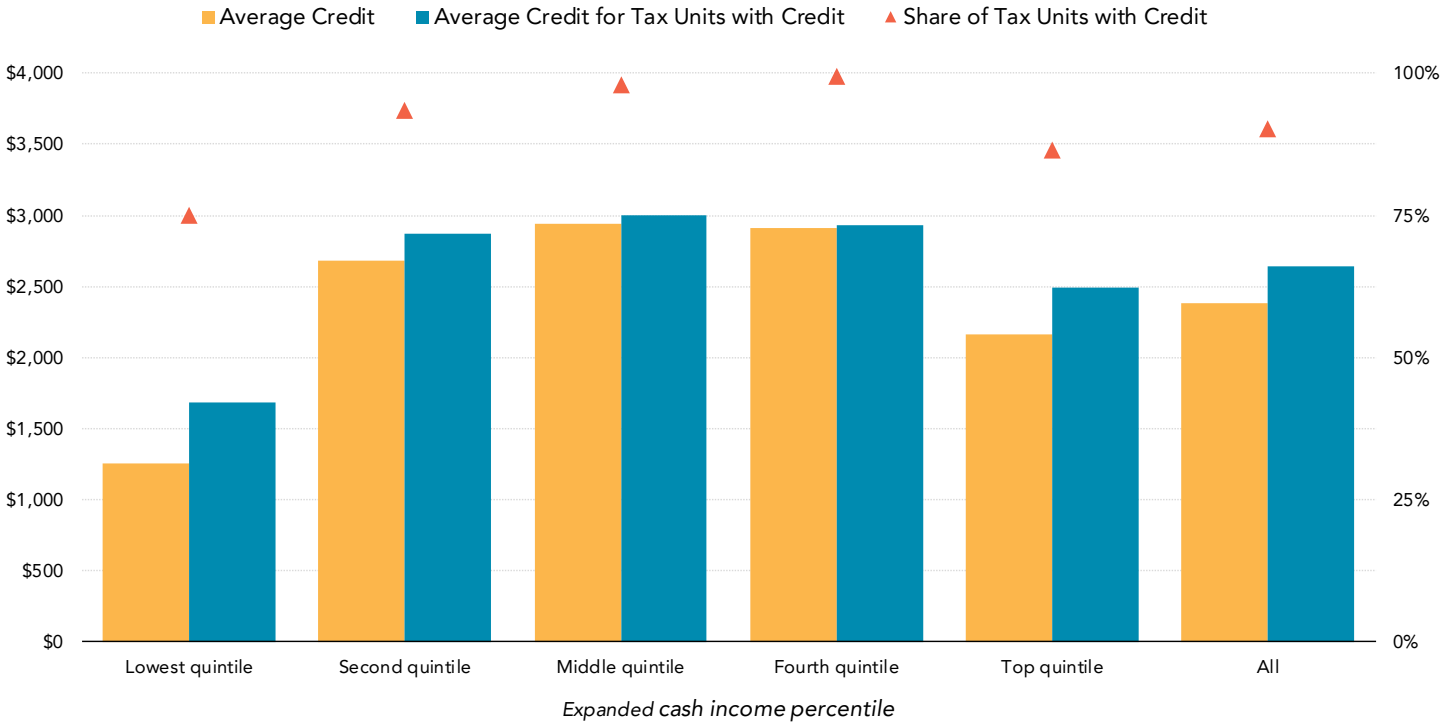
(the bottom one-fifth of the income distribution, ranked by household income) will be eligible for a CTC, receiving an average benefit of $1,340. The average credit is the smallest for this group because low-income families are most likely to be limited to the refundable portion of the credit, which is capped at $1,400 rather than the full $2,000 limit for the nonrefundable credit (figure 2).

The percentage of families with children receiving the credit and the average credit received are higher among moderate- and middle-income families. Almost 94 percent of families with children in the second income quintile will receive a CTC as will almost all families in the third and fourth income quintiles (98 and 99 percent, respectively). The proportion of families with children receiving a credit drops to 87 percent in the highest income group because of the income limits (figure 2).

The CTC has a significant impact on the economic well-being of low-income families with children. If the official estimate of poverty counted the CTC as income (including the refundable portion), 2.7 million fewer people would have fallen below the federal poverty line in 2016, including about 1.5 million children. Counting the credit would have also reduced the severity of poverty for an additional 12.3 million people, including 6.1 million children (Center on Budget and Policy Priorities 2018).

FIGURE 2

Distribution and Share of Child Tax Credit for Tax Units with Children
2018



Source: Urban-Brookings Tax Policy Center. "TPC Microsimulation Model, version 0718-1."
Note: Includes the $500 nonrefundable portion of the child tax credit, also referred to as the credit for other dependents.

RECENT HISTORY OF THE CTC

In 2018, the Tax Cuts and Jobs Act doubled the CTC for children under 17 from $1,000 per child to $2,000 per child, up to $1,400 of which families can receive as a refundable credit. Only children who are US citizens may receive this credit. The legislation also allows dependents who do not qualify for the $2,000 credit to qualify for a nonrefundable credit worth up to $500. The legislation is temporary and expires after 2025. At that point, the credit for children under 17 will revert to $1,000 per child, and other dependents will no longer be eligible for a CTC.

Before these changes, the American Taxpayer Relief Act of 2012 had increased the CTC from $500 per child, its pre-2001 level, to $1,000 per child. It also temporarily extended the provisions of the American Recovery and Reinvestment Act of 2009 (the anti-recession stimulus package) that reduced the earnings threshold for the refundable CTC from $10,000 (adjusted for inflation starting after 2002) to $3,000 (not adjusted for inflation). The Bipartisan Budget Act of 2015 made the $3,000 refundability threshold permanent. The TCJA further reduced the refundability threshold to $2,500 starting in 2018, but that lower threshold will expire after 2025 when the $3,000 refundability threshold will return.

Key Elements of the U.S. Tax System

What is the child tax credit?

The refundable CTC was originally designed in 2001 to coordinate with the earned income tax credit (EITC). Once earnings reached $10,020 for families with two children in 2001, there was no further increase in the EITC. The earnings threshold for the refundable CTC was set at $10,000 so families could now receive a subsidy for earnings in excess of that amount. Like the earned income amount for the EITC, the $10,000 earnings threshold was indexed for inflation. When the earnings threshold for the refundable CTC was reduced—first to $8,500 in 2008 and then to $3,000 in 2009—that link between the phase-in of the refundable CTC and the EITC was broken.

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Q. What is the adoption tax credit?

A. The tax code provides an adoption credit of up to $13,810 of qualified expenses (in 2018) for each child adopted, whether via public foster care, domestic private adoption, or international adoption. The total amount of adoption credits for 2018 is estimated to reach approximately $400 million.

CREDIT AMOUNT

Taxpayers can receive a tax credit for all qualifying adoption expenses up to $13,810 in 2018. The maximum credit is indexed for inflation. Taxpayers may also exclude from income qualified adoption expenses paid or reimbursed by an employer, up to the same limit as the credit. Taxpayers can use the tax credit and the income exclusion but cannot claim the same expenses for both.

"Special needs" adoptions automatically qualify for the maximum credit regardless of actual out-of-pocket expenses. For purposes of the credit, a child has special needs if a state's welfare agency determines that the child cannot or should not be returned to his or her parents' home and that the child probably will not be adoptable without assistance provided to the adoptive family. This provision is designed to encourage parents to adopt children who would otherwise be hard to place, even if most of the adoption expenses are covered by someone else (such as a public foster care program).

ELIGIBILITY

The adoption credit is available to most adoptive parents, with some exceptions. The credit is not available to taxpayers whose income exceeds certain thresholds. The thresholds are indexed for inflation. In 2018 the credit begins to phase out at $207,140 of modified adjusted gross income and phases out entirely at income of $247,140. The credit also is not available for adoptions of stepchildren.

REFUNDABILITY

The adoption tax credit is nonrefundable but can be carried forward for up to five years. The credit is thus of little or no value to low-income families who pay little or no income tax over a period of years. The Patient Protection and Affordable Care Act of 2010 made the adoption tax credit refundable for 2010 and 2011. Concerned about the potential for fraud, the Internal Revenue Service (IRS) stepped up compliance efforts. The result, according to the National Taxpayer Advocate Service, was substantial delays for taxpayers, with 69 percent of all adoption credit claims filed in 2012 selected for audit. The IRS ultimately disallowed only 1.5 percent of claims, and 20 percent of the savings from the disallowed credits was spent on interest owed to taxpayers with delayed refunds. The credit reverted to nonrefundability in 2012.

Key Elements of the U.S. Tax System

What is the adoption tax credit?

COST OF THE CREDIT

The credit has been repeatedly expanded, from an initial maximum value of $5,000 in 1997 to $13,810 in 2018. In 2016, taxpayers claimed total adoption credit of $290 million (figure 1). The temporary availability of a refundable credit pushed the cost of the credit up to the dramatically higher figures of $1.2 billion in 2010 and $610 million in 2011 (including the refundable portion).

WHO GETS IT

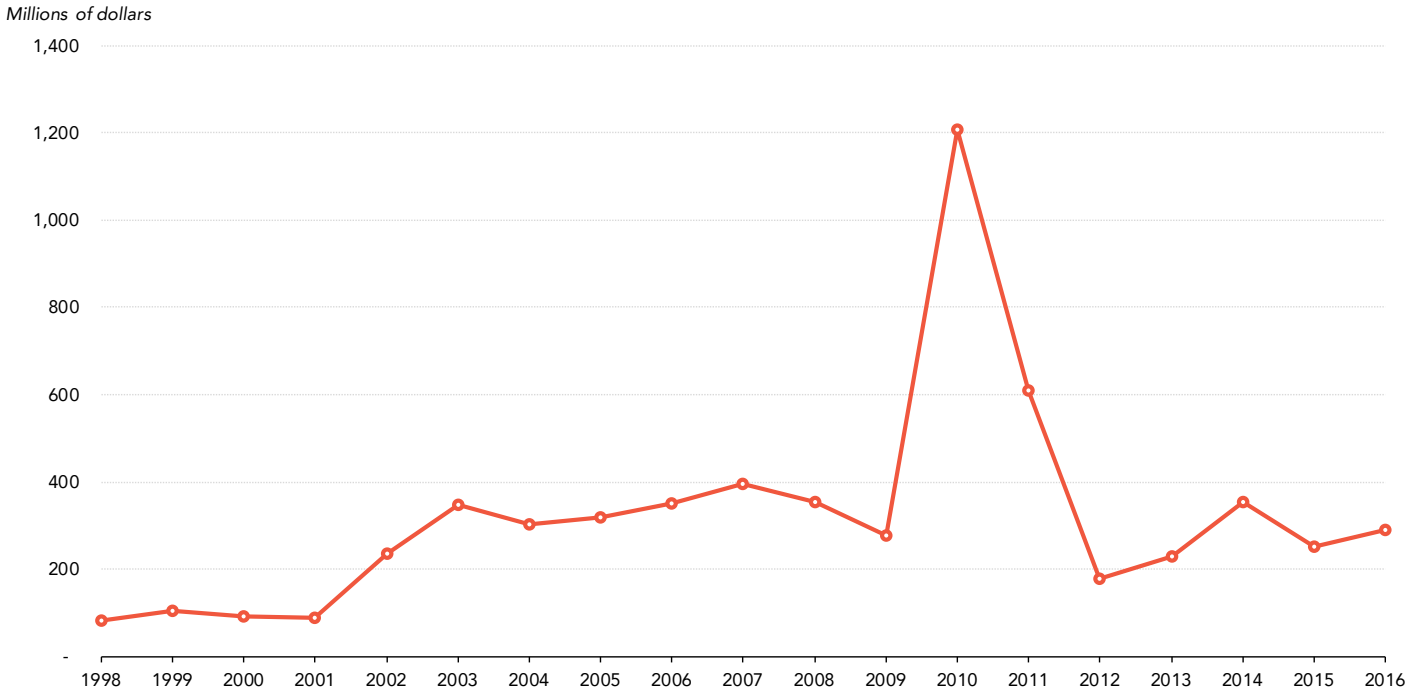
The distribution of the credit across income groups ranges from small amounts for low- and moderate-income households (because of their minimal tax liability and the credit's nonrefundability) and the highest-income households (because of the income cap) to substantial amounts to those with upper-middle incomes. For example, in tax year 2016, the credit for those with incomes between $50,000 and $75,000 (almost one-third of claimants) averaged $2,388 per adoption, while the average credit for households with incomes between $100,000 and $200,000 (about 30 percent of claimants) was $7,233 per adoption (table 1).

The most recent year with data available by adoption type (2004) indicates that nearly half of adoptions for which the credit was claimed were for domestic children without special needs, with only 18 percent classified as special needs, and the remainder reflecting international adoptions.

FIGURE 1

Cost of the Adoption Credit

Tax years 1998–2016



Source: Internal Revenue Service (IRS), Statistics of Income (SOI) Tax Stats, Individual Income Tax Returns, Publication 1304, "Table A. All Returns: Selected Income and Tax Items in Current and Constant 1990 Dollars, Tax Years 1990-2016." August 2018.

TABLE 1

Distribution of Adoption Credit

By adjusted gross income, tax year 2016

Size of Adjusted Gross Income (dollars)	Total Number of Returns with Eligible Expenses	Total Amount of Benefits	Average Amount of Credit
Less than $40,000	7,113	$5,392,000	$758
$40,000 – under $50,000	6,337	$10,795,000	$1,703
$50,000 – under $75,000	21,421	$51,154,000	$2,388
$75,000 – under $100,000	10,639	$48,944,000	$4,600
$100,000 – under $200,000	20,074	$169,067,000	$8,422
$200,000 and over	666	$4,817,000	$7,233
All returns	66,250	$290,168,000	$4,380

Source: Internal Revenue Service (IRS), Statistics of Income (SOI) Tax Stats, Individual Income Tax Returns, Publication 1304, "Table 3.3 All Returns: Tax Liability, Tax Credits, and Tax Payments, by Size of Adjusted Gross Income, Tax Year 2016 (Filing Year 2017)." August 2018.

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Q. What is the earned income tax credit?

A. The earned income tax credit subsidizes low-income working families. The credit equals a fixed percentage of earnings from the first dollar of earnings until the credit reaches its maximum. The maximum credit is paid until earnings reach a specified level, after which it declines with each additional dollar of income until no credit is available.

HOW THE EARNED INCOME TAX CREDIT WORKS

The earned income tax credit (EITC) provides substantial support to low- and moderate-income working parents, but very little support to workers without qualifying children (often called childless workers). Workers receive a credit equal to a percentage of their earnings up to a maximum credit. Both the credit rate and the maximum credit vary by family size, with larger credits available to families with more children. After the credit reaches its maximum, it remains flat until earnings reach the phaseout point. Thereafter, it declines with each additional dollar of income until no credit is available (figure 1).

By design, the EITC only benefits working families. Families with children receive a much larger credit than workers without qualifying children. (A qualifying child must meet requirements based on relationship, age, residency, and tax filing status.) In 2018, the maximum credit for families with one child is $3,461, while the maximum credit for families with three or more children is $6,431.

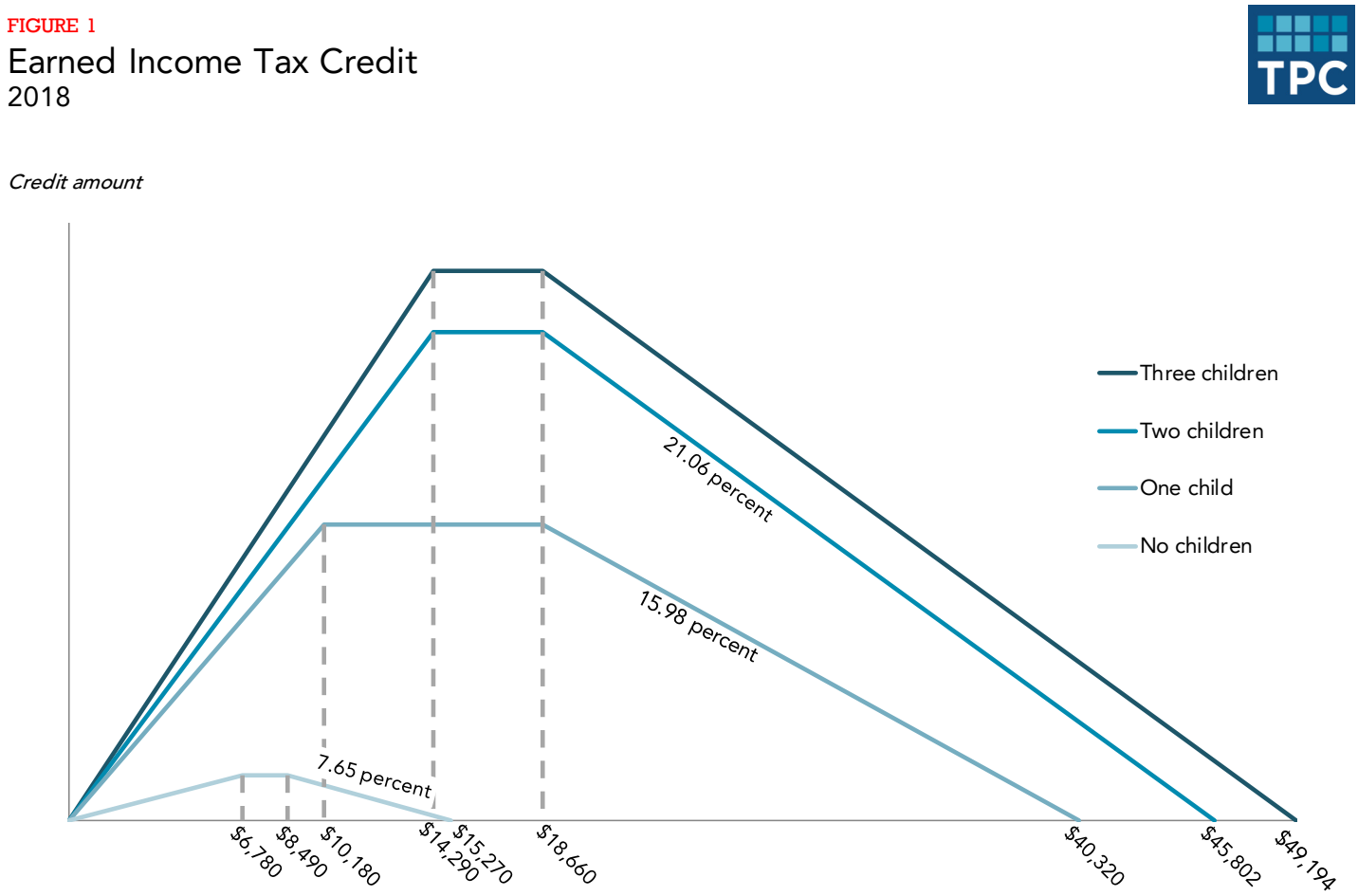
In contrast to the substantial credit for workers with children, childless workers can receive a maximum credit of only $519. Moreover, the credit for childless workers phases out at much lower incomes. Also, childless workers must be at least 25 and not older than 64 to qualify for a subsidy—restrictions that do not apply to workers with children. As a result of these tighter rules, 97 percent of benefits from the credit go to families with children.

IMPACT OF THE EITC

Research shows that the EITC encourages single people and primary earners in married couples to work (Dickert, Houser, and Sholz 1995; Eissa and Liebman 1996; Meyer and Rosenbaum 2000, 2001). The credit, however, appears to have little effect on the number of hours they work once employed. Although the EITC phaseout could cause people to reduce their hours (because credits are lost for each additional dollar of eanings, which is effectively a surtax on earnings in the phaseout range), there is little empirical evidence of this happening (Meyer 2002).

FIGURE 1

Earned Income Tax Credit
2018



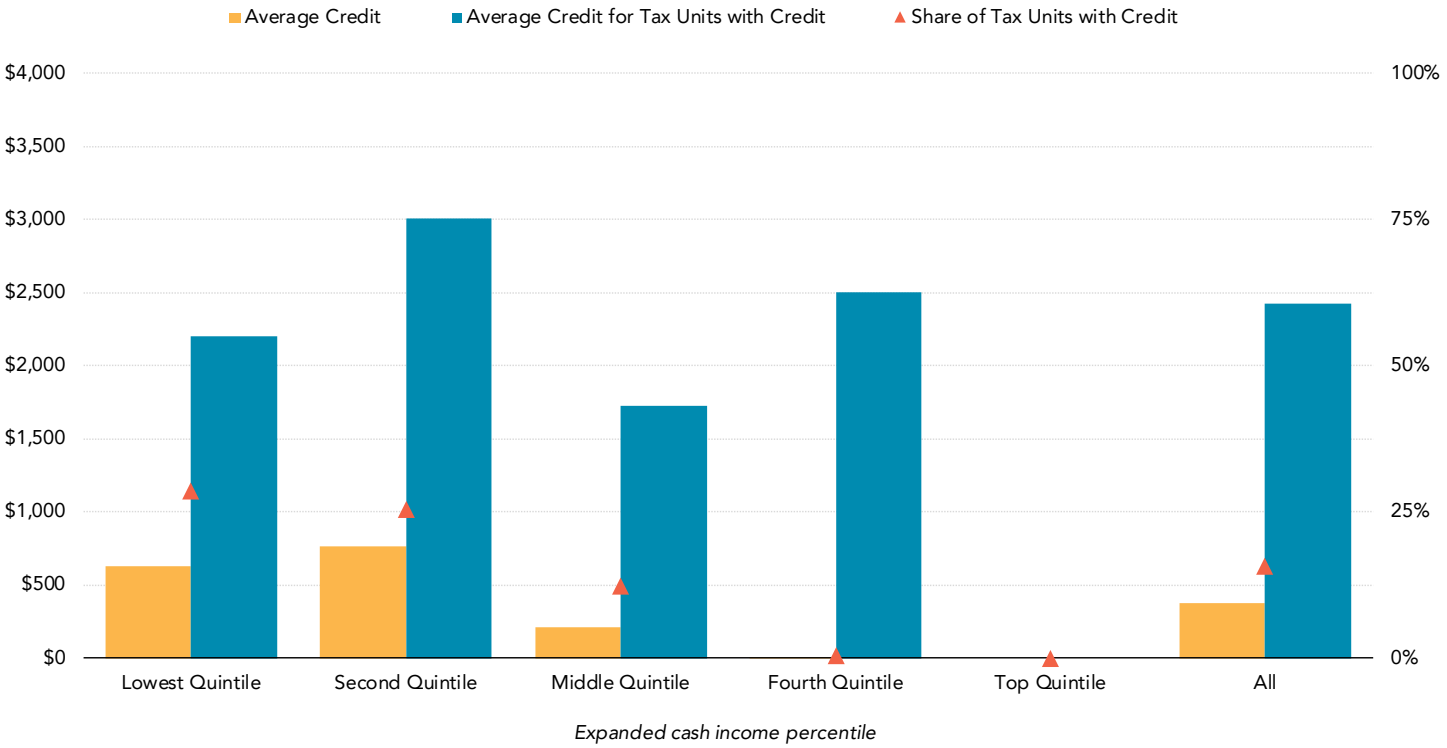
Source: Urban-Brookings Tax Policy Center (2018). Internal Revenue Procedure 2018-18, Internal Revenue Service.
Notes: Assumes all income comes from earnings. Amounts are for taxpayers filing a single or head-of-household tax return. For married couples filing a joint tax return, the credit begins to phase out at income $5,690 higher than shown.

The one group of people that may reduce hours of work in response to the EITC incentives is lower-earning spouses in a married couple (Eissa and Hoynes 2006). On balance, though, the increase in work resulting from the EITC dwarfs the decline in participation among second earners in married couples.

If the EITC were treated like earnings, it would have been the single most effective antipoverty program for working-age people, lifting about 5.8 million people out of poverty, including 3 million children (CBPP 2018). The EITC is concentrated among the lowest earners, with almost all of the credit going to households in the bottom three quintiles of the income distribution (figure 2). (Each quinitle contains 20 percent of the population, ranked by household income.) Very few households in the fourth quinitle receive an EITC (fewer than 0.5 percent).

FIGURE 2

Distribution of Earned Income Tax Credit



Source: Urban-Brookings Tax Policy Center. "TPC Microsimulation Model, version 0718-1."

RECENT CHANGES

As a result of legislation enacted in 2001, the EITC phases out at higher income levels for married couples than for single individuals. That threshold was increased as part of the American Recovery and Reinvestment Act of 2009 (ARRA). The same act increased the maximum EITC for workers with at least three children. The American Taxpayer Relief Act of 2012 made the 2001 EITC changes permanent (a $3,000 higher threshold for married couple phaseout, indexed) but extended the ARRA changes (a $5,000 higher threshold for married couple phaseout, indexed, and higher credit maximum for workers with at least three children) through the end of 2017. The Protecting Americans from Tax Hikes Act of 2015 made these changes permanent. The Tax Cuts and Jobs Act, enacted in 2017, adopted a more conservative measure of inflation to be used in the federal income tax system beginning in 2018. As a result, the EITC will grow more slowly over time.

PROPOSALS FOR REFORM

Both Democrats and Republicans have proposed EITC amendments to provide a substantial credit for childless workers. These proposals typically involve expanding the eligible age limits for the childless EITC—lowering the age of eligibility from 25 to 21 and increasing the age of eligibility from 64 to 67—increasing the maximum credit, and expanding the income range over which the credit is available. A more far-reaching approach to reform that would still expand benefits to childless workers would be to separate the credit into

two pieces—one focused on work and one focused on children. Examples of this type of reform have been proposed by many, including the President's Advisory Panel on Federal Tax Reform (2005), the Bipartisan Policy Center (2013), and Maag (2015b).

ERROR RATES AND THE EITC

The EITC likely delivers more than a quarter (28.5 percent) of all payments in error, according to a recent Internal Revenue Service (IRS) compliance study. The largest source of error was determining whether a child claimed for the EITC actually qualified (IRS 2014). The child must live with the parent (or other relative) claiming the EITC for more than half of the year in order to qualify. The IRS receives no administrative data that can verify where a child resided for the majority of the year, making it difficult for the agency to monitor compliance. Attempts to use administrative data from other programs to verify child residence have not proven successful (Pergamit et al. 2014).

To reduce fraud, the Protecting Americans from Tax Hikes Act of 2015 requires the IRS to delay tax refunds for taxpayers who claim an EITC or additional child tax credit on their returns until at least February 15. Delaying refunds was paired with a requirement that third-party income documents related to wages and income be provided to the IRS by January 31 (in prior years, this information was due the last day of February for paper filing and March 31 for electronic filing, and employers were automatically granted a 30-day extension, if requested). As a result, information needed to verify wages often got to the IRS well after the first returns had been processed. Together, these measures allowed earlier systemic verification of EITC claims, which protected more revenue than in prior years (Treasury Inspector General for Tax Administration 2018).

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Q. How does the tax system subsidize child care expenses?

A. Working parents are eligible for two tax benefits to offset child care costs: the child and dependent care tax credit and the exclusion for employer-provided child care.

THE CHILD AND DEPENDENT CARE TAX CREDIT

The child and dependent care tax credit (CDCTC) provides a credit worth between 20 and 35 percent of child care costs for a child under age 13 or any dependent physically or mentally incapable of self-care. Eligible child care expenses are limited to $3,000 per dependent (up to $6,000 for two or more dependents). Higher credit rates apply to families with lower adjusted gross income. Families with incomes below $15,000 qualify for the full 35 percent credit. That rate falls by 1 percentage point for each additional $2,000 of income (or part thereof) until it reaches 20 percent for families with incomes of $43,000 or more. The credit is nonrefundable so it can only be used to offset income taxes owed—in other words, any excess credit beyond taxes owed is forfeited. As a result, low-income families who owe little or no income tax get little benefit from the credit (table 1).

To qualify for the CDCTC, a single parent must be working or in school. For married couples, both adults must be working or attending school. In general, allowable expenses are capped at the earnings of the lower-earning spouse. Special rules allow individuals who were students or disabled to have their earned income assumed to be $250 per month ($500 if there is more than one qualifying child).

The Urban-Brookings Tax Policy Center estimates that, in 2018, 11.8 percent of families with children benefited from the CDCTC. Some families with children will not benefit because they do not have child care expenses or, in the case of married couples, only one partner works or goes to school. Among families with children who benefit from the CDCTC, taxes will be reduced by an average of $593. The only income quintile in which families average substantially different benefits is the lowest. (Each quintile contains 20 percent of the population ranked by household income.) Not only are their child care expenses likely to be lower than those of families in higher-income quintiles, they are typically unable to benefit from the credit because the CDCTC is nonrefundable (figure 1).

TABLE 1

Child and Dependent Care Credit

2018

Adjusted gross income (dollars)	Credit rate (percent)	Maximum Credit (dollars)	
		One child	Two or more children
15,000 or less	35	1,050	2,100
15,001–17,000	34	1,020	2,040
17,001–19,000	33	990	1,980
19,001–21,000	32	960	1,920
21,001–23,000	31	930	1,860
23,001–25,000	30	900	1,800
25,001–27,000	29	870	1,740
27,001–29,000	28	840	1,680
29,001–31,000	27	810	1,620
31,001–33,000	26	780	1,560
33,001–35,000	25	750	1,500
35,001–37,000	24	720	1,440
37,001–39,000	23	690	1,380
39,001–41,000	22	660	1,320
41,001–43,000	21	630	1,260
43,000 and over	20	600	1,200

Sources: Internal Revenue Service. "Publication 503—Main Content." Accessed November 23, 2015; Urban-Brookings Tax Policy Center. "TPC Microsimulation Model, version 0718-1."

EMPLOYER EXCLUSION: FLEXIBLE SPENDING ACCOUNTS

Employer-provided child and dependent care benefits include amounts paid directly for care, the value of care in a day care facility provided or sponsored by an employer, and, more commonly, contributions made to a dependent care flexible spending account (FSA).

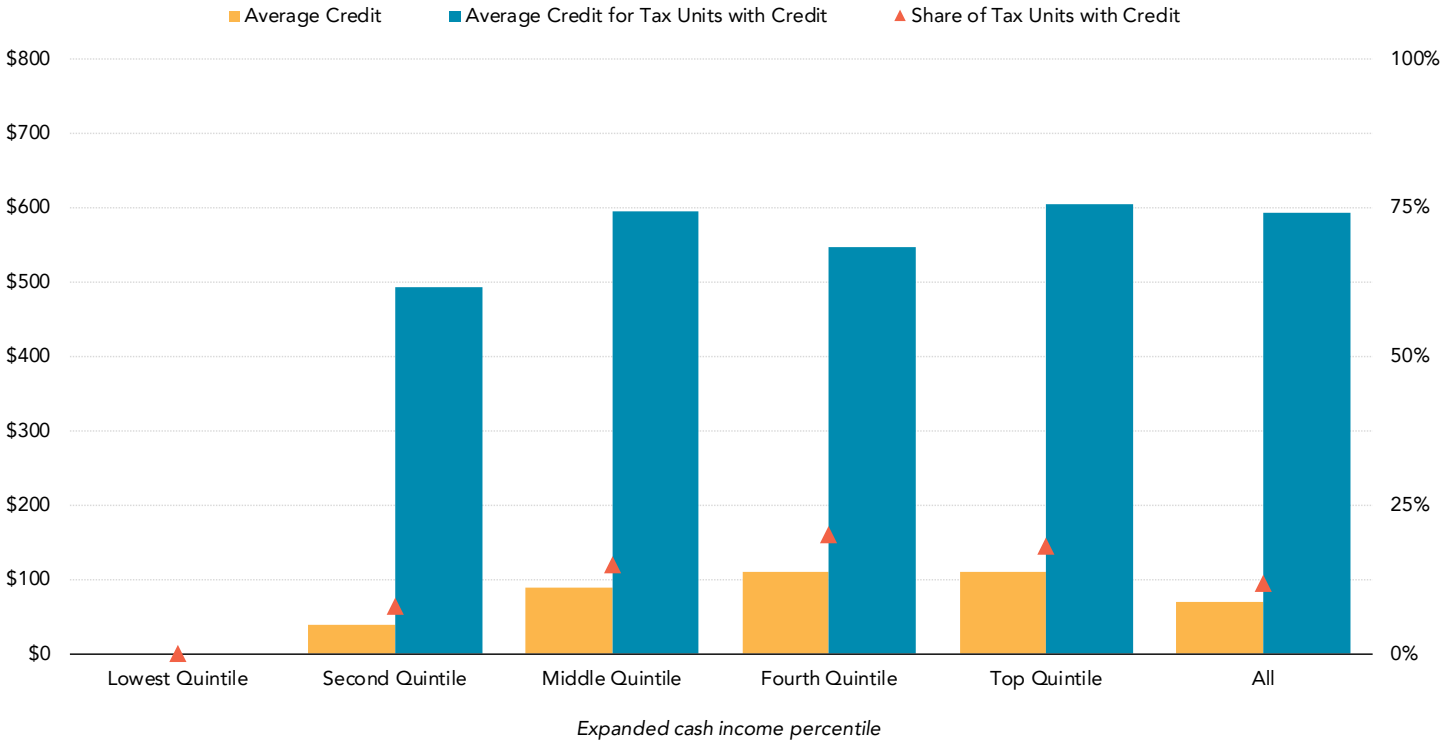
Employees can set aside up to $5,000 per year of their salary (regardless of the number of children) in an FSA to pay child care expenses. (FSAs are also available for health care expenses.) The money set aside in an FSA is not subject to income or payroll taxes. Unlike the CDCTC, though, which requires both partners in a married couple to work to claim benefits, only one parent must work to claim a benefit from an FSA. In 2014, 39 percent of civilian workers had access to a dependent care FSA (Bureau of Labor Statistics 2014). Lower earners are less likely to have access to an FSA than higher earners (Stoltzfus 2015).

Key Elements of the U.S. Tax System

How does the tax system subsidize child care expenses?

FIGURE 1

Distribution of the Child and Dependent Care Tax Credit for Tax Units with Children
2018



Source: Urban-Brookings Tax Policy Center. "TPC Microsimulation Model, version 0718-1."

INTERACTION OF CDCTC AND FSAS

If a family has child care expenses that exceed the amount set aside in a flexible spending account, the family may qualify for a CDCTC. Families first calculate their allowable CDCTC expenses ($3,000 per child under age 13, up to $6,000 per family). If this calculation exceeds the amount of salary set aside in an FSA, a parent may claim a CDCTC based on the difference. For example, a family with two or more children can qualify for up to $6,000 of expenses to apply toward a CDCTC. If that family excluded $5,000 from salaries to pay for child care expenses in an FSA, it may claim the difference between the two ($1,000) as child care expenses for a CDCTC.

Higher-income families generally benefit more from the exclusion than from the credit because the excluded income is free from both income and payroll taxes. Most higher-income families with child care expenses qualify for a credit of 20 percent of their eligible expenses. Because the combined tax saving from each dollar of child care expenses excluded from income exceeds $0.20, the exclusion is worth more than the credit. The exclusion, however, is only available to taxpayers whose employers offer FSAs.
Neither the CDCTC nor the FSA are indexed for inflation. Thus, each year, the real (inflation-adjusted) value of benefits from the two provisions erodes.

Key Elements of the U.S. Tax System

How does the tax system subsidize child care expenses?

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Q. What are marriage penalties and bonuses?

A. A couple incurs a marriage penalty if the two pay more income tax filing as a married couple than they would pay if they were single and filed as individuals. Conversely, a couple receives a marriage bonus if they pay less tax filing as a couple than they would if they were single.

CAUSES OF MARRIAGE BONUSES AND PENALTIES

Marriage penalties and bonuses occur because income taxes apply to a couple, not to individual spouses. Under a progressive income tax, a couple's income can be taxed more or less than that of single individuals. A couple is not obliged to file a joint tax return, but their alternative—filing separate returns as a married couple—almost always results in higher tax liability. Married couples with children are more likely to incur marriage penalties than couples without children because one or both spouses could use the head of household filing status if they were able to file as singles. And tax provisions that phase in or out with income also produce marriage penalties or bonuses.

Marriage penalties are more common when spouses have similar incomes. Marriage bonuses are more common when spouses have disparate incomes. Overall, couples receiving bonuses greatly outnumber those incurring penalties.

MARRIAGE PENALTIES

Couples in which spouses have similar incomes are more likely to incur marriage penalties than couples in which one spouse earns most of the income, because combining incomes in joint filing can push both spouses into higher tax brackets.

A couple with two incomes and no children, for example, could pay more taxes as a married couple if tax brackets for joint filers were less than twice as wide as for single filers. Today, that happens only for couples with income above $600,000, but it was more common before the 2017 Tax Cuts and Jobs Act.
A couple with children can still face a marriage penalty because single parents can use the head of household filing status. Consider parents of two children, each parent earning $100,000 (table 1). Filing jointly and taking a $24,000 standard deduction, their taxable income is $176,000, for which their 2018 income tax liability is $26,819. If they could file separately, one as single and the other as the head of a household, the single filer would owe a tax of $15,410 and the head-of-household filer would owe $8,588, yielding a total tax of $23,998. Their joint tax bill is thus $2,821 higher than the sum of their hypothetical individual tax bills, imposing on them a marriage penalty equal to 1.4 percent of their adjusted gross income.

Key Elements of the U.S. Tax System

What are marriage penalties and bonuses?

TABLE 1

Calculation of the Marriage Penalty for a Hypothetical Couple with Two Children

2018

Item	Couple filing separately[a]		Couple filing jointly
	Spouse one	Spouse two	
Adjusted gross income	$100,000	$100,000	$200,000
Standard deduction	$12,000	$18,000	$24,000
Equals taxable income	$88,000	$82,000	$176,000
Of which:			
Taxable at 10 percent	$9,525	$13,600	$19,050
Taxable at 12 percent	$29,175	$38,200	$58,350
Taxable at 22 percent	$43,800	$30,200	$87,600
Taxable at 24 percent	$5,500	$0	$11,000
Regular tax liability	$15,410	$12,588	$30,819
Alternative minimum tax	$0	$0	$0
Child tax credit	$0	$4,000	$4,000
Tax liability after credits	$15,410	$8,588	$26,819
Final tax liability	**$23,998**		**$26,819**
Marriage penalty (difference in tax liabilities)		**$2,821**	
As share of adjusted gross income		**1.4%**	

Source: Urban-Brookings Tax Policy Center calculations.
Note: Detail may not sum to totals because of rounding.
(a) When the couple files separately, spouse one files as single and spouse two as head of household with two children.

MARRIAGE BONUSES

Couples in which one spouse earns all or most of a couple's income rarely incur a marriage penalty and almost always receive a marriage bonus because joint filing shifts the higher earner's income into a lower tax bracket.

Consider a couple with two children and $200,000 in total earnings, all earned by spouse two (table 2). Under 2018 tax law, filing a joint return rather than having spouse two file as head of household, will yield the couple a marriage bonus of more than $7,000 as a result of two factors. First, because tax brackets for joint returns (other than the 35 percent bracket) are wider than those for head-of-household returns, much of the couple's income is taxed at lower rates under joint filing than the 32 percent marginal rate that spouse two would pay filing separately. Second, the couple would benefit from an increased standard deduction. Couples filing jointly receive a $24,000 deduction in 2018, while heads of household receive $18,000. The combination of these two factors yields a marriage bonus of $7,719, or 3.9 percent of their adjusted gross income.

TABLE 2

Calculation of the Marriage Bonus for a Hypothetical Couple with Two Children

2018

Item	Couple filing separately[a]		Couple filing jointly
	Spouse one	Spouse two	
Adjusted gross income	$0	$200,000	$200,000
Standard deduction	$0	$18,000	$24,000
Equals taxable income	$0	$182,000	$176,000
Of which:			
Taxable at 10 percent	$0	$13,600	$19,050
Taxable at 12 percent	$0	$38,200	$58,350
Taxable at 22 percent	$0	$30,700	$87,600
Taxable at 24 percent	$0	$75,000	$11,000
Taxable at 32 percent	$0	$24,500	$0
Regular tax liability	$0	$38,538	$30,819
Alternative minimum tax	$0	$4,000	$4,000
Child tax credit	$0	$0	$0
Tax liability after credits	$0	$34,538	$26,819
Final tax liability	**$34,538**		**$26,819**
Marriage bonus (difference in tax liabilities)		**$7,719**	
As share of adjusted gross income		**3.9%**	

Source: Urban-Brookings Tax Policy Center calculations.
Note: Detail may not sum to totals because of rounding.
(a) When the couple files separately, spouse one files as single and spouse two as head of household with two children.

EFFECTS OF THE TCJA ON MARRIAGE PENALTIES AND BONUSES

The 2017 Tax Cuts and Jobs Act (TCJA) limited many of the marriage penalties higher-income earners face, though penalties certainly still exist. Except for the 35 percent bracket, all tax brackets for married couples filing a joint return are now exactly double the single brackets. This limits a main cause of previous marriage penalties. It also expands the potential for marriage bonuses, as more couples find that filing together moves some income into lower tax brackets.

Additionally, the child tax credit phaseout now begins at $400,000 for couples, again double the $200,000 starting point of the phaseout for singles. Prior law began phasing out the credit at $75,000 for singles and $110,000 for couples, which could have introduced another marriage penalty for couples with children. The phaseout of the alternative minimum tax exemption is another source of marriage penalties for high-income taxpayers, because the income at which the exemption phaseout starts for couples is less than twice the starting point for singles. While this is still true under current law, TCJA increased both the alternative minimum tax exemption and the income at which it phases out, so the alternative tax will affect many fewer high-income taxpayers, singles and couples alike.

Key Elements of the U.S. Tax System

What are marriage penalties and bonuses?

MARRIAGE PENALTIES AND THE EARNED INCOME TAX CREDIT

Taxpayers who might qualify for the earned income tax credit (EITC) can suffer particularly large marriage penalties if one spouse's income disqualifies the couple. However, marriage can increase the EITC (a bonus) if a nonworking parent files jointly with a low-earning worker.

Consider a couple with two children and $40,000 in total earnings, split evenly between spouses (table 3). Two factors will cause them to incur a marriage penalty of $2,439 under 2018 tax law.

First, if the couple were not married, one spouse could file as head of household with two children and the other would file as single. Filing in that way, their combined standard deductions would be $30,000, $6,000 more than the $24,000 standard deduction available on a joint return.

Second—and more significant—filing separate returns, the head of household could claim an EITC of $5,434 and a $2,825 child tax credit; the other spouse would get neither tax credit. On net, the head of household would receive a payment of $8,059 and the other spouse would pay $800, yielding a joint tax refund of $7,259. Filing jointly, the couple would get a smaller EITC of $2,420, somewhat offset by a larger child tax credit of $4,000. Thus, filing jointly, the couple will receive a payment of $4,820, $2,439 less than the $7,259 they would have if they could have filed separately; the $2,439 difference equals 6.1 percent of their adjusted gross income.

TABLE 3

Calculation of the Marriage Penalty for a Hypothetical Low-Income Couple with Two Children

2018

Item	Couple filing separately[a]		Couple filing jointly
	Spouse one	Spouse two	
Adjusted gross income	$20,000	$20,000	$40,000
Less standard deduction	$12,000	$18,000	$24,000
Equals taxable income	$8,000	$2,000	$16,000
Of which:			
Taxable at 10 percent	$8,000	$2,000	$16,000
Regular tax liability	$800	$200	$1,600
Alternative minimum tax	$0	$0	$0
Child tax credit	$0	$2,825	$4,000
Earned income tax credit	$0	$5,434	$2,420
Tax liability after credits	$800	-$8,059	-$4,820
Couple's final tax liability	**-$7,259**		**-$4,820**
Marriage penalty (difference in tax liabilities)		**$2,439**	
As share of adjusted gross income		**6.1%**	

Source: Urban-Brookings Tax Policy Center calculations.
Note: Detail may not sum to totals because of rounding.
(a) When the couple files separately, spouse one files as single and spouse two as head of household with two children.

Key Elements of the U.S. Tax System

What are marriage penalties and bonuses?

Marriage penalties are not confined to the tax system. Married couples often receive lower benefits from government programs than they would if they had not married. Moreover, the interaction of a tax penalty and a program-eligibility penalty can create effective marginal tax rates that approach 100 percent.

Data Source

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Q. How does the federal tax system affect low-income households?

A. Most low-income households do not pay federal income taxes, typically because they owe no tax (as their income is lower than the standard deduction) or because tax credits offset the tax they would owe. Some receive substantial rebates via refundable tax credits. However, nearly all low-income workers are subject to the payroll tax.

WHAT FEDERAL TAX RATES DO LOW-INCOME HOUSEHOLDS PAY?

Low-income households typically pay some federal tax. The largest tax burden for households in the bottom income quintile (the bottom fifth) tends to come from the payroll tax, followed by excise taxes and a small amount of corporate tax. The average federal tax burden tends to be much lower for low-income households than for high-income households.

The Urban-Brookings Tax Policy Center estimates that in 2018, households in the lowest income quintile have a negative average income tax rate as a result of refundable credits—namely the earned income tax credit (EITC) and the child tax credit (CTC). That is, the payments the lowest income households receive from refundable credits exceed any income tax they owe.

In contrast, the average payroll tax rate for households in the lowest income quintile is 6.4 percent (very similar to the average rate of 6.9 percent for all households). The payroll tax is by far the most significant federal tax for households in the lowest income quintile, in terms of how much they pay.

Of course, low-income households pay federal excise taxes on specific products, including cigarettes, alcohol, and gasoline. Low-income households also indirectly pay some corporate income tax, to the extent that corporations pass tax burdens back to workers' wages.

WHAT SHARE OF LOW-INCOME HOUSEHOLDS OWE FEDERAL INCOME OR PAYROLL TAX?

About 11 percent of households in the bottom income quintile will pay federal income tax in 2018. In contrast, 62 percent of households in the lowest income quintile will owe payroll taxes. Combined, 64 percent of households in the lowest income quintile will owe federal income or payroll taxes.

In many cases, low-income households owe no income tax. All households can claim a standard deduction to reduce their taxable income, and many families with children can offset income taxes with the child tax credit. In 2018, the standard deduction is $24,000 for married couples, $18,000 for single parents, and $12,000 for singles. These are higher amounts than in prior years because of the 2017 Tax Cuts and Jobs Act, but the Act

also eliminated the personal exemption, which in past years also reduced taxable income. Households with income above the standard deduction often still do not owe federal income because they can claim child tax credits, which can offset up to $2,000 of taxes for each child under 17 and $500 for other dependents, including older children.

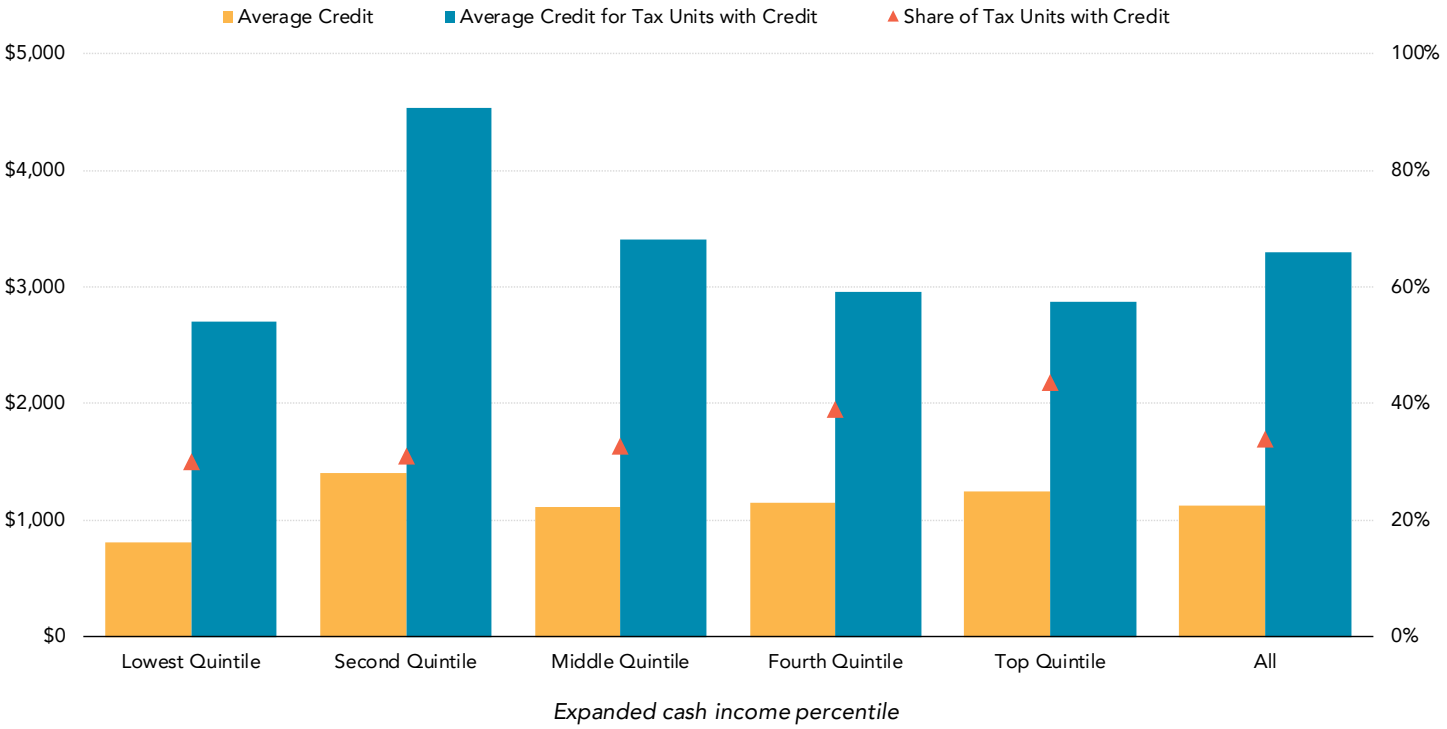
WHY DO LOW-INCOME HOUSEHOLDS FACE NEGATIVE AVERAGE FEDERAL INCOME TAX RATES?

Households can have negative federal income tax rates if they receive refundable tax credits. The EITC is a refundable credit that subsidizes earnings, particularly for workers with children. The CTC provides workers with children a credit of up to $2,000 per child under age 17, up to $1,400 of which can be received as a refund. Together, these credits deliver substantial assistance to low-income families with children. (A small EITC is also available to childless workers.) If refundable credits exceed taxes owed, households receive the excess as a payment. The net refunds created by these credits show up as negative average tax rates.

The Tax Policy Center estimates that in 2018, the CTC and the EITC together will average $810 for households in the lowest income quintile. About 30 percent of households in the lowest quintile will receive one or both of these refundable credits (figure 1).

FIGURE 1

Distribution of Child Tax Credit and Earned Income Tax Credit
2018



Source: Urban-Brookings Tax Policy Center Microsimulation Model, (version 0718-1).

Key Elements of the U.S. Tax System

How does the federal tax system affect low-income households?

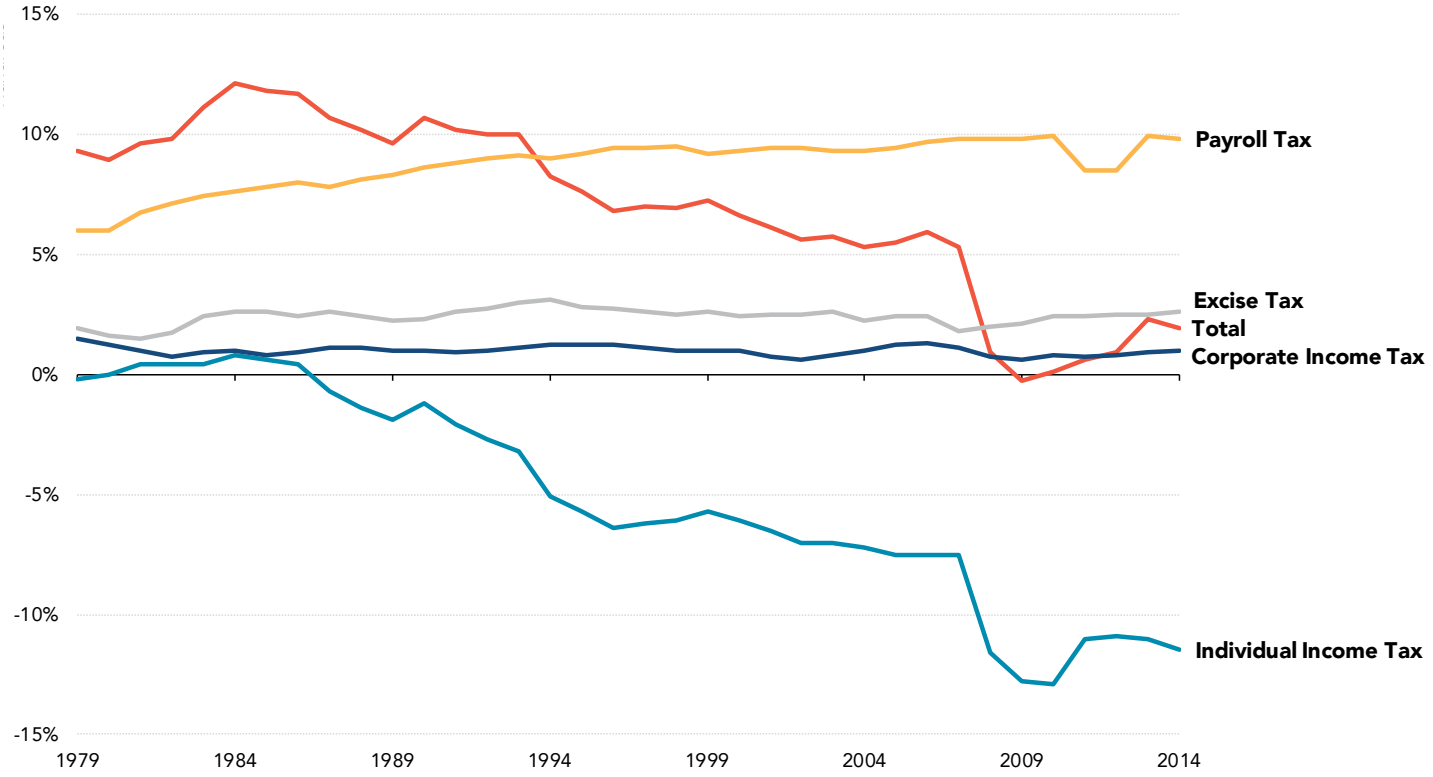
HOW HAVE EFFECTIVE TAX RATES FOR LOW-INCOME HOUSEHOLDS CHANGED OVER TIME?

Average tax rates for low-income households have changed markedly over the past quarter-century. Creation of the CTC and expansion of the EITC both lowered the effective individual income tax rate for low-income households from about 0.5 percent in the early 1980s to its negative value today (figure 2). In contrast, the effective payroll tax rate for households in the lowest income quintile increased by more than half over the same period (setting aside the temporary payroll tax reduction in 2011 and 2012). The effective corporate income tax rate borne by low-income households has also fallen since 1979, while the effective excise tax rate rose slightly.

FIGURE 2

Average Federal Tax Rates

Lowest quintile of households, 1979–2014



Source: Congressional Budget Office (2018).

Key Elements of the U.S. Tax System

How does the federal tax system affect low-income households?

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Q. What is the difference between refundable and nonrefundable credits?

A. Taxpayers subtract both refundable and nonrefundable credits from the taxes they owe. If a refundable credit exceeds the amount of taxes owed, the difference is paid as a refund. If a nonrefundable credit exceeds the amount of taxes owed, the excess is lost.

REFUNDABLE VERSUS NONREFUNDABLE TAX CREDITS

The maximum value of a nonrefundable tax credit is capped at a taxpayer's tax liability. In contrast, taxpayers receive the full value of their refundable tax credits. The amount of a refundable tax credit that exceeds tax liability is refunded to taxpayers.

Most tax credits are nonrefundable. Notable exceptions include the fully refundable earned income tax credit (EITC), the premium tax credit for health insurance (PTC), the refundable portion of the child tax credit (CTC) known as the additional child tax credit (ACTC), and the partially refundable American opportunity tax credit (AOTC) for higher education. With the EITC, PTC, and ACTC, taxpayers calculate the value of these credits and receive the credit first as an offset to taxes owed, with any remainder paid out as a refund. With the AOTC, if the credit fully offsets taxes owed, 40 percent of the remainder can be paid out as a refund.

BUDGET TREATMENT OF REFUNDABLE VERSUS NONREFUNDABLE TAX CREDITS

The federal budget distinguishes between the portion of a tax credit that offsets tax liability and the portion that is refundable, classifying the latter as an outlay. Most of the EITC—an estimated $62.1 billion of the 2017 total of $63.9 billion—was refunded. Much less of the child tax credit ($30.0 billion out of $54.3 billion) was refunded (figure 1). Because the 2017 Tax Cuts and Jobs Act substantially changed the child tax credit in 2018 through 2025, the amount of the credit and the shares of the nonrefundable and refundable portions will be different going forward.

ADVANTAGES AND DISADVANTAGES OF REFUNDABLE CREDITS

Proponents of refundable credits argue that only by making credits refundable can the tax code effectively carry out desired social policy. This is especially true for the EITC and the CTC: if the credits were not refundable, low-income households most in need of assistance would not benefit from them. Furthermore, allowing credits only against income tax liability ignores the fact that most low-income families also incur payroll taxes.

Key Elements of the U.S. Tax System

What is the difference between refundable and nonrefundable credits?

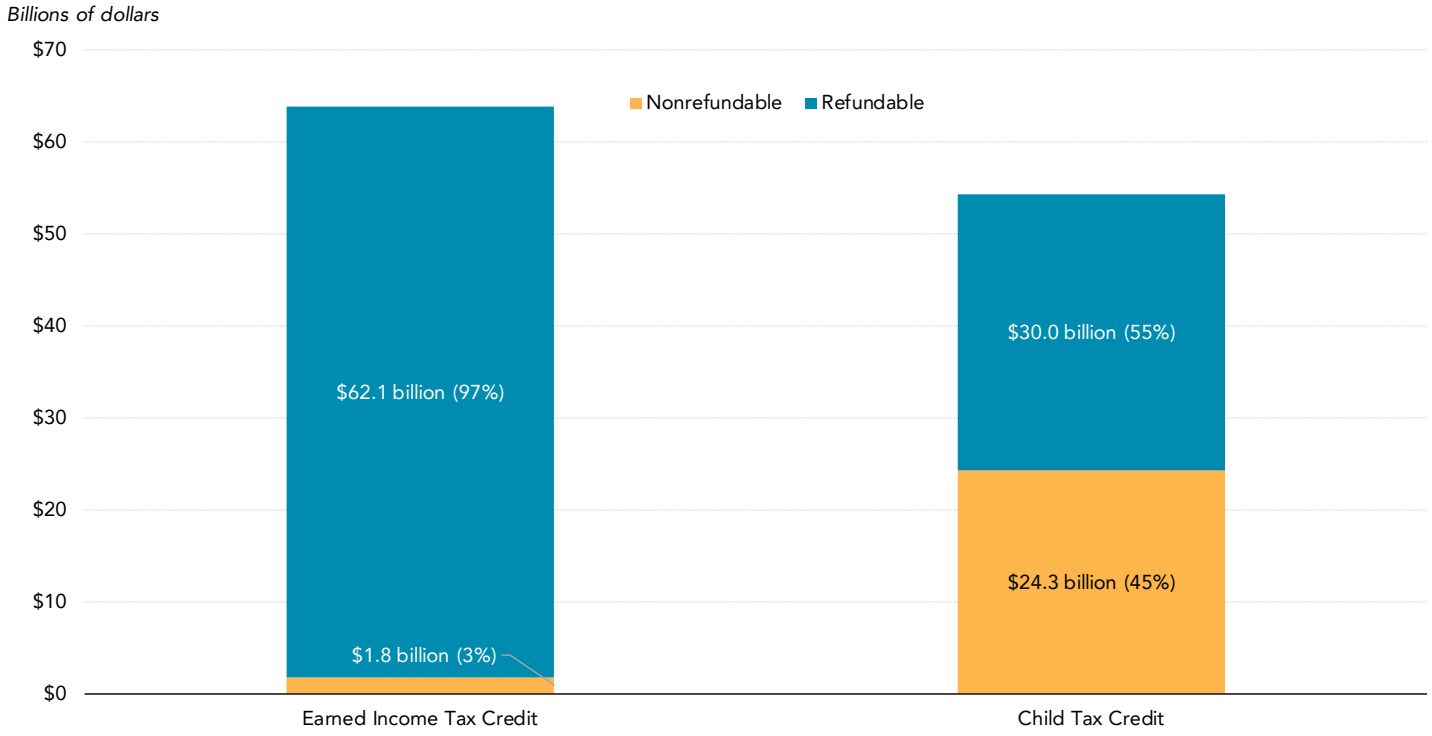
Opponents of refundable credits, for their part, raise a host of objections:

- The tax system should collect taxes, not redistribute income.
- The government should not use the tax system to carry out social policies.
- Everyone should pay some tax as a responsibility of citizenship.
- Refundable credits increase administrative and compliance costs, and encourage fraud.

FIGURE 1

Earned Income Tax Credit and the Child Tax Credit

Refundable and nonrefundable shares, fiscal year 2017



Source: Office of Management and Budget. *Analytical Perspectives, Budget of the United States Government, Fiscal Year 2019: Tax Expenditures.* Table 13–1. "Estimates of Total Income Tax Expenditures for Fiscal Years 2017–2027."

Data Sources

Office of Management and Budget. *Analytical Perspectives, Budget of the United States Government, Fiscal Year 2019: Tax Expenditures*. Table 13–1. "Estimates of Total Income Tax Expenditures for Fiscal Years 2017–2027."

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Q. Can poor families benefit from the child tax credit?

A. Yes. Low-income families can receive a refundable child tax credit equal to 15 percent of earnings above $2,500, up to a maximum credit of $1,400.

HOW THE CHILD TAX CREDIT WORKS

Taxpayers can claim a child tax credit of up to $2,000 per child under age 17. The credit is reduced by 5 percent of adjusted gross income over $200,000 for single parents ($400,000 for married couples). If the credit exceeds taxes owed, taxpayers can receive up to $1,400 of the balance as a refund, known as the additional child tax credit (ACTC) or refundable CTC. The ACTC is limited to 15 percent of earnings above $2,500. For other dependents, including children ages 17–18 and full-time college students ages 19–24, the CTC provides a nonrefundable credit of up to $500.

Families of nearly all incomes benefit from the CTC—with the largest average benefits (about $2,940) going to families in the middle income quintiles. Families in the lowest income quintile receive the smallest average credit ($1,260) because many have earnings too low to qualify for the full $2,000 credit, and instead receive some of their CTC as a refundable credit, which is limited to $1,400 per child under 17. The average credit value for families in the highest income quintile is about $2,160. Families in this income range can have their credits limited by its phasing out, which begins at $200,000 for single parents and $400,000 for married couples (figure 1).

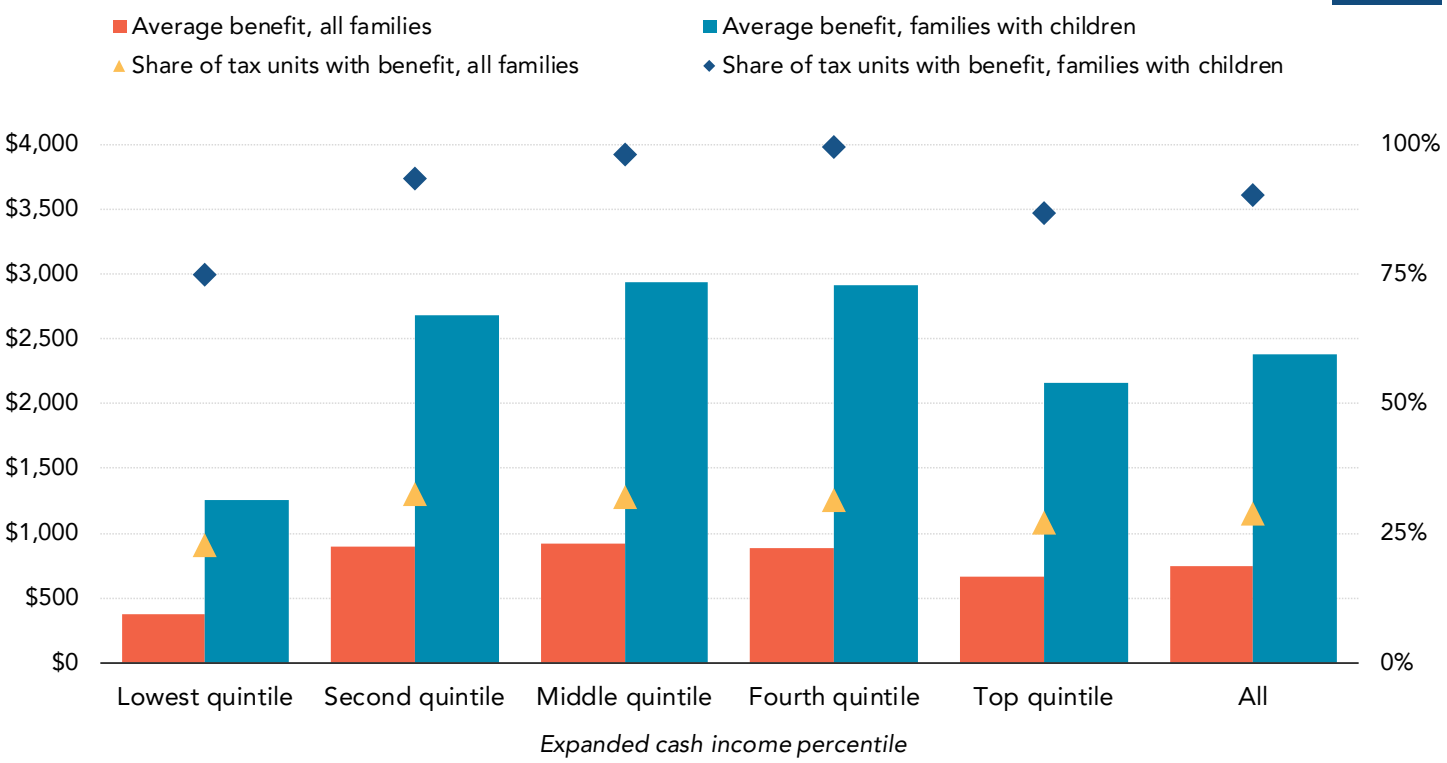
Neither the credit amount nor the phaseout point is indexed for inflation. Over time, the value of the credit will decline in real terms and as incomes grow, more people will be subject to the credit's phaseout. The $1,400 limit on the refundable credit, however, is indexed for inflation after 2018 until it reaches $2,000—the full value of the regular credit.

Key Elements of the U.S. Tax System

Can poor families benefit from the child tax credit?

FIGURE 1

Distribution of Child Tax Credit Benefits



Source: Urban-Brookings Tax Policy Center Microsimulation Model, (version 0718-1).
Notes: Includes the $500 nonrefundable portion of the Child Tax Credit. All estimates adjusted for family size.

Data Source

Urban-Brookings Tax Policy Center. "Microsimulation Model, version 0718-1."

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Q. Why do low-income families use tax preparers?

A. Many low-income families owe no income tax but still must file a tax return to receive refundable tax credits, including the earned income tax credit. Those who do file often seek help, which nearly always comes from a paid preparer. The cost of that help erodes the net value of refundable credits. That cost might be worth bearing if preparers helped their clients claim tax benefits that otherwise might be missed, but many don't.

TAX PREPARATION FOR LOW-INCOME FAMILIES

Most people fill out their tax returns with assistance from paid preparers. In 2010, 56.8 percent of all returns were completed this way. That proportion is slightly lower for lower-income families: 54.5 percent for returns with adjusted gross incomes below $30,000 (table 1). A very small proportion of low-income families reported using Volunteer Income Tax Assistance clinics.

TABLE 1

Tax Preparation Method

By adjusted gross income, 2010

AGI (thousands of dollars)	Tax returns (millions)	Tax Preparation Method				
		No identified preparer	Paid preparer	IRS prepared	Volunteer income tax assistance	Tax counseling for the elderly
Under 30	65.7	41.8%	54.5%	0.2%	1.7%	1.7%
30–50	25.6	42.3%	55.7%	0.1%	0.9%	1.0%
50–100	30.7	40.9%	58.2%	0.0%	0.4%	0.5%
Over 100	18.2	36.6%	63.2%	0.0%	0.1%	0.1%
Total	142.8	40.9%	56.8%	0.1%	1.0%	1.1%

Source: Tax Policy Center tabulations of 2010 Statistics of Income Public Use File.

DO PAID PREPARERS FILL OUT MORE ACCURATE RETURNS?

Except in a handful of states, paid preparers are not regulated. The Government Accountability Office found that returns completed by preparers were not more accurate than self-prepared returns and included errors in calculating a tax filer's earned income tax credit (EITC)—a problem specific to low- and moderate-income families.

In a small sampling performed by the Government Accountability Office, only 2 of 19 returns showed the correct refund amount. On 13 tax returns in the sample, preparers overestimated the total refund by $100 or more (McTigue 2014). A larger-scale study of Internal Revenue Service (IRS) data showed that paid preparers had a higher estimated error rate—60 percent—than returns prepared by taxpayers themselves. Some of these errors are made by the preparer; some are the result of the taxpayer providing incorrect or incomplete information (McTigue 2014).

When it comes to returns with the EITC, a recent study showed that unenrolled return preparers were more likely to make errors than other paid preparers. An unenrolled return preparer is someone other than an attorney, a CPA, or an enrolled agent—agents licensed by the IRS. Unenrolled preparers completed 43 percent of the EITC returns completed by paid preparers, while national tax preparation firms completed 35 percent of these returns (IRS 2014).

One clear benefit of paid preparation: an earlier study showed that if low-income workers already know about the EITC, they are more likely to receive it if they use a paid preparer than if they fill out their returns themselves (Maag 2005). Moreover, some preparers not only inform their low-income clients of their EITC eligibility, but further help them by identifying other forms of assistance for which they might qualify. Some even assist in the application process.

USE OF REFUND ANTICIPATION LOANS AND REFUND ANTICIPATION CHECKS

Before 2012, low-income tax filers who used paid preparers could get their tax refunds faster with a refund anticipation loan (RAL). RALs were high-cost immediate cash loans from private lenders, backed by the tax refunds the borrowers claimed on their prepared returns (Theodos et al. 2011). RALs proliferated after 1999 when the IRS reinstituted the debt indicator program, which disclosed whether a tax refund would be redirected by the IRS to pay debts.

The IRS has since discontinued use of the debt indicator, essentially eliminating the RAL market. However, most consumers who formerly received a RAL now appear to be using a similar product, the refund anticipation check (RAC). The RAC appears to cost less than the RAL but it can still be quite expensive. RACs are temporary bank accounts opened by paid preparers, where tax filers direct their refunds. Tax filers are allowed to pay fees out of their RACs. When the IRS deposits the refund, the paid preparer subtracts fees from the account, and then the tax filer can access the remainder.

In 2014, the National Consumer Law Center reported that more than 21 million consumers obtained RACs. Unlike RALs, RACs do not allow consumers faster access to anticipated refunds (Wu 2015). The vast majority of RAC consumers—about 83 percent—have low incomes. In fact, about half are EITC recipients (Wu 2015).

Key Elements of the U.S. Tax System

Why do low-income families use tax preparers?

Data Source

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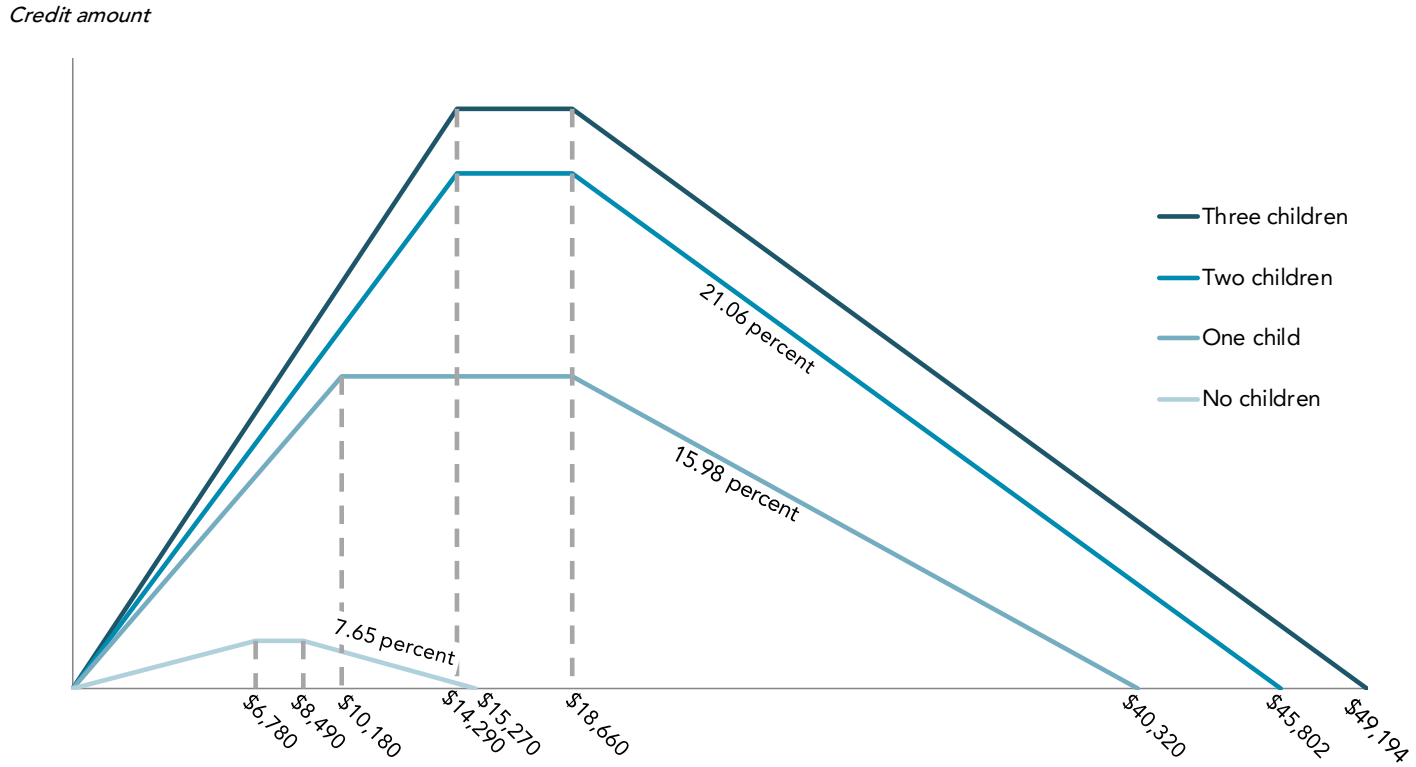
Q. How does the earned income tax credit affect poor families?

A. The EITC is the single most effective federal antipoverty program for working-age households—providing additional income and boosting employment for low-income workers.

In 2018, the earned income tax credit (EITC) will provide credits ranging from $519 for workers with no children to $6,431 for workers with at least three children (figure 1).

FIGURE 1

Earned Income Tax Credit
2018



Source: Urban-Brookings Tax Policy Center (2018). Internal Revenue Procedure 2018-18, Internal Revenue Service.
Notes: Assumes all income comes from earnings. Amounts are for taxpayers filing a single or head-of-household tax return. For married couples filing a joint tax return, the credit begins to phase out at income $5,690 higher than shown.

Key Elements of the U.S. Tax System

How does the earned income tax credit affect poor families?

POVERTY AND THE EITC

Official estimates of poverty compare the before-tax cash income of families of various sizes and compositions with a set of thresholds. The official poverty measure excludes the effect of federal tax and noncash transfer programs on resources available to the family. Thus, although the EITC adds income to poor households, it does not change the official number of those living in poverty.

To understand how the social safety net changes resources, the US Census Bureau has developed a supplemental poverty measure that includes additional resources available to families (and additional expenses) not captured in the official measure (Fox 2017). To determine how well off a family is, the supplemental poverty measure compares resources available to resources needed, taking into account regional differences.

Resources needed include not only basic items such as food and housing, but also taxes and expenses such as those associated with work and health care. Resources available include government transfers, including noncash transfers, and refundable tax credits such as the EITC. Official Census publications show that together, the child tax credit and the EITC lifted 8.1 million people out of poverty in 2016 (Fox 2017). The Center on Budget and Policy Priorities separates the effects of the EITC and the child tax credit and calculates that the EITC was responsible for lifting 5.8 million people out of poverty in 2016 (CBPP 2018). This makes the EITC the single most effective program targeted at reducing poverty for working-age households.

REDUCING POVERTY BY ENCOURAGING WORK

Substantial research confirms that the EITC encourages single people and primary earners in married couples to work (Dickert, Houser, and Scholz 1995; Eissa and Liebman 1996; Meyer and Rosenbaum 2000, 2001). The credit, however, appears to have little effect on the number of hours people work once they are employed. Although the EITC phaseout could cause people to reduce their work hours (because credits are lost for each additional dollar of earnings, effectively a surtax on earnings in the phaseout range), there is little evidence that this actually happens. (Meyer 2002).

The most recent relevant study found that a $1,000 increase in the EITC led to a 7.3 percentage point increase in employment and a 9.4 percentage point reduction in the share of families with after tax and transfer income in poverty (Hoynes and Patel 2015). If this employment effect were included in census estimates of poverty reduction (rather than just the dollars transferred through the credit), the number of people lifted out of poverty would be much greater.

Data Source

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Q. What are error rates for refundable credits and what causes them?

A. The IRS estimates two types of error rates for the earned income tax credit (EITC): the improper payment rate and the over-claim rate. The former includes IRS enforcement activities while the latter does not. The IRS has estimated an EITC improper payment rate of between 22 and 26 percent of EITC payments and an over-claim rate of between 29 and 39 percent of dollars claimed.

IMPROPER PAYMENTS IN THE EITC

Extrapolating from the IRS's National Research Program compliance study of individual income tax returns for tax year 2009, the US Treasury Department projected that in fiscal year 2013, between 22.1 percent and 25.9 percent of total earned income tax credit (EITC) program payments were improper (US Department of the Treasury 2013). The Office of Management and Budget identified the EITC as having the highest improper payment rate and the second-highest improper payment amount among 13 "high-error" programs.

Errors can stem from intentional fraud or innocent mistakes made by taxpayers—the latter, a likely result of complex rules associated with the EITC. Studies by Treasury analysts indicate that only a minority of improper payments stem from fraudulent actions (Holtzblatt and McCubbin 2003).

The estimated 22.1–25.9 percent range is likely higher than the actual error rate. A 2004 study by the Taxpayer Advocate found that, in 2002, among 67,000 people who sought reconsideration of their audit results, 43 percent were owed the entire or almost entire EITC claim that had initially been denied.

EITC OVER-CLAIMS

A more recent IRS study of returns claiming the EITC found that from 2006 to 2008, between 28.5 and 39.1 percent of all EITC dollars claimed were over-claims totaling between $14.0 billion and $19.3 billion (IRS 2014). The largest source was error in classifying children as "qualified." Roughly 75 percent of all tax returns with qualifying-child errors violated the requirement that children live with the taxpayer in the United States for more than six months of the year (IRS 2014). The IRS receives no administrative data that can verify where a child resided for most of the year, making it difficult for the agency to monitor compliance. Attempts to use administrative data from other programs to verify child residence have not proven successful (Pergamit et al. 2014).

IRS RESPONSE

The IRS is combating improper payments by implementing due diligence requirements for paid preparers (IRS 2015). The IRS has tried to strengthen paid-preparer regulation before, but the courts ruled in 2012 that the agency had overstepped its authority and would not be allowed to require competency tests of some preparers (Taxpayer Advocate Service 2013).

To reduce fraud, the Protecting Americans from Tax Hikes Act of 2015 requires the IRS to delay tax refunds for taxpayers who claim an EITC or an additional child tax credit on their returns until at least February 15. Delaying refunds was paired with a requirement that third-party income documents related to wages and income be provided to the IRS by January 31 (in prior years, this information was due the last day of February for paper filing and March 31 for electronic filing, and employers requesting a 30-day extension for filing some information returns were automatically granted an extra 30 days to file). As a result, information needed to verify wages often got to the IRS well after the first returns had been processed. Together, these measures allowed earlier systemic verification of EITC claims, which protected more revenue than in prior years (Treasury Inspector General for Tax Administration 2018).

What are error rates for refundable credits and what causes them?

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Q. How do IRS audits affect low-income families?

A. The IRS audits a disproportionate (but still small) share of tax returns that include EITC claims. The agency has found that average discrepancies between taxes owed and taxes paid are smaller on EITC returns than on all returns.

IRS AUDITS OF EARNED INCOME TAX CREDIT RETURNS

In FY 2017, the IRS audited 1.1 million of the almost 196 million returns filed, less than 1 percent of the total. Returns claiming an earned income tax credit (EITC) were audited at a rate more than twice that of all individual income tax returns: 1.4 percent compared with 0.6 percent. Almost all these audits (95 percent) were correspondence audits, meaning the tax filer was notified and could respond by mail.

The IRS selects which returns to audit based in part on a statistical formula that identifies returns most likely to be at risk of having an error (Guyton et al. 2018). For all individual income tax returns audited in FY 2017, the IRS recommended no change on 10 percent of all returns and on 9 percent of returns with an EITC. The average amount of money the IRS attempted to collect on all audited individual income tax returns was $9,669. The average amount on audited returns with an EITC was $5,286.

Recent analysis demonstrates that correspondence audits decrease the likelihood that a person will claim an EITC the year following the audit by over 30 percentage points. That effect persists to some degree for multiple years (Guyton et al. 2018).

Data Source

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Q. What kinds of tax-favored retirement arrangements are there?

A. Tax-favored retirement arrangements can be sliced and diced in various ways. There are three big differences, though: who sponsors them, who bears the risk, and when Uncle Sam takes his cut.

EMPLOYER-SPONSORED PLANS

There are two primary types of employer-sponsored plans. Defined-benefit plans generally distribute funds regularly during retirement according to formulas that reflect employees' years of work and earnings. In defined-contribution plans, of which the 401(k) plan is the most common, balances depend on past employee and employer contributions and on the investment returns accumulated on those contributions.

INDIVIDUAL RETIREMENT ACCOUNTS

Individuals also may establish their own individual retirement accounts (IRAs). There are two main types: traditional IRAs and Roth IRAs. Like 401(k)s, traditional IRAs allow taxpayers to deduct their contributions, up to a preset limit, from taxable income. Tax liability is only triggered when funds are distributed to the account owners. By contrast, contributions to Roth IRAs and Roth 401(k)s yield no tax breaks when they are made, but distributions to retirees, including accumulated investment income, are tax free.

PARTICIPATION

Employers are not required to offer their employees retirement benefits, and only about half of all workers are covered by an employer-sponsored plan. Coverage rates are highest for workers ages 45 to 65 and for those earning more than $100,000 (table 1).

Large companies are more likely to sponsor retirement plans than small firms. In 2015, about two-thirds of full-time workers at medium and large firms participated in employer-sponsored plans, compared with about one-third of full-time workers at small firms (EBRI 2018). In 2015, almost all full-time state and local government employees (89 percent) participated in employer-sponsored plans of one sort or another.

Participation in individual retirement accounts is less common than participation in employer-sponsored plans. About 30 percent of taxpayers owned an IRA in 2015, but only about 6 percent contributed to their plan in that year (table 2).

Key Elements of the U.S. Tax System

What kinds of tax-favored retirement arrangements are there?

TABLE 1

Participation in Employer-Sponsored Retirement Plans

Tax year 2014

	Taxpayers Covered by Employer-Sponsored Plans	Percentage of Taxpayers with Wage Income Covered
All	69,792,000	49%
Wage income		
Under $20,000	8,869,000	18%
$20,000–$50,000	28,628,000	54%
$50,000–$100,000	23,000,000	77%
$100,000–$200,000	7,162,000	84%
Above $200,000	2,133,000	86%
Age		
Under 35	19,020,000	36%
35–45	15,858,000	56%
45–55	17,694,000	60%
55–65	13,940,000	61%
Above 65	3,281,000	40%
Filer type		
Joint returns	40,467,000	60%
One wage earner	10,407,000	55%
Two wage earners	30,060,000	62%
Nonjoint returns	29,325,000	39%

Source: Internal Revenue Service, *SOI Tax Stats—Individual Information Return Form W2 Statistics*, Tables 3.A., 3.C, and 3.D.

Notes: Taxpayers are covered by an employer-sponsored retirement plan if their employer (or their spouse's employer) has a defined contribution plan (profit-sharing, 401(k), stock bonus and money purchase pension plan) and any contributions were allocated to their account; an IRA-based plan (SEP, SARSEP or SIMPLE IRA plan) and they had an amount contributed to their account; or a defined benefit plan (pension plan that pays a retirement benefit spelled out in the plan) and they are eligible to participate.

Key Elements of the U.S. Tax System

What kinds of tax-favored retirement arrangements are there?

TABLE 2

Participation in Individual Retirement Arrangements

Tax Year 2015

	Number of Taxpayers with IRAs	Share of Taxpayers with IRAs	Number of Taxpayers Contributing to IRAs	Share of Taxpayers Contributing to IRAs
All	58,425,000	29%	13,006,000	6%
Adjusted gross income				
Under $50,000	17,044,000	16%	3,143,000	3%
$50,000–$100,000	17,005,000	34%	3,911,000	8%
$100,000–$200,000	16,179,000	49%	4,156,000	12%
$200,000–$500,000	6,420,000	64%	1,367,000	14%
Above $500,000	1,777,000	73%	429,000	18%
Age				
Under 30	2,860,000	7%	1,522,000	4%
30–45	11,450,000	21%	3,805,000	7%
45–60	18,947,000	34%	4,899,000	9%
Above 60	25,141,000	50%	2,776,000	5%
Sex				
Men	28,526,000	29%	159,000	7%
Women	29,899,000	28%	98,000	6%

Source: Internal Revenue Service, *SOI Tax Stats—Accumulation and Distribution of Individual Retirement Arrangements*, Tax Year 2015, Tables 2, 4, and 7.

Data Source

Internal Revenue Service. *SOI Tax Stats—Accumulation and Distribution of Individual Retirement Arrangements*. Tax Year 2015, Tables 2, 4, and 7.

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Q. How large are the tax expenditures for retirement saving?

A. The tax expenditures are very large, indeed. They reached almost $230 billion in 2017 and will likely reach nearly $1.4 trillion over the 2018–22 period.

Tax expenditures are revenue losses attributable to special exclusions, exemptions, deductions, credits, and other provisions in the tax code. The Congressional Joint Committee on Taxation calculates the tax expenditure for retirement savings as the sum of the revenue loss attributable to the tax exclusion for current-year contributions and earnings on account balances, minus the revenue from taxation of current-year pension and individual retirement account distributions (table 1).

The 2017 Tax Cuts and Jobs Act did not make significant changes to retirement saving tax expenditures. However, the new law did modestly reduce the cost of those tax expenditures by reducing individual income tax rates. Lower marginal tax rates reduce the cost of tax expenditures that take the form of exclusion and deductions because reducing taxable income provides smaller tax benefits at lower rates.

TABLE 1

Tax Expenditures for Retirement Savings

Billions of Dollars, Fiscal Years 2017–22

Plan Type	2017	2018	2018–22
Net exclusion of pension contributions and earnings	**$202.1**	**$225.1**	**$1,247.7**
Defined benefit plans	$77.4	$87.9	$518.6
Defined contribution plans	$117.0	$125.5	$648.0
Keogh plans	$7.7	$11.7	$81.1
Individual retirement accounts	**$25.5**	**$25.7**	**$139.4**
Traditional IRAs	$18.0	$17.8	$96.5
Roth IRAs	$7.5	$7.9	$42.9
Credit for elective deferrals and IRA contributions	**$1.4**	**$1.2**	**$6.0**
Total expenditures	**$229.0**	**$252.0**	**$1,393.1**

Sources: Joint Committee on Taxation (2018a, 2018b).

Key Elements of the U.S. Tax System

How large are the tax expenditures for retirement saving?

The White House Office of Management and Budget publishes tax-expenditure estimates calculated in a similar fashion as the US Department of the Treasury's Office of Tax Analysis. The White House also publishes alternative estimates that take into account the deferral of tax payments on contributions to pensions and individual retirement accounts, as well as earnings. That calculation is the sum of the immediate revenue loss attributable to retirement savings contributions, plus the "present value" of revenue loss that occurs because of the tax exemption for accrued earnings on that contribution in future years, minus the present value of the revenue due upon future withdrawals (table 2).

TABLE 2

Present Value of Tax Expenditures for Retirement Savings

Billions of dollars, activity in calendar year 2018

Plan Type	2018
Employer plans	**$136.3**
Defined benefit plans	$41.9
Defined contribution plans	$88.8
Self-employed plans	$5.6
Individual retirement accounts	**$7.1**
IRA contributions and earnings	$1.8
Roth earnings and distributions	$4.8
Nondeductible IRA earnings	$0.6

Source: US Department of the Treasury, Office of Tax Analysis, "Tax Expenditures," Table 4.

Data Source

US Department of the Treasury, Office of Tax Analysis. "Tax Expenditures." Table 4. "Present Value of Selected Tax Expenditures for Activity in Calendar Year 2018."

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Q. What are defined benefit retirement plans?

A. Defined benefit retirement plans are lifetime annuities promised by employers and, in most cases, partially guaranteed by the federal government.

Defined benefit plans promise to pay a pre-determined benefit at retirement, usually determined by an employee's salary and years of service with the firm. Employers typically make all contributions, although some plans require employee contributions or permit voluntary ones.

RISKS

Under a defined benefit plan, an employer promises an employee an annuity at retirement. The employer, not the employee, bears the most risk in a defined benefit plan. If retired employees live longer than anticipated, or if the investments financing the employees' pensions fail to meet expectations, the employer must increase contributions to make good on the promised benefits. Defined benefit plans are thus more likely to be offered by large employers, who are better suited to bear the risk and to spread fixed administrative costs across larger numbers of participants.

However, not all the risk falls on employers. Employees bear some risk of nonpayment if the defined-benefit plan is unable to pay benefits. A portion of the non-payment risk is covered by the Pension Benefit Guaranty Corporation, a federal entity that ensures retired workers receive at least some of their benefits if their employers are unable to pay the promised sums in full.

TRENDS

Defined benefit plans have been falling in popularity (at least among employers) over the past few decades. For families with active participation in retirement plans, the share with a defined benefit plan fell from 40 percent in 1992 to 17 percent in 2016. Defined benefit plans, however, are still the most common type of plan for government employees.

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Q. What are defined contribution retirement plans?

A. Think savings accounts with tax benefits—and a lot of rules.

Tax-deferred defined contribution plans include the familiar 401(k) plans, similar 403(b) plans for nonprofit employees, 457 plans (mostly for state and local government employees), and the federal government's Thrift Savings Plan.

TABLE 1

Participation in Defined Contribution (401(k) type) Plans

Tax Year 2014

	Taxpayers with Elective Contributions	Share of Taxpayers with Wage Income Contributing
All	52,008,000	37%
Wage income		
Under $20,000	4,897,000	10%
$20,000–$50,000	20,431,000	39%
$50,000–$100,000	18,401,000	61%
$100,000–$200,000	6,324,000	74%
Above $200,000	1,954,000	79%
Age		
Under 35	13,748,000	26%
35–45	12,081,000	43%
45–55	13,475,000	46%
55–75	12,545,000	42%
Above 75	158,000	13%
Filer type		
Joint returns	30,774,000	45%
One wage earner	7,895,000	42%
Two wage earners	22,879,000	47%
Nonjoint returns	21,234,000	28%

Source: Internal Revenue Service, SOI Tax Stats—Individual Information Return Form W-2 Statistics, Tables 3.A, 3.C, and 3.D.

Note: Detail may not add up to total due to rounding.

Key Elements of the U.S. Tax System

What are defined contribution retirement plans?

PARTICIPATION

Less than 40 percent of workers contributed to a defined-contribution plan in 2014. Workers' participation in defined contribution plans generally increases with age and income. About three-quarters of workers earning $100,000 or more made contributions (table 1).

CONTRIBUTIONS AND WITHDRAWALS

Contributions to defined contribution plans are tax deferred, meaning that neither the employer nor the employee pays tax on initial contributions or accumulating plan earnings. However, employees pay tax when they withdraw funds. The major exception is Roth-type defined-contribution plans. With Roth plans, account holders pay taxes when contributions are made rather than when contributions are withdrawn.

Early withdrawals from defined-contribution plans incur penalties (in addition to the regular tax on withdrawals), except for specified purposes such as financial hardship, higher education, or the first purchase of a home.

RISKS

Defined benefit plans offer employees a contractually assured annuity at retirement. In contrast, under a defined contribution plan, an employee owns an account in which balances depend on the size of past contributions and on the investment returns those contributions accumulate. The employee bears the risk of underperforming assets and the possibility of outliving the income generated. But employees can manage these risks at retirement by using the assets in their plans to purchase annuities from insurance companies.

Data Source

Internal Revenue Service. *SOI Tax Stats—Individual Information Return Form W-2 Statistics*. Table 3.A. "Taxpayers with Wage Income, by Size of Wage Income, Presence of Retirement Plan Indicator, and Elective Retirement Contributions, Tax Year 2014"; Table 3.C. "Taxpayers with Wage Income, by Age of Taxpayer, Presence of Retirement Plan Indicator, and Elective Retirement Contributions, Tax Year 2014"; and Table 3.D. "Taxpayers with Wage Income, by Return and Earner Type, Presence of Retirement Plan Indicator, Elective Retirement Contributions, Tax Year 2014."

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Q. What types of nonemployer-sponsored retirement savings accounts are available?

A. The two big types are traditional individual retirement accounts (IRAs) and Roth IRAs. The main difference: when the feds take their cut.

TRADITIONAL IRAS VERSUS ROTH IRAS

Workers and their spouses do not need their employers' help to save in tax-favored retirement accounts. They may open individual retirement accounts, which mostly come in two forms: traditional IRAs and Roth IRAs. (Other types of IRAs, such as IRA-SEPs and SIMPLE-IRAs, are only available through employers.) The primary difference is the timing of any tax on contributions or distributions.

Qualified contributions to traditional IRAs are excluded from tax and grow tax-free, but withdrawals are taxed. Contributions to Roth IRAs, conversely, are taxed in the year they are made. But account assets grow tax-free, and withdrawals after age 59½ are not taxed. Even though statutory contribution limits are the same for both traditional and Roth IRAs, the effective amount a saver can place in tax-preferred status is higher with a Roth IRA because the saver is contributing post-tax income.

As of 2017, 43.9 million households (or 34.8 percent) owned at least one IRA. Some 35.1 million households (or 27.8 percent) held traditional IRAs, while 24.9 million (or 19.7 percent) owned a Roth IRA. Some households owned both.

THE FINE PRINT

These rules are a bit confusing. Taxpayers with income over a specified level, which varies with tax-filing status, may not contribute to a Roth IRA and may not deduct contributions to a traditional IRA. Nor may taxpayers who participate (or whose spouses participate) in employer-provided pensions deduct traditional IRA contributions if their income exceeds a specified limit.

For single taxpayers without access to an employer-sponsored pension, and for married couples in which neither spouse participates in such a pension plan, there are no income restrictions on the deductibility of traditional IRA contributions. A married taxpayer who does not participate in an employer-sponsored plan, but whose spouse does, may contribute the maximum statutory amount to an IRA, provided the couple's joint income does not exceed $186,000 for 2018.

Key Elements of the U.S. Tax System

What are Roth individual retirement accounts?

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Q. What are Roth individual retirement accounts?

A. Roth individual retirement accounts offer no up-front tax breaks. However, withdrawals of earnings and principal (with some restrictions) are not taxed.

A Roth IRA is a form of individual retirement account in which investors make contributions with after-tax earnings. Eligibility is limited by income. There's still a big tax break: contributions accrue tax-free in the account, and withdrawals are not taxed under normal circumstances. In 2017, 24.9 million people, representing 19.7 percent of all US households, owned a Roth IRA.

ELIGIBILITY AND CONTRIBUTION LIMITS

Only people with incomes under specified limits are eligible to contribute to a Roth IRA. In 2018, the contribution limit for IRAs is the lesser of $5,500 ($6,500 for individuals over age 50) or the taxpayer's taxable compensation. The contribution limit falls once household income exceeds certain thresholds, eventually reaching zero (table 1).

TABLE 1

IRA Eligibility and Contribution Limits
2018

Filing status	Modfied Adjusted Gross Income	Contribution
Single or Head of Household	Less than $120,000	$5,500 (or $6,500 if over 50)
	Between $120,000 and $135,000	A reduced amount
	$135,000 and over	Zero
Married filing jointly or qualifying widow(er)	Less than $189,000	$5,500 (or $6,500 if over 50)
	Between $189,000 and $199,000	A reduced amount
	$199,000 and over	Zero
Married filing separately	Less than $10,000	A reduced amount
	$10,000 and over	Zero

WITHDRAWALS

Investors can withdraw their contributions (but not investment returns earned on those contributions) at any time without being subject to tax. However, to receive tax benefits on investment returns, withdrawals must be qualified distributions. This means that the investor withdraws funds at least five years after his or her first contribution and after reaching age 59 years and 6 months, dying, becoming disabled, or making a qualified first-time home purchase. Nonqualified distributions do not satisfy the above conditions and are therefore subject to a 10 percent penalty tax. There are several exceptions to the penalty for early withdrawal of investment earnings.

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Q. Who uses individual retirement accounts?

A. Almost all taxpayers may establish IRAs, but high-income taxpayers are more likely to have an account. Taxpayers may either contribute to IRAs annually—or roll over larger balances from employer-sponsored plans.

Almost 60 million taxpayers own individual retirement accounts (IRAs), which include traditional IRAs, Roth IRAs, Simplified Employee Pensions (SEP IRAs), and Savings Incentive Match Plans for Employees (SIMPLE IRAs). The average IRA balance for taxpayers with IRAs is about $128,000. Ownership of IRAs increases with income and with age, as does the average IRA balance. Men and women are about as equally likely to own an IRA (table 1).

TABLE 1

Participation in Individual Retirement Arrangements (IRAs)

Tax year 2015

	Number of Taxpayers with IRAs	Share of Taxpayers with IRAs	Average IRA Balance[a]
All	58,425,000	29%	$128,000
Adjusted gross income			
Under $50,000	17,044,000	16%	$69,000
$50,000–$100,000	17,005,000	34%	$102,000
$100,000–$200,000	16,179,000	49%	$149,000
$200,000–$500,000	6,420,000	64%	$236,000
Above $500,000	1,777,000	73%	$362,000
Age			
Under 30	2,860,000	7%	$10,000
30–45	11,450,000	21%	$35,000
45–60	18,947,000	34%	$103,000
Above 60	25,141,000	50%	$203,000
Sex			
Men	28,526,000	29%	$159,000
Women	29,899,000	28%	$98,000

Source: Internal Revenue Service, SOI Tax Stats—Accumulation and Distribution of Individual Retirement Arrangements (IRA), Tax Year 2015, Tables 2, 4, and 7.

Note: Details may not add to total due to rounding; data combine accounts for taxpayers with multiple IRAs.

(a) Average IRA Balance = (End-of-year fair market value of IRAs by taxpayer / Total number of taxpayers with IRAs).

Key Elements of the U.S. Tax System

Who uses individual retirement accounts?

About 23 percent of taxpayers own traditional IRAs, while about 9 percent own Roth IRAs. Taxpayers can own multiple types of IRAs. Only a small percentage of taxpayers own SEP IRAs or SIMPLE IRAs. The average balance in traditional IRAs ($138,000) is larger than that in Roth IRAs ($32,000). Traditional IRA owners with adjusted gross income above $500,000 have an average balance of $345,000 (table 2).

TABLE 2

Types of Individual Retirement Arrangements

Percentage with IRAs and average balance of IRAs, tax year 2015

	Traditional IRA Plans		Roth IRA Plans		SEP Plans		SIMPLE Plans	
	Share of taxpayers	Average balance	Share of taxpayers	Average balance	Share of taxpayers	Average balance	Share of taxpayers	Average balance
All	23%	$138,000	9%	$32,000	2%	$114,000	1%	$35,000
Adjusted gross income								
Under $50,000	12%	$77,000	4%	$22,000	1%	$55,000	1%	$12,000
$50,000–$100,000	27%	$113,000	11%	$27,000	2%	$77,000	2%	$23,000
$100,000–$200,000	39%	$160,000	19%	$33,000	3%	$113,000	2%	$44,000
$200,000–$500,000	53%	$241,000	22%	$45,000	6%	$171,000	3%	$88,000
Above $500,000	61%	$345,000	20%	$134,000	9%	$230,000	3%	$124,000

Source: Internal Revenue Service, SOI Tax Stats—Accumulation and Distribution of Individual Retirement Arrangements (IRA), Tax Year 2015, Table 3.

Note: Details may not add to total due to rounding; data combine accounts for taxpayers with multiple IRAs of same type.

Taxpayers in 2018 may contribute in total the lesser of $5,500 per year ($6,500 for taxpayers age 50 or older) or the amount of their taxable compensation to traditional or Roth IRAs. They cannot make annual contributions to a traditional IRA starting once they reach 70 years and 6 months but they can still contribute to a Roth IRA.

Employees can make contributions of up to $12,500 to a SIMPLE IRA plan in 2018 and an additional $3,000 if they are 50 or older. Employers must either match employee contributions dollar for dollar up to 3 percent of compensation or make a nonelective contribution of 2 percent of compensation. SEP IRAs only allow employer contributions. For a self-employed individual, contributions are limited to 25 percent of net earnings from self-employment, up to $55,000 in 2018.

Taxpayers also may roll over their balances from employer-sponsored contribution plans to an IRA, typically after changing jobs. Rollovers are usually much larger than regular contributions. The average rollover in 2015 was almost $95,000. Taxpayers can make rollover contributions to a Roth or traditional IRA regardless of age.

Only a small percentage of taxpayers contributed to traditional or Roth IRAs in tax year 2015. The share of taxpayers who contributed increased with income, except for those owning Roth IRAs, which have income limits for eligibility. Traditional IRAs have no income limits on contributions, but income limits and other restrictions affect whether contributions are tax deductible. The average contribution to SEP IRAs was greater than for other type of IRA, reflecting the significantly higher contribution limits.

Key Elements of the U.S. Tax System

Who uses individual retirement accounts?

TABLE 3

Types of Individual Retirement Arrangements (IRAs)

Percentage contributing to IRAs and average contribution to IRAs, tax year 2015

	Traditional IRA Plans		Roth IRA Plans		SEP Plans		SIMPLE Plans	
	Share of taxpayers	Average contribution	Share of taxpayers	Average contribution	Share of taxpayers	Average contribution	Share of taxpayers	Average contribution
All	2%	$4,000	3%	$3,000	1%	$13,000	1%	$5,000
Adjusted gross income								
Under $50,000	1%	$3,000	2%	$3,000	0%	$5,000	1%	$2,000
$50,000–$100,000	2%	$4,000	4%	$3,000	0%	$7,000	1%	$4,000
$100,000–$200,000	3%	$4,000	7%	$4,000	1%	$12,000	1%	$6,000
$200,000–$500,000	8%	$5,000	2%	$4,000	3%	$20,000	2%	$12,000
Above $500,000	12%	$6,000	1%	$4,000	4%	$29,000	2%	$15,000

Source: Internal Revenue Service, SOI Tax Stats—Accumulation and Distribution of Individual Retirement Arrangements (IRA), Tax Year 2015, Table 3.

Notes: Details may not add to total due to rounding; data combine accounts for taxpayers with multiple IRAs of same type; Average Contribution = (Amount of total contributions / Total number of taxpayers making contributions to IRA type); the statistics are based on unaudited data and may contain amounts in excess of the legal maximum. For SEP and SIMPLE plans, total contributions include contributions made by the taxpayer directly as well as those made by an employer.

Data Source

Internal Revenue Service. 2018. *SOI Tax Stats—Accumulation and Distribution of Individual Retirement Arrangements*, Tax Year 2015. Table 2. "Taxpayers with IRA Plans"; Table 3. "Taxpayers with Individual Retirement Arrangement (IRA) Plans, by Type of Plan and by Size of Adjusted Gross Income"; Table 4. "Taxpayers with Individual Retirement Arrangement (IRA) Plans, by Age of Taxpayer"; and Table 7. "Taxpayers with Individual Retirement Arrangement (IRA) Plans, by Filing Status and Gender."

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Key Elements of the U.S. Tax System

How does the availability of tax-favored retirement saving affect national saving?

Q. How does the availability of tax-favored retirement saving affect national saving?

A. Incentives for retirement savings only increase *private saving* if the tax breaks encourage households to set aside additional cash rather than simply transfer it from other nest eggs. And it only increases *national saving* if the increase in private saving exceeds the revenue loss from the tax subsidy.

Tax-favored retirement savings accounts are popular: half of working adults take advantage of them. It's unclear, however, whether the accounts make much difference to overall savings and retirement preparedness. Although traditional pensions and other tax-deferred vehicles such as 401(k) plans and individual retirement accounts do make up a sizable share of households' wealth, the accounts only increase private saving if they encourage households to finance their own contributions through reduced consumption or increased earnings.

Put another way, incentives do not increase private saving if households finance their contributions by borrowing, by shifting their existing assets into tax-favored accounts, or by shifting funds they would have saved even in the absence of the incentive. Likewise, private saving does not increase if households respond to employer-provided pensions or contributions with equivalent reductions in other saving or with increased borrowing.

The earliest research on both traditional defined-benefit pensions and defined-contribution plans suggested that they had a strong impact on private wealth and saving. These studies, however, were marred by technical missteps. Later research has found a significantly smaller impact—and, in some cases, none at all. To the extent that the tax incentives do raise private saving, we can expect the impact to be greater for lower- and middle-income households than for high-income households, who tend to use the accounts to reduce present or future tax liability.

Key Elements of the U.S. Tax System

How does the availability of tax-favored retirement saving affect national saving?

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Q. What's the difference between front-loaded and back-loaded retirement accounts?

A. Your choice: pay the IRS now or pay them later.

Broadly speaking, there are two types of tax-favored retirement accounts: "front-loaded" accounts, such as traditional IRAs and 401(k)s, and "back-loaded" accounts, such as Roth IRAs. With front-loaded accounts, contributions are tax deductible but withdrawals are taxed. These accounts are also called EET accounts (the contribution is *exempt* from taxation, the accrual of returns is *exempt* from taxation, and the withdrawal is *taxed*). In back-loaded accounts, contributions are not tax deductible but accruals and withdrawals are tax-free. These accounts are also called TEE accounts (contributions *taxed*, accruals *exempt*, withdrawals *exempt*). In both types of accounts, investment returns on assets kept within the account (accruals) are untaxed.

Which is a better deal? That depends on the difference between individuals' tax rates during their working years and during retirement. Individuals with high tax rates during their working years and lower rates during retirement benefit more from front-loaded accounts, because the original contributions are deducted against high tax rates and withdrawals are taxed at lower rates. Someone who expects to be in a higher bracket in retirement would benefit more from a back-loaded account.

The example in table 1 shows that if tax rates during working years and retirement are the same, front- and back-loaded accounts yield the same result.

Consider a front-loaded account first. Say an individual faces a 25 percent tax rate when making both contributions and withdrawals, makes a before-tax contribution of $2,000, earns 5 percent per year, and withdraws all funds after 10 years. In a front-loaded account, the individual will be able to contribute the full $2,000. The account will accumulate interest, and after 10 years the balance will be $3,258. Upon withdrawal, the individual will pay $814 in taxes, leaving net retirement assets of $2,443. With a back-loaded account, an individual pays a 25 percent tax on $2,000 in income, leaving $1,500 to contribute to the account. With the same 5 percent return, the balance will grow to $2,443. Since no taxes will be paid on withdrawal, after-tax proceeds are $2,443, which is the same as in the front-loaded example.

Key Elements of the U.S. Tax System

What's the difference between front-loaded and back-loaded retirement accounts?

TABLE 1

Front- and Back-Loaded Savings Accounts with Constant Tax Rate

$2015

Plan overview		
Tax rate: 0.25		
Interest: 0.05		
Time (years): 10		
	Front-loaded	**Back-loaded**
Before tax income	2,000	2,000
Less taxes paid (25%)	0	500
Contribution	2,000	1,500
Accumulated balance in account	3,258	2,443
Less taxes paid on withdrawal (25%)	814	0
After-tax proceeds	2,443	2,443

Now check out the example in table 2, in which the tax rate decreases from 25 percent during working years to 20 percent during retirement. Here, the front-loaded account will accrue $163 more than the back-loaded account, since taxes are imposed upon withdrawal, when rates are lower. Of course, the conclusion is reversed if the tax rate is higher during retirement than during working years.

TABLE 2

Front- and Back-Loaded Accounts with Lower Tax Rate at Retirement

$2015

Plan overview		
Tax rate T0: 0.25		
Tax rate T10: 0.20		
Interest: 0.05		
Time (years): 10		
	Front-loaded	**Back-loaded**
Before tax income	2,000	2,000
Less taxes paid (25%)	0	500
Contribution	2,000	1,500
Accumulated balance in account	3,258	2,443
Less taxes paid on withdrawal (20%)	652	0
After-tax proceeds	2,606	2,443
Tax savings from front-loaded account: 163		

What's the difference between front-loaded and back-loaded retirement accounts?

That's not quite the end of the story, though. If the two accounts have the same contribution limit, an individual can shelter more savings in a back-loaded account than in a front-loaded account. For example, if an individual facing a 25 percent marginal income tax rate contributes $2,000 to a front-loaded account, he or she is really contributing $1,500 and $500 of government funds because of the tax deduction. When the funds are withdrawn, the government reclaims its share of the principal contribution, plus taxes on interest earned (table 3). In a back-loaded account, however, taxes are paid on the initial contribution and interest can be withdrawn tax-free. Note the distinction here. The value of the tax shelter per dollar saved is the same with either account. However, if the nominal contribution limits are identical, a determined saver can sock away more with a back-loaded account.

TABLE 3

Tax Savings in Front- and Back-Loaded Savings Accounts with Constant Tax Rate

$2015

Plan overview		
Tax rate: 0.25		
Interest: 0.05		
Time (years): 10		
	Front-loaded	**Back-loaded**
Contribution	2,000	2,000
Own income	-1,500	-2,000
Government tax expenditure	-500	0
Accumulated balance in account	3,258	3,258
Taxes paid on withdrawal	814	0
After-tax proceeds	2,443	3,258
Additional savings with back-loaded account: 814		

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Q. What is an automatic 401(k)?

A. An automatic 401(k) enrolls workers automatically, assigning them a default contribution rate and allocation of funds that they are free to change later.

An automatic 401(k) is one that automatically enrolls workers in the plan, rather than requiring them to sign up. Eligible workers are assigned a default contribution rate—often 3 percent of wages—and a default allocation of funds contributed to the retirement account. As with traditional 401(k)s, workers are still in control; they can change the default contribution rate and allocation or opt out entirely. The main difference: with an automatic 401(k), inaction on the worker's part will automatically result in the worker saving for retirement.

This difference is, as a practical matter, significant. With traditional 401(k) plans, workers must decide whether to sign up, how much to contribute, how to allocate their investment funds, how often to rebalance their portfolios, what to do with the accumulated funds when they change jobs, and when and in what form to withdraw the funds during retirement. These decisions are difficult, and many workers, daunted by the complexity, either make inappropriate choices or never sign up at all.

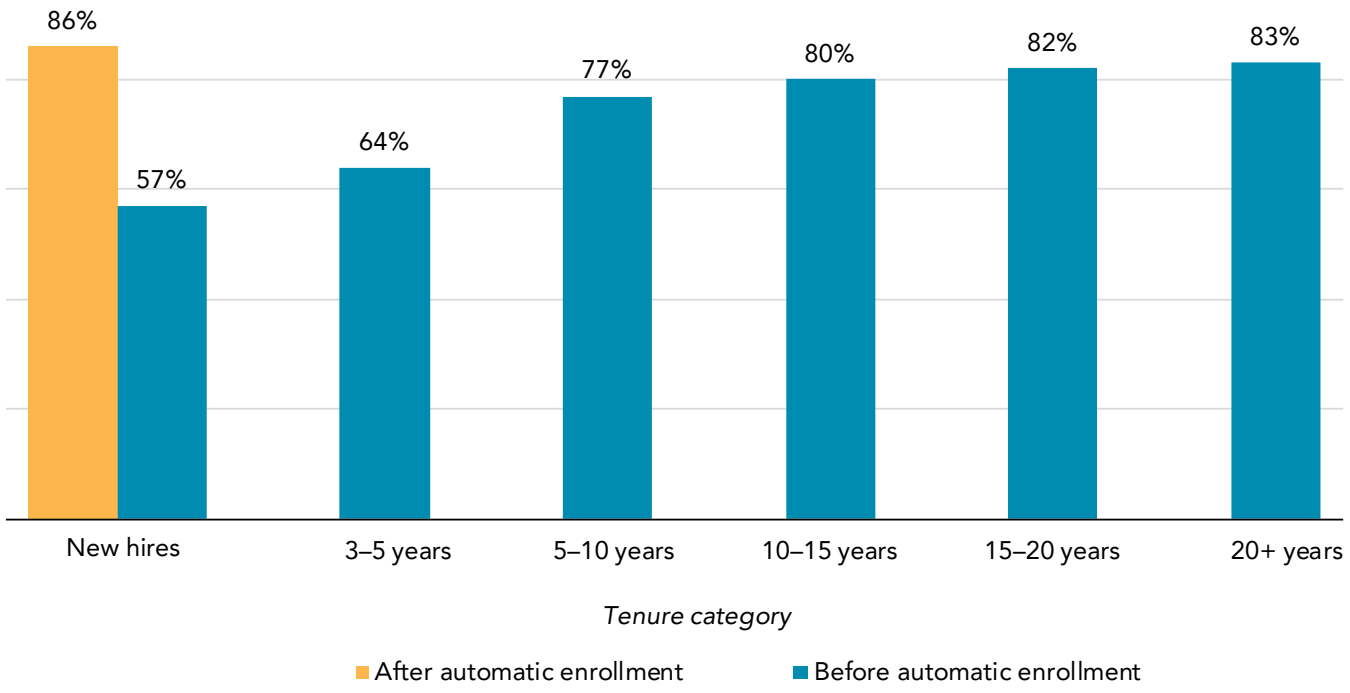
With an automatic 401(k), sometimes called an "opt-out plan," unless workers make the active decision not to participate, each stage of the savings and investment allocation process is automatically set at a pro-saving default. Workers can choose to override any of these choices, but the inertia that discourages so many from opting into a traditional 401(k) is now likely to keep them on the default path.

Figure 1 shows that automatic enrollment raises 401(k) participation rates among new hires. This is especially true for women, minority groups, and low earners.

The automatic escalation of default contributions over time raises overall contributions to 401(k)s relatively painlessly, as employees become accustomed to deferring receipt of a portion of their pay. The gradual escalation also helps ensure that inertia does not keep employees at a default contribution rate lower than the rate they might have chosen without the default.

FIGURE 1

Participation Rates in 401(k) by Tenure: Pre- and Post-auto 401(k)



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Q. How might low- and middle-income households be encouraged to save?

A. Expanding access to savings vehicles and scaling back deductions to provide low- and middle-income households with better incentives could make a difference.

Low- and middle-income families receive significant income support through tax breaks, notably through refundable credits such as the earned income tax credit and the child tax credit. But when it comes to building wealth—defined as what you own minus what you owe—the federal tax code offers such families far less.

Wealth is important: It keeps people afloat during financial emergencies like job loss or unexpected expenses. It provides a foundation for a secure retirement. And it opens doors to upward mobility, such as a down payment on a first home or college tuition.

The main wealth-building vehicles for most people in the United States are homeownership (through building equity and, hopefully, appreciation) and retirement savings accounts. Perversely, large tax subsidies for these assets mostly benefit the already wealthy. Most tax benefits for the mortgage interest deduction, state and local property tax deductions, and 401(k)s and similar retirement plans accrue to the highest-income taxpayers. That's because these tax subsidies are structured as deductions and exclusions, which provide households in higher tax brackets with bigger subsidies. Further, lower-income households are less likely to have enough deductions to make itemizing on their tax returns worthwhile, and itemization is required to claim major homeownership tax breaks. Lower-income workers, particularly those in part-time or temporary employment, have less access to and are less likely to participate in employer-based retirement plans.

At the same time, many low- and middle-income taxpayers simply do not participate in the regular and automatic saving vehicles through which much wealth is accumulated, such as paying off a mortgage and making regular deposits to retirement accounts.

A variety of changes would reduce the bias toward higher-income households by replacing existing subsidies with better-targeted incentives. Almost all these proposals favor some movement toward tax credits and away from deductions, and many use insights from behavioral economics to get more bang for a tax buck forgone.

Key Elements of the U.S. Tax System

How might low- and middle-income households be encouraged to save?

HOMEOWNERSHIP

Credits to encourage homeownership can take different forms. They can provide an up-front credit for first-time homebuyers of primary residences, similar to the temporary credit employed as a stimulus measure from 2008 to 2009. (An early version of this credit served as an interest-free loan to be paid back to the Internal Revenue Service.) Alternatively, homeowners could receive smaller annual credits proportional to their home equity, up to a designated maximum. Another approach is to provide a credit against property taxes to defray a significant cost of homeownership. Reforms that reward building equity instead of subsidizing mortgage interest (which a badly designed credit could also do) would encourage saving instead of acquiring debt.

RETIREMENT

A saver's credit is available to moderate-income taxpayers who contribute to qualified retirement plans. However, the credit is nonrefundable and phases out quickly at higher incomes, making few people eligible for the maximum amount. Some economists have proposed expanding the credit and making it refundable, so that workers with no net income tax liability could claim it.

More expansive proposals include reshaping the complicated pension landscape to simplify plans and increase access to employer-based retirement accounts with automatic enrollment. Contribution limits to tax-favored accounts would be lowered, and the government would instead match low- and moderate-income workers' contributions. Any credits or matching employer contributions could not be accessed until retirement. Pension antidiscrimination rules could be revised to favor plans that support more full- and part-time employees.

SAVINGS AND ACCOUNT OWNERSHIP

Many low- and middle-income workers receive large refunds from refundable tax credits. A "saver's bonus" could encourage taxpayers to save a portion of their refunds in qualified savings accounts. Taxpayers are already able to contribute to individual retirement accounts until the tax-filing deadline and apply any deductions or saver's credits against their tax year's liability. Some tax preparers and tax preparation software remind taxpayers that they can do this and make clear how much tax they would save if they do. Tax time could also be used to link taxpayers to savings vehicles, such as children's savings accounts or prepaid cards with savings features for taxpayers without bank accounts.

How might low- and middle-income households be encouraged to save?

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Q. What is the tax treatment of charitable contributions?

A. Corporations and individual taxpayers who itemize can deduct charitable contributions to 501(c)(3) organizations.

Many nonprofit institutions are exempt from paying federal income tax, but taxpayers may deduct donations to organizations set up under Internal Revenue Code section 501(c)(3) on their income tax returns. Donations to other nonprofits are made after taxes.

Since 1917, individual taxpayers have been able to deduct charitable contributions from income that might otherwise be taxed. Individuals may deduct cash and certain other contributions up to 60 percent of adjusted gross income (AGI) in a given year and may carry forward any excess for deduction on future tax returns for up to five years. Before the 2017 Tax Cuts and Jobs Act, the limit was 50 percent of AGI. An important caveat: only taxpayers who itemize may take the charitable deduction. Most taxpayers instead claim a standard deduction, which generally is larger than their potential itemized deductions but which does not provide a tax incentive to make charitable contributions. The Tax Cuts and Jobs Act nearly doubled the standard deduction amounts, which will greatly reduce the number of taxpayers who itemize and hence the number who have a tax incentive to make charitable contributions.

In 1935, Congress extended the right to deduct charitable contributions to corporations. Corporations may not deduct more than 10 percent of their pretax income in a given year but, like individuals, may carry forward excess donations for five years. Some corporate contributions, however, might also qualify as business expenses.

Contributions by individuals or corporations can take the form of cash, financial assets, or other noncash property such as real estate, clothing, or artwork. Certain contributions face greater restrictions than cash contributions, whereas others receive more generous treatment than cash. The limit for donations of appreciated real property is generally 30 percent of AGI, and the limit for contributions to private nonoperating foundations is the same. But donors may deduct the full current market value of appreciated property. This effectively allows them to deduct capital gains twice: donors pay no tax on the capital gains of the appreciated property, and then reduce their other income subject to tax by the full amount of their contribution, thereby effectively deducting from income the capital gains that had never been included in income. However, those capital gains would also be excluded from income tax if held until death, even if not given away so unless that provision is simultaneously addressed, removal of the special tax break for gifts of appreciated property would discourage such gifts.

Key Elements of the U.S. Tax System

What is the tax treatment of charitable contributions?

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Q. What entities are tax-exempt?

A. Nonprofit organizations that do not distribute profits can be exempt from federal income tax if organized expressly for public purposes.

Tax-exempt organizations (including charities) include many diverse entities. The National Taxonomy of Exempt Entities—developed by the National Center for Charitable Statistics at the Urban Institute and used by the Internal Revenue Service—classifies them into 9 major groups, 26 categories, and over 600 subcategories. The major groups are as follows:

1. Arts, culture, and humanities (e.g., art museums, historical societies)
2. Education (e.g., private schools, universities, parent-teacher associations)
3. Environment and animals (e.g., humane societies, the Chesapeake Bay Foundation)
4. Health (e.g., nonprofit hospitals, the American Lung Association)
5. Human services (e.g., the Girl Scouts, the YMCA, food banks, homeless shelters)
6. International and foreign affairs (e.g., CARE, the Asia Society, the International Committee of the Red Cross)
7. Public society benefit (e.g., the Rockefeller Foundation, the Urban Institute, civil rights groups, the United Way)
8. Religion-related (e.g., interfaith coalitions, religious societies)
9. Mutual membership or benefit (e.g., nonprofit credit unions, labor unions, fraternal organizations)

Although tax exemption requires that owners do not receive profits from the organization, employees and contractors with a nonprofit still earn private benefits, creating potential conflicts over such issues as defining when compensation is excessive. Also, many types of mutual benefit organizations qualify for tax exemption.

In 2013, approximately 1.41 million tax-exempt organizations were registered with the Internal Revenue Service. These nonprofits accounted for approximately 5.4 percent of US gross domestic product and paid 9 percent of US wages and salaries (as of 2014). About 35 percent of registered nonprofits are required to file annual returns (Form 990, 990-EZ, or 990-PF); organizations with gross receipts between $25,000 and $50,000 must file a simpler information return known as the 990-N (e-postcard). Religious congregations, as well as organizations with less than $25,000 in gross receipts, are exempted from the annual filing requirement. All private foundations are required to file the 990-PF.

Tax-exempt status confers exemption from federal tax on earnings from income-producing assets and activities (other than those that generate unrelated business income). States generally follow the federal precedent for their income taxes and often exempt charities from state and local property taxes and sales taxes. Charities also sometimes qualify to issue tax-exempt bonds.

Key Elements of the U.S. Tax System

What entities are tax-exempt as charitable activities?

Although many nonprofits qualify for tax exemption, only about two-thirds also qualify to be "charities" and receive contributions that donors can deduct on their tax returns. "Charitable purpose" is defined under section 501(c)(3) of the tax code as "religious, charitable, scientific, testing for public safety, literary, or educational purposes, or to foster national or international amateur sports competition [or] the prevention of cruelty to children or animals." This definition covers both public charities and private foundations; the latter organizations are created to distribute funds to charities or individuals.

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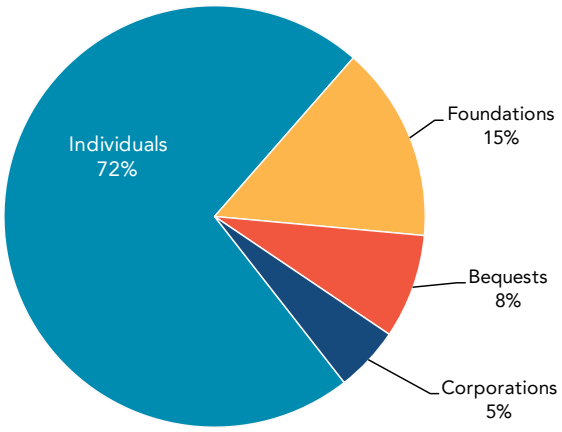
Q. Who benefits from the deduction for charitable giving?

A. The charitable deduction subsidizes charitable giving by lowering the net cost to the donor. If the tax deduction spurs additional giving, charitable organizations can provide more services.

A charitable contribution is intended for the benefit of those supported by the charitable activity, whether through education, health care, or the like. About three-quarters of charitable giving comes directly from individuals, with the balance coming from foundations, estates, and corporations (figure 1). Total contributions totaled $390.05 billion in 2016.

FIGURE 1

Sources of Charitable Giving
2016



Source: Giving USA Foundation. 2017. *Giving USA 2017: The Annual Report on Philanthropy for the year 2016.* Indianapolis, IN: Giving USA Foundation.

Key Elements of the U.S. Tax System

Who benefits from the deduction for charitable giving?

The charitable deduction subsidizes donors by lowering the net cost of the gift. Just how much the tax deductibility lowers the cost of giving depends on the donor's marginal tax rate. For instance, a donor in the 30 percent tax bracket pays 30 cents less tax for every dollar donated. Higher-income individuals generally save more taxes by giving to charity than those with lower incomes for two reasons: they have higher marginal tax rates, and they are more likely to itemize deductions and take advantage of the tax savings.

The deductibility of contributions subsidizes charitable activity but is also sometimes independently justified as an appropriate adjustment to the tax base. Many economists and lawyers argue that a taxpayer's taxable income should be determined by income net of contributions, because a taxpayer with, say, $50,000 of income and $10,000 of contributions has no more ability to consume than someone with $40,000 of income and no contributions. Others see the $10,000 as a consumption choice made by the donor that does not warrant special tax treatment. Either way, the amount of income subject to tax still decreases because the charitable gift is generally transferred tax free to beneficiaries.

Donors may choose which charitable activities to support. Thus, because part of the cost of donations is borne by the government through reduced revenue, donors effectively have a say in which activities the government supports. The same situation exists in many other programs, such as tax credits for research and development, whereby businesses determine the research activities the government supports.

Some donations fund activities that substitute for those the government might otherwise undertake. Other donations complement government activities, and still others support an adversarial relationship with government. Nonprofits, for instance, may seek government funding for an activity, or its members may engage in debates with government officials, though various rules limit outright lobbying. Many believe these types of charitable activity make democracies healthier, even when particular chartable efforts have little impact.

Although the tax deduction likely induces additional giving, estimates of the size of this effect vary. Indeed, there is considerable debate over whether the increase in giving exceeds the loss of government revenue, though valuing the deduction on that basis alone treats charitable contributions and government spending simply as substitutes.

Who benefits from the deduction for charitable giving?

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Q. How would various proposals affect incentives for charitable giving?

A. Proposals include providing more effective or more universal incentives for charitable giving, but often in exchange for some restrictions, such as a floor or a small percentage of income above which incentives would be provided. Many proposals aim to enhance the amount of giving per dollar of revenue loss; some take account of IRS capabilities to monitor taxpayer claims.

Under current law, taxpayers who itemize deductions can deduct most of their charitable contributions, thereby reducing their tax liability. Most taxpayers give up that charitable incentive, along with other itemized deductions, to take a standard deduction of greater value.

A MORE UNIVERSAL DEDUCTION

At present, close to 90 percent of all taxpayers take the standard deduction and cannot claim a deduction for charitable giving. Even when a greater share of taxpayers itemized, extending the deduction to nonitemizers was often advocated to expand the reach of the charitable deduction.

The 2017 Tax Cuts and Jobs Act (TCJA), however, went in the opposite direction and reduced tax subsidies for charitable giving. It did so not directly but mainly through several provisions that together substantially increased the share of taxpayers taking the standard deduction and foregoing the incentive to make charitable donations.

Any more universal deduction likely would displace the existing deduction for itemizers; else two charitable incentives would be in the law, one for itemizers and one for everyone else. However, a completely universal deduction raises two issues: effectiveness and compliance.

First, incentives for the first dollars of giving are considered relatively ineffective because they subsidize giving that taxpayers would take with or without a deduction. Consider a taxpayer who normally gives away $1,000 and, because of an incentive, increases that giving to $1,200. The money spent on the deduction for the first $1,000 is somewhat ineffective; the money spent on the last $200 is where the bang per buck is concentrated.

Second, the Internal Revenue Service (IRS) audits very few people, and the reporting system for charitable contributions is somewhat weak. IRS research clearly indicates that cheating is much more frequent when weak reporting systems are in place.

Key Elements of the U.S. Tax System

How would various proposals affect incentives for charitable giving?

FLOOR ON DEDUCTIONS

If a more universal deduction were combined with a reasonable floor applied to all taxpayers, much or all the revenue loss would be eliminated, as would many problems with noncompliance and complexity.

Taxpayers, for instance, might be allowed to claim charitable deductions greater than 1 or 2 percent of their adjusted gross income, regardless of whether they itemize. A modest floor would leave in place an incentive for all taxpayers, though they must give more than a modest amount to take advantage of it. Meanwhile, the subsidy for some of the first dollars of giving would be eliminated for everyone. Almost no matter how sensitive or insensitive taxpayers are to incentives, a revenue-neutral reform that exchanges fewer subsidies for the first dollars of giving in favor of more subsidies for the last dollars of giving would almost inevitably increase giving.

At the same time, such an approach would address concerns about administration and compliance by eliminating the need for IRS to monitor small givers, which it has not been able to do effectively.

A BETTER REPORTING SYSTEM FOR CHARITABLE CONTRIBUTIONS

Expanding reporting requirements for charitable contributions would raise revenues. Congress occasionally has required increased reporting, as when it required charities to track and send letters to donors for contributions greater than $250. Yet no reporting goes directly to IRS, which over the years has increasingly relied upon document matching as perhaps its primary way of enforcing proper reporting of individual's income tax liability. Various options include sending the IRS information already required for the letters to donors, or allowing an April 15 deduction option (see below) only for contributions directly reported to the IRS.

RAISING THE LIMIT ON THE DEDUCTION

The TCJA raised the annual limit on deductible contributions from 50 to 60 percent of adjusted gross income. Another option would be to raise the limit even further or to expand the current carryover provision for excess contributions beyond the five years now allowed.

IRA ROLLOVERS

Yet another proposal would expand the charitable individual retirement account (IRA) rollover provision. More generous than an itemized deduction, this provision allows some taxpayers over age 70 years and 6 months to donate up to $100,000 from traditional IRAs to charity without having to count the distributions as taxable income or separately take an itemized deduction for these contributions. Raising or eliminating the $100,000 annual limit on donations, lowering the age limit to 59 years and 6 months (the age at which IRA owners may withdraw funds without penalty), or allowing taxpayers to deposit such giving in donor advised funds (currently ineligible for such tax treatment) could increase charitable giving.

FOUNDATION EXCISE TAX

Another option would eliminate or reduce the excise tax on foundation income, which would increase net assets used for charitable purposes. The current excise tax on income from foundation assets was initially intended to cover the IRS's costs of overseeing the tax compliance of charitable organizations, but the monies were never appropriated for that purpose. The tax rate is either 1 or 2 percent, depending on whether the year's giving equals or exceeds the average of the last few years. Under current rules,

foundations that give at above-average rates today face a penalty of being more likely to face the 2 percent rate in future years. In effect, they are given a disincentive to exceed past levels of giving.

At very least, Congress could impose a single tax rate on all such income; this would eliminate the current perverse incentive for foundations to limit current grants today to avoid a higher tax in the future.

ALLOWING CHARITABLE DEDUCTIONS UP TO APRIL 15 OR TIME OF FILING TAX RETURNS

The House of Representatives has passed a proposal, sometimes called the April 15 option, which would allow individuals to take charitable deductions up to April 15 or the time of filing tax returns. The proposal costs the government almost nothing if there are no increases in giving because it doesn't really change the subsidy value of gifts already available. Thus, in terms of bang per buck, or increased giving per dollar of revenue cost, it ranks very high, because the incentive for the most part only loses revenues when there are additional gifts.

Economic and marketing evidence supports the notion that saliency matters: people would give more because they would be more aware of the size of the incentive, partly through the information tax return preparers and tax software developers provide.

CAPS ON CHARITABLE INCENTIVES

Prior to passage of TCJA, two proposals—a cap on total itemized deductions and a cap on the top rate at which deductions can be made—had been suggested to reduce incentives for charitable giving and raise revenues.

President Trump at one point proposed an overall cap on itemized deductions of $100,000 per single return and $200,000 per joint return. Higher-income taxpayers with mortgage interest, property tax, and other deductions in excess of such amounts would have been left with no tax incentives to give, while others would be left with a subsidy only for their first dollars of giving, up to the point they hit the cap.

A maximum cap on the tax subsidy rate for itemized deductions, proposed by President Obama, could also be reintroduced. Alternatively, in the presence of a universal deduction to nonitemizers and itemizers alike, the maximum cap could be replaced by a cousin, a maximum rate for that subsidy alone. For instance, if the top statutory tax rate is 37 percent but the maximum tax subsidy rate for deductible contributions is set at 27 percent, then the subsidy for those in that 37 percent bracket would be reduced by more than one-quarter. This would reduce giving much more than many other types of limitations that raise the same amount of revenues, such as the floor discussed above.

Background

How would various proposals affect incentives for charitable giving?

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Q. How large are individual income tax incentives for charitable giving?

A. The individual income tax deduction for charitable giving provides a substantial incentive to give by reducing the economic cost of making a donation. In 2018, charitable giving by individuals is estimated to reach $299 billion at an annual revenue loss of around $44 billion.

CHARITABLE GIVING BY ITEMIZERS AND NONITEMIZERS

An income tax deduction for charitable giving is available only to taxpayers who itemize their deductions. Estimates from the Tax Policy Center (TPC) suggest that for 2018, charitable giving by individuals could reach a total of $299 billion. TPC estimates that the 90 percent of households that do not itemize their deductions will contribute about 40 percent of total charitable giving while the 10 percent of households who itemize will provide about 60 percent (tables 1).

TABLE 1

Estimated Charitable Giving by Itemizers and Nonitemizers

2018, under current law

Current law baseline	Itemizers	Nonitemizers
Number of tax units	17,622	164,127
Percentage of total tax units	10	90
Total giving ($ billions)	180	119
Percentage of total giving	60	40

Source: Urban-Brookings Tax Policy Center Microsimulation Model (version 0718-1).

GIVING BY INCOME GROUP

Charitable giving patterns differ by income. The charitable deduction provides higher-income taxpayers with a larger tax subsidy per dollar donated because they are more likely to itemize deductions and because they generally face higher tax rates. Some research indicates additionally that they are more responsive or sensitive to each dollar of tax subsidy—that is, each dollar of government cost generates more charitable contributions—perhaps because a subsidy is more salient to those more likely to use tax advisers and give more to charity even in absence of a tax incentive.

Key Elements of the U.S. Tax System

How large are individual income tax incentives for charitable giving?

Tax proposals that affect incentives for higher-income individuals to give, however, will have a disproportionate effect on the charities to which these individuals are more likely to donate, such as higher education and museums.

Table 2 shows the amount of charitable contributions for taxpayers claiming an itemized deduction for those contributions. It does not include giving by non-itemizers. A few things to note. First, most low- and moderate-income taxpayers do not claim a deduction for charitable contributions, largely because most of them do not itemize. Second, at high-income levels, about 90 percent or more taxpayers claim charitable deductions (prior to TCJA). And third, the pattern of deductible charitable giving as a percentage of income is U-shaped—average giving is very high for the small percentage of low-income taxpayers who claim a deduction, as well as for the large percentage of very high-income taxpayers. The pattern of giving for atypical low-income taxpayers who itemize, however, may not be indicative of giving by all low-income households.

TABLE 2

Returns Claiming Charitable Deduction: Number of Returns with and Amount of Charitable Deduction by Adjusted Gross Income

Tax year 2016 (filling year 2017)

AGI category	Percent Claiming Charitable Deduction	Total Charitable Deductions	Average Charitable Deduction for those Claiming Deduction	Charitable Deduction as a Percentage of AGI[a]
Under $50,000	7.5	17,836,225	2,588	8.4
$50,000 under $100,000	35.0	38,417,634	3,305	4.5
$100,000 under $500,000	70.6	88,440,900	5,124	2.9
$500,000 under $2,000,000	88.0	26,142,094	25,510	3.1
$2,000,000 under $10,000,000	89.1	20,219,824	164,814	4.4
$10,000,000 or more	94.6	42,810,648	2,813,343	9.3
All returns	**24.6**	**233,867,324**	**6,332**	**4.3**

Source: Internal Revenue Service, Statistics of Income Division, August 2018.
Notes: AGI = adjusted gross income. Table only captures charitable donations reported to the Internal Revenue Service.
(a) Charitable deduction as a percentage of AGI is calculated as the average charitable deduction for returns claiming the deduction divided by the average AGI for all returns with any itemized deductions.

AVERAGE TAX INCENTIVE FOR GIVING

The after-tax cost of giving is the value of the gift minus any tax benefits received. If an itemizing taxpayer with a marginal tax rate of 24 percent (that is, the tax rate on the last dollars of income) gives $100 to a local college, for instance, the gift reduces the income tax bill for that person by $24, so the deductible charitable gift has a net cost of only $76. The $24 is the amount of the federal subsidy for giving. If the taxpayer had a 40 percent tax rate, the donation becomes even less costly to the taxpayer, at only $60. In other words, as tax rates increase, the after-tax "price" of charitable giving decreases.

Key Elements of the U.S. Tax System

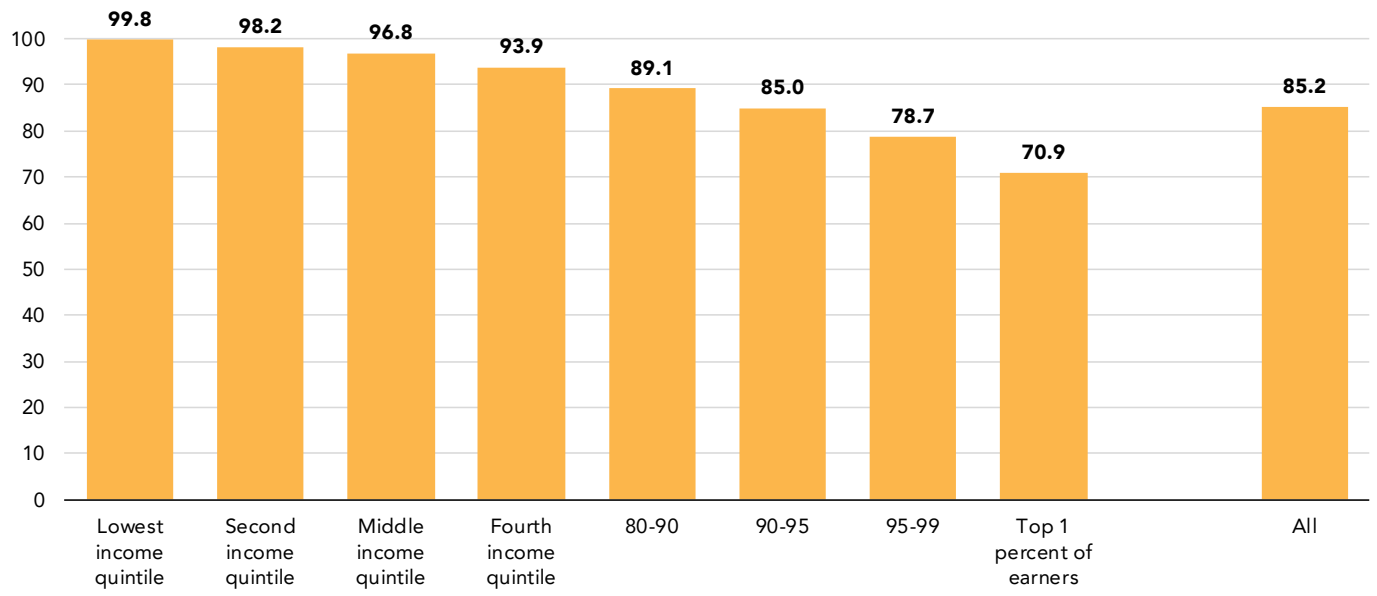
How large are individual income tax incentives for charitable giving?

Figure 1 shows a summary of the average after-tax price of charitable giving for taxpayers at different income levels. For the entire population , it is about 85 percent; that is, on average the after-tax federal subsidy is 15 percent. This represents a drop of about 30 percent from the average federal subsidy rate of around 21 percent prior to the passage of the 2017 Tax Cuts and Jobs Act. Note that taxpayers in the top 1 percent have the lowest after-tax price of charitable giving both because they face higher tax rates and they are more likely to itemize.

FIGURE 1

Estimated Average After-Tax Price of Charitable Giving, 2018

By expanded cash income percentile, under current law



Source: Urban-Brookings Tax Policy Center Microsimulation Model (version 0718-1).
Notes: Graph depicts the average marginal after-tax price of a $100 donation.

TABLE 3

Estimated Tax Expenditures by Charitable Deductions

Fiscal years 2017–21 ($ billions)

Charitable deductions	2017	2018	2019	2020	2021
Educational institutions	$9.6	$9.2	$7.3	$7.5	$7.7
Health organizations	$4.5	$4.3	$3.3	$3.3	$3.5
Other	$42.9	$40.8	$31.3	$31.9	$32.9
Total	**$57.0**	**$54.3**	**$41.9**	**$42.7**	**$44.1**

Source: Joint Committee on Taxation (2018, 34–18).

Key Elements of the U.S. Tax System

How large are individual income tax incentives for charitable giving?

ESTIMATED REVENUE LOSS FROM THE CHARITABLE DEDUCTION

The charitable deduction is estimated to cost approximately $54 billion in 2018 and $240 billion over five years (2017–21). The relationship between the revenue loss and the amount of additional giving created by the tax incentive has significant policy implications. For example, if the loss in federal revenue from allowing the charitable deduction is greater than the increase in charitable giving caused by the deduction, then a portion of the federal subsidy is going to donors rather than to the ultimate beneficiaries of charitable gifts. To the extent that Congress views charitable and government efforts as direct substitutes, it might be more efficient to eliminate the deduction and provide direct federal support to charities.

This sometimes leads to proposals, such as allowing a deduction only for giving that exceeds a dollar floor, to concentrate a greater share of the tax incentive on the last rather than first dollars of giving by any taxpayer getting the incentive. Research suggests that first dollars of giving are much less responsive to tax incentives.

Studies on the impact of the tax incentive, however, do not deal with and therefore may underestimate the extent to which the presence of a tax incentive helps create a culture of giving.

LIMITS ON THE CHARITABLE DEDUCTION

Congress has placed many limits on the availability of a charitable deduction. Among them are the following:

- The charitable deduction is only available for a subset of qualifying, tax-exempt organizations that are charitable in nature, as defined in section 501(c)(3) of the tax code.
- Contributions for individuals are generally allowed up to 60 percent of adjusted gross income, but there is a 30 percent limit for contributions to a foundation and certain other organizations and a 30 percent limit for contributions of capital gain property. Deductible contributions for corporations are limited to 10 percent of corporate income.
- Contributions to many tax-exempt organizations, such as unions and chambers of commerce, are not deductible, though income earned on assets within those organizations generally are excluded from taxation.

How large are individual income tax incentives for charitable giving?

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Q. How did the TCJA affect incentives for charitable giving?

A. The 2017 Tax Cuts and Jobs Act will discourage charitable giving by reducing the number of taxpayers claiming a deduction for charitable giving and by reducing the tax saving for each dollar donated.

The Tax Cuts and Jobs Act (TCJA) makes major changes that will discourage charitable giving. It lowers individual income tax rates, thus reducing the value of all tax deductions. It increases the standard deduction to $12,000 for singles and $24,000 for couples, caps the state and local tax deduction at $10,000, and eliminates other itemized deductions—steps that will significantly reduce the number of itemizers and hence the number of taxpayers taking a deduction for charitable contributions. The new law also roughly doubles the estate tax exemption to $11 million for singles and $22 million for couples, which will discourage tax-motivated charitable bequests by some very wealthy households.

The Urban-Brookings Tax Policy Center estimates that TCJA will shrink the number of households claiming an itemized deduction for their charitable gifts from about 37 million to about 16 million in 2018, and reduce the federal income tax subsidy for charitable giving by one-third, from about $63 billion to roughly $42 billion. Overall, the TCJA will reduce the marginal tax benefit of giving to charity by more than 30 percent in 2018, raising the after-tax cost of donating by about 7 percent. Unless taxpayers increase their net sacrifice—that is, charitable gifts less tax subsidies—charities and those who benefit from their charitable works, not the taxpayers, will bear the brunt of these changes.

REDUCING TAX RATES

For taxpayers who itemize their deductions, the tax saving from charitable contributions depends on the donor's marginal tax rate. For instance, a donor in the 30 percent tax bracket pays 30 cents less tax for every dollar donated. By lowering tax rates, though only modestly for individuals, the TCJA reduced the tax saving for each dollar donated.

RAISING THE STANDARD DEDUCTION AND LIMITING SOME ITEMIZED DEDUCTIONS

Taxpayers who choose to itemize their deductions on their income tax returns can deduct charitable contributions from income that would otherwise be taxed. This lowers the cost of charitable giving by the amount of taxes saved. Most taxpayers, however, do not itemize but instead claim the standard deduction because it is larger than the sum of their potential itemized deductions. Taxpayers who take the standard deduction cannot reduce their taxable income by the amount of their charitable contributions; only itemizers have an incentive to give to charities because it reduces their taxes.

TCJA significantly increased the standard deduction amount. It also capped the deduction for state and local taxes at $10,000 and eliminated some other itemized deductions. The combined effect of these changes will

be to substantially reduce the number of taxpayers who itemize, and thus the number who take a deduction for charitable contributions.

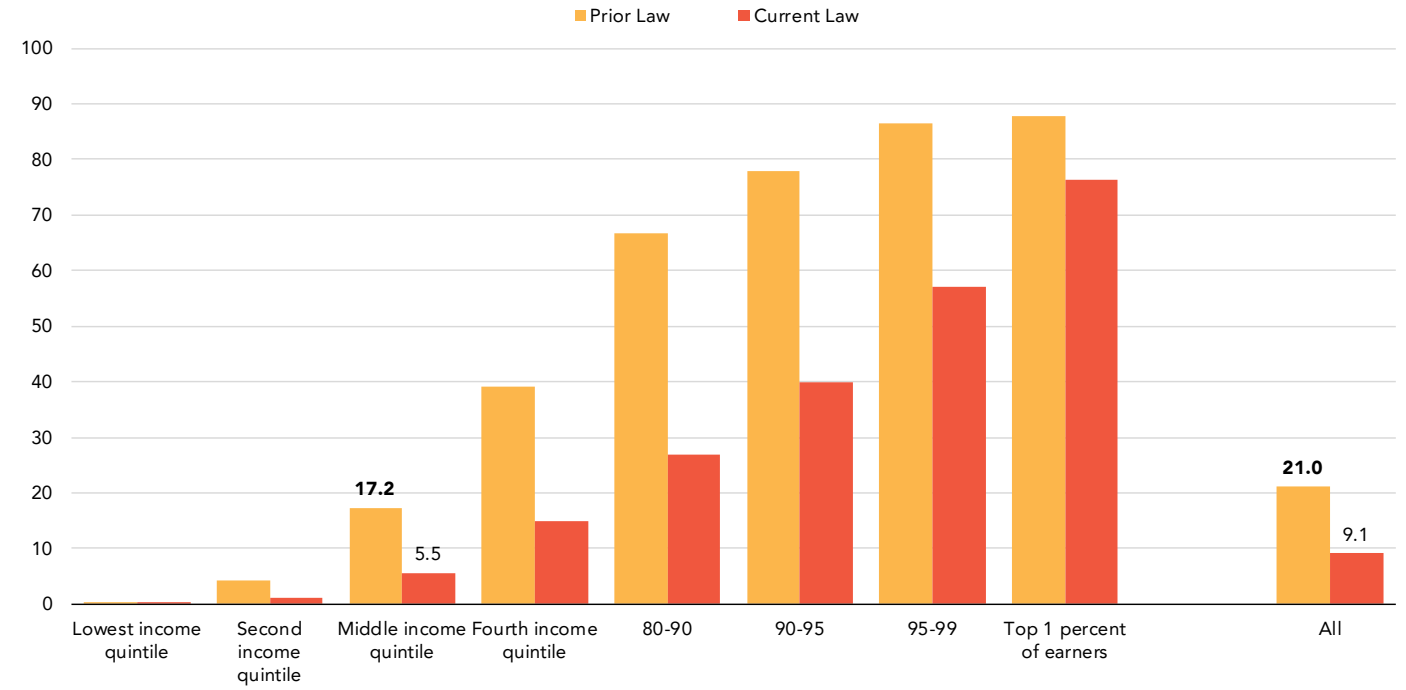
Before accounting for any changes in the amount of charitable giving, TPC estimates that the law will cut the number of those itemizing their charitable contributions by more than half, from 21 percent to about 9 percent of households. The share of middle-income households, defined here as those in the middle quintile of the income distribution, claiming the charitable deduction will fall by two-thirds, from about 17 percent to just 5.5 percent (figure 1).

The share of households itemizing their charitable contributions will fall even among high-income households. The share of households in the 90th–95th percentile (those making between about $216,800 and $307,900), taking a deduction for charitable gifts will drop from about 78 to 40 percent, and the share itemizing among households in the 95th–99th percentile (those making between about $307,900 and $732,800) will fall from 86 to 57 percent (figure 1).

FIGURE 1

Change in the Share of Taxpayers Taking Itemized Deductions for Charitable Giving under the TCJA

By expanded cash income percentile, under prior law and current law



Source: Urban-Brookings Tax Policy Center Microsimulation Model (version 0217-1).
Notes: Graph depicts the average marginal tax subsidy for a $100 donation.

While nonitemizers do not receive any subsidy for their current level of gifts, the incentive remains for some to make large gifts, even if unused. Thus, a couple filing a joint return with $280,000 of adjusted gross income and paying state and local taxes in excess of $10,000 still has an incentive to give more than $14,000, at which point their total itemized deductions would exceed the standard deduction. However, the tax incentive would now apply to excess gifts, that is, giving that raises their total itemized deductions above the $24,000 amount of the standard deduction. Under prior law, which had a much lower standard deduction and no cap on deductible state and local taxes, the tax incentive for giving might very well have applied to the total amount of their charitable donation.

Some taxpayers can avoid these limitations. An individual retirement account charitable rollover allows people age 70.5 and older to make direct transfers from their IRAs totaling up to $100,000 per year to qualified charities, without having to count the transfers as income for federal income tax purposes. Also, some taxpayers can bunch gifts. For instance, a couple with $10,000 of state and local taxes would take the standard deduction if the only other itemizable expenses were contributions of $10,000 a year for each of five years. However, the couple might give away $50,000 in one year and nothing in the other four—thus gaining the advantages of both the increased standard deduction and a deduction for most of their charitable contributions.

AVERAGE SUBSIDY FOR CHARITABLE GIVING

The combination of provisions in TCJA that reduce both the number of itemizers and tax rates will lower the average subsidy for charitable giving (the marginal tax benefit averaged across all charitable gifts) from 20.7 percent to 15.2 percent. While the average subsidy for charitable giving will decline significantly for low- and moderate-income taxpayers, it will hardly change for the highest-income taxpayers. For example, the average subsidy for middle-income taxpayers (those whose income places them between the 40th and 60th percentile of the income distribution) will fall from 8.1 percent to 3.3 percent. By contrast, for those in the top 1 percent, it will fall from 30.5 percent to 28.9 percent (figure 2).

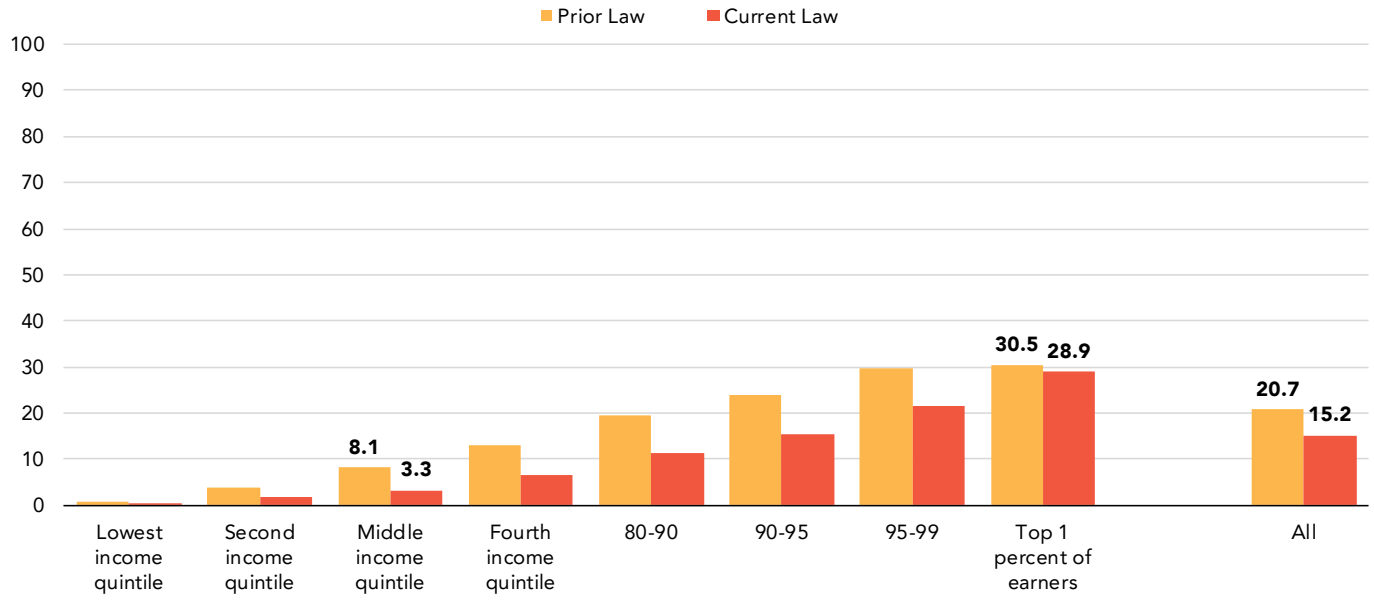
Key Elements of the U.S. Tax System

How did the TCJA affect incentives for charitable giving?

FIGURE 2

Estimated Effective Marginal Tax Benefit of Charitable Giving, 2018

By expanded cash income percentile, under prior law and current law



Source: Urban-Brookings Tax Policy Center Microsimulation Model (version 0217-1).
Notes: Graph depicts the average marginal tax subsidy for a $100 donation.

Data Sources

Urban-Brookings Tax Policy Center. "TPC Microsimulation Model, version 0217-1. "

Q. How much does the federal government spend on health care?

A. The federal government spent nearly $1.1 trillion in fiscal year 2018. In addition, income tax expenditures for health care totaled $225 billion.

The federal government spent nearly $1.1 trillion on health care in fiscal year 2018 (table 1). Of that, Medicare claimed roughly $583 billion, Medicaid and the Children's Health Insurance Program (CHIP) about $399 billion, and veterans' medical care about $70 billion. In addition to these direct outlays, various tax provisions for health care reduced income tax revenue by about $225 billion. Over $146 billion of that figure comes from the exclusion from taxable income of employers' contributions for medical insurance premiums and medical care. The exclusion of employer contributions to medical care also substantially reduced payroll taxes, though that impact is not included in official tax expenditure estimates. Including its impact on both income and payroll taxes, the exclusion reduced government revenue by $280 billion in 2018.

TABLE 1

Estimated Federal Spending and Tax Expenditures for Health Care

Fiscal Year 2018

Program	Cost (millions of dollars)
Spending	
Spending for Medicare net of offsetting receipts	$583,200
Medicaid and CHIP	$399,000
Veterans' medical care	$70,400
Affordable Care Act (ACA) subsidies for nongroup coverage other than premium tax credit	$6,000
Tax Expenditures[a]	
Exclusion of employer contributions for medical insurance premiums and medical care[b]	$146,100
Premium tax credit for insurance purchased through ACA marketplaces	$49,200
Deductibility of medical expenses by individuals	$9,400
Deductibility of medical insurance premiums for self-employed	$6,400
Health Savings Accounts	$5,300
Exclusion of workers' compensation medical benefits	$4,600
Exclusion of medical care for military dependents and retirees	$3,000
Tax credit for small businesses purchasing health insurance	$600

Sources: Congressional Budget Office (2018a and b); Joint Committee on Taxation (2018); and Office of Management and Budget (2018).

(a) The Joint Committee on Taxation no longer classifies excluding Medicare benefits from taxable income as a tax expenditure.
(b) Only includes lost income tax revenues. Including income and payroll taxes, the exclusion reduced government revenue by $280 billion.

Key Elements of the U.S. Tax System

How much does the federal government spend on health care?

Data Sources

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Office of Management and Budget. 2018. *Budget of the United States Government, Fiscal Year 2019, Historical Tables*. Washington, DC: White House.

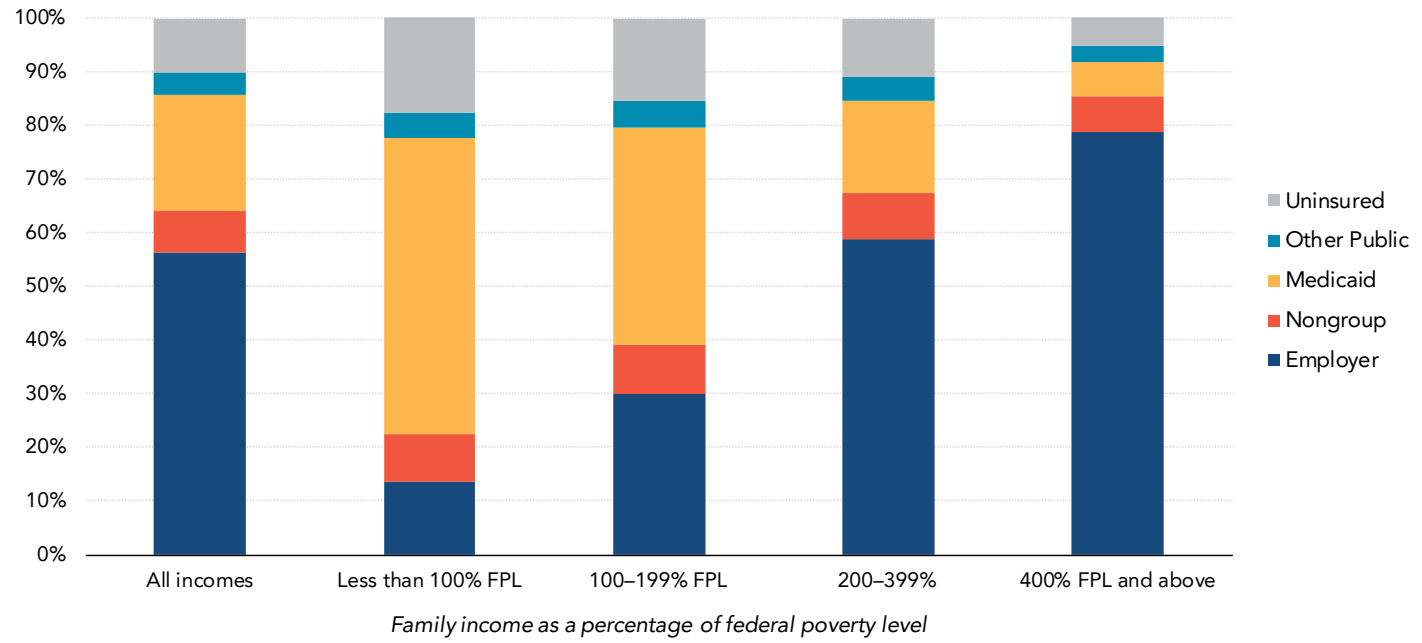
Q. Who has health insurance coverage?

A. Ninety percent of nonelderly individuals were covered in 2016, with rates rising sharply with income. The repeal of the individual mandate in 2019 is projected to reduce the percent covered by four percentage points.

In 2016, 56 percent of the nonelderly population obtained health insurance coverage through employment (figure 1). Another 8 percent purchased coverage on their own in the private market, while about 22 percent were covered by Medicaid and 4 percent had coverage from other public sources. That left 10 percent uninsured. Virtually all elderly individuals participate in Medicare, and those with low incomes also receive assistance through Medicaid.

FIGURE 1

Health Insurance Coverage of the Nonelderly by Income
2016



Source: Kaiser Commission on Medicaid and the Uninsured (2017).
Note: "Other public" insurance includes Medicare and military-related coverage; the Children's Health Insurance Program is included in Medicaid.

Key Elements of the U.S. Tax System

Who has health insurance coverage?

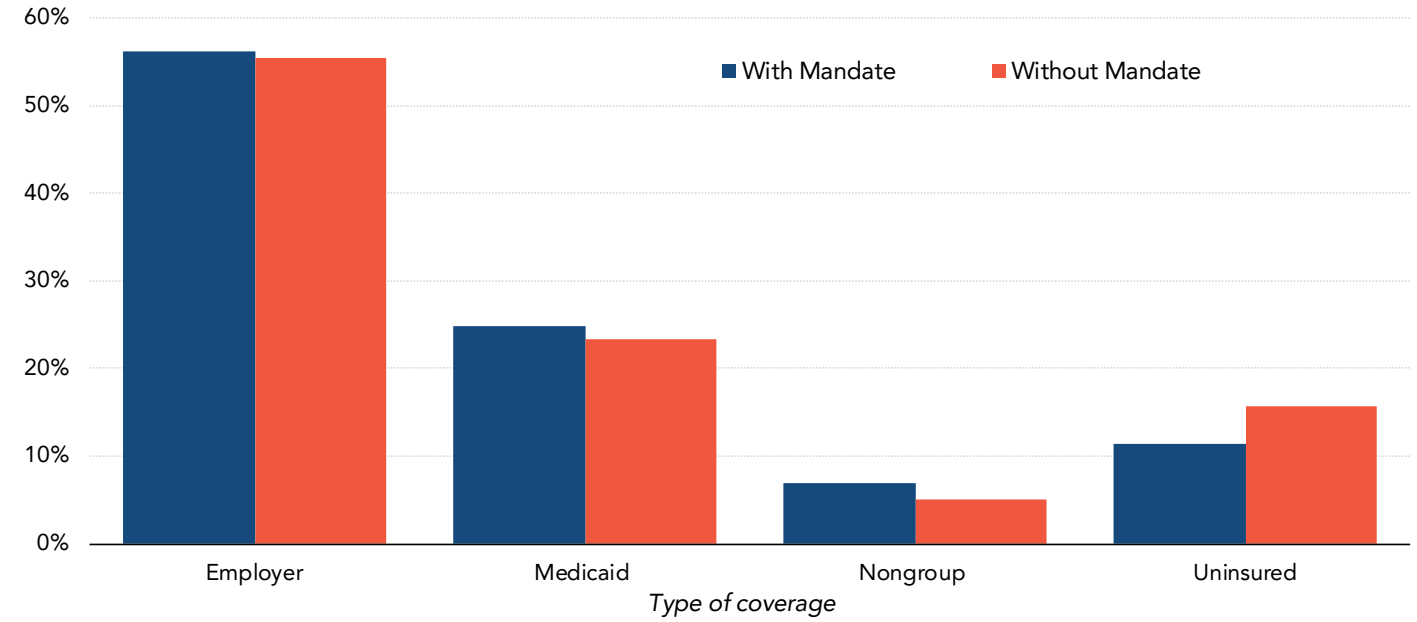
Health insurance coverage rises sharply with income. Less than 23 percent of the nonelderly with family incomes below 100 percent of the federal poverty level had private coverage in 2016; 18 percent reported having no health insurance, public or private. In contrast, 85 percent of those with incomes above 400 percent of the federal poverty level had private coverage, and just 5 percent had no insurance.

The 2017 Tax Cuts and Jobs Act repealed the Affordable Care Act's excise tax on individuals without adequate health insurance starting in 2019. The Congressional Budget Office projects that repealing the individual mandate will increase the share of nonelderly adults without health insurance 4 percentage points by 2021. Medicaid and nongroup coverage will decline the most (figure 2).

FIGURE 2

Impact of Repealing Individual Mandate on Health Insurance Coverage of the Nonelderly

2021



Source: Congressional Budget Office (2017a, b).
Note: The Children's Health Insurance Program is included in Medicaid.

Data Sources

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Q. What tax provisions subsidize the cost of health care?

A. A host of tax preferences for health care cost the federal government roughly $225 billion in income tax revenue in 2018. The largest is the exclusion from taxable income of employer contributions for health insurance premiums.

In 2018, the federal government lost roughly $225 billion in income tax revenue from at least eight tax preferences for health care. By far the most costly is the exclusion of employer contributions for health insurance premiums from taxable income.

EXCLUSION FOR EMPLOYER CONTRIBUTIONS TO HEALTH INSURANCE

Employer and most employee contributions to health insurance premiums are excluded from income taxes. The Joint Committee on Taxation estimates that the income tax expenditure on the exclusion for employer-sponsored health insurance was over $146 billion in fiscal year 2018. Employer contributions for health insurance premiums are also excluded from employees' taxable wages when calculating payroll taxes. Including its impact on both income and payroll taxes, the exclusion reduced government revenue by $280 billion in 2018.

OTHER MAJOR TAX EXPENDITURES FOR HEALTH CARE

Table 1 outlines the other major federal tax expenditures for health care:

- Individuals ineligible for employer-sponsored or public health insurance may receive subsidies to purchase insurance on Affordable Care Act Marketplaces ($49 billion).
- Individuals may claim as an itemized deduction out-of-pocket medical expenses and health insurance premiums paid with after-tax dollars and exceeding 7.5 percent of their adjusted gross income in 2018 and 10 percent of their income in subsequent years ($9 billion).
- Self-employed individuals may deduct health insurance premiums from their income ($6 billion).
- Individuals younger than 65 covered by high-deductible health insurance plans may take an income tax deduction for contributions to health savings accounts (HSAs). Employers may make HSA contributions that are excluded from income and payroll taxes. Additionally, HSA balances grow tax-free, and withdrawals for medical expenses are not subject to income tax ($5 billion).
- Medical benefits provided by workers' compensation insurance are excluded from taxable income ($5 billion).
- Coverage for military retirees and dependents is excluded from taxable income ($3 billion).
- Small employers who pay low average wages may take a credit when providing employees with health insurance. The credit phases out as firm size and average wages increase; it can only be taken for two years ($1 billion).

Key Elements of the U.S. Tax System

What tax provisions subsidize the cost of health care?

TABLE 1

Estimated Tax Expenditures

Fiscal Year 2018

Program	Cost (millions of dollars)
Exclusion of employer contributions for medical insurance premiums and medical care[a]	$146,100
Premium tax credit for insurance purchased through ACA marketplaces	$49,200
Deductibility of medical expenses by individuals	$9,400
Deductibility of medical insurance premiums for self-employed	$6,400
Health Savings Accounts[b]	$5,300
Exclusion of workers' compensation medical benefits	$4,600
Exclusion of medical care for military dependents and retirees	$3,000
Tax credit for small businesses purchasing health insurance	$600

Sources: Congressional Budget Office (2018a); Joint Committee on Taxation (2018); and Office of Management and Budget (2018).

Note: The Joint Committee on Taxation no longer classifies excluding Medicare benefits from taxable income as a tax expenditure.
(a) Only includes lost income tax revenues. Including income and payroll taxes, the exclusion reduced government revenue by $280 billion.

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Office of Management and Budget. 2018. *Budget of the United States Government, Fiscal Year 2019, Historical Tables*. Washington, DC: White House.

Q. How does the tax exclusion for employer-sponsored health insurance work?

A. The exclusion lowers the after-tax cost of health insurance for most Americans.

Employer-paid premiums for health insurance are exempt from federal income and payroll taxes. Additionally, the portion of premiums employees pay is typically excluded from taxable income. The exclusion of premiums lowers most workers' tax bills and thus reduces their after-tax cost of coverage. This tax subsidy partly explains why most American families have health insurance coverage through employers. Other factors play a role though, notably the economies of group coverage.

ESI EXCLUSION IS WORTH MORE TO TAXPAYERS IN HIGHER TAX BRACKETS

Because the exclusion of premiums for employer-sponsored insurance (ESI) reduces taxable income, it is worth more to taxpayers in higher tax brackets than to those in lower brackets. Consider a worker in the 12 percent income-tax bracket who also faces a payroll tax of 15.3 percent (7.65 percent paid by the employer and 7.65 percent paid by the employee). If his employer-paid insurance premium is $1,000, his taxes are $254 less than they would be if the $1,000 were paid as taxable compensation. His after-tax cost of health insurance is thus $1,000 minus $254, or $746. In contrast, the after-tax cost of a $1,000 premium for a worker in the 22 percent income-tax bracket is just $653 ($1,000 minus $347). Savings on state and local income taxes typically lower the after-tax cost of health insurance even more.

These examples assume that workers bear the full burden of employer payroll taxes. Note that the effective marginal tax rates (25.4 percent for the worker in the 12 percent income-tax bracket and 34.6 percent for the worker in the 22 percent income-tax bracket) are less than the sum of the income-tax and payroll-tax rates (27.3 percent and 37.3 percent, respectively) because those rates are applied to compensation after the employer's share of payroll taxes has been deducted. Thus, for example, if the employer increases compensation by $1,000, cash wages only increase by $929 [calculated as $1,000 / (1 + employer payroll tax rate)], because the employer would have to pay additional employer payroll taxes of $71. The lower-wage worker's resulting combined income and payroll tax would be 27.3 percent of $929, or $254. The higher-wage worker's resulting combined income and payroll tax would be 37.3 percent of $929, or $347. The example assumes the higher-wage worker has earnings below the maximum amount subject to Social Security taxes.

ESI EXCLUSION IS COSTLY

The ESI exclusion will cost the federal government an estimated $280 billion in income and payroll taxes in 2018, making it the single largest tax expenditure. Note, too, that the open-ended nature of the tax subsidy has likely increased health care costs by encouraging the purchase of more comprehensive health insurance

policies with lower cost sharing or with less tightly managed care.

Replacing the ESI exclusion with a tax credit would equalize tax benefits across taxpayers in different tax brackets, as well as between those who get their insurance through their employers and those who obtain coverage from other sources. Making the credit refundable would extend that benefit to those whose tax liability falls below the value of the credit. And designing the credit so that it does not subsidize insurance on the margin (i.e., to be a fixed dollar amount as opposed to a percentage of the premium) could lower health care costs.

Data Source

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Q. What are premium tax credits?

A. The Affordable Care Act provides families with refundable, advanceable tax credits to purchase health insurance through exchanges. Premium credits cap contributions as a share of income for families with incomes between 100 and 400 percent of the federal poverty level.

ACA TAX CREDITS FOR HEALTH INSURANCE

The Affordable Care Act (ACA) provides families with refundable tax credits to purchase health insurance through both state and federal Marketplaces. Tax filers can claim premium credits if they (1) have incomes between 100 and 400 percent of the federal poverty level (FPL), (2) are ineligible for adequate and affordable health insurance from other sources, and (3) are legal residents of the United States. Tax filers with incomes between 100 and 138 percent of the FPL are generally ineligible for premium credits if they reside in states that take advantage of the ACA's Medicaid-eligibility expansion.

CALCULATION OF PREMIUM CREDITS

Premium credits effectively cap family contributions as a share of income for those purchasing midrange "benchmark" plans. In 2018, maximum family contributions ranged from 2.01 percent of income for families at the poverty threshold to 9.56 percent for families between 300 and 400 percent of FPL (table 1). Premium credits equal the difference between gross premiums and maximum family contributions.

For example, consider a family of four with income equal to 200 percent of FPL in 2018 who are purchasing an insurance plan costing $15,000. Multiplying family income (here, $49,200) by the applicable 6.34 percent maximum premium results in a family contribution of $3,119 and thus a premium credit of $11,881 ($15,000–$3,119).

The example above assumes the family purchases the second least expensive (Silver) plan from the menu of Bronze, Silver, Gold, and Platinum health insurance plans offered through Marketplaces. If the family purchased a more expensive plan, the credit would remain unchanged and the family would pay the full difference in premiums.

ADVANCE PREMIUM CREDITS AND RECONCILIATION

Premium credits are based on a household's income in the tax year premiums are paid. Yet the credits are calculated the following year, when households file their income tax returns. However, the Treasury usually sends advance payment of premium credits directly to the insurance company, and the household pays a

reduced premium. The advance payment of credits is based on estimated income, generally from the last tax return filed before enrollment in health insurance. If actual income in the year of enrollment is less than estimated income, families qualify for additional credit amounts when filing their returns. If actual income is greater than estimated income, families must repay part or all of the advance credit.

Fortunately for most households with large income increases, the maximum reconciliation payment is limited. In tax year 2017, the maximum payment ranged from $600 for married couples with incomes below 200 percent of FPL to $2,550 for couples with incomes of at least 300 but less than 400 percent of FPL (table 2). Families whose income equals 400 percent or more of FPL have no limit on reconciliation payments.

For tax year 2016, 56 percent of families receiving advanced credits had to make reconciliation payments. However, analysis of tax refund data suggests that for most lower-income filers, reconciliation payments will reduce tax refunds rather than require additional payments. Still, reconciliation will likely present hardships for some families receiving advanced premium credits, even if they do not have tax payments due, because many low-income households have grown to rely on tax refunds for pressing needs.

TABLE 1

Maximum Premium Contribution (after Credits) for Families of Four

by Income Level, 2018

Income as Percentage of Federal Poverty Level	Premium as Percentage of Income	Income	Maximum Premium
100%	2.01%	$24,600	$494
133%	3.02%	$32,718	$988
150%	4.03%	$36,900	$1,487
200%	6.34%	$49,200	$3,119
250%	8.10%	$61,500	$4,982
300%	9.56%	$73,800	$7,055
399%	9.56%	$98,154	$9,384
400%	N/A	$98,400	N/A

Source: Tax Policy Center computations based on ACF HHS 2018 Poverty Guidelines and IRS Rev. Proc. 2017-36.

Note: Maximum premium contribution based on purchase of second least expensive Silver plan offered through a health insurance exchange.

TABLE 2

Maximum Reconciliation Payment

by income level, 2017

Household Income as Percentage of Federal Poverty Level	Married Filing Jointly	All Other Filers
Under 200%	$600	$300
200–299%	$1,500	$750
300–399%	$2,550	$1,275
400% and above	Unlimited	Unlimited

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Q. What is the Cadillac tax?

A. Employer-sponsored health benefits whose value exceeds legally specified thresholds will be subject to a 40 percent excise tax, starting in 2022. The so-called Cadillac tax will be levied on insurance companies, but the burden will likely fall on workers. The tax will effectively limit the tax preference for employer-sponsored health insurance.

TAX ON HIGH-COST HEALTH PLANS STARTING IN 2022

Under the Affordable Care Act, employer-sponsored health benefits whose value exceeds specified thresholds will be subject to an excise tax starting in 2022. (The Cadillac tax was originally scheduled to take effect in 2018 but has been delayed twice by legislation, most recently by the Extension of Continuing Appropriations Act of January 2018.) This "Cadillac tax" will equal 40 percent of the value of health benefits exceeding thresholds projected to be $11,200 for single coverage and $30,150 for family coverage in 2022. The thresholds will be indexed to growth in the consumer price index in subsequent years. Thresholds will be higher for plans with more-expensive-than-average demographics, retirees ages 55 to 64, and workers in high-risk professions. The Cadillac tax will apply not only to employers' and employees' contributions to health insurance premiums, but also to contributions to health saving accounts, health reimbursement arrangements, and medical flexible spending accounts.

WORKERS BEAR THE BURDEN

The tax will be levied on insurance companies, but the burden will likely be passed on to workers in the form of lower wages. Some employers will avoid the tax by switching to less expensive health plans; this will translate into higher wages but also higher income and payroll taxes. In fact, the Joint Committee on Taxation and the Congressional Budget Office predict that 70 percent of the revenue raised by the Cadillac tax will be through the indirect channel of higher income and payroll taxes, rather than through excise taxes collected from insurers. Simulations suggest the excise tax will have the largest relative impact on after-tax income for families in the middle income quintile.

EFFECTIVELY LIMITS THE ESI EXCLUSION

Employer-provided health benefits are excluded from taxable income, reducing income and payroll tax revenue by an estimated $280 billion in 2018. Even if one ignores the revenue losses, there are other undesirable aspects of the exclusion. The exclusion for employer-sponsored health insurance (ESI) is poorly targeted, as it is worth more to taxpayers in higher brackets who would be more likely to purchase insurance in the first place. Additionally, the ESI exclusions' open-ended nature may contribute to faster health care

cost growth. For these reasons, analysts have often suggested limiting the ESI exclusion by including the value of health benefits beyond a certain threshold in taxable income (Congressional Budget Office 2016).

While the Cadillac tax plan is not a direct limit, it effectively curtails the ESI exclusion. If employers avoid the excise tax by shifting compensation from health benefits to taxable wages, the ultimate impact will be identical to an exclusion limit. In both cases, health benefits that exceeded thresholds before introduction of the Cadillac tax would become subject to income and payroll taxes. If employers continue to offer high-cost health plans, the impact will be similar to an exclusion limit—though less progressive. Excess benefits would be taxed at 40 percent rather than at an individual worker's marginal tax rate. (After accounting for income and payroll tax offsets, the effective excise tax rate is ultimately lower than 0.4 and, in fact, declines with income (Blumberg, Holahan, and Mermin 2015).)

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Q. What tax changes did the Affordable Care Act make?

A. The Affordable Care Act made several changes to the tax code intended to increase health insurance coverage, reduce health care costs, and finance health care reform.

The Affordable Care Act (ACA) made several changes to the tax code intended to increase health insurance coverage, reduce health care costs, and finance health care reform.

To increase health insurance coverage, the ACA provided individuals and small employers with a tax credit to purchase insurance and imposed taxes on individuals with inadequate coverage and on employers who do not offer adequate coverage. To reduce health care costs and raise revenue for insurance expansion, the ACA imposed an excise tax on high-cost health plans. To raise additional revenue for reform, the ACA imposed excise taxes on health insurers, pharmaceutical companies, and manufacturers of medical devices; raised taxes on high-income families; and increased limits on the income tax deduction for medical expenses.

ACA tax provisions in effect in 2018 (table 1) include the following:

- A refundable tax credit for families to purchase health insurance through state and federal marketplaces. Tax filers must have incomes between 100 and 400 percent of the federal poverty level, be ineligible for health coverage from other sources, and be legal residents of the United States. The Premium Tax Credit cost $49 billion in fiscal year 2018 and primarily benefits low- and moderate-income families.

- A tax credit for small employers to purchase health insurance for their workers. Employers must have fewer than 25 workers whose average wages are less than $50,000. Employers can only receive the credit for up to two years. The small-employer health insurance credit cost $1 billion in 2018.

- A tax on individuals without adequate health insurance coverage (the "individual mandate"). Many individuals are exempt from the tax, including those with incomes low enough that they are not required to file a tax return, those whose premiums would exceed a specified percentage of income, and unauthorized immigrants. The 2017 Tax Cuts and Jobs Act eliminated the individual mandate starting in 2019. Individual mandate receipts were $4 billion in 2018.

- A tax on employers offering inadequate health insurance coverage (the "employer mandate"). The tax applies to employers with 50 or more full-time equivalent employees. Employer mandate receipts were $4 billion in fiscal year 2018 and projected to be $10 billion by 2020. The taxes on individuals without adequate health insurance coverage and employers offering inadequate health insurance coverage disproportionately affect low- and moderate-income families, who are more likely to lack health insurance or to work for employers not offering coverage. (We assume the burden of the tax on employers not

offering adequate coverage falls entirely on workers.)

- Excise taxes on health insurance providers, pharmaceutical manufacturers and importers, and medical device manufacturers and importers. Legislation passed in early 2018 suspended the medical device tax for 2018 and 2019 and suspended the health insurer tax for 2019. The health insurer and pharmaceutical taxes raised $18 billion in 2018. These excise taxes have a similar percentage impact on after-tax incomes for families across the income distribution.

- An additional 0.9 percent Medicare tax on earnings and a 3.8 percent tax on net investment income (NII) for individuals with incomes exceeding $200,000 and couples with incomes exceeding $250,000. The additional Medicare tax raised $10 billion and the NII tax raised $27 billion in 2018. Nearly all families affected by the additional Medicare tax and NII tax are in the top 5 percent of income, with most of the burden borne by families in the top 1 percent of income.

TABLE 1

ACA Taxes and Credits

Fiscal year 2018

Item	Amount (in $ billions)
Credits	
Premium Tax Credit	$49
Small Business Health Insurance Credit	$1
Taxes	
Individual mandate	$4
Employer mandate	$4
Excise taxes on health insurance providers and pharmaceuticals	$18
High-income taxes	$37
Net revenues	**$13**

Source: Congressional Budget Office (2018a, b) and Urban-Brookings Tax Policy Center Microsimulation Model (version 0718-1).

What tax changes did the Affordable Care Act make?

Additionally, these ACA tax provisions are scheduled to take effect in the future:

- An excise tax on employer-sponsored health benefits whose value exceeds specified thresholds (the "Cadillac tax") starting in 2022. Because the thresholds are only indexed to price inflation, more plans will be affected over time if, as likely, health care costs grow faster than prices for other goods and services. Some employers will likely avoid the tax by switching to less expensive health plans; this will translate into higher wages but also higher income and payroll taxes. Including the impact on income and payroll taxes, the tax on high-cost health plans is projected to raise $8 billion in 2022 with the revenue gain growing rapidly over time, reaching $39 billion by 2028. The Cadillac tax reduces after-tax incomes the most in percentage terms for middle-income families.

- An additional limit on the medical expense deduction. Pre-ACA, taxpayers could deduct medical expenses exceeding 7.5 percent of income when calculating taxable income. The ACA increased the threshold to 10 percent of income, and the Tax Cuts and Jobs Act temporarily lowered the limit back to 7.5 percent in 2017 and 2018. The threshold is scheduled to increase to 10 percent of income in 2019. The higher threshold is projected to raise $2 billion in 2019 and has the largest relative impact on after-tax income for families in the fourth income quintile.

Tax changes were an important component of the package of reforms enacted by the ACA. Any major change to the ACA would require making tax policy decisions with implications for health insurance coverage, the budget deficit, and the distribution of after-tax income.

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Q. How do health savings accounts work?

A. HSAs are tax-exempt savings accounts used in conjunction with a high-deductible health insurance plan to pay for qualifying medical expenses.

Individuals who participate in a qualifying high-deductible health insurance plan (HDHP) can establish a health savings account (HSA) to pay for qualifying medical expenses. Both employees and employers can make contributions to an HSA.

HSAs have many tax advantages. Contributions made by employers are exempt from federal income and payroll taxes, and account owners can deduct their contributions from income subject to federal income taxes. Further, any income earned on the funds in an HSA accrues tax-free, and withdrawals for qualifying medical expenses are not taxed. Withdrawals used for nonqualifying expenses are subject to income tax and an additional 20 percent penalty. But the penalty is waived for account holders who are disabled, who are ages 65 or older, or who have died. Unused balances can be carried over from year to year without limit.

Annual HSA contributions in 2018 are limited to $3,450 for an individual and $6,900 for a family. Account holders ages 55 or older can contribute an additional $1,000 to either type of account. The contribution limits are indexed annually for inflation.

In 2014, employers contributed $15.6 billion to HSAs, and individual tax filers contributed another $4.4 billion. The US Department of the Treasury estimates the tax preference for HSAs reduced income and payroll taxes by $7 billion in 2014.

Employers must offer an HSA-qualified insurance plan—usually an HDHP—for an employee to be eligible for an HSA. Individuals may also purchase an HSA-qualified insurance plan through the individual insurance market. A plan is HSA-qualified if it meets certain requirements; in 2018, these include a minimum deductible of $1,350 for individual coverage and $2,700 for family coverage.

HSAs are an expanded version of medical savings accounts (MSAs), established in 1996. Similar to HSAs, MSAs have many of the same tax advantages and also require account holders to have an HDHP. They are limited, however, to the self-employed or workers in small firms (50 or fewer employees). The Medicare Prescription Drug, Improvement, and Modernization Act authorized HSAs in 2003 to address the rising cost of medical care and the increasing number of uninsured individuals. No new contributions to MSAs could be made after 2007, except for individuals who previously made contributions to an MSA or who work for employers that had already established MSAs.

Key Elements of the U.S. Tax System

How do health savings accounts work?

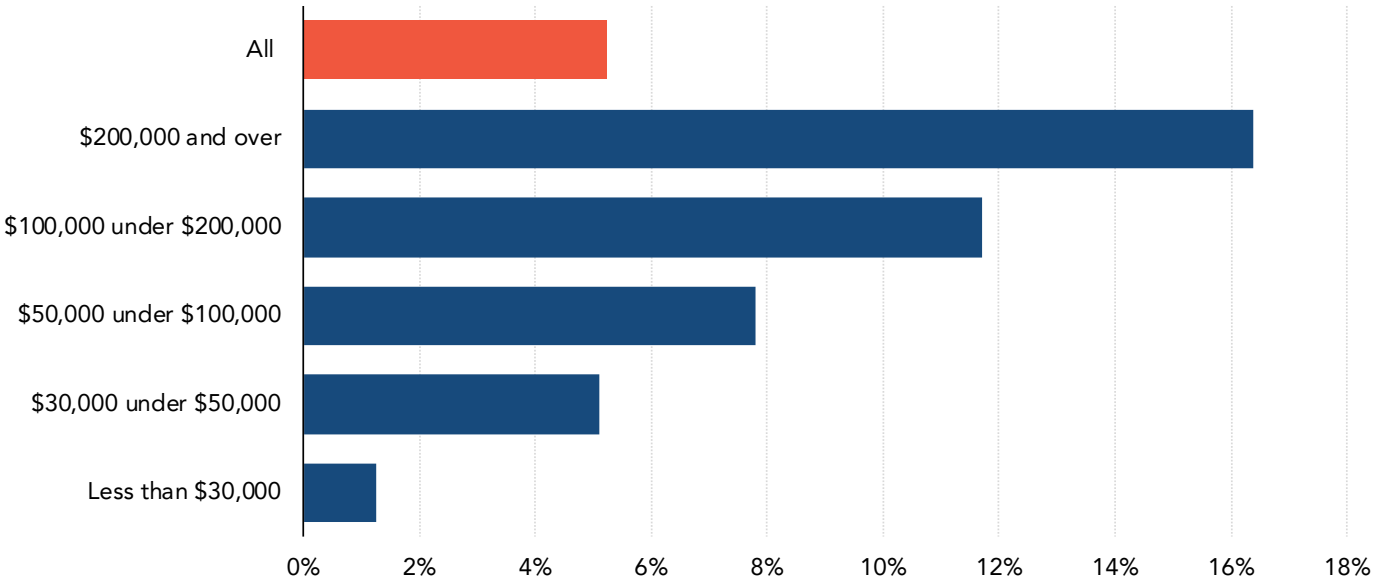
HSAs and their associated HDHPs place more of the health care financing burden on out-of-pocket costs and are intended to encourage more cost-conscious health care spending. In practice, HSAs are most attractive to higher-income individuals because the tax exemptions associated with contributions, account earnings, and withdrawals are of greater value for higher income-tax brackets. Additionally, high-wage workers are more likely to be constrained by contribution limits for retirement accounts and use HSAs as an additional means of tax-preferred saving.

In 2014, 11.7 percent of taxpayers with income between $100,000 and $200,000 contributed to an HSA, as did 16.4 percent of taxpayers with income over $200,000 (figure 1). In comparison, only 5.1 percent of taxpayers with income between $30,000 and $50,000 made such contributions. The average contribution for taxpayers with income over $200,000 was $4,716, compared with an average contribution of $1,500 for taxpayers with income between $30,000 and $50,000 (figure 2).

HSAs are also attractive to those who expect low health care expenses. These individuals enjoy the premium cost savings associated with HDHPs, as well as the HSA tax benefits, without fear of eventually paying a high deductible.

FIGURE 1

Percent of Tax Return Filers with HSA Contributions



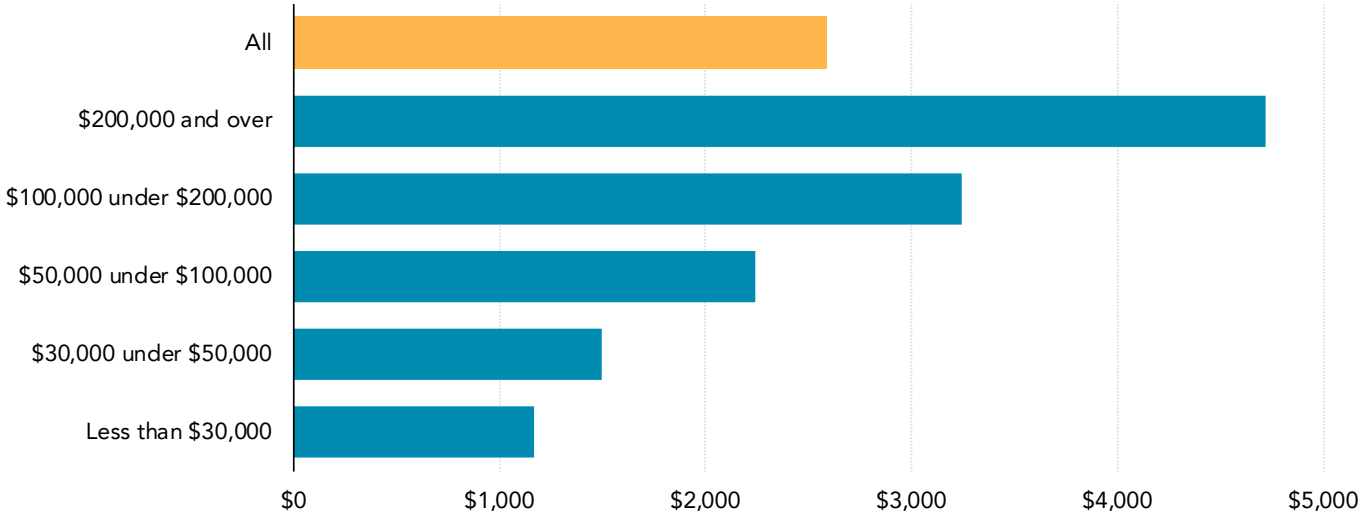
Source: Internal Revenue Service, SOI Tax Stats, Table 1.4. "All Returns: Sources of Income, Adjustments, and Tax Items," 2017; US Department of the Treasury, Office of Tax Analysis, "Health Savings Accounts, 2014"; and author calculations.
Note: Includes both individual and employer contributions.

Key Elements of the U.S. Tax System

How do health savings accounts work?

FIGURE 2

Average HSA Contribution
by adjusted gross income, 2014



Source: Internal Revenue Service, SOI Tax Stats, Table 1.4. "All Returns: Sources of Income, Adjustments, and Tax Items," 2017; US Department of the Treasury, Office of Tax Analysis, "Health Savings Accounts, 2014"; and author calculations.
Note: Includes both individual and employer contributions.

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Q. How do flexible spending accounts for health expenses work?

A. A health care FSA is a tax-advantaged employer-sponsored account used to reimburse employees for qualifying health care expenses.

Health care FSAs are tax-advantaged benefit plans established by an employer to reimburse employees for qualified medical and dental expenses, such as copayments, deductibles, and prescription drug costs. FSAs are usually funded through salary-reduction agreements in which the employee agrees to receive lower monetary compensation in exchange for equivalent contributions to an FSA. For example, an employee who elects to reduce his or her monthly paycheck by $200 would receive, in return, a $2,400 annual contribution to his or her FSA.

The key benefit of FSAs is that these contributions are not subject to income or payroll taxes, which could mean significant tax savings for the account holder. An employee contributing $200 a month to an FSA would save $288 in federal income taxes if he or she were in the 12 percent tax bracket ($2,400 × 0.12 = $288) and an additional $184 dollars from reduced Social Security and Medicare payroll taxes ($2,400 × 0.0765 = $183.60). Because the federal income tax savings depend upon the employee's income tax rate (which rises with income), the benefit of using an FSA is greater for higher-income workers. For example, the income tax savings for an employee in the 35 percent tax bracket with the same $2,400 annual contribution would be $840 ($2,400 × 0.35 = $840).

An important attribute of health FSAs is that employers must make the entire value of an employee's FSA account available at the beginning of the year. For example, if either employee discussed above incurred a $3,000 medical expense in March, he or she could use the full $2,400 annual FSA contribution to help pay that cost, even though he or she would only have contributed $600 into the account.

In 2013, the Internal Revenue Service (IRS) instituted a contribution limit for health care FSAs. The limit is adjusted yearly for inflation; in 2018, it is $2,650 per year per employee. Generally, employees forfeit unused FSA funds at the end of the plan year, although employers may also offer one of two options:

- Provide a grace period of up to 2.5 months into a new plan year to use FSA money from the preceding plan year.
- Allow the employee to carry over up to $500 per plan year to use in the new plan year.

The Bureau of Labor Statistics in 2017 estimated that about 44 percent of all civilian workers had access to an FSA that year. As a whole, high-income employees and employees in larger firms are more likely to have access. Only 1 in 5 low-income workers had access to an FSA in 2017 compared with around 2 in 3 workers at the top of the earning scale (figure 1).

Key Elements of the U.S. Tax System

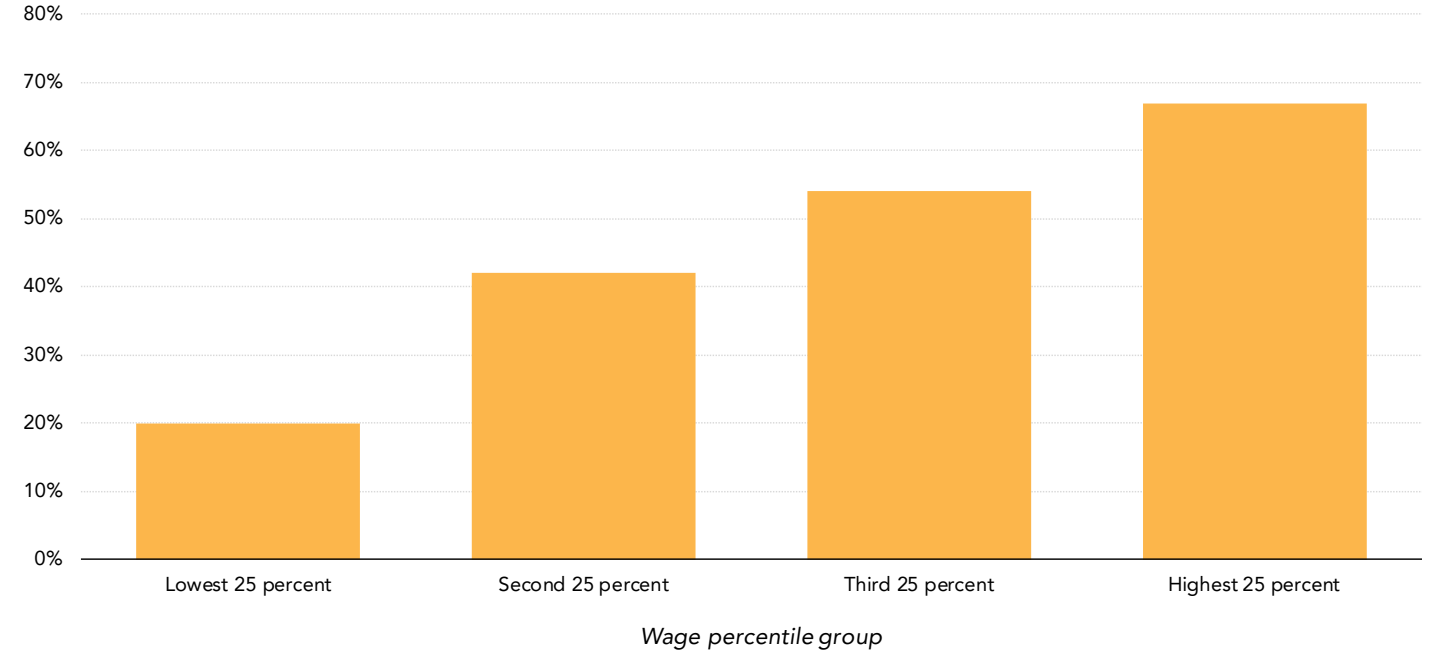
How do flexible spending accounts for health expenses work?

Employees in larger firms (500 or more workers) are more than three times as likely to have access than employees in smaller firms (99 or fewer workers), with 77 percent of the former reporting access versus 25 percent of the latter in 2017 (figure 2). Larger firms are typically better able to handle the complexity and administrative costs of offering FSAs.

More specific data on exactly who uses FSAs and how much federal tax revenue they cost are difficult to obtain because employees are not required to report FSA elections on federal income tax returns, and few surveys ask specifically about FSA participation.

FIGURE 1

Share of Workers with Access to Health Care Flexible Spending Accounts
by wage percentile, 2017



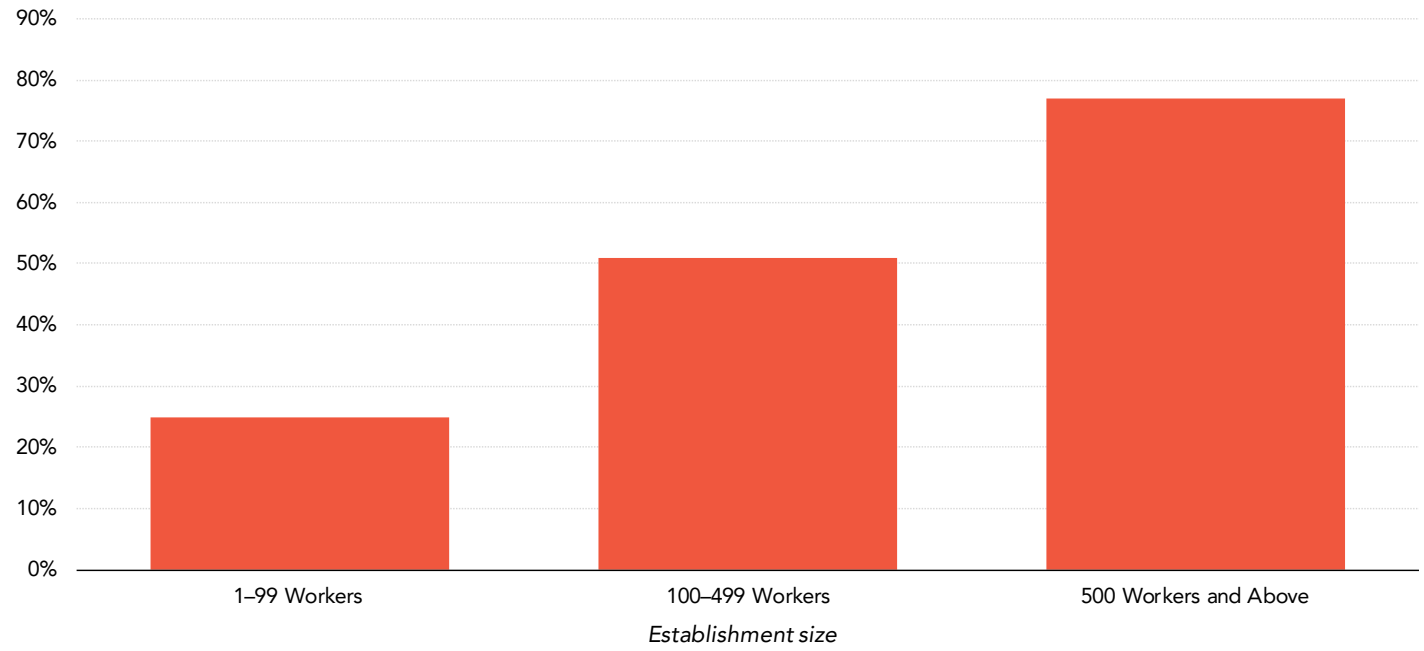
Source: Bureau of Labor Statistics. National Compensation Survey: Employee Benefits in the United States, March 2017—Civilian Tables. Table 41. "Financial Benefits: Access, Civilian Workers, March 2017."

Key Elements of the U.S. Tax System

How do flexible spending accounts for health expenses work?

FIGURE 2

Share of Workers with Access to Health Care Flexible Spending Accounts
by establishment size, 2017



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Q. What are health reimbursement arrangements and how do they work?

A. HRAs are tax-advantaged employer-sponsored accounts used to reimburse employees for qualified medical expenses. HRAs are usually offered in conjunction with high-deductible health plans.

HRAs are tax-advantaged employer-sponsored accounts used to reimburse employees for qualified medical and dental expenses, such as copayments, deductibles, and prescription drug costs. HRAs are usually offered in conjunction with high-deductible health plans.

Unlike health savings accounts and health flexible spending accounts, only an employer can contribute to the accounts. Employer contributions to the accounts and reimbursements for qualified medical expenses are exempt from federal income and payroll taxes. Any unused funds at the end of the plan year can carry over indefinitely, although employers may limit the aggregate carryover amount. Unlike health savings accounts, funds may never be used for nonqualified expenses and employees may lose their unused balances when they separate from their employers.

Employers need not fund HRAs until employees draw on the funds. Unlike flexible spending accounts, the entirety of the funds does not need to be available from the beginning of the period. HRAs are usually offered in conjunction with high-deductible health plans, although employers can "integrate" them with other qualified group health plans. With the implementation of the Affordable Care Act in 2010, most HRAs are no longer available as stand-alone accounts.

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Q. What are the tax benefits of homeownership?

A. The main tax benefit of owning a house is that the imputed rental income homeowners receive is not taxed. Although that income is not taxed, homeowners still may deduct mortgage interest and property tax payments, as well as certain other expenses from their federal taxable income. Additionally, homeowners may exclude, up to a limit, the capital gain they realize from the sale of a home.

OVERVIEW

The tax code provides several benefits for people who own their homes. The main benefit is that the owners do not pay taxes on the imputed rental income from their own homes. They do not have to count the rental value of their homes as taxable income, even though that value is just as much a return on investment as are stock dividends or interest on a savings account. It is a form of income that is not taxed.

Homeowners may deduct both mortgage interest and property tax payments as well as certain other expenses from their federal income tax. In a well-functioning income tax, all income would be taxable and all costs of earning that income would be deductible. Thus, in a well-functioning income tax, there should be deductions for mortgage interest and property taxes. However, our current system does not tax the imputed rental income that homeowners receive, so the justification for giving a deduction for the costs of earning that income is not clear.

Finally, homeowners may exclude, up to a limit, the capital gain they realize from the sale of a home. All of these benefits are worth more to taxpayers in higher-income tax brackets than to those in lower brackets.

IMPUTED RENT

Buying a home is an investment, part of the returns being the opportunity to live in the home rent free. Unlike returns from other investments, the return on homeownership—what economists call "imputed rent"—is excluded from taxable income. In contrast, landlords must count as income the rent they receive, and renters may not deduct the rent they pay. A homeowner is effectively both landlord and renter, but the tax code treats homeowners the same as renters while ignoring their simultaneous role as their own landlords. The Office of Management and Budget estimates that the exclusion of imputed rent reduced federal revenue by nearly $110 billion in fiscal year 2017.

Key Elements of the U.S. Tax System

What are the tax benefits of homeownership?

MORTGAGE INTEREST DEDUCTION

Homeowners who itemize deductions may reduce their taxable income by deducting interest paid on a home mortgage. Taxpayers who do not own their homes have no comparable ability to deduct interest paid on debt incurred to purchase goods and services.

The Tax Cuts and Jobs Act (TCJA) trimmed this important tax break for homeowners. Prior to TCJA, the deduction was limited to interest paid on up to $1 million of debt incurred to purchase or substantially rehabilitate a home. Homeowners also could deduct interest paid on up to $100,000 of home equity debt, regardless of how they used the borrowed funds. TCJA limited the deduction to interest on up to $750,000 of mortgage debt incurred after December 14, 2017, to buy or improve a first or second home. It also generally eliminated the deduction for home equity debt.

The congressional Joint Committee on Taxation (JCT) estimated that the cost of the mortgage interest deduction will shrink from $72 billion to $41 billion in fiscal year 2018, because of the lower cap on deductible mortgage interest and because other provisions of TCJA will result in many fewer taxpayers itemizing their deductions. The Urban-Brookings Tax Policy Center estimates that the share of tax units that benefit from the deduction in 2018 will shrink from 21 percent to 9 percent because of TCJA.

PROPERTY TAX DEDUCTION

Homeowners who itemize deductions may also reduce their taxable income by deducting property taxes they pay on their homes. That deduction is effectively a transfer of federal funds to jurisdictions that impose a property tax (mostly local but also some state governments), allowing them to raise property tax revenue at a lower cost to their constituents. The JCT estimated that the deduction saved millions of homeowners a total of $33 billion in income tax in fiscal year 2017. The cost of that deduction will also go down because of TCJA, as many fewer homeowners will itemize and because TCJA puts an overall cap of $10,000 on the state and local taxes that taxpayers can deduct.

PROFITS FROM HOME SALES

Taxpayers who sell assets must generally pay capital gains tax on any profits made on the sale. But homeowners may exclude from taxable income up to $250,000 ($500,000 for joint filers) of capital gains on the sale of their homes if they satisfy certain criteria: they must have maintained the home as their principal residence in two out of the preceding five years, and they generally may not have claimed the capital gains exclusion for the sale of another home during the previous two years. The JCT estimated that the exclusion provision saved homeowners $32 billion in income tax in fiscal 2017.

EFFECT OF DEDUCTIONS AND EXCLUSIONS

The deductions and exclusions available to homeowners are worth more to taxpayers in higher tax brackets than to those in lower brackets. For example, deducting $2,000 for property taxes paid saves a taxpayer in the 37 percent top tax bracket $740, but saves a taxpayer in the 22 percent bracket only $440. Additionally, even though they only represent about 20 percent of all tax units, those with more than $100,000 in income received over 85 percent of the mortgage interest deduction tax benefits in 2017. That difference results largely from three factors: compared with lower-income homeowners, those with higher incomes face higher marginal tax rates, typically pay more mortgage interest and property tax, and are more likely to itemize deductions on their tax returns.

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Q. Do existing tax incentives increase homeownership?

A. Probably not. The US homeownership rate is lower than in many other developed countries that do not offer tax subsidies for homeownership, such as the United Kingdom or Australia, and even lower than some other countries with subsidies. Beyond a base level, US subsidies mainly support larger homes and second homes. Additionally, evidence suggests that the subsidies raise housing costs, thus dissipating their effectiveness in helping people buy their own homes.

Contrary to popular belief, the mortgage interest deduction was not added to the tax code to encourage home ownership. The deduction existed at the birth of the income tax in 1913—a tax explicitly designed to hit only the richest individuals, a group for whom homeownership rates were not a social concern.

The federal government provided more than $130 billion of tax benefits to subsidize homeownership in 2017, yet our rate of homeownership differs little from that in countries providing no similar subsidies. The bulk of US subsidies go to middle- and upper-income households that likely would own their homes anyway; thus, these subsidies simply facilitate the consumption of more housing. In addition, evidence suggests that the tax subsidies raise housing costs, thus dissipating their effectiveness in helping people buy their own homes.

The US homeownership rate is lower than that in many other developed countries, such as the United Kingdom or Australia that have no such subsidies. The rate is even lower than in some countries that have subsidies, such as Sweden and Norway (figure 1). Other factors, including the ease of obtaining a mortgage, home prices, and cultural patterns, play significant roles in determining homeownership rates.

Because tax deductions are worth more to high-income households, which face the highest tax rates, the deductibility of property taxes and mortgage interest most helps households that would likely own their own homes even without a tax subsidy. Low-income households, which typically are most in need of aid to afford homeownership, get little or no benefit from that deductibility.

Beyond a base level, subsidies mainly support larger homes and second homes. In effect, the federal government encourages middle- and upper-income households to consume more housing than they otherwise would. Limits on the amount of mortgage debt for which taxpayers may deduct interest costs do, however, constrain those subsidies to some degree.

Key Elements of the U.S. Tax System

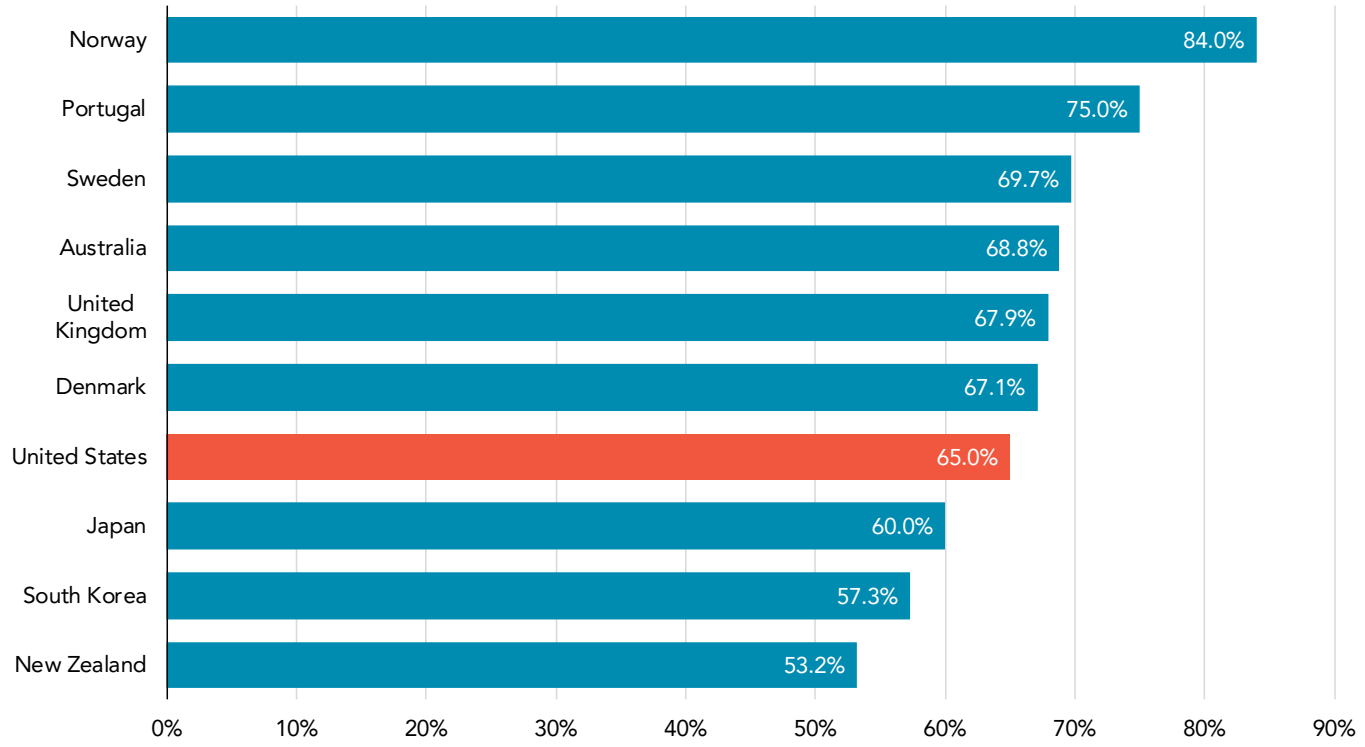
Do existing tax incentives increase homeownership?

Housing subsidies reduce the after-tax cost of housing at any given level of housing prices. This reduced cost raises demand for owner-occupied housing and thus drives up the price, particularly where land is scarce. By reducing the after-tax cost of housing, the subsidies enable people to pay more than they otherwise would. The resulting increase in demand for housing causes prices to rise, and rise most in markets where supply cannot easily increase to meet that higher demand.

FIGURE 1

Homeownshership Rates in Select Countries

Share of adults who own their homes



Source: Desilver (2013).

Do existing tax incentives increase homeownership?

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Q. What tax incentives exist for higher education?

Federal tax incentives for higher education include tax benefits for saving, tax benefits for tuition and related expenses, and tax benefits for student loans—in other words, benefits before, during, and after college attendance. These incentives mostly target middle-class households who do not benefit from traditional student aid.

The federal government provides individuals with financial assistance for higher education expenses in two major ways: traditional student aid (through loans, grants, and work study) and tax benefits. In 2017, 14 tax benefits were available for college students and their parents. These include three broad classes—special tax treatment for education savings plans, tax credits for tuition and related expenses, and tax deductions for student loan payments The Joint Committee of Taxation estimates these tax benefits will cost the federal government $144.7 billion between 2017 and 2021. These estimates account for recent tax law changes made by the 2017 Tax Cuts and Jobs Act (P.L. 115-97) and the extension of certain expiring tax provisions as part of budget reconciliation (P.L. 115-123).

Tax benefits for higher education are frequently oriented toward the middle class rather than the poorest households, who benefit more from traditional student aid (table 1). The largest benefits are tax credits: the American opportunity tax credit (AOTC) and the lifetime learning credit (LLC). Although the AOTC is refundable, both credits largely accrue to middle-class households, as these households typically have larger out-of-pocket expenses for higher education than lower-income households, who receive traditional aid. Allowing parents to claim a personal exemption for students ages 19 to 23 (before 2018) also helped middle-class households more than poor households, as the value of exemptions is tied to tax rates and middle-class households face higher tax rates. The Congressional Budget Office estimates that nearly all other tax benefits for higher education similarly benefit middle- and upper-class families. The one exception: allowing college dependents to qualify as children for the refundable earned income tax credit.

The Tax Cuts and Jobs Act (TCJA) did not dramatically change tax benefits for higher education savings or loan repayment. It also avoided changes to the AOTC and LLC. However, the legislation did significantly change the structure of tax benefits for those claiming a dependent college student. In prior years, taxpayers could only claim dependents over 18 if the dependent's gross income was below a modest amount. However, parents could claim full time students ages 19 to 23 without regard to the gross income test. In 2017, taxpayers received an additional $4,050 personal exemption for each 19 to 23 year old college student claimed as a dependent.

Key Elements of the U.S. Tax System

What tax incentives exist for higher education?

The Tax Cuts and Jobs Act eliminated all personal exemptions but it also expanded the child tax credit to include a $500 nonrefundable credit for dependents not eligible for the regular child tax credit, including 19- to 23-year-old dependent college students. This change transformed the tax saving for claiming a college student dependent from one which depended on the parents' tax rate to a credit where all taxpayers get an equivalent benefit regardless of their tax rate (up to the limit of their total income tax liability). This shifts more of the value of the benefit from higher-income taxpayers to lower-income taxpayers. However, because the new credit is nonrefundable, it still does not reach the lowest-income taxpayers.

In addition to the benefits discussed in more detail below, tax benefits for education include a business deduction for work-related education expenses; an exclusion from taxable income of scholarships, grants, tuition reductions, and employer-provided educational assistance; and penalty-free early withdrawals from individual retirement accounts if the funds are used for educational expenses.

TABLE 1

Distribution of Higher Education Tax Expenditures
by income before transfers and taxes, under current law, 2016

Tax Expenditure	Dollars (billions)	Shares (Percent)				
		Lowest quintile	Second quintile	Third quintile	Fourth quintile	Highest quintile
Credits for education (AOTC and LLC)	18.8	12	23	28	28	9
Preferential treatment for students 19 to 23						
Dependent exemption	4.4	5	15	20	33	27
Higher Age Limit for Earned Income Tax Credit	3.3	52	29	5	3	2
All Preferential Treatment	7.7	25	21	16	21	17
Exclusions from taxable income						
Scholarships and fellowship income	3.6	9	16	17	28	30
Employer-provided education benefits and tuition reduction	2.9	12	18	20	25	25
Earnings of qualified education savings plans	0.9	*	*	1	3	97
Certain discharged student loan debt	0.2	3	5	11	28	56
All exclusions	7.7	9	15	16	24	37
Deductions						
Student loan interest	2.2	2	14	30	39	15
Tuition and fees	0.3	7	14	12	36	31
All deductions	2.5	3	14	28	39	17
All Tax Expenditures	36.6	13	20	23	26	17

Source: Congressional Budget Office (2018).

Notes: AOTC = American Opportunity Tax Credit; LLC = Lifetime Learning Credit

* = between zero and 0.5 percent

Key Elements of the U.S. Tax System

What tax incentives exist for higher education?

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Q. What tax incentives exist to help families pay for college?

A. Rapidly rising college expenses in the 1990s spurred the 1997 enactment of tax incentives for higher education, which currently include the American opportunity tax credit, the lifetime learning credit, and deductions for tuition and fees and for student loan interest.

AMERICAN OPPORTUNITY TAX CREDIT

The American opportunity tax credit (AOTC) provides a credit up to $2,500 per student during the first four years of undergraduate postsecondary school. Students receive a credit of 100 percent against the first $2,000 of tuition, fees, and books, and a 25 percent credit against the next $2,000. Up to $1,000 of the AOTC is refundable; to qualify for the credit, students must be enrolled at least half time for one or more academic periods during the year. AOTC credits, it should be noted, are not indexed for inflation. The AOTC was enacted as part of the fiscal stimulus package and then made permanent in 2015 under the Protecting Americans from Tax Hikes Act. The AOTC replaced the Hope credit and is available for more years of schooling (four versus two years), covers more expenses, and is partly refundable.

The maximum benefit for the AOTC begins to phase out when modified adjusted gross income (MAGI) reaches $80,000 and is completely phased out at MAGI of $90,000. For married couples, the phaseout range begins at MAGI of $160,000 and the credit is completely phased out at MAGI of $180,000. The phaseout thresholds are not indexed for inflation.

LIFETIME LEARNING CREDIT

The lifetime learning credit (LLC) equals 20 percent of tuition and fees for any postsecondary education expense, up to a maximum annual credit of $2,000 per taxpayer. That maximum applies to the combined expenses of all students in the household claiming the credit and is reached when total qualifying expenses equal $10,000. The maximum benefit for the LLC phases out for MAGI between $57,000 and $67,000 in 2018 (and between $114,000 and $134,000 for married couples). The phaseout thresholds for the lifetime learning credit are adjusted annually for inflation. The LLC is nonrefundable, so only people who owe income tax can benefit.

TUITION AND FEES DEDUCTION

The deduction for tuition and fees allows taxpayers (parents, students, or spouses—whoever pays) to reduce taxable incomes by up to $4,000 per return. Single, head of household, or qualifying widower filers with MAGIs between $65,000 and $80,000 or married filers with MAGIs between $130,000 and $160,000 can deduct up to $2,000 of expenses. After that, a family is no longer eligible for the deduction. Because

the provision is a deduction, it has value only to students and their families with taxable income. Congress retroactively extended the tuition and fees deduction for 2017, but it will not be available in 2018 unless Congress extends it again.

STUDENT LOAN INTEREST DEDUCTION

The student loan interest deduction allows taxpayers with qualified student loans (loans taken out solely to pay qualified higher education expenses) to reduce taxable income by $2,500 or the interest paid during the year, whichever is less. The loan cannot be from a relative or made under a qualified employer plan, and the student must be a taxpayer, a spouse, or a dependent; only those enrolled at least half time in a degree program qualify.

Qualified expenses include tuition and fees; room and board; books, supplies and equipment; and other necessary expenses such as transportation. To qualify in 2018, a taxpayer's AGI may not exceed $80,000 for single, head of household, or qualifying widower filers, or $165,000 for married filers. After that, a family is no longer eligible for the deduction. The deduction is, of course, only valuable to people with taxable income. The student loan interest deduction will cost an estimated $2.1 billion in 2018.

HOW THESE TAX INCENTIVES AFFECT STUDENTS

Before Congress created the AOTC, many observers argued that existing tax subsidies had minimal impact on college enrollment because those subsidies went mostly to people who would have attended college even without the additional aid. Many low-income students who might have been the most influenced by reduced college costs received little or no benefit from the Hope credit and the LLC because they were nonrefundable and thus could only offset income taxes owed.

In response, the AOTC was made refundable, allowing lower-income families to receive the credit. Even so, students with incomes below $50,000 receive more aid from the Pell grant than from the tax credits. And even with the changes to the tax credits, it remains unclear whether tax credits increase college enrollment (figure 1).

Using the tax system to subsidize higher education has two primary advantages over using traditional spending programs: (1) students don't have to fill out the daunting Free Application for Federal Student Aid form to receive benefits, and (2) every student who qualifies receives the full benefit for which he or she appears entitled. However, providing aid through the tax system also has disadvantages—notably, the delay in funds being received (up to 15 months after tuition was paid), a lack of transparency about why taxes went down, and potential mismatches in that the person receiving the credit or deduction is often not the student.

OPTIONS FOR REFORM

- Even though some books are eligible expenses under the American opportunity tax credit, additional assistance could be provided by broadening coverage to include other expenses, such as room and board.
- Providing benefits directly to schools when students enroll—not months later when their families file tax returns—could help students cover college costs when they are obliged to make payments. Benefit amounts would be based on estimates of the previous year's taxes.

Key Elements of the U.S. Tax System

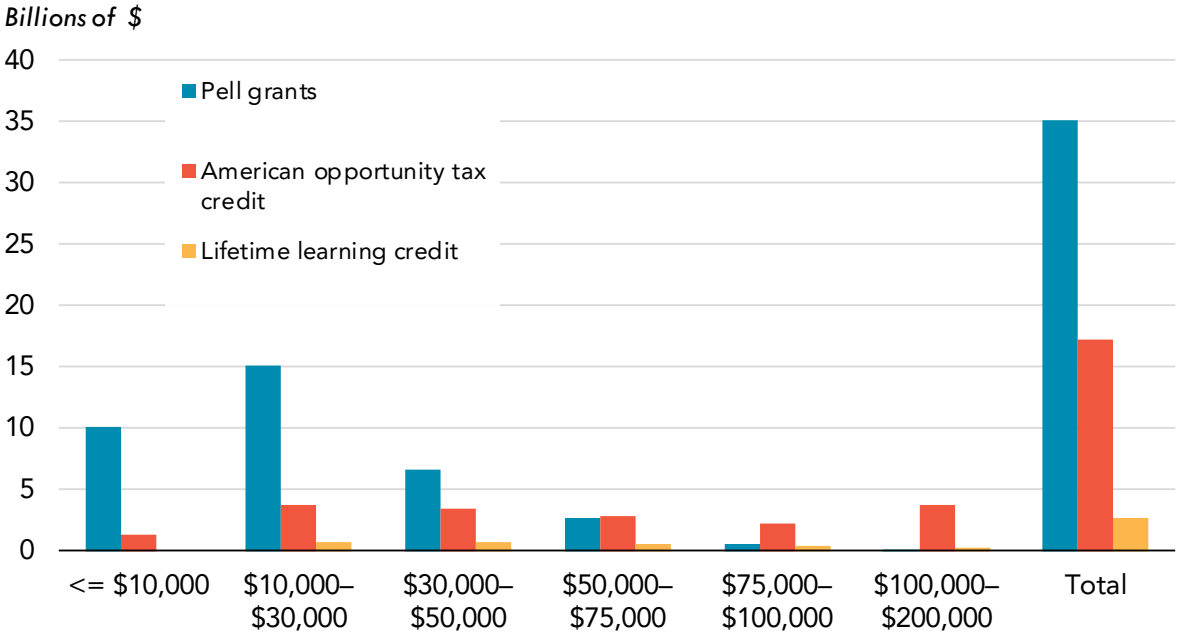
What tax incentives exist to help families pay for college?

- Consolidating the credits into a single credit would make the process more transparent for students and taxpayers.
- Rather than offering a deduction for student loan interest, providing incentives for students to enroll in income-contingent repayment programs would reduce hardship in student debt repayment.

FIGURE 1

Amount of Pell Grants, AOTC, and LLC

All students, 2017



Source: Tax Policy Center, Table T16-0246, 2016.

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What tax incentives exist to help families pay for college?

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Q. What tax incentives exist to help families save for education expenses?

A. Three tax-favored saving instruments encourage families to save for education expenses: Coverdell savings accounts, qualified tuition programs (commonly known as 529 plans), and the education savings bond program. The first two can be used for elementary, secondary, and postsecondary education. In contrast the much smaller education savings bond program is limited to postsecondary education.

Tax-favored accounts encourage families to save for education expenses by reducing or eliminating the tax normally owed. But there's a catch: to reap significant benefits, families who use these accounts to save for college must invest in sheltered savings accounts years before they know whether their children will attend college. While these funds can be redirected toward another person's educational expenses if the child does not go to college, savers must pay penalties to divert the money for noneducation purposes. The resulting uncertainty is greatest for low-income families because their children are least likely to attend college.

Recent law changes allow families to make nontaxable withdrawals from 529 plans to pay for qualified expenses at public or private K–12 schools—an existing feature of Coverdell savings accounts.

Higher-income families benefit more from tax-favored accounts because they avoid more taxes for each dollar contributed to a sheltered account. All families must pay income tax and a 10 percent penalty on money withdrawn from an account if the funds are used for purposes other than permitted educational expenses. However, even after paying the penalties, high-income families can still come out ahead because of the size of their tax savings and because the accounts let them shift ownership to their children, who typically face lower income tax rates. That benefit, of course, does not extend to low-income families, who are likely to be in the same tax bracket as their children. Tax-free accounts hold no benefit for families whose incomes are too low to require them to pay income taxes, but they are still subject to the penalty for using the funds for other purposes.

COVERDELL ACCOUNTS

In 2018 families with adjusted gross income (AGI) below $110,000 ($220,000 if filing a joint return) can deposit up to $2,000 per beneficiary in a Coverdell account on an after-tax basis. Funds grow untaxed and may be withdrawn tax free if used to pay educational expenses. Coverdell account funds can be used for K–12 expenses as well as higher education.

Key Elements of the U.S. Tax System

What tax incentives exist to help families save for education expenses?

QUALIFIED TUITION PROGRAMS (529 PLANS)

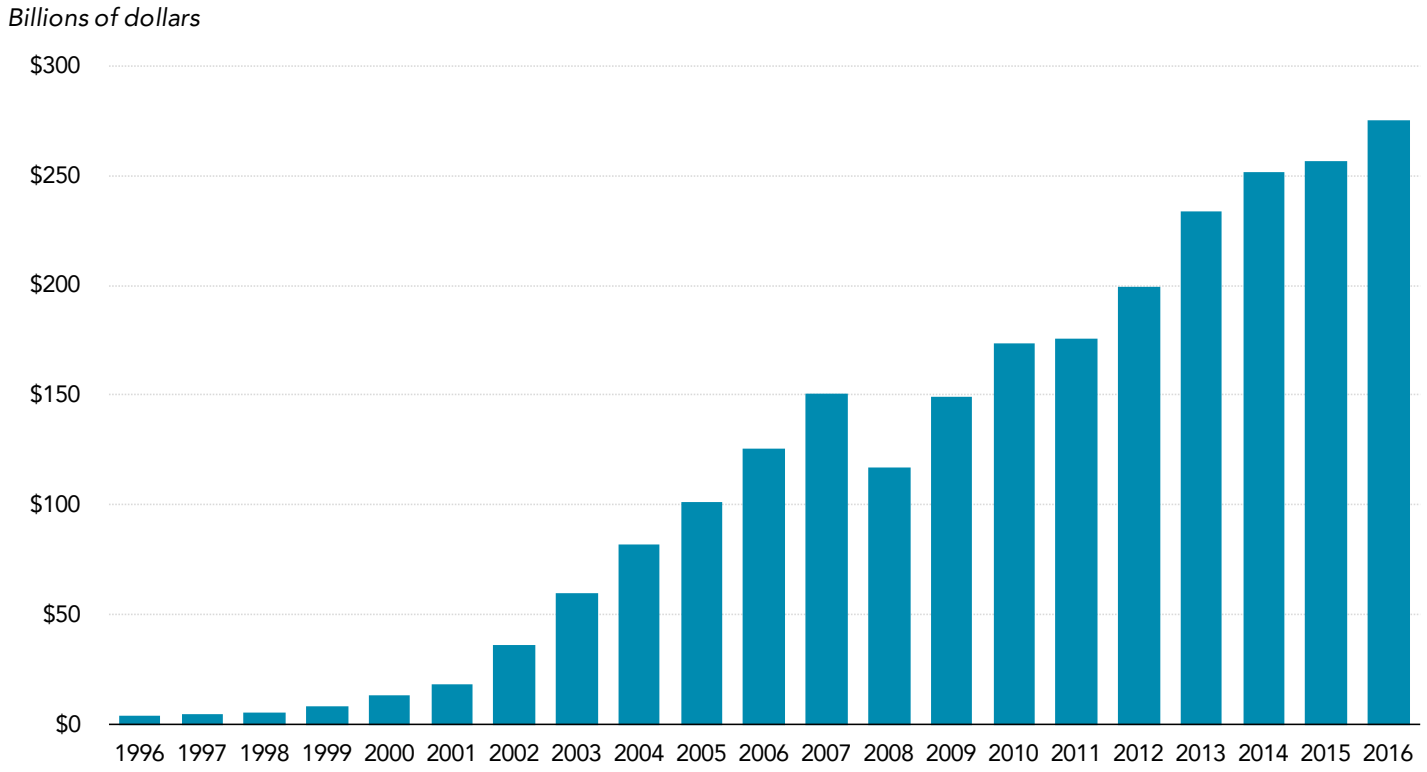
Anyone, regardless of income, may contribute to a 529 plan for a designated beneficiary. As of 2018, a donor may contribute up to $15,000 annually for each beneficiary without triggering a gift tax, with the option of making up to five years of contributions in a single payment as long as no additional gifts are made during the five-year period. Income in 529 plans accumulates untaxed.

Since passage of the Economic Growth and Tax Relief Reconciliation Act of 2001, funds are not taxed when withdrawn from 529s, provided they are used to pay qualified expenses for postsecondary education (tuition, room and board, books and supplies, and technology). Donors retain ownership of the accounts but may use the funds to pay educational expenses only for the named beneficiary. The donor may, however, change beneficiaries if the new beneficiary is a member of the same family as the old beneficiary.

FIGURE 1

Growth of 529 College Savings Plan Account Assets

1996–2016



Source: College Savings Plans Network (CSPN), *529 Report: An Exclusive Year-End Review of 529 Plan Activity*, March 2017.

Key Elements of the U.S. Tax System

What tax incentives exist to help families save for education expenses?

The 2017 Tax Cuts and Jobs Act expanded the qualified uses for tax- and penalty-free withdrawals from 529 plans to also cover K–12 elementary and secondary school tuition for public, private, and religious schools. Assets in 529 plans have grown considerably in the last two decades. In 1996, only 500,000 accounts existed and contained only $2.4 billion in assets. As of December 2016, there were 12.9 million 529 plan accounts containing $275 billion in assets (figure 1).

Every state except Wyoming sponsors a 529 plan (but Wyoming residents receive preferred treatment in the Colorado 529 plan). In states with a personal income tax, residents investing in their state-sponsored 529 plans often receive a state tax break for at least part of their investment. Families can choose to invest in plans from other states, which may be the best option for them—especially when contributions are not tax deductible. Some states, moreover, provide matching funds for contributions to 529 accounts. Beyond the state plans, there is also a separate private college 529 plan.

States that offer income tax credits or deductions for contributions to 529 college saving plans and exempt qualified distributions from 529 plans from state income taxes must decide whether they will follow the recent changes in federal rules for qualified withdrawals. Some states have decided to allow qualified withdrawals for K–12 tuition while others have not. For example, New York and Nebraska have issued public statements saying that only higher education expenses would qualify. In contrast, Pennsylvania will allow payment for K–12 tuition expenses to be processed through the PA 529 College Savings Program.

EDUCATION SAVINGS BOND PROGRAM

The federal government allows buyers to exclude interest on designated government bonds from income tax if the money is used to pay for postsecondary education. In 2018, however, families can only cash in these bonds tax free if their modified AGI (MAGI) is less than certain limits. The tax exclusion phases out for MAGI between $79,700 and $94,700 in 2018 (and between $119,550 and $149,550 for married couples). The income limits are indexed for inflation. This program is substantially smaller than the Coverdell and 529 programs.

What tax incentives exist to help families save for education expenses?

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Q. What is the tax treatment of college and university endowments?

A. A small number of colleges and universities in the United States have accumulated significant wealth in the form of endowments. Because these institutions are public and private nonprofit charitable enterprises, donations to their endowments are not taxed and the assets grow free of taxes. The 2017 tax legislation created an exception to this practice, imposing a tax on the endowment earnings of a small number of private nonprofit colleges and universities.

The 2017 Tax Cuts and Jobs Act (TCJA), imposes a new tax on a small group of private nonprofit colleges and universities. Institutions enrolling at least 500 students that have endowment assets exceeding $500,000 per student (other than those assets which are used directly in carrying out the institution's exempt purpose) will pay a tax of 1.4 percent on their net investment income. The $500,000 threshold is not indexed for inflation. A precise understanding of the tax awaits Internal Revenue Service guidance, but only 25 to 30 institutions meet these criteria.

CURRENT TAX TREATMENT OF ENDOWMENTS

Most private nonprofit colleges and universities are exempt from taxes because of their status as 501(c)(3) organizations and their educational mission. Many of these institutions attempt to accumulate endowments—financial assets that generate income to supplement budgets and provide long-term fiscal stability. Endowments support a wide range of activities. At doctoral universities, these include graduate education and research in addition to undergraduate education.

The tax treatment of private nonprofit college and university endowments differs from the treatment of private foundations. Private foundations are tax-exempt organizations established by an individual, family, or company for charitable purposes. Unlike college and university endowments, which accrue from multiple sources over time, foundations must pay an excise tax on their net investment income (generally 2 percent but reduced to 1 percent if their distributions are growing over time). Nonoperating foundations, which are funded by a single or small group of donors and distribute money to others rather than engage themselves in charitable activities, are required to pay out at least 5 percent of their funds each year. In contrast, operating foundations can receive donations from many donors and primarily operate charitable activities themselves rather than distribute grants. They, like college and university endowments, do not have payout requirements.

Key Elements of the U.S. Tax System

What is the excise tax on university endowments?

SIZE OF ENDOWMENTS

Public and private colleges and universities collectively hold over $500 billion in endowment wealth, but just 23 of these institutions hold approximately 50 percent of the assets. (There are about 1,600 private nonprofit and more than 700 public four-year institutions in the United States.)

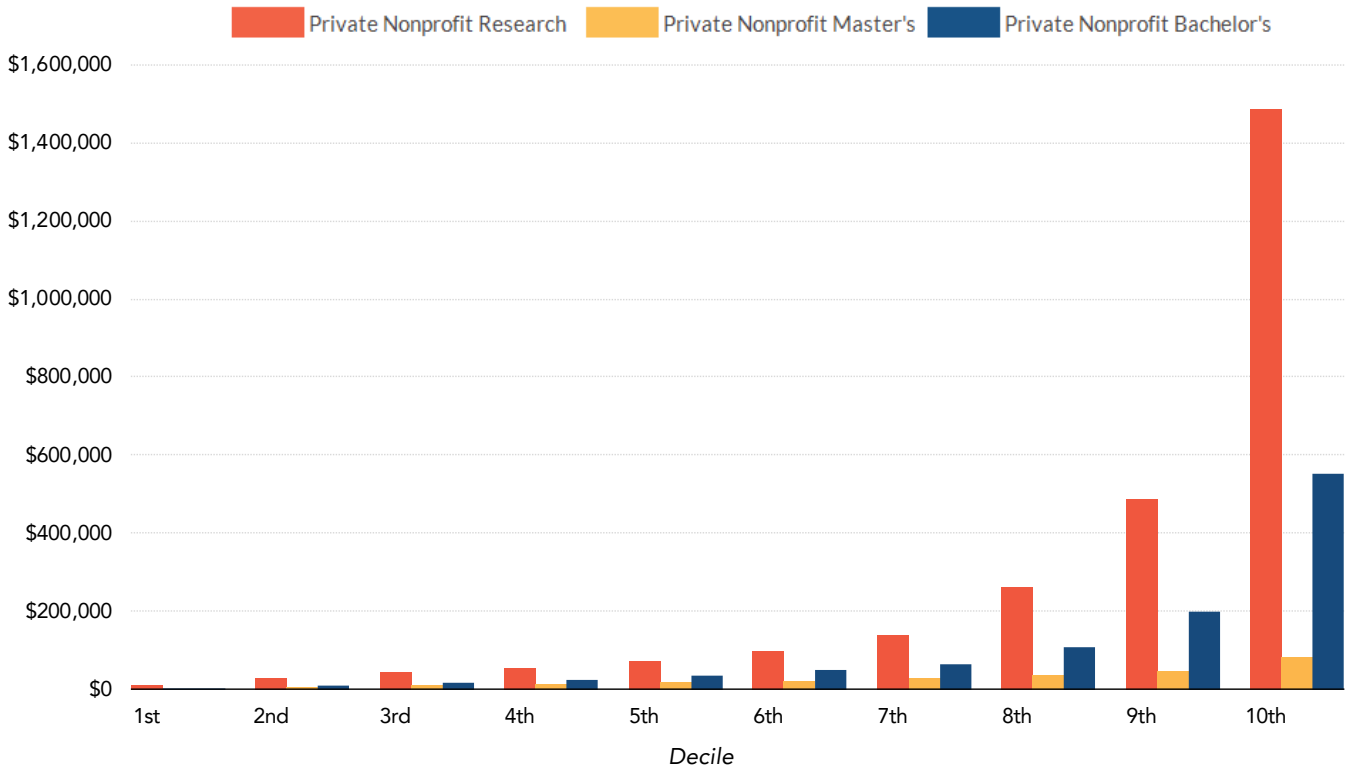
Endowments provide income that supplements tuition and fees, state appropriations, and other funding sources to support the education of undergraduate and graduate students, as well as research, public service, and other institutional activities. Endowments provide a cushion that protects institutional budgets from cyclical pressures, unanticipated changes in enrollments, and other temporary revenue disruptions.

When measuring institutional strength, it is best to examine endowment per student rather than total endowment dollars (figure 1). These figures must be interpreted with caution because they do not distinguish between undergraduate and graduate students, and differences across institutions may be misleading given the differences in institutional missions. Undergraduate colleges use almost all draw (the funds added to their annual budgets from endowments) to support undergraduate education, whereas research universities use the funds to support a broader range of activities.

FIGURE 1

Endowment per Full-Time Equivalent Student

Private nonprofit colleges and universities, 2015–16



Source: Urban Institute analysis of Integrated Postsecondary Education Data System data.
Notes: Institutions ranked by endowment per student. Each decile contains approximately 10 percent of the students in that sector.

Key Elements of the U.S. Tax System

What is the excise tax on university endowments?

The endowments of the wealthiest private research universities enrolling 10 percent of students in the sector average about $1.5 million per student. The average combined endowment ($486,000 per student) for the wealthiest institutions enrolling half the students in this sector is more than 10 times the average endowment ($43,000 per student) of the institutions with the lowest endowments where the other half of this sector's students are enrolled. Endowment wealth at private bachelor's colleges is similarly skewed. At the master's universities, where there is much less wealth and the gaps are smaller, the average endowment for the top half is still almost five times the average for the bottom half.

THE EFFECT OF THE NEW TAX

The new tax is not expected to generate a significant amount of revenue for the federal government, an estimated $200 million per year, but it could set a precedent for imposing further taxes on these nonprofit entities. Some members of Congress have questioned whether these wealthy institutions actually use their resources to further society's educational goals in a meaningful way, largely because few low-income students enroll at institutions with large endowments, which tend to have very selective admissions. In both the public and private nonprofit sectors, the higher the endowment income per student at a college or university, the lower the share of its student body receiving federal Pell grants for low- and moderate-income students.

However, the high-endowment schools do use some of their wealth to reduce the prices they charge low-income students. Low-income students who attend the best-endowed institutions benefit both from the opportunities offered and from considerably lower net tuition prices than they would pay elsewhere. Financial aid is already so generous at these institutions that the tax will not likely lower prices. Moreover, these wealthy institutions enroll fewer than 150,000 of the 4 million students in the private nonprofit sector, and 20 million postsecondary students overall.

The new endowment tax is controversial. There are bipartisan efforts in Congress to repeal the tax, which is, unsurprisingly, unpopular among the higher education community. Some earlier proposals for taxing colleges and universities involved providing incentives for institutions to spend their endowments in certain ways or to modify their pricing structures. Whether it is feasible or advisable for the federal government to effect such changes, the current legislation makes no such effort, nor does it use revenues generated by the tax to further the nation's educational goals.

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Key Elements of the U.S. Tax System

Why are taxes so complicated?

Q. Why are taxes so complicated?

A. Our tax system could be simple if its only purpose were to raise revenue. But it has other goals, including fairness, efficiency, and enforceability. And Congress has used the tax system to influence social policy as well as to deliver benefits for specific groups and industries.

Almost everyone agrees that the current tax system is too complicated, yet almost every year the system gets more complex, not less. Why? Tax simplicity almost always conflicts with other policy goals.

For example, the simplest—and least distorting—tax is a head tax, a fixed-dollar tax on everyone. But a head tax would be unfair, taking no account of differences in the incomes and needs of individuals, families, and businesses.

COMPETING GOALS FOR A TAX SYSTEM

Most people believe taxes should be fair, conducive to economic prosperity, and enforceable, as well as simple. But even people who agree on these goals often disagree about the relative importance of each. As a result, policies usually represent a balance among competing goals, and simplicity often loses out to other priorities.

For example, most countries tailor tax burdens to individual taxpayers' characteristics. That can make taxes fairer, but more complex. Income has to be traced from businesses to individuals. Individual characteristics such as marital status and number of dependents, as well as the composition of expenditures or income, have to be reported and documented. These conflicting objectives appear to be especially relevant in the current tax code, where the desire to reduce tax burdens for particular groups have added significant complexity.

POLITICS OF TAX POLICY

Politics compounds complexity. Interest groups—and thus politicians—support tax subsidies for particular activities. And these targeted subsidies inevitably complicate the tax system by creating distinctions among taxpayers with different sources and uses of income.

EFFECTS OF INCREMENTAL LEGISLATIVE CHANGES

The current tax law was not enacted all at once but is a result of numerous provisions added or subtracted in multiple tax bills. Often Congress designs legislation under self-imposed constraints, such as short-term revenue goals or effects on the distribution of tax burdens among income groups. The result is that

tax incentives are often designed in complex ways to limit the revenue losses or benefits to high-income taxpayers or to prevent their use by unintended beneficiaries.

The result of this process is a set of very complex provisions that appear to have no overall logic if the tax law were being designed from scratch. These include phaseouts of certain tax benefits at high incomes, multiple incentives for higher education and retirement savings, multiple benefits for taxpayers with dependents with different eligibility definitions, and an entirely separate tax schedule, the individual alternative minimum tax, that applies to certain taxpayers using selected tax preferences. The Tax Cuts and Jobs Act of 2017 substantially reduced the number of taxpayers subject to the alternative minimum tax through 2025 and, by raising the standard deduction and capping the state and local tax deduction, reduced the number of taxpayers who benefit from itemized deductions. But it left many other complex benefits in the tax law largely unchanged and added a new deduction for business income, with its own complex limits to minimize abusive transactions.

Annual reports by the National Taxpayer Advocate have presented proposals for simplifying the tax code, including reforms of education incentives, retirement incentives, child benefits, and the alternative minimum tax.

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Q. What are the benefits of simpler taxes?

A. Simpler taxes have lower compliance costs—in both time and money—and may encourage taxpayers to use tax provisions aimed at helping people pay for socially desirable activities.

Simplification could improve the tax code in at least two important ways. First, simplicity would lower taxpayers' costs of complying with the tax system in time, money, and mental anguish. Second, simpler tax provisions are more likely to be used. Provisions aimed at encouraging specific activities, such as saving for college, would be more effective if people understood how they work.

Making taxes simpler could improve compliance by reducing inadvertent nonpayment of taxes. To some (uncertain) extent, people do not pay taxes because they do not understand the tax law. Evidence also suggests that people are more likely to evade taxes they consider unfair. People who cannot understand tax rules may question the fairness of the tax system and feel that others are reaping more benefits than they are.

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Q. What policy reforms could simplify the tax code?

A. Reducing the number of distinctions among economic activities and taxpayers' characteristics would simplify the code, reducing both taxpayers' compliance costs and governmental administrative costs. Some distinctions among taxpayers promote fairness, so there are trade-offs among goals, but the tax law could be simplified without compromising equity.

The key to tax simplification is to make fewer distinctions across economic activities and taxpayers' characteristics. This would not only reduce compliance costs, but would also allow for simpler administration. For example, one provision that allows taxpayers to deduct charitable contributions requires administrative resources to determine which organizations are eligible to receive charitable contributions, and to ensure that taxpayers make the contributions they claim on their tax returns. This provision would also imposes record-keeping costs on taxpayers.

A simple tax system would generally be structured with a broad tax base with rates that are the same across different income sources or types of expenditure. Progressivity could be embodied in the rate structure (with rates rising with income, as they do now), a basic exemption amount, and the choice of tax base (income, consumption, or another measure), rather than through specific provisions that treat different levels of income and consumption differently. Universal exemptions, deductions, or credits are much simpler to administer than targeted ones.

The tax law could be made even simpler if all income were taxed at a single rate. Then, all taxes on earnings, interest, and dividends could be collected by withholding from employers and financial institutions without many taxpayers needing to file returns. But such a tax system would conflict with the goal of progressivity—imposing higher tax rates on those with a greater ability to pay—and many would regard that as unfair. Some other provisions that add complexity are nonetheless necessary for tax fairness and economic efficiency. For example, self-employed taxpayers who use a personal automobile in their business must keep records to distinguish between personal and business uses of their car. Nonetheless, a fair and efficient income tax requires that business costs should be deductible, while personal consumption expenses should not.

Several modest changes could make the current tax system simpler without compromising fairness or reducing incentives to work, save, and invest. One option would be to coordinate the phaseout of tax credits. Specific tax credits phase out across different income ranges, so that claiming each credit requires a separate worksheet and tax calculation. The phaseouts also create hidden taxes over the phaseout range and diminish the credits' effectiveness in encouraging the activities they are designed to spur.

Key Elements of the U.S. Tax System

What policy reforms could simplify the tax code?

Numerous provisions—each with its own rules—apply to the same general activity. Coordinating or consolidating these provisions could simplify tax-return preparation and reduce tax-planning costs with little or no change in revenue or the distribution of tax burdens. Examples include the various provisions related to families with children (the earned income tax credit, the dependent credit, and the child credit), tax subsidies for education (the American Opportunity and Lifetime Learning credits, and the deductibility of tuition and fees), and saving incentives (traditional individual retirement accounts, Roth IRAs, education IRAs, and Keogh plans).

Yet another simplification would tax capital gains at the same rate as ordinary income in return for reduced top tax rates. This was a main feature of the 1986 Tax Reform Act, although the 1986 reform also retained a limitation on capital losses to prevent selective realization of losses by taxpayers with gains on their investment portfolios. Returning to this approach would reduce incentives for complex tax-planning strategies that recharacterize ordinary income as capital gain. Yet a higher capital gains rate would increase incentives to delay or wholly avoid realizations of capital gains and put new pressure on rules, such as those for like-kind exchanges, that define when a realization event has occurred.

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Q. How do the estate, gift, and generation-skipping transfer taxes work?

A. The federal estate tax applies to the transfer of property at death. The gift tax applies to transfers made while a person is living. The generation-skipping transfer tax is an additional tax on a transfer of property that skips a generation.

The United States has taxed the estates of decedents since 1916. Gifts have been taxed since 1924 and, in 1976, Congress enacted the generation-skipping transfer (GST) tax and linked all three taxes into a unified estate and gift tax.

The tax applies only to the portion of the estate's value that exceeds an exemption level. The Tax Cuts and Jobs Act (TCJA) doubled the estate tax exemption to $11.2 million for singles and $22.4 million for married couples, but only for 2018 through 2025. The exemption level is indexed for inflation. The 40 percent top tax rate remains in place.

The tax rates and exemption levels have varied dramatically over the past two decades. Before the Economic Growth and Tax Relief Reconciliation Act of 2001 (EGTRRA), the estate tax exemption was set at $675,000 and scheduled to gradually increase to $1 million. EGTRRA cut all three taxes sharply, but only through 2010. The act gradually phased out the estate and GST taxes and repealed both entirely for 2010, leaving only the gift tax (at a reduced rate) in effect that year (table 1).

The Tax Relief, Unemployment Insurance Reauthorization, and Job Creation Act of 2010 reinstated the estate and GST taxes for 2010 and extended them through 2012, with a $5 million estate tax exemption (indexed for inflation after 2011) and a top rate of 35 percent, but allowed executors to elect the EGTRRA rules for decedents who died in 2010. The 2012 rules were permanently extended by the American Taxpayer Relief Act of 2012, but the top rate was increased to 40 percent (table 1).

Here's how the estate tax works:

- The executor must file a federal estate tax return within nine months of a person's death if that person's gross estate exceeds the exempt amount ($11.2 million in 2018).
- The estate tax applies to a decedent's gross estate, which generally includes all the decedent's assets, both financial (e.g., stocks, bonds, and mutual funds) and real (e.g., homes, land, and other tangible property). It also includes the decedent's share of jointly owned assets and life insurance proceeds from policies owned by the decedent.

Key Elements of the U.S. Tax System

How do the estate, gift, and generation-skipping transfer taxes work?

TABLE 1

Estate, Gift, and GST Tax Rates and Exemptions under Current Law
2007–2018

Year	Estate and GST tax rate	Gift tax rate	Estate and GST tax exemptions	Lifetime gift exemptions	Annual gift exclusion[a]
2007	45%	45%	$2 million	$1 million	$12,000
2008	45%	45%	$2 million	$1 million	$12,000
2009	45%	45%	$3.5 million	$1 million	$13,000
2010	0%[a]	35%	N/A[b]	$1 million	$13,000
2011	35%	35%	$5 million	$5 million	$13,000
2012	35%	35%	$5.12 million	$5.12 million	$13,000
2013	40%	40%	$5.25 million	$5.25 million	$14,000
2014	40%	40%	$5.34 million	$5.34 million	$14,000
2015	40%	40%	$5.43 million	$5.43 million	$14,000
2016	40%	40%	$5.45 million	$5.45 million	$14,000
2017	40%	40%	$5.49 million	$5.49 million	$14,000
2018	40%	40%	$11.2 million	$11.2 million	$15,000

Source: Internal Revenue Code.
(a) The exemption, which was $10,000 in 1998, is indexed for inflation in $1,000 increments.
(b) Executors can elect to apply the EGTRRA rules, which repealed the estate tax for 2010, but otherwise the 2011 parameters apply.

- The estate and gift taxes allow an unlimited deduction for transfers to a surviving spouse, to charity, and to support a minor child. Estates may also deduct debts, funeral expenses, legal and administrative fees, charitable bequests, and estate taxes paid to states. The taxable estate equals the gross estate less these deductions.
- A credit then effectively exempts a large portion of the estate: in 2018, the effective exemption is $11.2 million. Any value of the estate over $11.2 million is generally taxed at the top rate of 40 percent.
- The exemption level is portable between spouses, making the effective exemption for married couples double the exemption for singles. For example, if the first spouse to die bequeathed $5 million to children and grandchildren, the survivor's exemption would increase by the unused $6.2 million
- Although tax rates are graduated, all transfers in excess of the exemption are taxed at the top rate because the exemption exceeds the threshold at which the top rate applies.
- Special provisions reduce the tax, or spread payments over time, for family-owned farms and closely held businesses. Estates that satisfy certain conditions may use a special-use formula to reduce the taxable value of their real estate, often by 40 to 70 percent. Family-owned businesses may often claim valuation discounts on the logic that when a business (including, potentially, one only passively investing in liquid assets) is divided among many heirs, the resultant minority stakes may have a market value less than proportional to the total value of the business. When farms or businesses make up at least 35 percent of a gross estate, the tax may be paid in installments over 14 years at reduced interest rates, with only interest due during the first five years.
- Inheritances are not taxable income to the recipient under the income tax.
- The basis for inherited assets is stepped up to the value at the time of death, meaning that unrealized capital gains on assets held until death are never subject to income tax. (Journalist Michael Kinsley famously called this the "angel of death loophole.")

Key Elements of the U.S. Tax System

How do the estate, gift, and generation-skipping transfer taxes work?

Here's how the gift tax works:

- Congress enacted the gift tax in 1932 to prevent donors from avoiding the estate tax by transferring their wealth before they died.
- The tax provides a lifetime exemption of $11.2 million per donor in 2018. This exemption is the same that applies to the estate tax and is integrated with it (i.e., gifts reduce the exemption amount available for estate tax purposes). Beyond that exemption, donors pay gift tax at the estate tax rate of 40 percent.
- An additional amount each year is also disregarded for both the gift and estate taxes. This annual exclusion, $15,000 in 2018, is indexed for inflation in $1,000 increments and is granted separately for each recipient. Thus, a married couple with three children could give their children a total of $90,000 each year ($15,000 from each parent to each child) without owing tax or counting toward the lifetime exemption.
- Gifts received are not taxable income to the recipient.

And here's how the generation-skipping trust tax works:

- Congress enacted the GST tax in 1976 to prevent families from avoiding the estate tax for one or more generations by making gifts or bequests directly to grandchildren or great-grandchildren. The GST tax effectively imposes a second layer of tax (using the exemption and the top tax rate under the estate tax) on wealth transfers to recipients who are two or more generations younger than the donor.

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Q. Who pays the estate tax?

A. The top 10 percent of income earners pays more than 90 percent of the tax, with nearly 40 percent paid by the richest 0.1 percent. Few farms or family businesses pay the tax.

The Urban-Brookings Tax Policy Center estimates that some 4,000 individuals dying in 2018 will leave estates large enough to require filing an estate tax return (estates with a gross value under $11.2 million need not file this return in 2018). After allowing for deductions and credits, 1,900 estates will owe tax. Over 90 percent of these taxable estates will come from the top 10 percent of income earners and more than one-third will come from the top 1 percent alone (table 1).

Estate tax liability will total an estimated $14.9 billion in 2018. The top 10 percent of income earners will pay 93 percent of this total. The richest 0.1 percent will pay $5.8 billion, or 39 percent of the total (table 1). According to TPC's 2017 estimates, only about 80 small farms and closely held businesses—estates with farm and business assets totaling no more than $5 million and making up at least half of the gross estate—paid any estate tax in 2017. Small farms and businesses will not be subject to the estate tax in 2018 because of the $11.2 million effective exemption under the Tax Cuts and Jobs Act. The higher exemption amount expires after 2025.

TABLE 1

Estate Tax, Number of Returns and Distribution of Burden

2018 Current Law

	Expanded Cash Income Category					Businesses and Farms	
	All	Top 10%	Top 5%	Top 1%	Top 0.1%	All[a]	Small[b]
Number of returns[c]	4,020	3,530	3,020	1,970	480	450	N/A
Number of taxable returns[c]	1,890	1,720	1,330	690	150	140	N/A
Share of all taxable returns	100%	91%	70%	37%	8%	7%	N/A
Estate tax paid ($ billions)[d]	$14.9	$13.9	$13.1	$10.6	$5.8	$1.5	N/A
Share of all estate tax paid	100%	93%	88%	71%	39%	10%	N/A

Source: Urban-Brookings Tax Policy Center Microsimulation Model (version 0718-1).
Note: Estimates are for estate tax returns filed for individuals who die in 2018.
(a) Estate tax returns on which farm and business assets represent at least half of gross estate.
(b) Estate tax returns on which farm and business assets represent at least half of gross estate and these assets are no more than $5 million.
(c) Number of returns is rounded to nearest multiple of 10.
(d) Estate tax paid is rounded to nearest multiple of $10 million.

Key Elements of the U.S. Tax System

Who pays the estate tax?

While most estimates assume the decedent bears the estate tax, this is primarily because of data limitations. There is good reason to believe that heirs most often bear the tax. When the burdens are analyzed this way, individuals inheriting over $1 million bear the estate tax almost exclusively.

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Q. How many people pay the estate tax?

A. About 4,000 estate tax returns will be filed for people who die in 2018, of which only about 1,900 will be taxable—less than 0.1 percent of the 2.7 million people expected to die in that year.

Because of a series of increases in the estate tax exemption, few estates pay the tax. The Economic Growth and Tax Relief Reconciliation Act of 2001 (EGTRRA) raised the estate tax exemption from $675,000 in 2001 to $1 million in 2002 and to $3.5 million in a series of steps through 2009, sharply reducing the number of estates that paid estate taxes. EGTRRA repealed the estate tax for 2010 but after that, the estate tax was scheduled to revert to pre-EGTRRA rules.

The Tax Relief, Unemployment Insurance Reauthorization, and Job Creation Act of 2010 reinstated the estate tax and generation-skipping transfer tax and extended them through 2012, with a $5 million estate tax exemption (indexed for inflation after 2011) and a top rate of 35 percent. The American Taxpayer Relief Act of 2012 permanently extended the exemption, but the top rate was increased to 40 percent.

The Tax Cuts and Jobs Act doubled the exemption to $11.2 million in 2018, but the estate tax cut is scheduled to expire after 2025 (along with most other provisions of the new law).

Internal Revenue Service data show that roughly 109,600 estate tax returns were filed for decedents in 2001, the year before the EGTRRA changes began to go into effect. Fewer than half—about 50,500—of those estates had any estate tax liability after credits. Estate tax liability totaled $23.7 billion (table 1).

For decedents in 2009, the year the final increase in the estate tax exemption under EGTRRA went into effect, only about 12,900 estate tax returns were filed, of which only 5,700 were taxable. Estate tax liability totaled $13.6 billion (table 1).

For those who died in 2010, executors could elect to have the EGTRRA rules apply, which meant that no estate tax was imposed. However, instead of recipients of bequests receiving a full step-up in basis, they were limited to $1.3 million (plus an additional $3 million for surviving spouses), with any additional unrealized gains required to be carried over. Recipients, therefore, will pay deferred income tax on these additional unrealized gains when the gains are realized.

For decedents in 2018 (with an exemption of $11.2 million), the Urban-Brookings Tax Policy Center estimates only about 4,000 estate tax returns will be filed, of which 1,900 will be taxable. Estate tax liability will total $14.9 billion after credits (table 1).

Key Elements of the U.S. Tax System

How many people pay the estate tax?

To put the number of estate tax returns filed in perspective, the Population Division of the Bureau of the Census projects that 2.7 million people will die in 2018. Thus, an estate tax return will be filed for only about 0.15 percent of decedents, and only about 0.07 percent will pay any estate tax.

TABLE 1

Estate Tax, Number of Returns, and Tax Liability
2001, 2007–2018

Year	Number of Returns[a]	Number of Taxable Returns[a]	Estate tax liability ($ billions)[b]
2001	109,600	50,500	$23.7
2007	36,700	16,600	$24.6
2008	29,000	15,100	$18.9
2009	12,900	5,700	$13.6
2010	*	*	*
2011	9,400	4,400	$10.9
2012	9,600	4,100	$12.0
2013	11,300	4,700	$16.6
2014	11,000	5,400	$18.3
2015	11,000	5,300	$18.6
2016	11,200	5,300	$19.3
2017	11,300	5,500	$20.0
2018	4,000	1,900	$14.9

Sources: For 2001, 2007, 2009, 2011, and 2013: Internal Revenue Service. Statistics of Income. "Estate Tax Year of Death Tables." For 2008, 2012, and 2014–2018, Urban-Brookings Tax Policy Center Microsimulation Model (versions 0217-1 and 0718-1).

Note: Figures are for estate tax returns filed for decedents dying in each calendar year.

* The estate tax was repealed for 2010 decedents by the *Economic Growth and Tax Relief Reconciliation Act of 2001 (EGTRRA)*, but reinstated by the *Tax Relief, Unemployment Insurance Reauthorization, and Job Creation Act of 2010* with an option for executors to elect the EGTRRA rules; IRS SOI did not publish statistics for 2010 decedents.

(a) Number of returns is rounded to nearest multiple of one hundred.

(b) Estate tax paid is rounded to nearest multiple of $10 million.

How many people pay the estate tax?

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Q. What is the difference between carryover basis and a step-up in basis?

A. The difference is whether heirs who sell an inherited asset will pay tax on the capital gains from the time the asset was originally purchased or from the time it was inherited. In some cases, the difference is a lot of tax liability.

A capital gain occurs if a capital asset is sold or exchanged at a price higher than its "basis," the original purchase price plus the cost of improvements less depreciation. When a person inherits an asset, the basis becomes the asset's fair market value at the time of the owner's death. This is called a "step-up in basis" because the basis of the decedent's asset is stepped up to market value. With gifts made during the giver's lifetime, the recipient retains the basis of the person who made the gift ("carryover basis").

The donor's income does not include the unrealized gain (or loss) on assets given by gift or bequest. The recipient does not owe any tax until the asset is sold, at which point any gain is taxable. The taxable gain is the amount received from the sale of the asset less the asset's basis. For most sales, the basis is the amount the taxpayer invested in the asset, adjusted for subsequent improvements, depreciation, and certain other items. For gifts and bequests, however, special basis rules apply.

For gifts, the basis remains the same as when the asset was held by the person who made the gift ("carryover basis"), but with an adjustment for any gift tax paid. For inheritances, the basis is the fair market value of the asset at the time of the donor's death (or six months afterward, if the executor elects the alternative valuation date). This is referred to as "step-up in basis" (or "stepped-up basis") because the previous basis is stepped up to market value.

The effect of carryover basis on gifts is to tax the unrealized gain accrued by the donor when the recipient sells the asset. The effect of step-up in basis on inheritances is to eliminate income tax on any unrealized gain accrued by the decedent.

There have been past efforts to repeal or eliminate step-up in basis.

- The Tax Reform Act of 1976 would have imposed carryover basis on all inherited assets, but the provision was repealed before it could ever take effect.

- The Economic Growth and Tax Relief Reconciliation Act of 2001 repealed the estate tax and curtailed step-up in basis, but only for one year—2010. The act limited step-up to $1.3 million (plus an additional $3 million for surviving spouses) with any additional unrealized gains carried over. (Estates could elect to

retain step-up in exchange for paying an estate tax; a few estates with highly appreciated assets chose this option.)

- The Obama administration proposed repealing stepped-up basis subject to several exemptions, including a general exemption for the first $100,000 in accrued gains ($200,000 per couple). The US Department of the Treasury estimated that, together with raising the capital gains rate to 28 percent, this proposal would raise $210 billion over 10 years. Ninety-nine percent of the revenue raised would come from the top 1 percent of households ranked by income.

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Q. How could we reform the estate tax?

A. Possible reforms run the gamut from repeal to modest fixes that would make the tax more difficult to avoid.

Proposals to reform the estate and gift tax range from comprehensive options, such as permanently repealing the estate tax or replacing the existing tax with a tax on inheritances, to more modest options, such as decreasing exemption amounts, increasing tax rates, and blocking avenues for avoidance.

The federal estate and gift taxes (including the generation-skipping tax, or GST) have changed more than a dozen times since 2001. The Economic Growth and Tax Relief Reconciliation Act of 2001 (EGTRRA) cut these taxes sharply but only through 2010. EGTRRA gradually phased out the estate tax and GST, eliminating them entirely for 2010 and leaving only the gift tax (at a reduced rate) in that year.

The Tax Relief, Unemployment Insurance Reauthorization, and Job Creation Act of 2010 reinstated the estate tax and GST for 2010 and extended them through 2012, with a $5 million estate tax exemption (indexed for inflation after 2011) and a top rate of 35 percent. But the law allowed executors to elect the EGTRRA rules for decedents who died in 2010. The American Taxpayer Relief Act of 2012 (ATRA) permanently extended the 2012 rules, though with a new top rate of 40 percent.

The Tax Cuts and Jobs Act of 2017 (TCJA) doubled the estate tax exemption to $11.2 million in 2018 but kept the 40 percent top rate. The TCJA changes expire after 2025.

REPEAL

Many members of Congress have called for the repeal of the estate and gift taxes. That would be expensive, however. The Office of Management and Budget projects that these taxes will raise $205 billion in fiscal years 2019 through 2028.

Repeal would also be regressive—the benefits would go almost entirely to people at the top of the income distribution—and would invite significant sheltering of income. Further, gifts from an estate to charity currently qualify for full deduction from the estate's taxable value, creating a substantial incentive to leave bequests to charities. Prior estimates indicate that repealing the estate tax would reduce charitable donations by 6 to 12 percent.

INHERITANCE TAX

One option, the substitution of an inheritance tax, would tax wealth transfers somewhat differently. An inheritance tax differs from an estate and gift tax in that the rate depends on the amount of gifts and bequests the taxpayer receives rather than on how much the donor gives or bequeaths. Unlike estate and

gift taxes, a progressive inheritance tax gives donors an incentive to spread their wealth more broadly, because each of any number of recipients can claim an exemption and take advantage of progressive tax rates, thus reducing the total tax attributable to an estate. Most countries that tax wealth transfers do so with inheritance taxes rather than estate taxes and many states levy inheritance taxes.

LIMIT PREFERENCES

A more modest reform could repeal or modify the many estate tax preference items, such as special trust arrangements and valuation discounts, that allow savvy millionaires to drastically reduce or even eliminate estate tax liability. University of Southern California law professor Edward McCaffery said the tax was so easy to avoid that it was essentially a "voluntary tax" (albeit one that raised about $20 billion per year at the time of his writing). The plethora of loopholes complicates estate planning and results in comparable estates facing very different tax bills. Eliminating estate tax preferences could increase revenues, which could pay for extending the higher estate tax exemption scheduled to return to pre-TCJA levels after 2025 or for reducing the deficit.

RETURN TO PRIOR LAW

Alternatively, policymakers might simply reverse some of the estate tax changes enacted since 2001 (figures 1 and 2).

- 2000 law. Before 2001, the estate tax had an exemption level of $1 million (not indexed for inflation), a top statutory rate of 55 percent, a 5 percent surtax that phased out the benefit of lower rates for large estates, and a credit (rather than a deduction) for state wealth transfer taxes. Making pre-ATRA law permanent starting in 2019 would increase the number of estate tax returns filed for decedents who died between 2019 and 2028 by 1.7 million and increase the estate tax liabilities of these decedents by $585 billion.

- 2009 law. The estate tax law in effect under EGTRRA for 2009 had an exemption of $3.5 million (unindexed) and a top rate of 45 percent. If 2009 law were made permanent starting in 2019, the number of estate tax returns filed for decedents who died between 2019 and 2028 would increase by 246,000, and estate tax liabilities of these decedents would increase by $234 billion.

- 2009 law, exemption indexed by chained consumer price index. If 2009 law, modified to index the exemption to inflation, were made permanent starting in 2019, the number of estate tax returns filed for decedents who died between 2019 and 2028 would increase by 162,000, and estate tax liabilities of these decedents would increase by $171 billion (about three-quarters the increase without indexing the exemption).

- 2017 law. The TCJA doubled the estate tax exemption and adopted a somewhat slower inflation adjustment starting in 2018, but only through 2025. Returning to an estate tax exemption of $5 million (indexed for inflation from 2011) in 2019 through 2025 would increase the number of estate tax returns filed by 55,000 between 2019 and 2028 and would increase estate tax liabilities by about $60 billion.

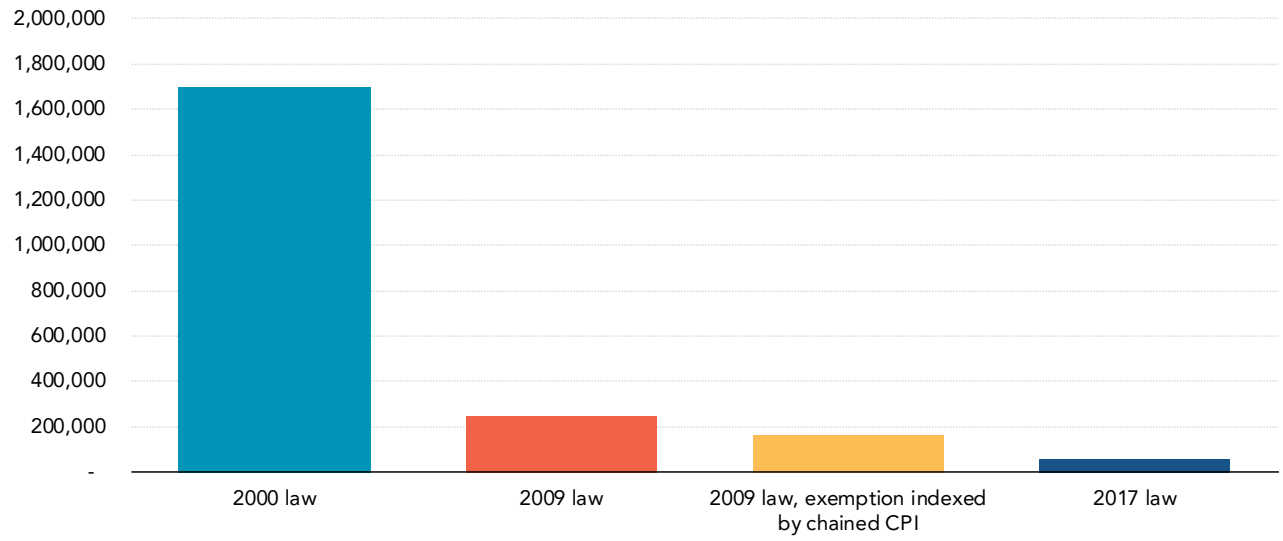
Key Elements of the U.S. Tax System

How could we reform the estate tax?

FIGURE 1

Change in Number of Estate Tax Returns under Alternative Reforms

2019–27

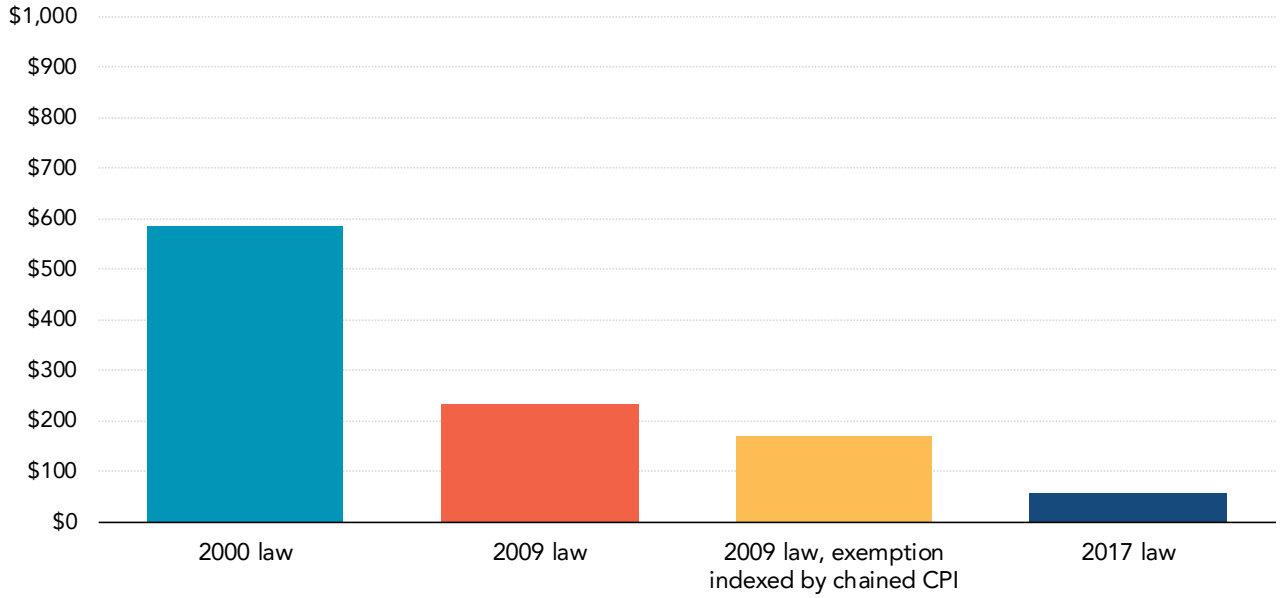


Source: Urban-Brookings Tax Policy Center Microsimulation Model (version 0718-1).
Note: Returns included have gross estate greater than exemption; years refer to decedent's year of death.

FIGURE 2

Change in Estate Tax Liability under Alternative Reforms

2019–27, billions of dollars



Source: Urban-Brookings Tax Policy Center Microsimulation Model (version 0718-1).
Note: Returns included have gross estate greater than exemption; years refer to decedent's year of death.

Key Elements of the U.S. Tax System

How could we reform the estate tax?

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Q. How should wealth be taxed?

A. There are three options: an estate and gift tax (like the current US federal system), an inclusion tax, or an accessions tax.

The transfer of wealth through gifts or bequests can be taxed in three ways: under an estate and gift tax (like the current US federal system), under an inclusion tax, or under an accessions tax.

ESTATE AND GIFT TAX

An estate and gift tax applies to the donor or the donor's estate using separate estate and gift tax rate structures. Apart from transfers to spouses and charities, which are generally exempt from tax, and the small annual exemption from the gift tax, the amount of tax imposed on the transfer does not vary with income or other characteristics of recipients of large gifts and bequests.

INCLUSION TAX

An inclusion tax requires recipients to treat transferred assets as taxable income under the federal income tax. The amount of tax, therefore, varies with the recipients' characteristics (e.g., their filing status), the amount of their other income, the amount of their deductions, and other factors that affect income tax liability.

ACCESSIONS TAX

An accessions tax, like an inclusion tax, taxes recipients on the value of transfers received, but under a rate structure different from the income tax rate structure. The tax imposed on the transfer, therefore, depends only on the amount the recipient receives in the relevant time period.

CONSIDERATIONS

Under all three approaches, the treatment of the donor's unrealized gains affects incentives to transfer and the amount of tax revenue produced. A donor's unrealized gains could be taxed as part of his or her income. Alternatively, such gains could be taxed when realized by the recipient if a carryover basis is required. On the other hand, if the recipient is allowed a step-up in basis, such gains could never be taxed at all.

One consideration for an accessions tax is the period over which transfers are taxed. If transfers are taxed annually with a graduated rate schedule, recipients would pay much less tax on lifetime transfers received evenly over many years than if they received the entire amount in one year. The tax system could address these differences by taking into account the transfers recipients accumulate over their lifetimes, much like the federal estate and gift taxes. With these current taxes, bequests and gifts are added up over the recipient's lifetime to determine whether he or she has exceeded the exempt amount.

The taxation of lifetime transfers can also differ under an inclusion tax because of the graduated income tax rate schedule. One way to address these differences would be to average inclusions over several years. Under an estate and gift tax, the number of recipients doesn't affect the amount of tax paid on transfers. Taxing inheritances under an inclusion tax or an accessions tax may encourage broader transfers of wealth, because broader transfers would generally reduce the total amount of tax paid.

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Q. What is an inheritance tax?

A. A type of wealth transfer tax in which the recipient, rather than the donor's estate, is taxed.

An inheritance tax applies to the gifts and bequests a taxpayer receives. Unlike estate and gift taxes, a progressive inheritance tax gives donors an incentive to spread their wealth more broadly. Recipients can claim an exemption and take advantage of graduated tax rates, thus reducing the effective tax rate. Currently, the United States has no federal inheritance tax, but several states do.

While donors or their estates are legally obliged to remit wealth transfer taxes, evidence suggests that all or most of the economic burden falls on recipients, who receive a smaller after-tax gift or inheritance than they would without the tax. However, an individual recipient's burden varies depending on whether the tax is an inheritance tax or an estate and gift tax.

Inheritance taxes come in three principal forms:

1. An accessions tax applies to the amount an individual receives by gift or bequest over a lifetime.
2. An annual inheritance tax applies to the gifts and bequests a person receives in a given year.
3. An inclusion tax counts gifts and bequests as income and taxes them as such.

Thus, the tax rate depends on the size of the gift or bequest, as well as on the recipient's other income. An inclusion tax could be combined with either of the other two types of inheritance taxes into a single tax that takes advantage of the strengths of each.

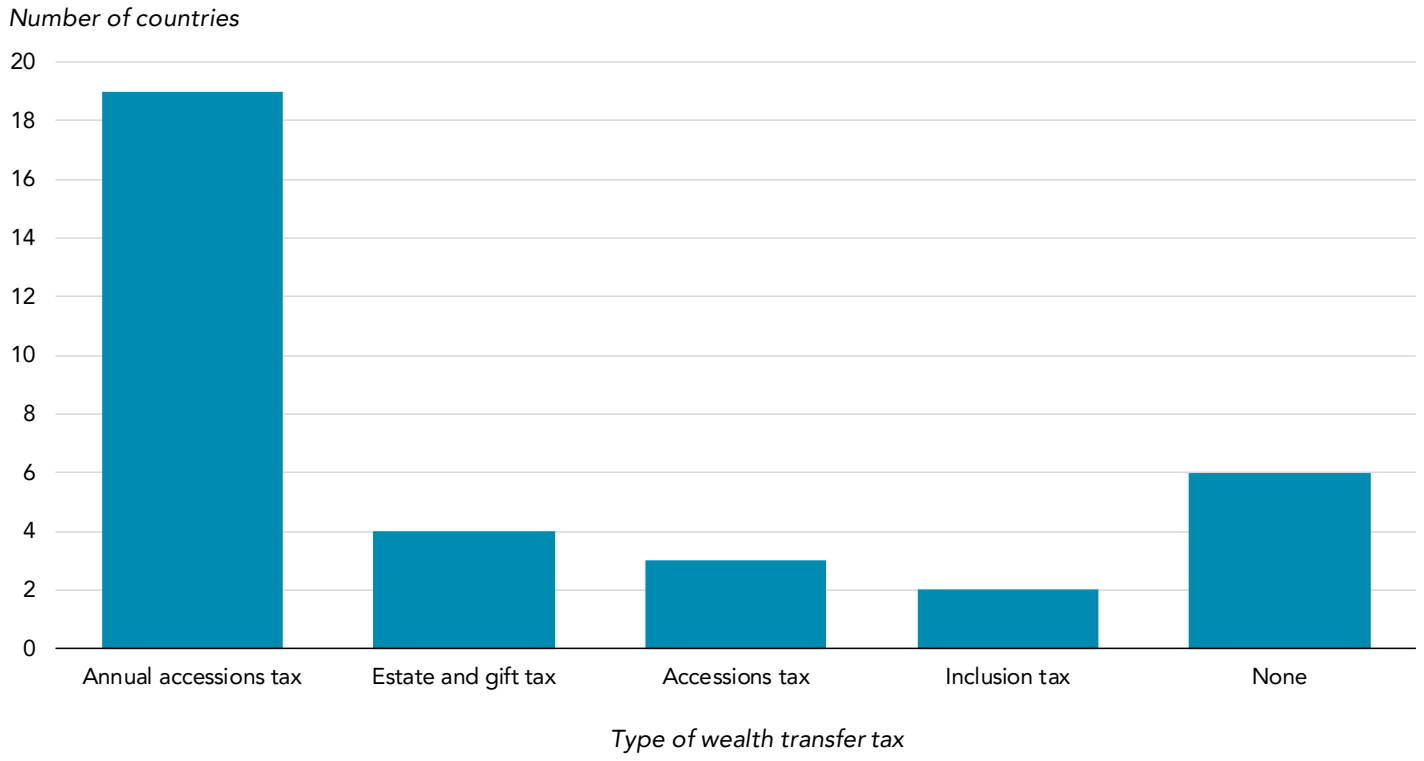
Most countries rely on inheritance taxes rather than on estate and gift taxes. More than half of the 34 countries in the Organisation for Economic Co-Operation and Development have an annual inheritance tax (figure 1); a few use accessions and inclusion taxes. Only three (besides the United States) have estate taxes. The past several decades have seen a shift away from estate taxes: Australia, Canada, and New Zealand repealed their estate taxes, and Ireland replaced its estate tax with an inheritance tax.

Some analysts argue that inheritance taxes are simpler to administer than estate taxes because they curtail strategies used to avoid estate taxes, such as moving assets into complicated trusts that falsely suggest a decedent's estate will go to a person or entity exempt from the tax. Others argue that estate taxes are simpler because they require less record keeping.

FIGURE 1

Type of Wealth Transfer Tax in 34 Countries

2007



Source: Batchelder (2009).

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Q. What are the major federal payroll taxes, and how much money do they raise?

A. Payroll taxes are levied to finance Social Security, the hospital insurance portion (Part A) of Medicare, and the federal unemployment insurance program. Revenue totaled just over $1.1 trillion, or about 6.1 percent of gross domestic product, in fiscal year 2017.

SOCIAL SECURITY

Social Security, or more formally, Old-Age, Survivors, and Disability Insurance (OASDI), provides benefits to elderly and disabled workers, their spouses, and surviving spouses or dependents. It is one of the largest items in the federal budget, with outlays of $939 billion in 2017.

Benefits are mainly financed by a payroll tax on cash wages, up to an annual maximum indexed to average wage growth (table 1). In 2018, maximum taxable wages are $128,400. Employers and employees each contribute 6.2 percent of the workers' wages for a combined 12.4 percent—usually 10.6 percent for the OASI trust fund (retirement and survivors) and 1.8 percent for the DI trust fund (disability).

The Bipartisan Budget Act of 2015 temporarily reallocated a portion of the OASI tax to the DI trust fund for 2016–18 to shore up the DI trust fund, which faced insolvency. For those years, the combined employer and employee rates are 10.03 percent for OASI and 2.37 percent for DI. Most economists believe that the employer portion of the tax, just like the employee portion, is borne by employees in the form of lower compensation.

TABLE 1

Major Federal Payroll Tax Rates and Bases

2018

Source	Wage Base	Employer Rate	Employee Rate	Total Rate
Old Age and Survivors Insurance (OASI)	$128,400	5.30%	5.30%	10.60%
Disability Insurance (DI)	$128,400	0.90%	0.90%	1.80%
Hospital Insurance (HI)	No limit	1.45%	1.45%	2.90%
Federal Unemployment Insurance (UI)	$7,000	0.60%	0.00%	0.60%

Source: Social Security Administration, "2018 Social Security Changes Fact Sheet," 2018; Department of Labor, "Unemployment Insurance Tax Topic," 2018.

Notes: Wage bases for OASI and DI are adjusted each year to account for wage growth. The Bipartisan Budget Act of 2015 reallocated a portion of the OASI tax to DI in 2016-2018. The rates in those years are OASI: 5.015 (employer and employee), DI: 1.185 (employer and employee).

Key Elements of the U.S. Tax System

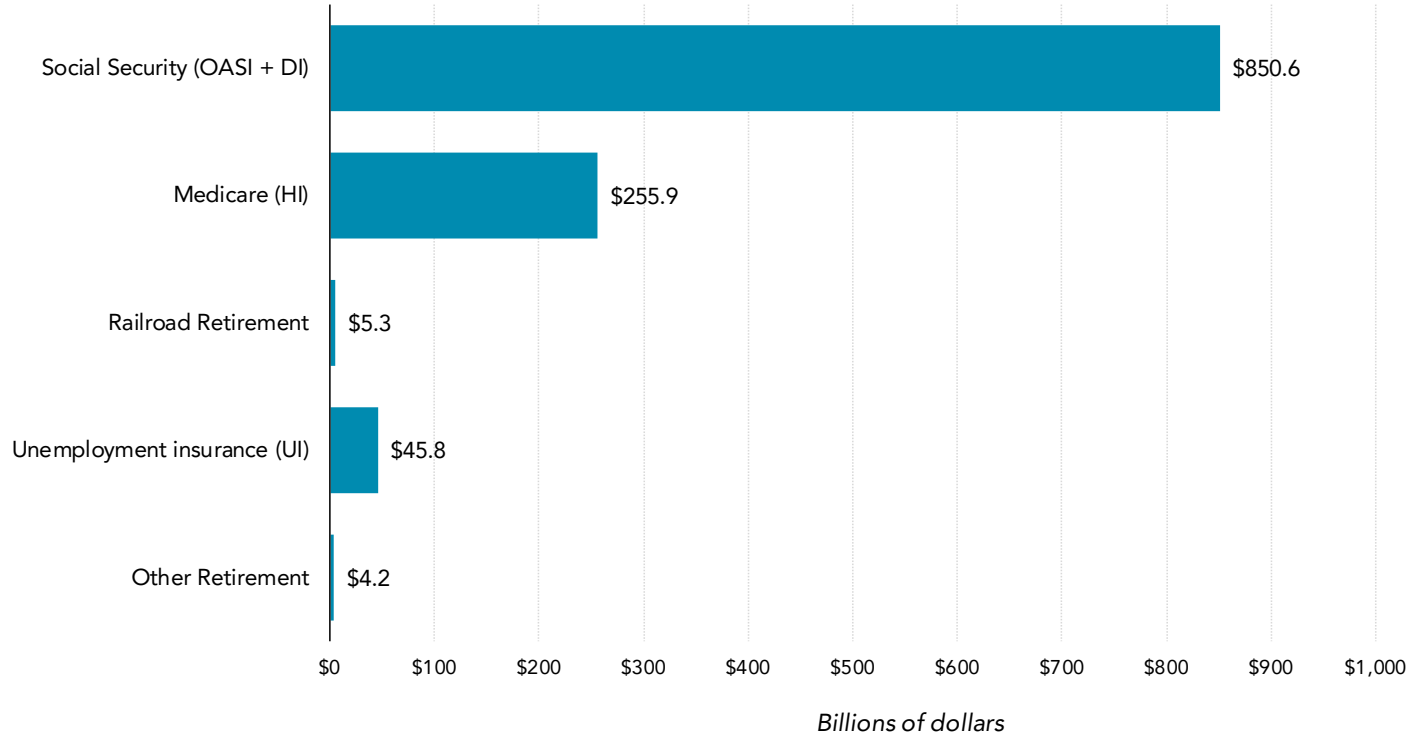
What are the major federal payroll taxes, and how much money do they raise?

Over time, Social Security taxes have become a major share of federal revenues. When the tax was first collected in 1937, the combined payroll tax rate was 2.0 percent; it raised $765 million (about $13.1 billion in 2017 dollars). In 2017, OASDI taxes totaled over $850 billion and represented 25.7 percent of total federal receipts (figure 1).

FIGURE 1

Federal Social Insurance (Payroll Tax) and Retirement Receipts

Billions of dollars, fiscal year 2017



Source: Office of Management and Budget, Historical Tables, "Table 2.4 Composition of Social Insurance and Retirement Receipts and of Excise Taxes: 1940–2023," 2018.
Note: OASI: Old-Age and Survivors Insurance; DI: Disability Insurance; HI: Hospital Insurance.

HOSPITAL INSURANCE

The hospital insurance (HI) program, or Part A of Medicare, covers inpatient hospital visits and other health care services for the elderly and some others suffering from specified maladies. Federal costs for other parts of Medicare, such as Part B, which covers doctors' and other providers' fees, are not covered by payroll taxes but mainly by general revenues.

The HI program is financed mainly through payroll taxes on workers. Employers and employees each contribute 1.45 percent of the worker's wages toward the HI trust fund for a combined rate of 2.9 percent (table 1). The cap on wages subject to the HI tax was removed in 1994. Also, beginning in 2013, single households earning more than $200,000 and married households earning more than $250,000 contributed

an additional 0.9 percent of earnings over those thresholds (there is no employer portion for this "surtax"). In 1966, the first year of HI tax collections, the combined tax rate was 0.7 percent, and collections totaled $1.9 billion (about $14.3 billion in 2017 dollars). In 2017, HI taxes totaled $255.9 billion.

UNEMPLOYMENT INSURANCE

Unemployment insurance (UI) provides insured workers with benefits if they are involuntarily unemployed and meet eligibility requirements. UI programs are run by the states in partnership with the federal government. To finance benefits and program expenses, both the states and the federal government deposit payroll taxes into a federal trust fund.

The federal payroll tax rate is 6.0 percent on the first $7,000 of covered wages, but tax credits reduce the effective federal tax rate to 0.6 percent (table 1). State unemployment tax rates and wage bases vary but are usually below 4.0 percent and are on low wage bases.

In 2017, federal UI taxes totaled about $45.8 billion.

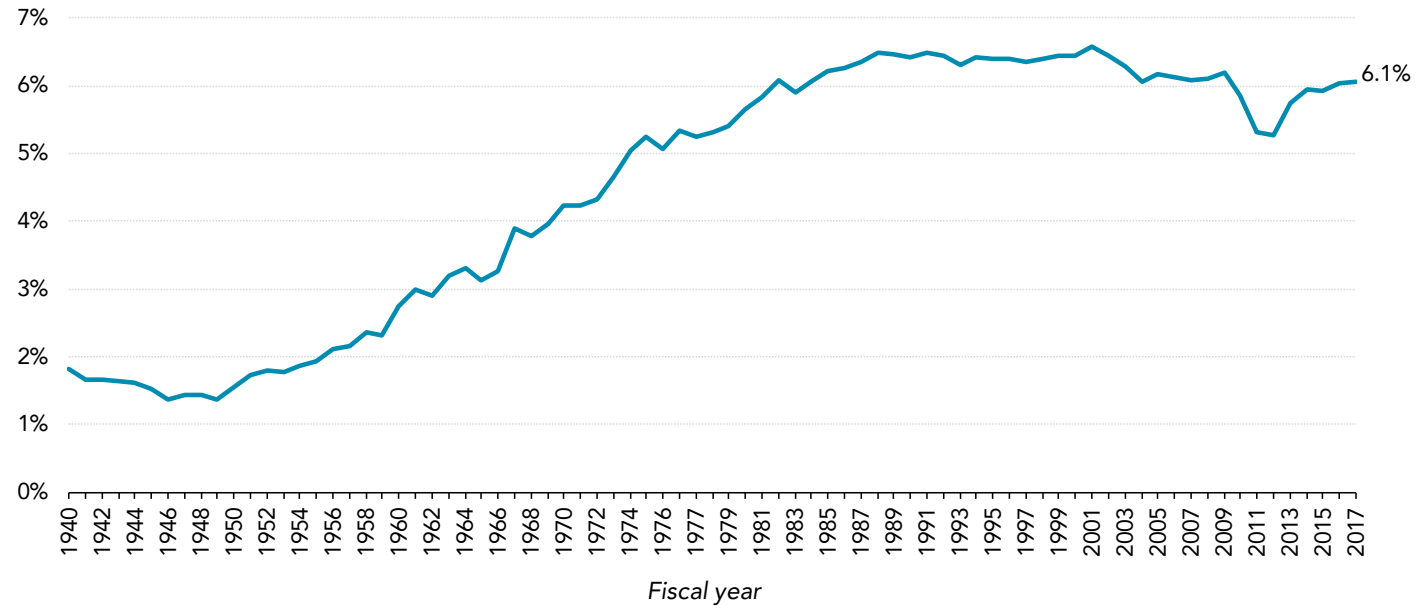
OTHER RETIREMENT PROGRAMS

Payroll taxes fund a handful of other retirement programs. The Social Security Administration operates the largest of these, a retirement program for the railroad industry that functions similarly to Social Security. Retirement programs for federal employees absorb most of the rest of payroll tax receipts.

FIGURE 2

Federal Social Insurance (Payroll Tax) and Retirement Receipts

Share of GDP, fiscal years 1940–2017



Source: Office of Management and Budget, Historical Tables, "Table 2.1-Receipts by Source: 1934–2023" and "Table 10.1-Gross Domestic Product and Deflators Used in the Historical Tables: 1940–2023," 2018.

Key Elements of the U.S. Tax System

What are the major federal payroll taxes, and how much money do they raise?

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Q. What is the unemployment insurance trust fund, and how is it financed?

A. Unemployment insurance assists workers who become involuntarily unemployed and meet specified eligibility requirements. Unemployment insurance programs are run as federal-state partnerships financed through payroll taxes.

The federal unemployment insurance (UI) trust fund finances the costs of administering unemployment insurance programs, loans made to state unemployment insurance funds, and half of extended benefits during periods of high unemployment. Unemployment insurance programs pay benefits to covered workers who become involuntarily unemployed and meet specified eligibility requirements, such as actively looking for work.

UI is structured as a partnership between the federal government and states and territories. States and territories set the parameters of their unemployment programs within federal guidelines, including payroll tax rates and wage bases for covered workers. State unemployment insurance taxes are paid by employers and remitted to the federal UI trust fund, where each state has a separate account for covering normal unemployment insurance benefits.

In addition, a 6 percent federal payroll tax, known as the Federal Unemployment Tax Act (FUTA) tax, is levied on the first $7,000 of covered workers' earnings. Employers remit the tax but can claim credits against 5.4 percentage points of FUTA taxes paid in states with unemployment programs that meet federal standards (currently all states) The effective FUTA tax rate thus shrinks to 0.6 percent, or a maximum of $42 per worker. The federal fund is used to cover administrative expenses, make loans to states that deplete their own reserves, and cover half of extended unemployment benefits made available when states experience prolonged periods of high unemployment. (States cover the other half of these extended benefits.)

States can borrow from the federal fund if their own reserves are insufficient. When the Great Recession and the long period of high unemployment that followed hit state UI reserves particularly hard, 36 states borrowed from the federal fund. By the start of 2018, all states but California (and the US Virgin Islands) had repaid their outstanding balances. Loans from the federal fund can be repaid by reducing the credit employers can claim against FUTA taxes and through other add-ons. States can also take private loans to shore up reserves. At the beginning of 2018, three states—Michigan, Pennsylvania, and Nevada—had outstanding private loans.

What is the unemployment insurance trust fund, and how is it financed?

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Q. What are the Social Security trust funds, and how are they financed?

A. They provide cash benefits to the elderly and disabled as well as their spouses and dependents, and they are funded chiefly through payroll taxes.

There are two Social Security trust funds: old-age and survivors insurance (OASI) and disability insurance (DI), though the two are often analyzed together as Old-Age, Survivors, and Disability Insurance (OASDI). The funds finance benefits for eligible retired and disabled workers and their spouses, dependents, and survivors. When revenue dedicated to financing OASI and DI exceeds program expenses, the surplus is credited to the respective trust funds, which invest in special interest-bearing Treasury bonds. When program costs exceed receipts, the Social Security Administration can redeem its bonds to cover expenses, until it runs out of bonds. The US Department of the Treasury pays its obligation to the trust funds from general government funds.

TABLE 1

Social Security Trust Fund Receipts, Expenditures, and End of Year Assets

Billions of Dollars, 2017

Source	OASI	DI	Total
Asset reserves at the end of 2016	**$2,801**	**$46**	**$2,848**
Total income in 2017	**$826**	**$171**	**$997**
Net payroll tax contributions	$707	$167	$874
Reimbursement from General Fund of the Treasury	*	*	*
Taxation of benefits	$36	$2	$38
Interest	$83	$2	$85
Total expenditures in 2017	**$807**	**$146**	**$953**
Benefit payments	$799	$143	$942
Railroad Retirement financial interchange	$4	$0	$5
Administrative expenses	$4	$3	$7
Net increase in asset reserves in 2017	$19	$25	$44
Asset reserves at the end of 2017	**$2,820**	**$72**	**$2,892**

Source: Social Security Annual Trustees Report, 2018, Table II.B1.
* Less than $50 million
OASDI = old-age and survivors insurance; DI = disability insurance

Key Elements of the U.S. Tax System

What are the Social Security trust funds, and how are they financed?

PAYROLL TAXES: FICA AND SECA

The Social Security trust funds are financed chiefly through payroll taxes on workers covered by the OASDI program. Employers and employees each contribute 5.3 percent of the employee's taxable wages for OASI and 0.9 percent for DI coverage as part of what are sometimes called Federal Insurance Contributions Act (FICA) taxes. Up to $128,400 in wages is subject to FICA taxes, a threshold updated for average wage growth each year. (Revenue from a separate 1.45 percent FICA tax is dedicated to the Medicare hospital insurance trust fund. There is no wage cap for the Medicare tax.) Because the employer portion of the tax raises the cost of hiring workers, economists believe that this tax is passed on to workers in the form of lower compensation. Thus, workers effectively bear the entire tax.

Self-employed workers covered by Social Security contribute both the employer and employee portions of the tax under the Self-Employment Contributions Act (SECA) but can deduct the employer portion from their federal taxable income, just as other employees exclude employer FICA contributions from their taxable income.

OTHER FINANCING SOURCES

Social Security benefits are partially taxable for beneficiaries whose incomes exceed a threshold. The revenues are remitted to the OASI, DI, and HI trust funds. The trust fund balances also earn interest from special interest-bearing Treasury bonds. Congress sometimes adds to the trust funds directly from general funds. For example, when the payroll tax was cut temporarily as a stimulus measure in 2011 and 2012, the general funds reimbursed the trust funds for lost revenue.

TRUST FUND SOLVENCY AND GOVERNMENT-WIDE DEFICITS

Both the OASI and DI trust funds face shortfalls as benefits currently exceed the taxes paid into each (figure 1). In the near future, benefits from the combined OASDI trust fund will exceed revenues, including interest payments from the Treasury. In the 2018 Trustees' Report, Social Security's actuaries projected that the DI trust fund will be exhausted by 2032 and the OASI trust fund will be exhausted by 2034. If either event occurs, the Social Security Administration will only be able to pay a portion of benefits from payroll taxes collected—about three-quarters of promised benefits in the case of Social Security.

When the DI fund came close to depletion in 1994, Congress diverted some of the OASI fund's payroll tax receipts to the DI fund to maintain its solvency. Legislators took this step again in 2015, transferring funds from the OASI trust fund to extend the DI fund's solvency.

To restore long-term trust fund solvency, policymakers will need to change Social Security through some combination of raising the payroll tax rate, reducing benefits, and tapping other sources of revenue. To ameliorate the ever-growing gap between benefits relative to taxes, which adds to total government deficits, policymakers need to act soon. The sooner policymakers make adjustments, the less dramatic those adjustments will need to be.

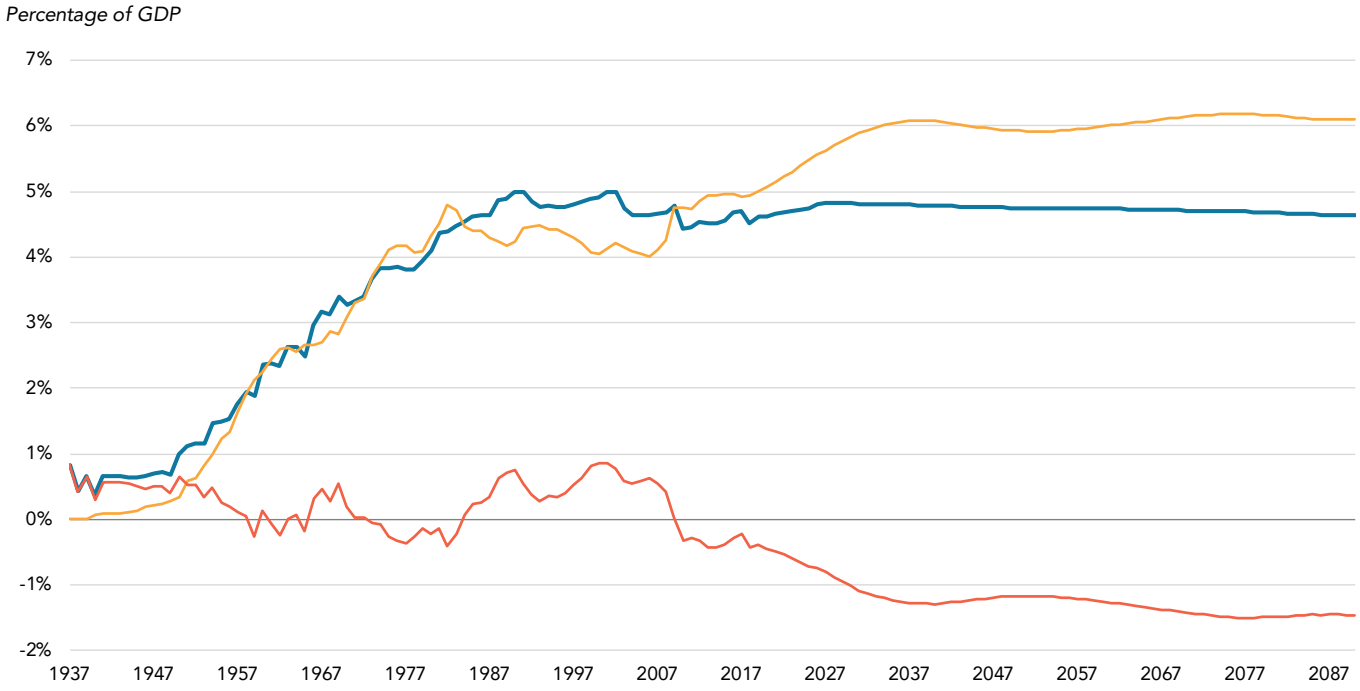
Key Elements of the U.S. Tax System

What are the Social Security trust funds, and how are they financed?

FIGURE 1

OASDI Cost and Income as a Percentage of GDP

1937–2090



Source: Calculations from data from 2017 OASDI Trustees' Report, *Annual Supplement to the Social Security Bulletin,* and BEA.

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Q. Are the Social Security trust funds real?

A. Social Security trust funds are real and hold real Treasury securities for which the federal government has an obligation to pay. They reflect any accumulated excess of Social Security taxes plus other revenues, such as interest received, over expenditures. At the same time, the trust funds "fund" only a tiny portion of outstanding obligations. The trust funds are invested in special-issue Treasury securities backed by the full faith and credit of the federal government.

Social Security was designed primarily as a "pay-as-you-go" system. Instead of prefunded accounts for individuals, contributions from current workers pay most of the benefits. For the most part, money going into the system immediately goes out to pay for benefits.

When Social Security's receipts from payroll taxes and other sources exceed program costs, as when the baby boom generation dominated the workforce, excess funds have purchased interest-bearing special-issue US Treasury bonds. In effect, the Social Security trust fund lends money to the general fund.

Where does the money go? When the non–Social Security part of government is running deficits, the money funds all other government activities. When the trust funds themselves run deficits, they add to these other non–Social Security deficits to produce an even larger unified fund deficit. Because these special-issue bonds are essentially both sold and held by the government, aren't publicly traded like other financial assets, and represent IOUs from the government, some people believe that the trust funds are nothing more than an accounting fiction.

Another factor further confuses the issue. Because the trust funds represent an asset to one side of government (the Social Security Administration) and a liability to another side of government (the general fund), some accounting presentations make the effect of the trust funds on the budget look "neutral," when in fact future obligations are to be paid.

So are the trust funds real? Yes. They have legal consequences for the Treasury and are backed by the full faith and credit of the federal government, just like any other Treasury bond. When the Social Security Administration redeems the bonds, the government has a legal obligation to pay the money back with interest, with no additional appropriation by Congress required.

The trust funds are not a free lunch for taxpayers. Money from the general fund used to repay debts to the

trust funds cannot be used for other purposes, like building roads or providing for national defense. And as an additional outlay for the government, those general fund payments increase the Treasury's need to borrow from the public, increasing federal deficits and adding burdens on future taxpayers.

For all the heat about whether the trust funds exist, the debate misses a larger issue: the long-term fiscal challenges posed by Social Security and Medicare are not caused by inadequate trust funds, which will be depleted after only a few years of drawdown, but to decades-long imbalances between promised benefits and the revenues required to fund those benefits.

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Q. What is the Medicare trust fund, and how is it financed?

A. The Medicare trust fund finances health services for beneficiaries of Medicare, a government insurance program for the elderly, the disabled, and people with qualifying health conditions specified by Congress. The trust fund is financed by payroll taxes, general tax revenue, and the premiums enrollees pay.

The Medicare trust fund comprises two separate funds. The hospital insurance trust fund is financed mainly through payroll taxes on earnings and income taxes on Social Security benefits. The Supplemental Medical Insurance trust fund is financed by general tax revenue and the premiums enrollees pay.

HOSPITAL INSURANCE TRUST FUND

The hospital insurance (HI) trust fund, also known as Part A of Medicare, finances health care services related to stays in hospitals, skilled nursing facilities, and hospices for eligible beneficiaries—mainly people over age 65 with a sufficient history of Medicare contributions.

The HI trust fund had receipts of $299.4 billion and a balance of $202 billion at the end of 2017 (table 1). The fund's chief revenue sources are payroll taxes and income from the taxation of Social Security benefits. Interest payments on trust fund balances, premiums from voluntary enrollees ineligible for Medicare coverage based on their earnings records, transfers from the general fund and the Railroad Retirement account, and miscellaneous receipts supply the remainder of revenues.

SUPPLEMENTAL MEDICAL INSURANCE TRUST FUND

The Supplemental Medical Insurance (SMI) trust fund finances two voluntary Medicare programs: Part B, which mainly covers physician services and medical supplies, and Part D, the newer prescription drug program.

The SMI trust fund received $405.8 billion in revenues and had $87.7 billion in assets at the end of 2017 (table 2). Unlike the HI fund, no payroll taxes are dedicated to SMI. Instead, the fund's chief revenue sources are contributions from the general fund (receipts from other sources, such as individual income taxes, corporate taxes, and excise taxes), premiums from participants (there are separate premiums for Parts B and D), and a small amount of interest on trust fund balances and miscellaneous receipts. Because the bulk of SMI's funding comes from the general fund, the trust fund balance mainly serves to cover temporary shortfalls and is kept low. High reserves are not required as long as general fund revenues and borrowing automatically rise with costs.

TABLE 1

Hospital Insurance Trust Fund Receipts, Expenditures, and End of Year Assets

Billions of dollars, 2017

Sources	Amount
Assets at end of 2016	**$199**
Total income	**$299**
Payroll taxes	$262
Interest	$7
Taxation of benefits	$24
Premiums	$4
General revenue	$1
Transfers from states	$0
Other	$2
Total expenditures	**$297**
Benefits	$293
Hospital	$145
Skilled nursing facility	$28
Home health care	$7
Physician fee schedule services	$0
Private health plans (Part C)	$95
Prescription drugs	$0
Other	$19
Administrative expenses	$3
Net change in assets	**$3**
Assets at end of 2017	**$202**

Source: Centers for Medicare and Medicaid Services (2018).

TABLE 2

Supplementary Medical Insurance Trust Fund Receipts, Expenditures, and End of Year Assets

Billions of Dollars, 2017

Sources	Part B	Part D	Total
Assets at end of 2016	**$88**	**$8**	**$96**
Total income	**$306**	**$100**	**$406**
Payroll taxes	$0	$0	$0
Interest	$2	$0	$2
Taxation of benefits	$0	$0	$0
Premiums	$82	$16	$97
General revenue	$217	$73	$291
Transfers from states	$0	$11	$11
Other	$5	$0	$5
Total expenditures	**$314**	**$100**	**$414**
Benefits	$309	$100	$409
Hospital	$53	$0	$53
Skilled nursing facility	$0	$0	$0
Home health care	$12	$0	$12
Physician fee schedule services	$69	$0	$69
Private health plans (Part C)	$115	$0	$115
Prescription drugs	$0	$100	$100
Other	$60	$0	$60
Administrative expenses	$5	$0	$5
Net change in assets	**-$8**	**$0**	**-$8**
Assets at end of 2017	**$80**	**$8**	**$88**

Source: Centers for Medicare and Medicaid Services (2018).

SOLVENCY AND BUDGET PRESSURES

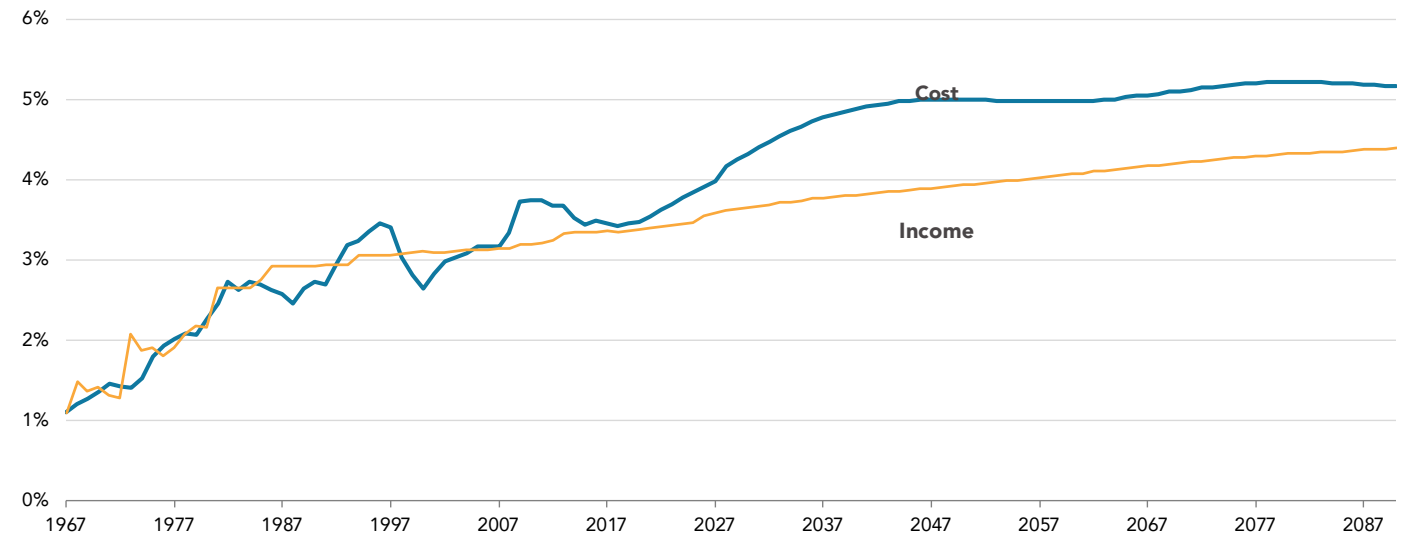
Like the Old-Age and Survivors Insurance and Disability Insurance trust funds, the HI trust fund faces long-term deficits (figure 1). (The SMI fund, primarily financed by general revenue, does not face these trust fund imbalances, though it still adds growing pressure to the overall budget.) As the number of Medicare beneficiaries increases from about 58.4 million in 2017 to nearly 80 million by 2030, the number of workers per beneficiary will decline from 3.1 to 2.4. The cost of health care has increased rapidly as well—though this dynamic has slowed but not stopped during and following the Great Recession—putting further pressure on program costs. HI trust expenditures exceeded taxes for several years up to 2016, and though these outflows and inflows will roughly stabilize for a few years, the fund is projected to be exhausted by 2027. These pressures now and in the future will force lawmakers to find ways to finance promised benefits or cut services or provider payment rates.

Key Elements of the U.S. Tax System

What is the Medicare trust fund, and how is it financed?

FIGURE 1

Hospital Insurance Cost and Income as a Percentage of Taxable Payroll
1967-2090



Source: Centers for Medicare and Medicaid Services. "2018 Expanded and Supplemental Tables."

Data Source

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Key Elements of the U.S. Tax System

What are the major federal excise taxes, and how much money do they raise?

Q. What are the major federal excise taxes, and how much money do they raise?

A. Federal excise tax revenues—collected mostly from sales of motor fuel, airline tickets, tobacco, alcohol, and health-related goods and services—totaled $83.8 billion in 2017, or 2.5 percent of federal tax receipts.

Excise taxes are narrowly based taxes on consumption, levied on specific goods, services, and activities. They can be either a per unit tax (such as the per gallon tax on gasoline) or a percentage of price (such as the airline ticket tax). Generally, excise taxes are collected from producers or wholesalers, and are embedded in the price paid by final consumers.

Federal excise tax revenue has declined over time relative to the size of the economy. As a percentage of gross domestic product (GDP), excise tax revenue fell from 2.7 percent in 1950 to 0.7 percent by 1979 (figure 1). Receipts temporarily increased because of the crude oil windfall profit tax imposed in 1980, but excluding that tax, (the dashed line in figure 1) revenue was about 0.7 percent of GDP through the 1980s and 1990s. Excise tax revenues as a percentage of GDP gradually declined again throughout the 2000s to roughly 0.5 percent in recent years.

Excise tax revenue fell from $95 billion (5.1 percent of GDP) in 2016 to $83.8 billion (4.4 percent of GDP) in 2017 because of a one-year suspension of the annual fee on health insurance providers.

GENERAL FUND OR TRUST FUND REVENUES

Excise tax revenue is either transferred to the general fund or allocated to trust funds dedicated to specified purposes. General fund excise taxes account for roughly 40 percent of total excise receipts, with the remaining 60 percent going to trust funds.

General fund excise taxes are imposed on many goods and services, the most prominent of which are alcohol, tobacco, and health insurance. Other general fund excise taxes include taxes on local telephone service, vehicles with low-mileage ratings ("gas guzzlers"), ozone-depleting chemicals, indoor tanning services, and medical devices.

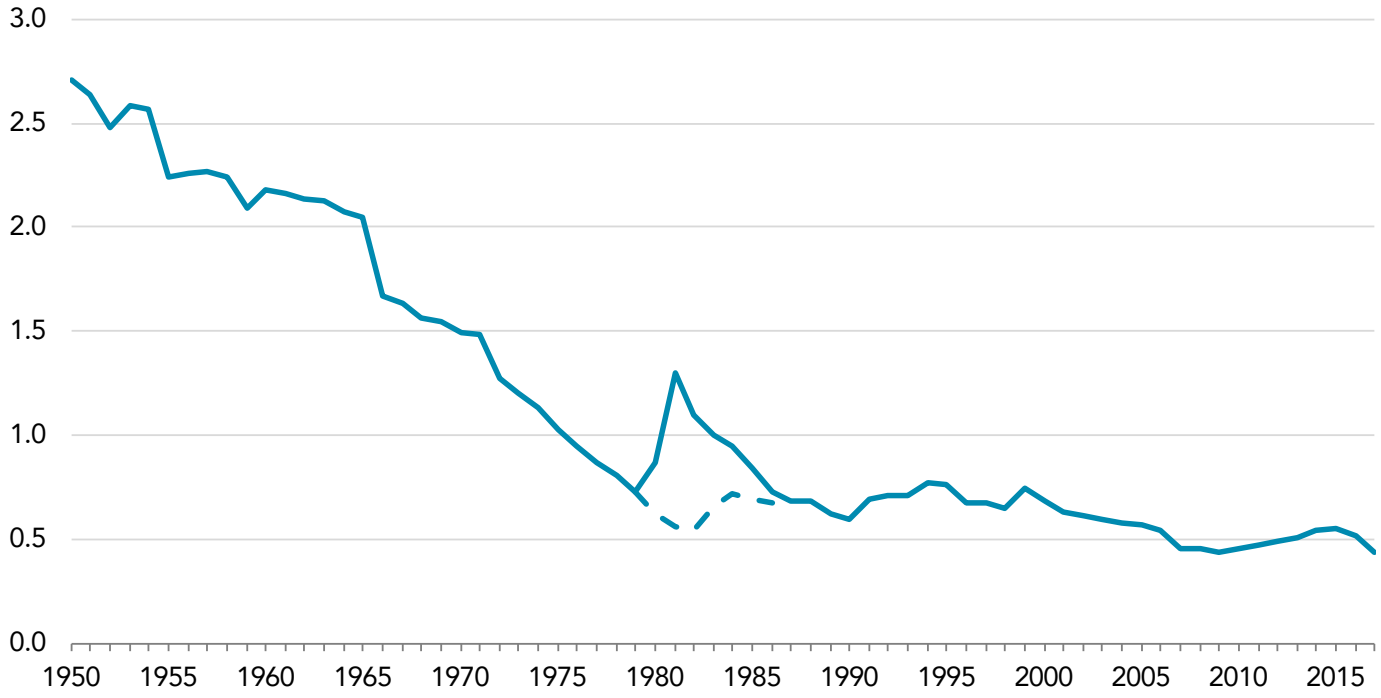
Excise taxes dedicated to trust funds finance transportation as well as environmental- and health-related spending. The Highway Trust Fund and the Airport and Airway Trust Fund account for over 90 percent of trust fund excise tax receipts, mostly from taxes on gasoline and other transportation fuels (Highway Trust Fund), and air travel (Airport and Airway Trust Fund).

Key Elements of the U.S. Tax System

What are the major federal excise taxes, and how much money do they raise?

FIGURE 1

Federal Excise Tax Revenue as a Share of GDP
1950–2017



Source: Office of Management and Budget, Historical Tables 2.3 and 2.4.
Note: The dashed line excludes receipts from the Crude Oil Windfall Profit Tax Act of 1980.
GDP = gross domestic product.

MAJOR FEDERAL EXCISE TAXES

Five categories of excise taxes—highway, aviation, tobacco, alcohol, and health—accounted for 96 percent of total excise tax receipts in 2017 (figure 2).

Excise taxes dedicated to the Highway Trust Fund

Highway-related excise tax revenue totaled $37.6 billion in 2017, 45 percent of all excise tax revenue. Gasoline and diesel taxes, which are 18.4 and 24.4 cents per gallon, respectively, make up over 90 percent of total highway tax revenue, with the remaining from taxes on other fuels, trucks, trailers, and tires. (The tax rates for gasoline and diesel include a 0.1 percent tax earmarked for the Leaking Underground Storage Tank Trust Fund.) Most other motor fuels are also subject to excise taxes, although "partially exempt" fuels produced from natural gas are taxed at much lower rates. Tax credits for producers of certain fuels deemed environmentally superior—including biodiesel, renewable diesel mixtures, alternative fuel, and alternative fuel mixtures—expired at the end of 2016 but were extended by the Bipartisan Budget Act of 2018 through 2017.

Key Elements of the U.S. Tax System

What are the major federal excise taxes, and how much money do they raise?

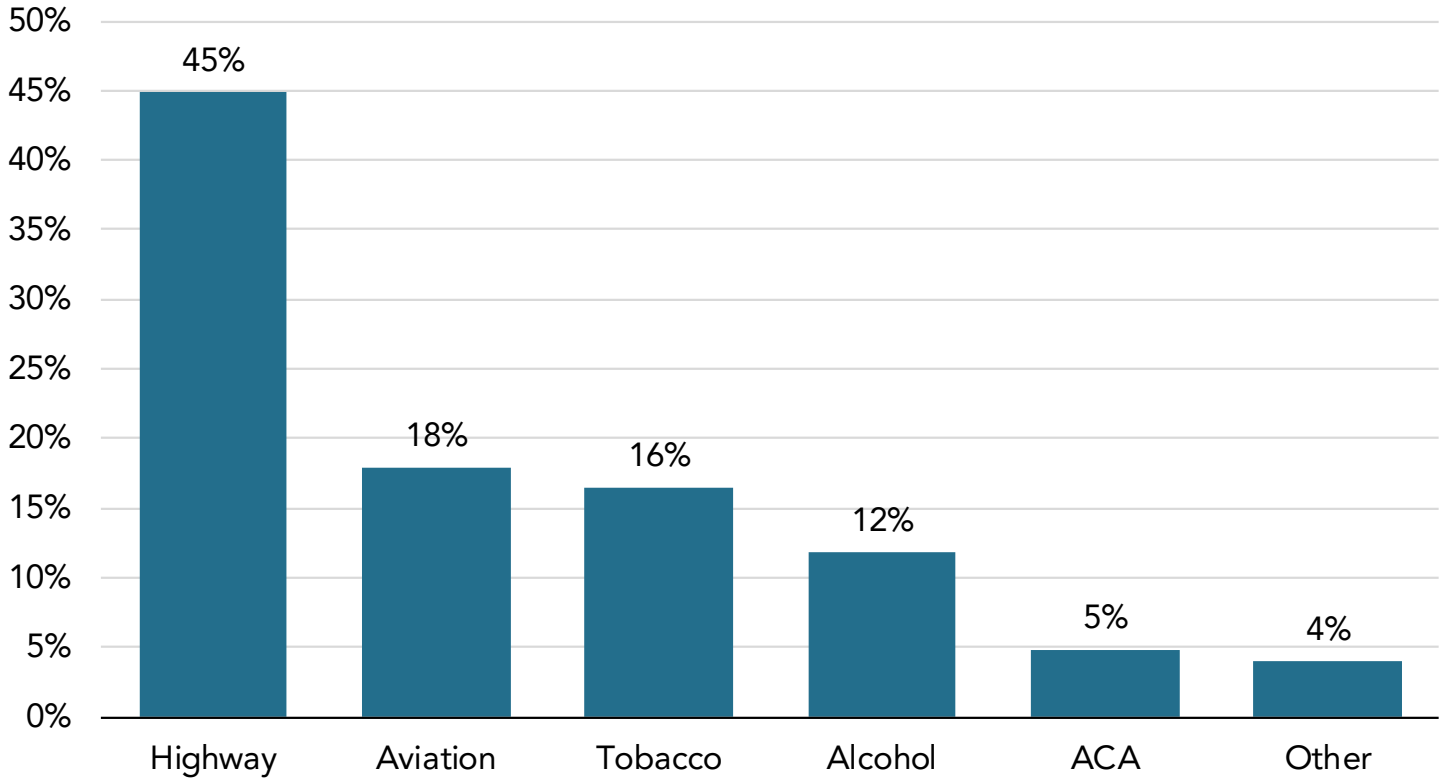
Excise taxes dedicated to the Airport and Airway Trust Fund

Revenue from excise taxes dedicated to the Airport and Airway Trust Fund totaled $15.1 billion in 2017, accounting for 18 percent of all excise tax receipts. According to Congressional Budget Office data, more than 90 percent of aviation excise taxes came from taxing passenger airfares, with the remaining coming from taxes on air cargo and aviation fuels.

Domestic air travel is subject to a 7.5 percent tax based on the ticket price plus $4.10 (in 2018) for each flight segment (one takeoff and one landing). A 6.25 percent tax is charged on domestic cargo transportation. International arrivals and departures are taxed at $18.30 per person (in 2018); there is no tax on international cargo. Both the domestic segment fee and the international arrivals and departures fee are indexed for inflation.

FIGURE 2

Composition of Total Federal Excise Tax Revenue
FY2017



Source: Office of Management and Budget, Historical Table 2.4.

Key Elements of the U.S. Tax System

What are the major federal excise taxes, and how much money do they raise?

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Tobacco excise taxes

Revenue from tobacco taxes totaled $13.8 billion in 2017, accounting for 16 percent of all excise tax revenue. Federal excise taxes are imposed on tobacco products, which include cigarettes, cigars, snuff, chewing tobacco, pipe tobacco, and roll-your-own tobacco. The tax is calculated per thousand cigars or cigarettes or per pound of tobacco, depending on the product. The tax equals about $1.00 per pack of 20 cigarettes. Cigarette papers and tubes are also subject to tax. Tobacco taxes are collected when the products leave bonded premises for domestic distribution. Exported products are exempt. Unlike other excise taxes collected by the IRS, alcohol and tobacco taxes are collected by the Alcohol and Tobacco Tax and Trade Bureau of the US Treasury Department.

Alcohol excise taxes

Excise tax revenue from alcoholic beverages amounted to $9.9 billion in 2017, 12 percent of total excise receipts. There are different tax rates for distilled spirits, wine, and beer. Distilled spirits generally are taxed at $13.50 per proof gallon (a proof gallon is one liquid gallon that is 50 percent alcohol), but a lower rate applies in 2018 and 2019 to quantities of less than 22.23 million proof gallons removed from the distillery or imported. Tax rates on wines vary based on type and alcohol content, ranging from $1.07 per gallon for wines with 14 percent alcohol or less to $3.40 per gallon for sparkling wines, but lower rates also apply in 2018 and 2019 to smaller quantities of wine removed or imported. Beer is typically taxed at $18.00 per barrel (31 gallons), although a reduced rate of $7.00 per barrel applied to the first 60,000 barrels for breweries that produce less than two million barrels. Lower rates apply in both cases in 2018 and 2019. Note that the alcohol content of beer and wine is taxed at a much lower rate than the alcohol content of distilled spirits.

Excise taxes enacted by the Affordable Care Act

The Affordable Care Act (ACA) legislation passed in 2010 contained several health-related excise taxes.

- The largest is an annual fee on health insurance providers. This fee represents a fixed aggregate amount for each calendar year ($14.3 billion in 2018), imposed on insurance providers according to their market share. The Consolidated Appropriations Act of 2016 suspended the fee for 2017. It is currently scheduled to return in 2018, but then was suspended again for 2019 by the Extension of Continuing Appropriations Act of 2018.
- Starting in 2014, an annual fee also applies to manufacturers and importers of branded prescription drugs, which, like the annual fee on health insurance providers, is a fixed aggregate amount for each calendar year ($4.1 billion in 2018) allocated in proportion to sales.
- A 40 percent excise tax on certain high-cost employer-sponsored health insurance plans (the "Cadillac

tax") was scheduled to begin in 2018 but Congress passed a two-year postponement of the excise tax, and later extended the suspension through 2022.

- Other health care–related excise taxes include a 2.3 percent tax on medical devices and a 10 percent tax on indoor tanning services. Congress suspended the excise tax on medical devices for two years for medical device sales in 2016 and 2017, and recently extended that suspension through 2019.

Health-related excise tax revenue totaled $4.1 billion in 2017, 5 percent of total excise receipts, down from $14.8 billion and 16 percent of excise receipts in 2016.

The ACA also imposed two additional taxes—a penalty tax on individuals without essential health insurance coverage (the "individual mandate") as an incentive to buy it, and a penalty tax on large employers that choose not to offer health care coverage (the "employer mandate"). The 2017 Tax Cuts and Jobs Act eliminated the individual mandate starting in 2019. This will reduce revenue but on net save money for the federal government because without the individual mandate, fewer people will enroll in government-subsidized health insurance programs and the saving from lower Medicaid costs and tax subsidies for health insurance premiums will exceed the lost revenues. Eliminating the individual mandate, however, will increase the number of people without health insurance—by an estimated 4 million in 2019 and by 12 million starting in 2021 according to the Congressional Budget Office.

Key Elements of the U.S. Tax System

What are the major federal excise taxes, and how much money do they raise?

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Q. What is the Highway Trust Fund, and how is it financed?

A. The Highway Trust Fund finances most federal government spending for highways and mass transit. Revenues for the trust fund come from transportation-related excise taxes, primarily federal taxes on gasoline and diesel fuel. In recent years, however, the trust fund has needed significant transfers of general revenues to remain solvent.

The Highway Trust Fund tracks federal spending and revenue for surface transportation. The trust fund has separate accounts for highways and mass transit. Because obligations from the trust fund generally are for capital projects that take several years to complete, outlays reflect projects authorized by Congress in previous years.

Most spending from the Highway Trust Fund for highway and mass transit programs is through federal grants to state and local governments. The federal government accounts for about one-quarter of all public spending on roads and highways, with the remaining three-quarters financed by state and local governments.

FINANCING THE TRUST FUND

The Congressional Budget Office estimates that Highway Trust Fund tax revenue will total $41 billion in fiscal year 2018 (figure 1). Revenue from the federal excise tax on gasoline ($25.7 billion) and diesel fuel ($9.9 billion) accounts for 87 percent of the total. The remaining trust fund tax revenue comes from a sales tax on tractors and heavy trucks, an excise tax on tires for heavy vehicles, and an annual use tax on those vehicles. In addition to dedicated tax revenue, the trust fund receives a small amount of interest on trust fund reserves.

The current tax rates are 18.4 cents per gallon for gasoline and ethanol-blended fuels and 24.4 cents per gallon for diesel (0.1 cent of each tax is dedicated to the Leaking Underground Storage Tank Trust Fund). The tax rates on motor fuels have not changed since 1993 and thus have failed to keep pace with inflation. If tax rates had been indexed for inflation since 1993, the current tax on gasoline would be about 31 cents per gallon and the tax on diesel fuel would be about 42 cents per gallon. Although the current taxes on motor fuels (except for a residual tax of 4.3 cents per gallon) are set to expire at the end of September 2022, Congress has routinely extended the taxes in the past.

TRUST FUND BALANCES

Before 2008, highway tax revenue dedicated to the trust fund was sufficient to pay for outlays from the fund, but that has not been true in recent years. Since 2008, Congress has sustained highway spending by transferring $140 billion of general revenues to the fund, including $70 billion in 2016 because of legislation enacted at the end of 2015.

Those transfers will enable the trust fund to meet spending obligations through 2020, but projected shortfalls will appear again by the end of 2021 (figure 2). The Congressional Budget Office projects that outlays from the Highway Trust Fund will exceed trust fund reserves by a cumulative $119 billion for the highway account and by $42 billion for the mass transit account by 2028, even if expiring trust funds taxes are extended (Congressional Budget Office 2018).

FINANCING FEDERAL SPENDING ON HIGHWAYS AND MASS TRANSIT

Congress could pay for projected highway and mass transit spending by simply raising the federal tax rate on gasoline and diesel fuel. A one cent increase in motor fuels taxes dedicated to the Highway Trust Fund would raise trust fund revenues by between $1.5 billion and $1.7 billion annually (Kile 2015). (Higher motor fuels taxes would increase costs for businesses, thus lowering business profits, employee wages, and the federal taxes collected on that income. The estimated increase in Highway Trust Fund revenues does not include the reduction in federal revenues from other sources.)

Drivers likely would respond to an increase in motor fuels taxes by driving less, which would reduce pollution and lessen the need for highway construction and maintenance. But drivers may also respond by driving more fuel-efficient vehicles, which would weaken the incentive to reduce miles driven.

Motor fuels taxes link highway use with the associated costs of building and maintaining roads as well other costs associated with fuel consumption, such as pollution and dependence on foreign oil. But motor fuels taxes are an imperfect user fee because they do not differentiate among vehicles that cause greater or lesser

FIGURE 1

Highway Trust Fund Revenue by Source
2018

Source: Congressional Budget (2018).

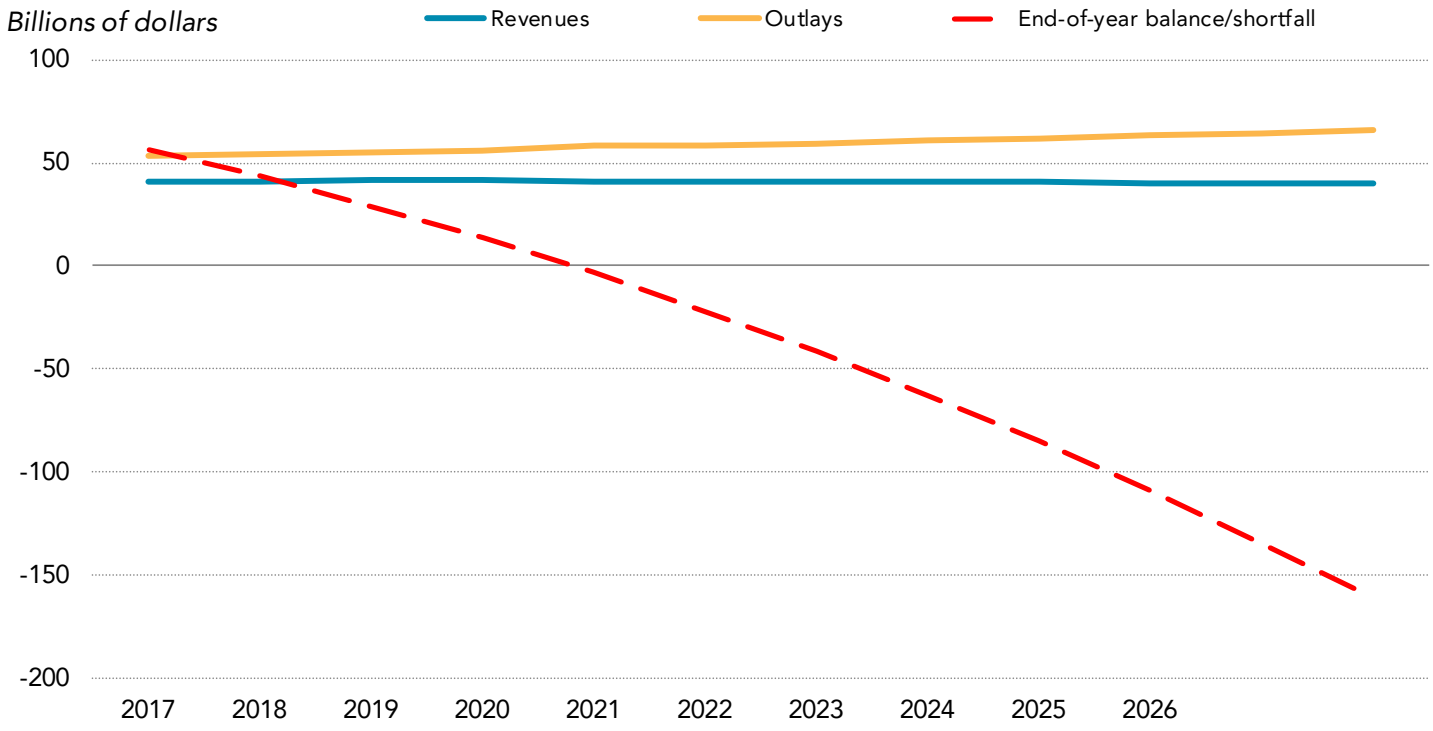
road wear for the same amount of fuel consumed or between travel on crowded and uncrowded roads. A tax on vehicle miles driven would provide a more direct link to the cost of highway use but, unlike an increase in the tax on motor fuels, would be difficult to implement, requiring new tolls or electronic motoring of vehicles. An advantage of a vehicle mileage tax is that it could adjust to reflect the additional costs of congestion by increasing tolls or the tax rate in certain locations and at certain times of the day. A vehicle mileage tax would not, however, provide an incentive for driving more fuel-efficient vehicles.

Alternatively, Congress could abandon the user-pay principle and simply pay for highways through general revenues. Highway spending would no longer have a dedicated source of revenue and would instead compete with other spending programs for general revenue funding through the annual appropriations process. Or Congress could decide to limit federal highway spending to the amount of revenue collected from exiting motor fuels taxes. This would require curtailing some existing highway projects and not starting others, at a time when the nation's infrastructure is already in need of repair.

FIGURE 2

Highway Trust Fund Account Projections

2017–28



Source: Congressional Budget Office (2018).
Notes: Revenues include a small amount of interest on trust fund reserves. Under current law, the Highway Trust Fund cannot incur negative balances.

Key Elements of the U.S. Tax System

What is the Highway Trust Fund, and how is it financed?

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Q. What tax incentives encourage energy production from fossil fuels?

A. Provisions of the federal income tax that subsidize domestic production of fossil fuels include the expensing of exploration, development, and intangible drilling costs; the use of percentage depletion instead of cost depletion to recover drilling and development costs of oil and gas wells and coal mining properties; and numerous smaller incentives for production and distribution of oil, coal, and natural gas.

Various tax incentives promote investment in fuel development, potentially diverting capital from investments in other assets with higher pretax yields. Several studies have found that the effective marginal tax rate—the extent to which all applicable tax provisions reduce the after-tax return on new investment—is much lower for oil, gas, and coal development than for other assets. The Obama administration proposed eliminating these incentives in most of its budgets, but Congress took no action.

Supporters justify these tax incentives as a means of reducing US dependence on imported oil. But such incentives also encourage more rapid exhaustion of domestic supplies, which may increase dependence on imports in the long run. The three largest energy tax incentives are expected to reduce federal tax revenue by nearly $11.6 billion from 2017 to 2021 (figure 1).

Intangible drilling costs cover the labor and materials needed for drilling and developing oil and gas wells and coal mines. Independent oil and gas producers (i.e., those without related refining and marketing operations) may deduct these costs from income in the year incurred, even though, as capital investments, they produce returns over many years. Integrated oil and gas companies may deduct 70 percent of these costs in the first year and recover the remaining 30 percent over the next five years.

With percentage depletion, producers can deduct a fixed percentage of gross revenue from a property as capital expenses each year. In contrast, with conventional cost depletion, producers deduct their actual costs as the resources from a well or mine are depleted. The federal income tax allows independent producers—but not integrated companies—to deduct 15 percent of gross revenue from their oil and gas properties as percentage depletion, without regard to how much they have invested in the properties. Percentage depletion is permitted only on the company's first 1,000 barrels per day from a property and is limited to net income from oil and gas properties. Percentage depletion is also available for coal and other minerals at varying rates.

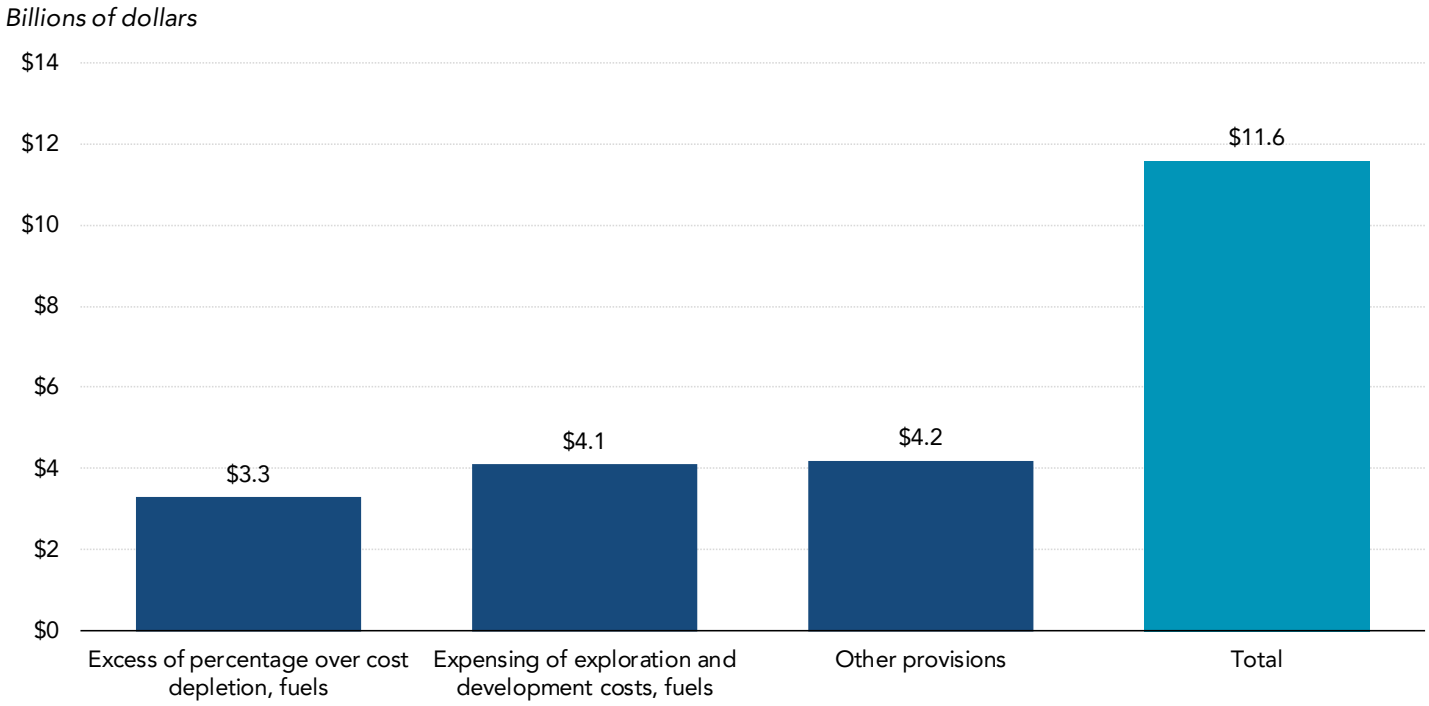
Key Elements of the U.S. Tax System

What tax incentives encourage energy production from fossil fuels?

FIGURE 1

Tax Incentives for Energy Production from Fossil Fuels

Revenue losses, fiscal years 2017–21



Source: Joint Committee on Taxation (2018).
Note: "Other provisions" includes exception from passive loss limitations for working interests in oil and gas properties, capital gains treatment of royalties on coal, exclusion of interest on energy facility bonds, credit for investment in clean coal facilities, treatment of natural gas distribution facilities as 15-year property, and amortization of all geological and geophysical expenditures over 2 years.

The tax law includes several smaller (but hardly trivial) incentives for investments in refineries, pipelines, oil and gas exploration, and selected coal technologies, including for carbon capture and sequestration. In addition, domestic energy properties used to benefit from the domestic production deduction provided in the American Jobs Creation Act of 2004, but this deduction was repealed in the Tax Cuts and Jobs Act enacted in 2017.

Subsidizing domestic production of fossil fuels is inconsistent with the policy goal of reducing fossil fuel use to counter global climate change. But the adverse effects of the incentives on climate change are minor, because any increase in domestic production they induce mostly displaces imports rather than raising domestic fuel consumption.

Some prior research concludes that the production incentives reduce the world market price of oil by less than 0.1 percent, which would barely effect consumption of gasoline and other oil-based products. Moreover, a recent study by the National Academy of Sciences finds that subsidies for oil and gas production may slightly reduce greenhouse gas emissions by accelerating the conversion of electricity production facilities from coal to natural gas.

Key Elements of the U.S. Tax System

What tax incentives encourage energy production from fossil fuels?

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Q. What tax incentives encourage energy alternatives to fossil fuels?

A. The federal tax code includes more than a dozen incentives for alternatives to fossil fuels. These provisions support electricity production from solar, wind, and other renewable sources and, to much lesser extent, from nuclear facilities. They also support alternative transportation fuels, especially electricity. And they encourage energy efficiency in homes and commercial buildings.

ELECTRICITY PRODUCTION

Several tax provisions encourage electricity production from nonfossil sources. The two largest are the renewable electricity production tax credit (PTC) and the energy investment tax credit (ITC). The PTC provides a per kilowatt hour subsidy to qualifying facilities during their first 10 years of operation. Wind-powered generators are the main recipients, but some geothermal, biomass, solid waste, and hydro facilities also claim it. The ITC provides a one-time credit for new investment in qualifying facilities. Solar generators are its main recipients, with small amounts going to fuel cells, combined heat and power systems, and other projects. The PTC is often known as the Section 45 credit, and the ITC as the Section 48 credit.

Small tax subsidies also target nuclear energy. Existing nuclear facilities get a special deduction for some contributions to future decommissioning funds. There is also an as-yet little-used production tax credit for advanced nuclear power facilities.

ELECTRIC VEHICLES

The tax code provides a substantial tax credit to individuals and businesses who purchase or lease plug-in electric light passenger vehicles and trucks. The credit starts at $2,500 and increases to $7,500 based on battery capacity. Plug-in hybrids typically qualify for credits of $4,000 to $6,000, while all-electric vehicles get the full $7,500. The credit phases out once a manufacturer reaches 200,000 qualifying vehicles. Tesla reached that limit in 2018, and General Motors is expected to do so in late 2018 or 2019. The credit for qualifying Tesla and GM vehicles will then phase down over a year. A smaller tax credit is available for electric motorcycles and other two-wheeled vehicles.

ENERGY EFFICIENCY

The tax code also encourages homeowners and businesses to use less energy, regardless of how produced. The residential energy efficiency tax credit provides up to $500 for energy efficiency improvements in existing homes, including insulation improvements and high-efficiency heating, cooling, and water heating. The $500 maximum applies cumulatively and can be claimed over multiple years. A separate residential energy-efficient property tax credit, known as Section 25D, supports home installation of solar electric and

water heating systems. Commercial buildings get a special deduction of up to $1.80 per square foot for investments in efficient lighting, heating, cooling, water heating, and building envelopes.

OTHER PROVISIONS

Smaller tax incentives for nonfossil energy sources include tax credits for certain bonds supporting renewable energy and energy conservation projects, exclusion from income tax of energy conservation subsidies provided by utilities, tax credits for fuel cell vehicles and alternative vehicle refueling, and tax preferences for biodiesel fuel.

EXPIRING PROVISIONS

Most of these tax provisions sunset every few years, and some have already expired. The residential energy efficiency and second-generation biofuel tax credits are just two of several provisions that expired at the end of 2017 and, as of mid-2018, had not been extended. Others expire later, such as the credit for residential solar, which expires at the end of 2021.

These provisions are part of a larger phenomenon of expiring tax provisions. Most eventually get extended, either before they expire or retroactively. As a result, they are often known as the tax extenders.

Energy provisions do sometimes expire, however. The tax credit for two-wheeled electric vehicles lapsed for all of 2014 before being renewed in 2015. And a substantial tax credit for ethanol fuels expired at the end of 2011.

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Q. What is a carbon tax?

A. Emissions of carbon dioxide and other greenhouse gases are changing the climate. A carbon tax puts a price on those emissions, encouraging people, businesses, and governments to produce less of them. A carbon tax's burden would fall most heavily on energy-intensive industries and lower-income households. Policymakers could use the resulting revenue to offset those impacts, lower individual and corporate taxes, reduce the budget deficit, invest in clean energy and climate adaptation, or for other uses.

WHY TAX CARBON, AND HOW MUCH?

Emissions of carbon dioxide, methane, nitrous oxide, and other greenhouse gases are increasing global temperatures, raising sea levels, shifting rainfall patterns, boosting storm intensity, and harming coral reefs and other marine life. Greenhouse gas emissions thus create a host of potential economic and environmental threats, including property damage from storms, human health risks, reduced agricultural productivity, and ecosystem deterioration (Environmental Protection Agency 2017; National Aeronautics and Space Administration 2018).

Energy prices do not currently reflect these costs of greenhouse gas emissions. Those who benefit from burning fossil fuels generally do not pay for the environmental damage the emissions cause. Instead, this cost is borne by people around the world, including future generations. Imposing a carbon tax can help to correct this externality by raising the price of energy consumption to reflect more of its social cost. The most efficient way to collect such a tax would be upstream from a limited number of fuel producers and importers, rather than downstream from fuel users.

Estimates of the environmental cost of carbon emissions are sensitive to scientific and economic assumptions and thus differ greatly. One prominent estimate, developed by an interagency working group of the United States government, is that carbon dioxide emissions impose social costs of about $40 per metric ton (Interagency Working Group on Social Costs of Greenhouse Gases 2016).

HOW WOULD A CARBON TAX AFFECT WELFARE?

A carbon tax would increase the price of burning fossil fuels and any resulting goods or services. A tax of $40 per ton would add about 36 cents to the price of a gallon of gasoline, for example, or about 2 cents to the average price of a kilowatt-hour of electricity (Marron, Toder, and Austin 2015). Higher energy prices would raise costs for industry and households, resulting in lower profits, wages, and consumption.

The impact of a carbon tax would differ among economic groups depending on the extent of energy price changes and on regional energy production and consumption patterns. Clearly, a carbon tax would fall more heavily on workers and investors in carbon-intensive industries as well as on regions that depend heavily on carbon-intensive fuels, particularly coal.

The distributional impact of a carbon tax would depend on the extent to which businesses could pass higher energy costs to their customers. If demand for goods is less "elastic" (that is, responds less) to price changes than the supply of goods, then consumers will bear more of the carbon tax burden than investors and workers.

Because low-income households consume a more energy-intensive basket of goods than wealthier households do, a carbon tax would be regressive; it would cost poorer households a higher share of their income than wealthier households (Marron, Toder, and Austin 2015). A carbon tax of $20 per ton would account for about 0.8 percent of pretax income for households in the lowest income quintile, as compared to 0.5 percent for the highest income quintile.

The environmental benefits from reduced emissions would be shared by people around the world. Combatting climate change thus poses a fundamental collective action problem. American reductions will be most valuable if they are accompanied by comparable reductions in other nations.

DEPLOYING THE REVENUE

A carbon tax could raise substantial revenue. The Joint Committee on Taxation and the Congressional Budget Office estimated, for example, that a broad-based carbon tax starting at $25 per ton in 2017 and rising at 2 percent more than inflation would have raised $1 trillion over its first decade (Congressional Budget Office 2016). This is close to the amount that the United States currently raises with all its other excise taxes—about 0.5 percent of gross domestic product per year.

The welfare impact of a carbon tax package would depend on how those revenues are used. Using some revenues to increase transfers, reduce Social Security contributions from low-income households, or compensate workers in carbon-intensive industries could soften the regressive impact of the carbon tax. Revenues from a carbon tax could also be used to finance cuts in existing taxes that act as a disincentive to growth. Before the 2017 tax bill, one prominent idea was using carbon tax revenue to reduce the corporate income tax (Marron and Toder 2015). However, because tax cuts on profits would largely benefit the wealthy, this would exacerbate the regressivity of the carbon tax. Revenues could also be used to reduce personal income and payroll taxes, to reduce future deficits, or to invest in clean energy and climate adaptation. What combination to choose depends on political, social, and economic considerations (Marron and Morris 2016).

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Q. How does the corporate income tax work?

A. The United States imposes a tax on the profits of US resident corporations at a rate of 21 percent (reduced from 35 percent by the 2017 Tax Cuts and Jobs Act). The corporate income tax raised $297.0 billion in fiscal 2017, accounting for 9 percent of total federal revenue.

The United States taxes the profits of US resident C corporations (named after the relevant subchapter of the Internal Revenue Code) at 21 percent.

Taxable corporate profits are equal to a corporation's receipts less allowable deductions—including the cost of goods sold, wages and other employee compensation expenses, interest, nonfederal taxes, depreciation, and advertising. US-based corporations owned by foreign multinational companies generally face the same US corporate tax rules on their profits from US business activities, as do US-owned corporations.

Corporate profits can also be subject to a second layer of taxation at the individual shareholder level, both on dividends when distributed and on capital gains from the sale of shares. The maximum tax rate on both dividends and capital gains is currently 23.8 percent (including the 3.8 percent tax on net investment income).

Many US businesses are not subject to the corporate income tax; rather, they are taxed as "pass-through" entities. Pass-through businesses do not face an entity-level tax. But their owners must include their allocated share of the businesses' profits in their taxable income under the individual income tax. Pass-through entities include sole proprietorships, partnerships, and eligible corporations that elect to be taxed under subchapter S of the Internal Revenue Code (S corporations).

The corporate income tax is the third-largest source of federal revenue, although substantially smaller than the individual income tax and payroll taxes. It raised $297.0 billion in fiscal 2017, 9.0 percent of all revenue, and 1.5 percent of gross domestic product (GDP). The relative importance of the corporate tax as a source of revenue declined sharply between the 1950s and 1980s, but over the past quarter century it has brought in revenues equal to about 2 percent of GDP (figure 1).

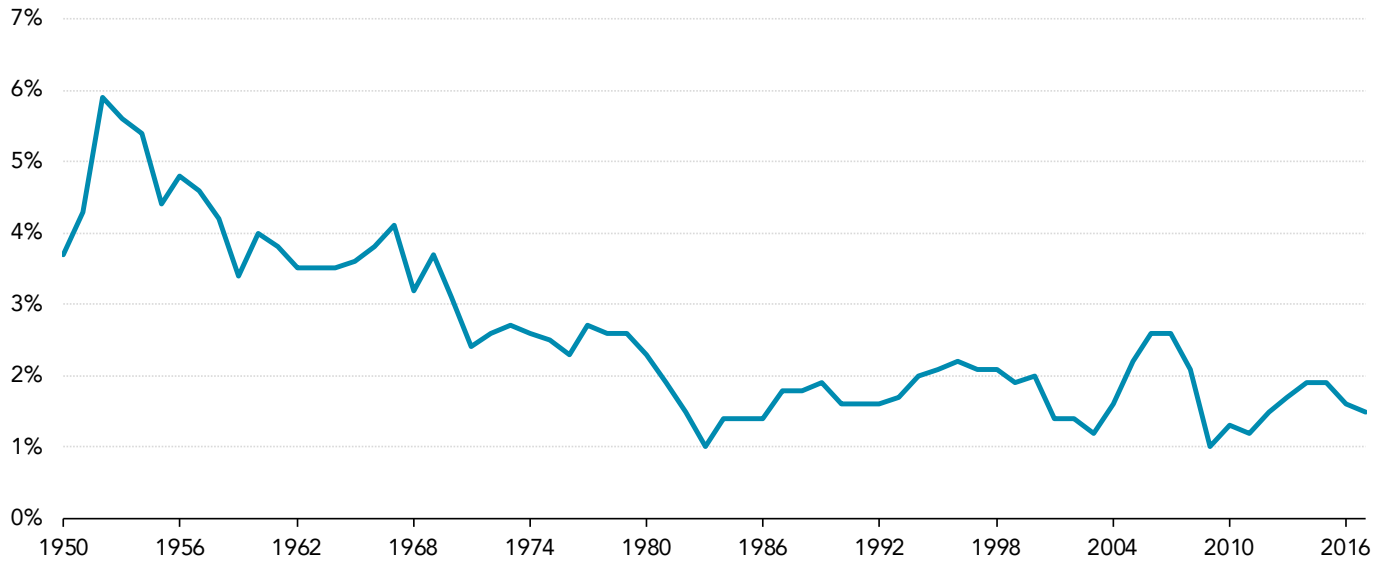
Key Elements of the U.S. Tax System

How does the corporate income tax work?

FIGURE 1

Corporate Income Tax Revenue

Share of GDP, fiscal years 1950–2017



Source: Office of Management and Budget, Fiscal Year 2019, *Historical Tables*, Table 2.3.

RECENT CHANGES TO THE CORPORATE INCOME TAX

The Tax Cuts and Jobs Act (TCJA) reduced the top corporate income tax rate from 35 percent to 21 percent and eliminated the graduated corporate rate schedule. The new law also repealed the corporate alternative minimum tax.

The TCJA made fundamental changes to the treatment of multinational corporations and their foreign source income. Profits earned abroad by US resident multinationals are now exempt (a "territorial" system). In addition, it created two new minimum taxes—the tax on Global Intangible Low-Taxed Income (GILTI) and the Base Erosion and Anti-abuse tax (BEAT). Another provision of the TCJA provides a new deduction for certain foreign-derived intangible income (FDII).

Before the TCJA, US resident multinationals owed tax on their worldwide profits, but tax on their profits from controlled foreign subsidiaries was deferred until those profits were repatriated (that is, paid back as dividends) to the US parent corporation. Further, these profits were eligible for a nonrefundable credit for foreign taxes paid.

Data Source

Office of Management and Budget. *Historical Tables*. 2.3. "Receipts by Source as Percentages of GDP: 1934–2023."

Q. What are pass-through businesses?

A. Most US businesses are not subject to the corporate income tax. Rather, profits flow through to owners and are taxed under the individual income tax. Pass-through businesses include sole proprietorships, partnerships, and S corporations. The share of business activity represented by pass-through entities has been rising in recent decades.

Most US businesses are taxed as pass-through (or flow-through) entities that, unlike C corporations, are not subject to the corporate income tax or any other entity-level tax. Instead, their owners include their allocated shares of profits in taxable income under the individual income tax. Pass-through businesses include sole proprietorships, partnerships, and S corporations.

TYPES OF PASS-THROUGH ENTITIES

Sole proprietorships: A business with a single owner does not file a separate tax return, but rather reports its net income on Schedule C of the owner's individual tax return. Generally, all net income from sole proprietorships is also subject to payroll taxes under the Self-Employed Contributions Act (SECA).

Partnerships: Partnerships file an entity-level tax return (Form 1065), but profits are allocated to owners who report their share of net income on Schedule E of their individual tax returns. Under "check the box" regulations instituted by the US Department of the Treasury in 1997, limited-liability companies can elect to be taxed as partnerships. General partners are subject to SECA tax on all their net income, while limited partners are only subject to SECA tax on "guaranteed payments" that represent compensation for labor services.

S corporations: Eligible domestic corporations that elect S corporation status file a corporate tax return (Form 1120S), but profits flow through to shareholders and are reported on Schedule E of the shareholder's personal income tax. S corporations cannot have more than 100 shareholders, and those shareholders must be US citizens or resident individuals (although certain estates, trusts, and tax-exempt organizations are also allowed). In addition, S corporations may have only one class of stock. S corporation owners do not pay SECA tax on their profits but are required to pay themselves "reasonable compensation," which is subject to the regular Social Security tax (i.e., the Federal Insurance Contributions Act, or FICA).

Key Elements of the U.S. Tax System

What are pass-through businesses?

GROWTH IN PASS-THROUGHS

The share of business activity represented by pass-through entities has been rising, particularly since passage of the Tax Reform Act of 1986 (Plesko and Toder 2013). Excluding sole proprietorships, more than 80 percent of businesses were organized as flow-through entities in 2014—up from 47 percent in 1980 (figure 1). Pass-throughs now account for more than 50 percent of total business net income, up from about 20 percent in 1980 (figure 2).

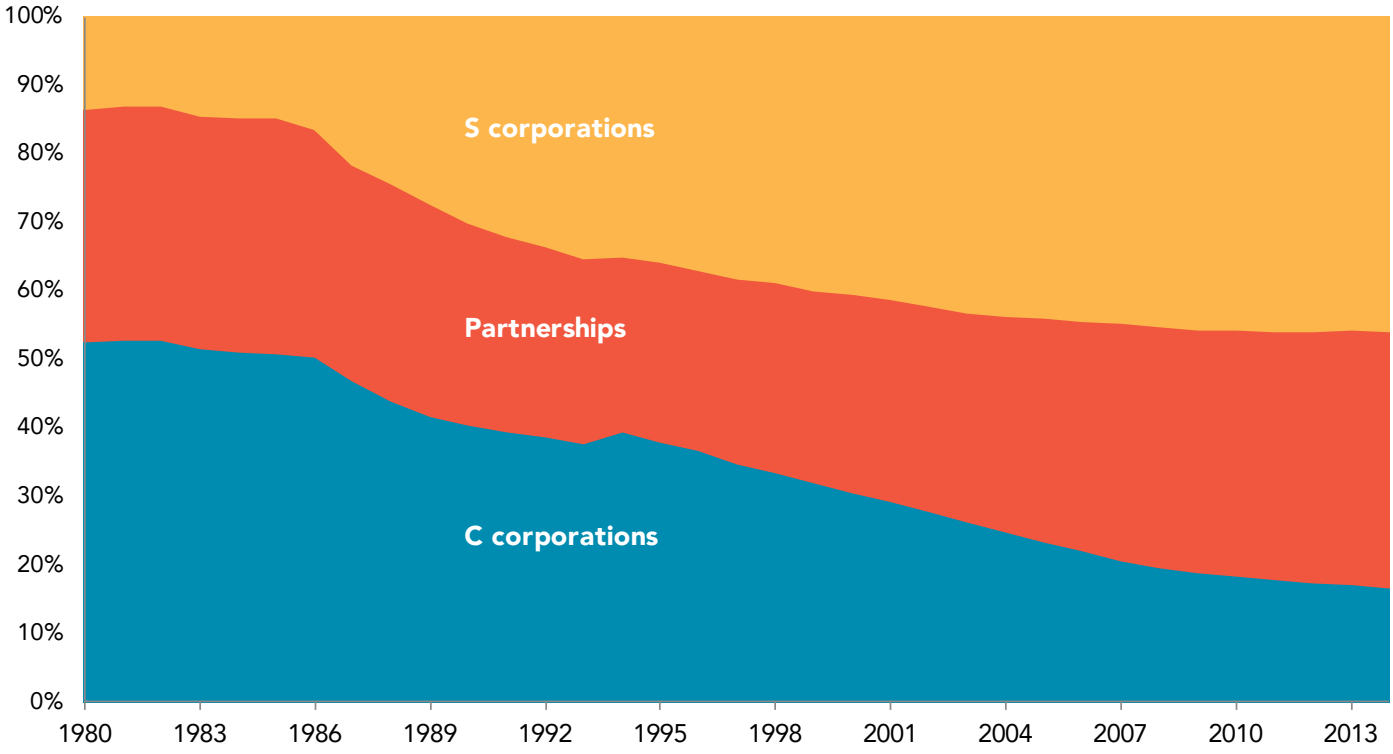
PASS-THROUGHS AND THE INDIVIDUAL INCOME TAX

In 2016, individuals reported about $957 billion in net income from sole proprietorships, partnerships, and S corporations, accounting for 9.4 percent of total adjusted gross income (AGI) reported on individual income tax returns (figure 3). Nonfarm sole proprietor income (reported on Schedule C) has declined modestly as a percentage of total AGI beginning in the mid-1990s. In 2016, 25 million returns reported net income of $328 billion, or 3.2 percent of AGI. In contrast, income from partnerships and S corporations has more than tripled as a share of AGI since the late 1980s. In 2016, 8.7 million returns reported $629 billion in net income from those sources, or 6.1 percent of AGI.

FIGURE 1

Share of Business Returns by Type

1980–2014



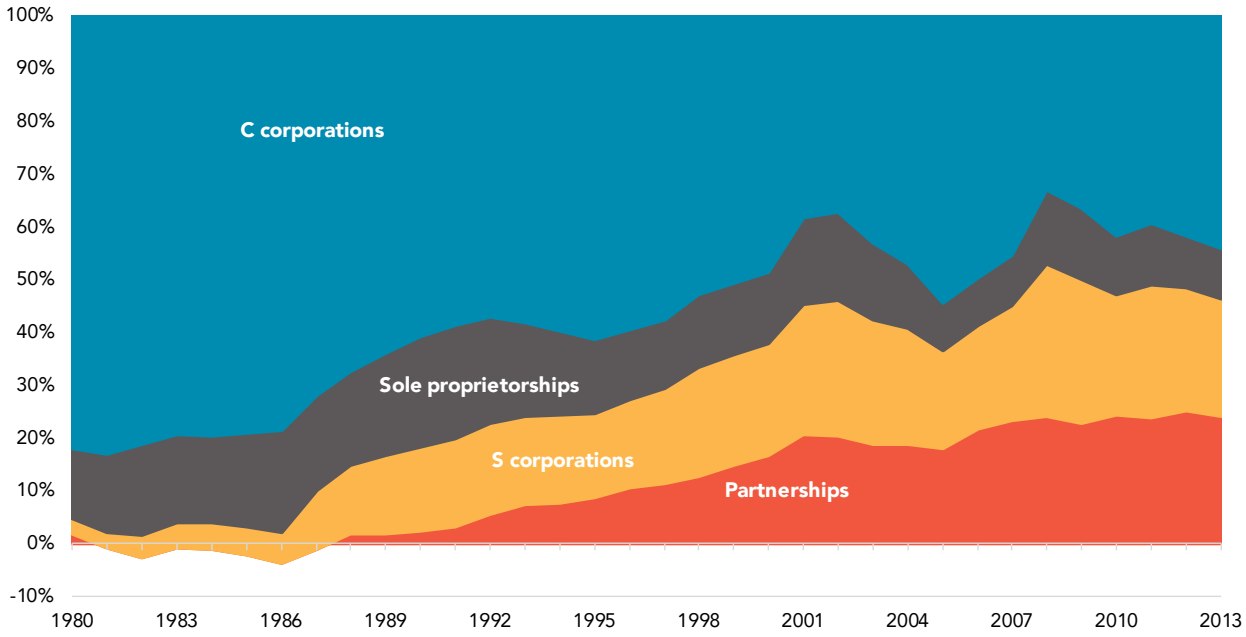
Source: Joint Committee on Taxation (2017).

Key Elements of the U.S. Tax System

What are pass-through businesses?

FIGURE 2

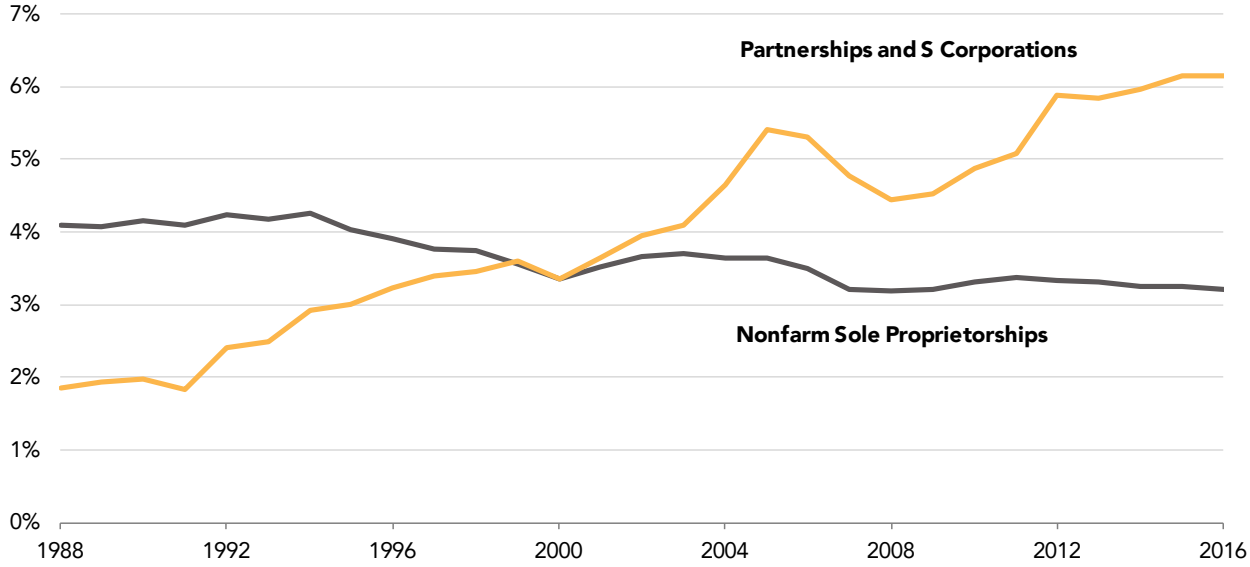
Share of Business Net Income (Less Deficit) by Type
1980–2013



Source: Nelson (2016).
Note: Shares do not include regulated investment corporations and real estate investment trusts. C and S corporation income includes officer compensation.

FIGURE 3

Net Income from Pass-through Businesses as a Percentage of AGI
1988–2016



Source: Internal Revenue Service, *SOI Tax Stats—Individual Income Tax Returns Publication 1304 (Complete Report)*, Table 1.4 (1988–2016).

Key Elements of the U.S. Tax System

What are pass-through businesses?

Pass-through income is concentrated among higher-income taxpayers. About 85 percent of all pass-through income is reported by taxpayers in the top 20 percent of the income distribution, and more than 50 percent is reported by the top 1 percent of taxpayers. Net income from partnerships and S corporations is even more concentrated—with more than 70 percent reported by the top 1 percent of taxpayers—and accounts for a large fraction of the increased share of income the top 1 percent earns (Cooper et al. 2016).

Data Sources

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———. *SOI Tax Stats—Individual Income Tax Returns Publication 1304 (Complete Report)*. Table 1.4. "All Returns: Sources of Income, Adjustments, and Tax Items."

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Plesko, George A., and Eric J. Toder. 2013. "Changes in the Organization of Business Activity and Implications for Tax Reform." *National Tax Journal* 66 (4): 855–70.

Q. How are pass-through businesses taxed?

A. Pass-through businesses are not subject to the corporate income tax. Rather, profits flow through to owners and are taxed under the individual income tax. Some pass-through income may be eligible for a 20 percent deduction beginning in 2018.

Pass-through income is only subject to a single layer of income tax and is generally taxed as ordinary income up to the maximum 37 percent rate. However, certain pass-through income may be eligible for a 20 percent deduction, which reduces the top tax rate to as low as 29.6 percent. Pass-through businesses generally face the same tax rules as C corporations for inventory accounting, depreciation, and other provisions affecting the measurement of business profits.

20 PERCENT PASS-THROUGH DEDUCTION

The 2017 Tax Cuts and Jobs Act (TCJA) created a new 20 percent deduction for certain forms of pass-through income beginning in 2018. The TCJA will reduce federal revenues by between $50 billion and $60 billion a year according to the Joint Committee on Taxation. The pass-through deduction is scheduled to expire at the end of 2025.

The so-called 199A (named for the relevant IRS code section the law created) or "qualified business income" deduction reduces the marginal tax rate for qualifying pass-through income. The 20 percent deduction effectively reduces the top marginal tax rate on qualifying pass-through income from the top ordinary rate of 37 percent to 29.6 percent (10 percentage points below the pre-TCJA top marginal rate of 39.6).
The 199A deduction is subject to several restrictions and exceptions (Gale and Krupkin 2018). For single filers with taxable income above $157,500 and joint filers with taxable income above $315,000, the pass-through deduction is potentially subject to two limitations:

Specified service limitation. Income earned by certain "specified service" businesses is excluded from the definition of qualified business income and therefore receives a reduced deduction or no deduction. Specified service activities include "any trade or business involving the performance of services in the fields of health, law, accounting, actuarial science, performing arts, consulting, athletics, financial services, brokerage services, or any trade or business where the principal asset of such trade of business is the reputation or skill of 1 or more of its employers or owners." The qualifying income is phased out for singles with taxable income between $157,500 and $207,500 (between $315,000 and $415,000 for joint filers).

Wage/asset limitation. The 20 percent deduction may also be limited based on the wages the associated business paid and/or its depreciable assets. Specifically, the deduction is limited to the greater of 50 percent of W-2 wages paid or 25 percent of W-2 wages paid plus 2.5 percent of the acquisition cost of qualifying

depreciable property. That limitation is phased-in over the same income range as the specified service limitation.

Further Reading

Gale, William, and Aaron Krupkin. 2018. "Navigating the New Pass-Through Provisions: A Technical Explanation." Washington, DC: Urban-Brookings Tax Policy Center.

Q. Is corporate income double taxed?

A. Yes, as a general rule. A corporation pays tax on its income, and its shareholders pay tax again when the income is distributed. But in practice, not all corporate income is taxed and many corporate shareholders are exempt from income tax.

Income earned by C corporations (named after the relevant subchapter of the Internal Revenue Code) is subject to the corporate income tax and taxed at a 21 percent rate. This income may also be subject to a second layer of taxation at the individual shareholder level, both on dividends when distributed and on capital gains from the sale of shares.

Suppose a corporation earns $1 million in profits this year and pays $210,000 in federal taxes. If the corporation distributes the remaining $790,000 to its shareholders, the distribution would be taxable to shareholders. Dividends are taxed at a top rate of 23.8 percent. As a result, only $601,980 would be left (assuming the dividends went to high-income individuals), and the combined tax rate on the income would be 39.8 percent.

To alleviate double taxation of corporate income, other countries have "integrated" their corporate and shareholder taxes. Some countries permit corporations to deduct the dividends they pay to shareholders. Other countries give shareholders full or partial credit for taxes paid at the corporate level, or they permit shareholders to exclude dividends from their taxable income.

IMPACT ON BUSINESS BEHAVIOR

Choice of organization form: Double taxation may discourage businesses from organizing as C corporations (which are subject to the corporate tax), encouraging them to organize as pass-through businesses (S corporations, partnerships, or sole proprietorships). Profits of an S corporation, partnership, or sole proprietorship are taxed only once, at a top rate of 37 percent (or 29.6 percent if eligible for the additional 20 percent pass-through deduction). By no coincidence, the share of business activity represented by pass-through entities has been rising (figure 1).

Source of financing (debt versus equity): Corporations can reduce the double-taxation of their income by issuing debt instead of stock to finance an investment, because interest payments are deductible in the calculation of taxable income.

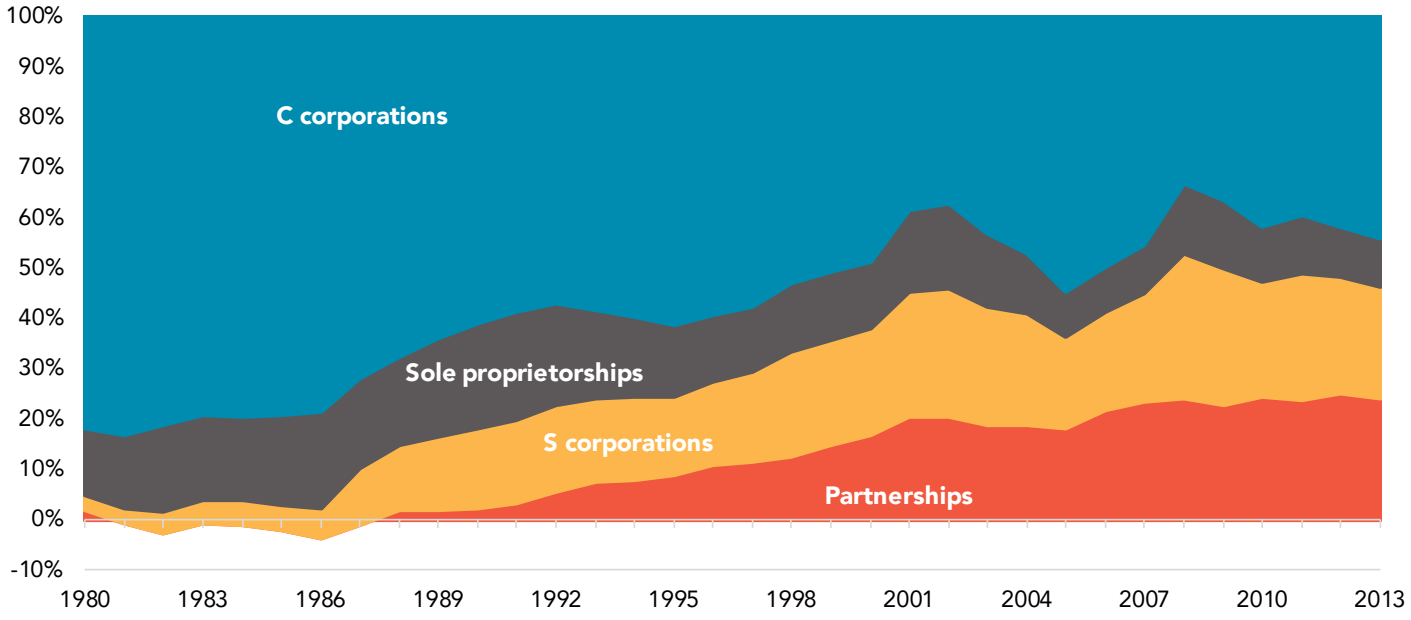
Payout policy (dividends versus retained earnings): Corporations can also choose to retain its earnings and not pay dividends. The corporation would still pay the corporate income tax on its earnings, but the shareholders would defer the second round of taxation until the corporation distributed the earnings or the

shareholders sold their stock at a price that reflected the value of the retained earnings.

But these choices distort business behavior. They encourage debt financing over equity, which creates a riskier capital structure for the corporation. And they encourage a corporation to retain earnings that might better be used by its shareholders.

FIGURE 1

Share of Business Net Income (Less Deficit) by Type
1980–2013



Source: Nelson (2016).
Note: Shares do not include regulated investment corporations (RICs) and real estate investment trusts (REITS). C and S corporation income includes officer compensation.

MOST SHAREHOLDERS ARE NOT SUBJECT TO A SECOND LAYER OF TAX

Often, however, there is not a second level of tax. Many shareholders of corporate stock, such as retirement accounts, educational institutions, and religious organizations, are exempt from income tax; the earnings distributed to these shareholders are not double-taxed. By some recent estimates, the share of U.S. corporate stock held in taxable accounts has fallen from over 80 percent in 1965 to about 25 percent today (Rosenthal and Austin 2016).

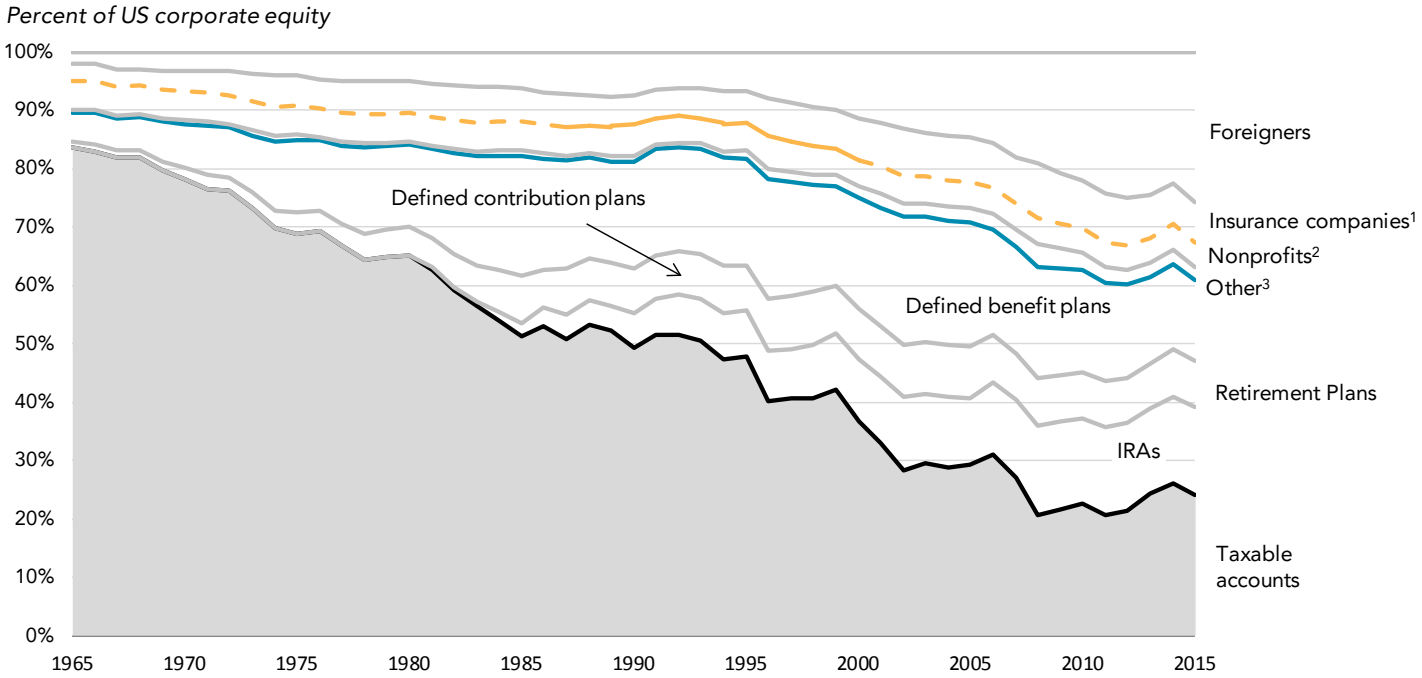
Key Elements of the U.S. Tax System

Is corporate income double taxed?

FIGURE 2

Ownership of US Corporate Stock, 1965–2015

Direct and indirect holdings



Source: Board of Governors of the Federal Reserve System, "Financial Accounts of the United States;" Investment Company Institute. 2016, "The U.S. Retirement Market, Fourth Quarter 2015;" Barclay Hedge; Preqin; Tax Policy Center calculations.
(1) Stock held in non-taxable segregated reserves to fund annuity contracts and whole life insurance.
(2) Dashed lines indicate TPC estimates
(3) Primarily government holdings, but includes equities in 529 savings plans.

Data Sources

Internal Revenue Service, Statistics of Income Division. *SOI Tax Stats—Integrated Business Data*. Table 1. "Selected Financial Data on Businesses."

Further Reading

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Q. What is the New Markets Tax Credit and how does it work?

A. The credit provides an incentive for investment in low-income communities. The US Department of the Treasury competitively allocates tax credit authority to intermediaries that select investment projects. Investors receive a tax credit against their federal income tax.

The New Markets Tax Credit (NMTC) was established in 2000. Congress authorizes the amount of credit, which the Treasury then allocates to qualified applicants. Since 2003, the program has parceled out credits worth nearly $23 billion. The NMTC has supported more than 4,800 projects in all 50 states, the District of Columbia, and Puerto Rico. Some 43 percent of the US's roughly 73,000 census tracts qualify for NMTC investments; by 2015, approximately 3,300 had received NMTC projects. In recent years, all applicants have pledged to place at least 75 percent of their NMTC projects in "severely distressed" census tracts. The credit is currently set to expire at the end of 2019, but Congress has extended it several times.

HOW DOES THE CREDIT WORK?

NMTC investors provide capital to community development entities (CDEs), and in exchange are awarded credits against their federal tax obligations. Investors can claim their allotted tax credits in as little as seven years—5 percent of the investment for each of the first three years and 6 percent of the project for the remaining four years—for a total of 39 percent of the NMTC project. A CDE can be its own investor or find an outside investor. Investors are primarily corporate entities—often large international banks or other regulated financial institutions—but any entity or person is eligible to claim NMTCs.

HOW HAS NMTC SPENDING CHANGED OVER TIME?

The cost of the program has fluctuated over time, including bump-ups in response to Hurricane Katrina and again as a part of the American Recovery and Reinvestment Act (figure 1). Of late, the NMTC has held steady at around $1.3 billion per year.

WHO INITIATES NMTC PROJECTS?

Community development entities are intermediaries that make loans or investments. They apply to the Treasury Department's Community Development Financial Institutions (CDFI) Fund to receive tax credit authority. CDEs sell these tax credits to investors and use the funds to make debt or equity investments in entities located in qualified low-income communities. CDEs are encouraged to make deals and offer preferential rates and terms. CDEs frequently leverage the NMTC by using other public subsidies and private-sector funds to invest in projects.

Key Elements of the U.S. Tax System

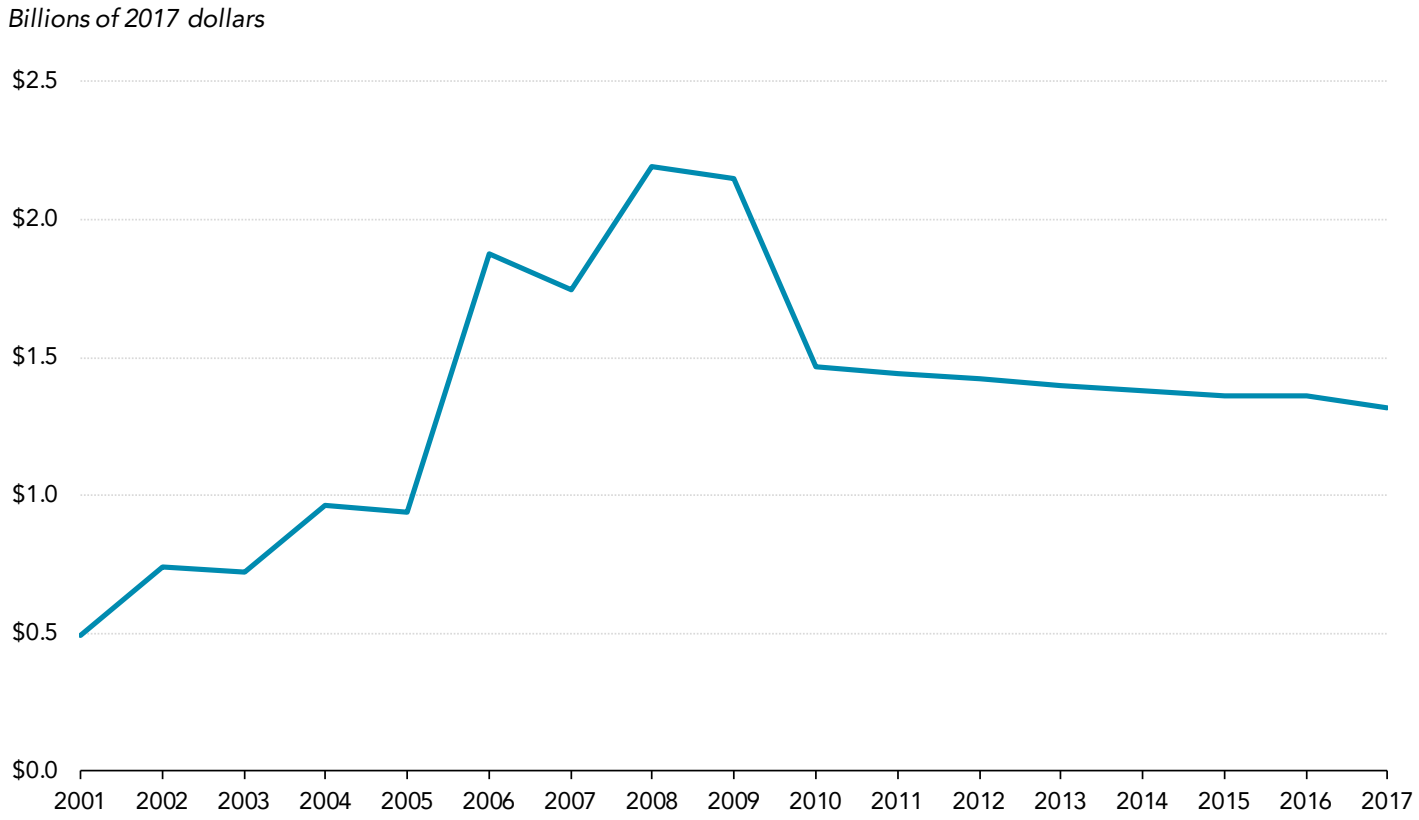
What is the New Markets Tax Credit and how does it work?

Many enterprises, including banks, developers, and local governments, can qualify to become CDEs. Our analysis of the most recent three rounds of NMTC allocations shows that CDFIs and other mission lenders were awarded the highest share of NMTCs, followed by mainstream financial institutions. The third-highest share went to government and quasi-government CDEs, followed by operating nonprofits and for-profits (table 1).

FIGURE 1

New Markets Tax Credit

Estimated present value of tax expenditures by approval year, 2001–17



Source: Urban Institute calculations based on allocation award information provided by the CDFI Fund.
Notes: The CDFI Fund publishes the amount of "allocation awards" under the program for each allocation round. This allocation authority is not the actual cost to the federal government, but the amount against which 39 percent can be claimed as credits, which we deflate in cost since not all credits are claimed in the year they are awarded. We adjust spending figures for inflation following the CPI-U. Calendar year of approval does not always align with year that credits were awarded and we use award dates for cost estimation.

Key Elements of the U.S. Tax System

What is the New Markets Tax Credit and how does it work?

TABLE 1

New Markets Tax Credit

Allocations by Type of Community Development Entity, 2015 - 2017

Type of CDE	Share of Number of Allocations	Share of Dollars Allocated	Median Allocation Amount
CDFIs and other mission lenders	50%	53%	$60,000,000
Mainstream financial institution	23%	23%	$55,000,000
Government/quasi-government	16%	15%	$50,000,000
Nonprofit (non-financial)	7%	5%	$40,000,000
For profit (non-financial)	5%	5%	$45,000,000

Source: Urban Institute calculations based on CDE application data from the CDFI Fund.

CDFI = community development financial institutions

WHO RECEIVES NMTC INVESTMENTS?

"Qualified active low-income community businesses" (QALICBs) receive NMTC investments. While called "businesses," QALICBs can be for-profit or nonprofit enterprises. Urban Institute calculations based on data from the CDFI Fund found that for NMTC projects reporting from 2003 to 2015, 61 percent went to for-profit QALICBs and 31 percent to nonprofits. (Tribal entities received 0.3 percent of investments, with the remaining projects missing or described as "other.")

The Urban Institute found in its evaluation of the 2002–07 New Markets rounds that QALICBs ranged in size—as measured by annual gross revenues or operating budgets at the start of their NMTC projects—from $0 for start-ups to $7 billion for a large for-profit parent entity in the natural resources business, with a median of $740,000.

WHAT PROJECTS DOES THE PROGRAM FUND?

The NMTC program is flexible with regard to project type and purpose. QALICBs can be used to finance equipment, operations, or real estate. Real estate financing can purchase or rehabilitate retail, manufacturing, agriculture, community facilities (e.g., health services, museums, or charter schools), rental or for-sale housing, or combinations of these.

The Urban Institute categorized NMTC project types (figure 2). Although no type dominated, the most prevalent were retail, manufacturing/industrial, mixed use, health care, office buildings, and schools.

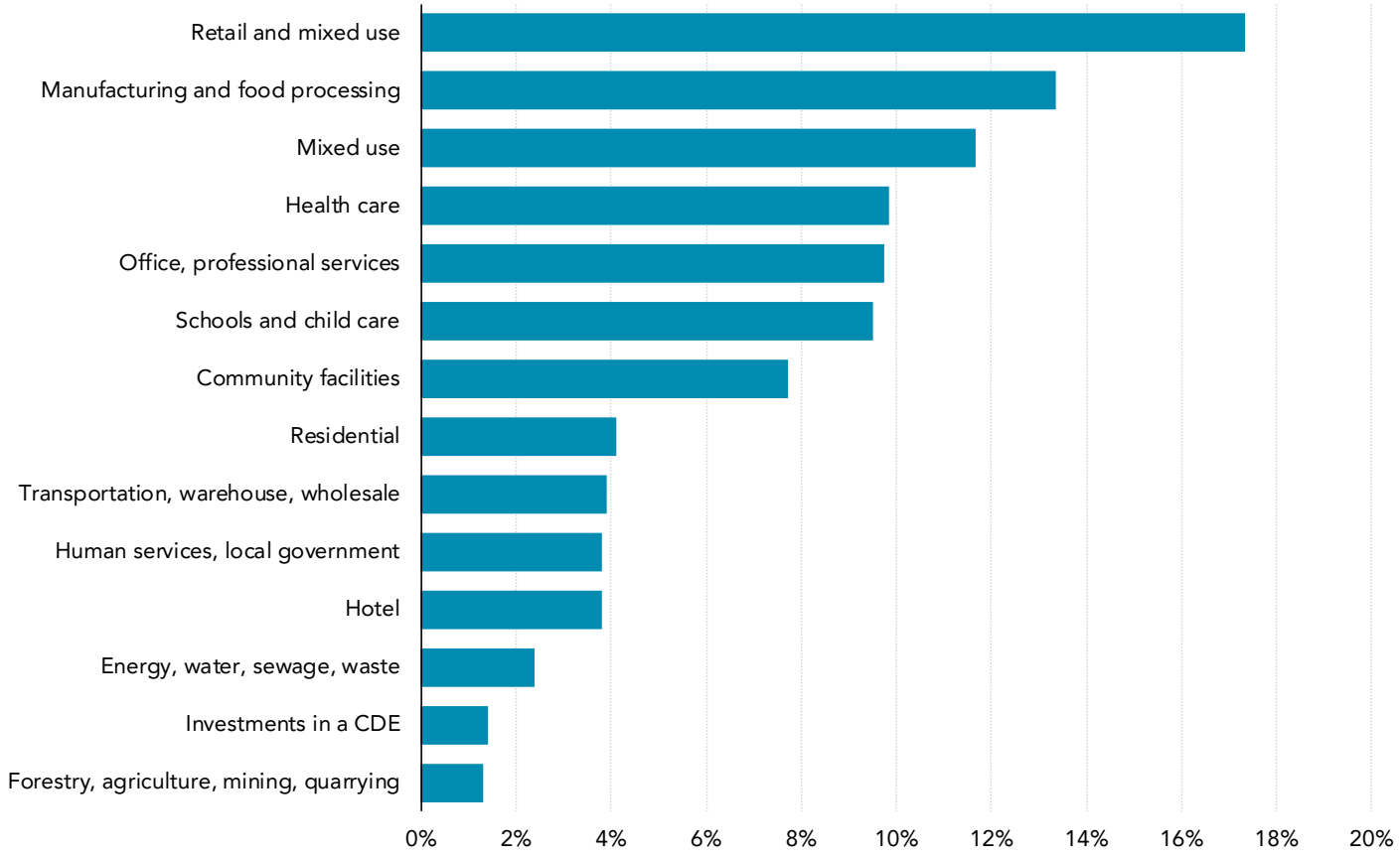
Key Elements of the U.S. Tax System

What is the New Markets Tax Credit and how does it work?

FIGURE 2

New Markets Tax Credit

Share of projects by industry, 2003–15



Source: Urban Institute calculations based on project reporting data from the CDFI Fund
Note: Projects with "other" industries comprising 0.1 percent of all projects not displayed.
CDE = community development entity

Further Reading

Abravanel, Martin D., Nancy M. Pindus, Brett Theodos, Kassie Dumlao Bertumen, Rachel Brash, and Zachary J. McDade. 2013. "New Markets Tax Credit Program Evaluation." Washington, DC: Urban Institute.

Q. What is the low-income housing credit and how does it work?

A. The credit provides an incentive for investment in low-income communities. The US Treasury competitively allocates tax credit authority to intermediaries that select investment projects. Investors receive a tax credit against their federal income tax.

The Low-Income Housing Tax Credit (LIHTC) subsidizes the acquisition, construction, and rehabilitation of affordable rental housing for low- and moderate-income tenants. The LIHTC was enacted as part of the 1986 Tax Reform Act and has been modified numerous times. Since the mid-1990s, the LIHTC program has supported the construction or rehabilitation of about 110,000 affordable rental units each year (though there was a steep drop-off after the Great Recession of 2008–09)—about 2 million units in all since its inception.

The federal government issues tax credits to state and territorial governments. State housing agencies then award the credits to private developers of affordable rental housing projects through a competitive process. Developers generally sell the credits to private investors to obtain funding. Once the housing project is placed in service (essentially, made available to tenants), investors can claim the LIHTC over a 10-year period.

QUALIFYING FOR THE CREDIT

Many types of rental properties are LIHTC eligible, including apartment buildings, single-family dwellings, townhouses, and duplexes.

Owners or developers of projects receiving the LIHTC agree to meet an income test for tenants and a gross rent test. There are three ways to meet the income test:

1. At least 20 percent of the project's units are occupied by tenants with an income of 50 percent or less of area median income adjusted for family size (AMI).
2. At least 40 percent of the units are occupied by tenants with an income of 60 percent or less of AMI.
3. At least 40 percent of the units are occupied by tenants with income averaging no more than 60 percent of AMI, and no units are occupied by tenants with income greater than 80 percent of AMI.

The gross rent test requires that rents do not exceed 30 percent of either 50 or 60 percent of AMI, depending upon the share of tax credit rental units in the project. All LIHTC projects must comply with the income and rent tests for 15 years or credits are recaptured. In addition, an extended compliance period (30 years in total) is generally imposed.

Key Elements of the U.S. Tax System

What is the low-income housing credit and how does it work?

COMPUTING THE CREDIT

The credit claimed by a taxpayer equals a credit percentage multiplied by the project's qualified basis. The percentage is larger for new construction or substantial rehabilitation (roughly 9 percent but specified in the law as a 70 percent present value credit) than for properties acquired for rehabilitation or for projects funded using tax-exempt bonds (roughly 4 percent but specified as a 30 percent present value credit). The qualified basis equals the fraction of the cost of the housing project rented to tenants meeting the income tests. For many LIHTC projects, the owners or developers aim to rent 100 percent of the units to qualifying tenants. State housing finance agencies may allocate enhanced tax credits to qualified projects in areas where the need is greatest for affordable rental housing.

The LIHTC statute originally specified that the IRS would periodically reset the specified credit percentages to maintain the present value of the 10-year stream of tax credits at 70 percent or 30 percent of the qualified basis. However, since 2008, Congress has specified that the minimum credit rate for the 70 percent present value credit should be at least 9 percent, regardless of prevailing interest rates. Thus, in a low interest rate environment, the present value of the credits claimed over 10 years will exceed 70 percent of the qualified basis.

ALLOCATING THE CREDIT

Congress sets a limit on the amount of LIHTC that can be allocated in any year. For 2018, each state was originally allocated $2.765 million or $2.40 per capita, whichever was larger. But Congress provided a 12.5 percent boost through 2021, so these figures were increased to $3.1 million and $2.70, respectively. Both dollar amounts are adjusted for inflation.

This structure guarantees that states with low populations get a somewhat larger award when calculated on a per capita basis. States then allocate these credits (generally through state housing finance agencies) to developers, based on state-created qualified allocation plans. These plans are required to give priority to projects that serve very low income households and that provide affordable housing for longer time periods. Projects financed by private activity tax-exempt bonds do not need to obtain a separate credit allocation from the state housing finance authority. The state, however, must approve the use of these bonds, which checks developers' ability to access 30 percent present value LIHTCs.

Developers generally sell the tax credits to investors, who may be better able to use the tax credits and other tax benefits of the housing project (e.g., depreciation, interest paid, net operating losses). Investors also contribute equity, often through a syndication or a partnership. The investors or limited partners usually play a passive role, receiving the tax benefits associated with the project but not participating in day-to-day management and oversight.

Most investors in LIHTC projects are corporations that have sufficient income tax liability to fully use nonrefundable tax credits. Financial institutions traditionally have been major investors, because they have substantial income tax liabilities, have a long planning horizon, and often receive Community Reinvestment Act credit from their regulators for such investments. Taxpaying investors cannot claim credits until the project is placed into service.

CALCULATING COSTS AND BENEFITS

The LIHTC is estimated to cost around $9 billion per year. It is by far the largest federal program encouraging the creation of affordable rental housing for low-income households. Supporters see it as an effective program that has substantially increased the affordable housing stock for more than 30 years. LIHTC addresses a major market failure—the lack of quality affordable housing in low-income communities. Efficiencies arise from harnessing private-sector business incentives to develop, manage, and maintain affordable housing for lower-income tenants.

Critics of the LIHTC argue that the federal subsidy per unit of new construction is higher than it needs to be because of the various intermediaries involved in its financing—organizers, syndicators, general partners, managers, and investors—each of whom are compensated for their efforts. As a result, a significant part of the federal tax subsidy does not go directly into the creation of new rental housing stock. Critics also identify the complexity of the statute and regulations as another potential shortcoming. Another downside is that some state housing finance authorities tend to approve LIHTC projects in ways that concentrate low-income communities where they have historically been segregated and where economic opportunities may be limited. Finally, while the LIHTC may help construct new affordable housing, maintaining that affordability is challenging once the required compliance periods are over.

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Q. What are opportunity zones and how do they work?

A. Opportunity Zones are tax incentives to encourage those with capital gains to invest in low-income and undercapitalized communities.

HOW DO OPPORTUNITY ZONES WORK, WHO CAN CLAIM THE INCENTIVES, AND WHAT PROJECTS CAN THEY SUPPORT?

The Tax Cuts and Jobs Act included a new federal incentive—Opportunity Zones—meant to spur investment in undercapitalized communities. Any corporation or individual with capital gains can qualify. The program provides three tax benefits for investing unrealized capital gains in Opportunity Zones:

1. Temporary deferral of taxes on previously earned capital gains. Investors can place existing assets with accumulated capital gains into Opportunity Funds. Those existing capital gains are not taxed until the end of 2026 or when the asset is disposed of.
2. Basis step-up of previously earned capital gains invested. For capital gains placed in Opportunity Funds for at least 5 years, investors' basis on the original investment increases by 10 percent. If invested for at least 7 years, investors' basis on the original investment increases by 15 percent.
3. Permanent exclusion of taxable income on new gains. For investments held for at least 10 years, investors pay no taxes on any capital gains produced through their investment in Opportunity Funds (the investment vehicle that invests in Opportunity Zones).

Investors can take advantage of one or more of the benefits.

Apart from a few "sin" businesses, Opportunity Funds can finance a broad variety of activities and projects. Funds can finance commercial and industrial real estate, housing, infrastructure, and existing or start-up businesses. For real estate projects to qualify for Opportunity Fund financing, the investment must result in the properties being "substantially improved."

WHICH COMMUNITIES ARE ZONES AND WHAT ARE THEIR ATTRIBUTES?

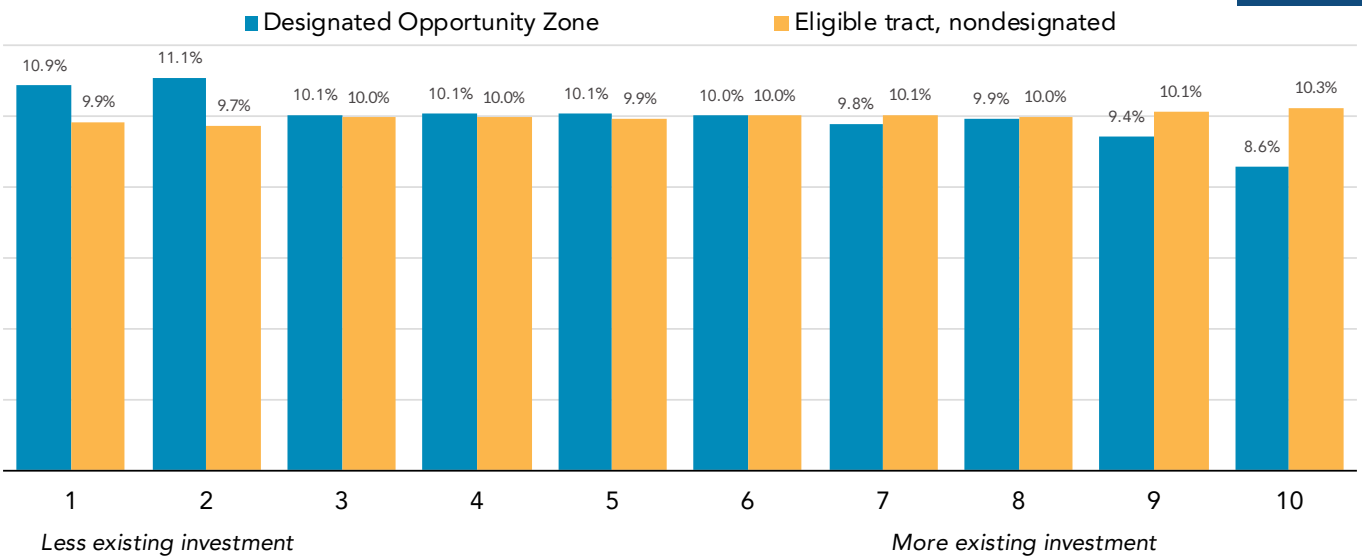
Twelve percent of US census tracts are Opportunity Zones (8,762 tracts). Governors of the 50 states and 4 territories and the mayor of Washington, DC, nominated the zones, which were officially designated by the US Department of the Treasury. The statute contains no provision to change which communities are classified as Opportunity Zones.

Urban Institute research finds that the designated zones have lower incomes, higher poverty rates, and higher unemployment rates than eligible nondesignated tracts. However, analysis shows minimal targeting of the program toward disinvested communities.

Urban ranked Opportunity Zone investment on a 1 to 10 scale, standardized across eligible tracts state by state, with 10 being the highest score. Just under one-third of Opportunity Zones are located in the three tracts that have the least investment, while 28 percent are in the three tracts attracting the most investment. This pattern is roughly similar to nondesignated tracts, with only very slight targeting toward lower-investment areas (figure 1).

FIGURE 1

Investment Score Distribution of Opportunity Zones



Sources: Urban Institute analysis of 2011–15 CoreLogic, 2015 Longitudinal Employer Household Dynamics Origin-Destination Employment Statistics Workplace Area Characteristics, 2011–15 US Census Bureau American Community Survey, 2000 US Census Decennial Census, 2011–15 Home Mortgage Disclosure Act, and 2011–15 Community Reinvestment Act data.
Note: This figure excludes US territories.

Opportunity Zones seem better targeted when measured by socioeconomic standards. Designated tracts have lower incomes, more poverty, and higher unemployment than eligible nondesignated tracts. Home values, rents, and homeownership rates also are lower. The designated tracts are less white and more Hispanic and black. Ages are similar while education levels are somewhat lower. The mix of urban and rural Opportunity Zones closely tracks community patterns (table 1).

Finally, we looked how designated tracts changed from 2000 to 2016. Where communities are already experiencing high levels of socioeconomic change, further investment may displace low- and moderate-income residents. Thus, Opportunity Zones in these areas may be less likely to benefit needy residents. We measured socioeconomic change by tracking changes in the share of residents with a bachelor's degree or higher, median family income, share of non-Hispanic white residents, and average housing costs as a share of income.

We found that tracts experiencing socioeconomic change were more represented among designated tracts (3.2 percent) than among eligible nondesignated tracts (2.4 percent).

TABLE 1

Tract Characteristics by Opportunity Zone Designation Status

Characteristics	Designated	Eligible, nondesignated
Economic (average $ or average %)		
Median household income	$33,345	$44,446
Poverty rate	32%	21%
Unemployment rate	13%	9%
Housing (average $ or average %)		
Median home value	$145,187	$170,919
Median rent/month	$768	$885
Homeownership	45%	57%
Severe rent burden	26%	24%
Vacancy rate	16%	14%
Demographic (average %)		
White alone	40%	55%
Black alone	24%	17%
Hispanic	30%	20%
Asian American and Pacific Islander alone	3%	4%
Younger than 18	24%	23%
Older than 64	14%	15%
Education (average %)		
Age 25+ with high school diploma or less	55%	50%
Age 25+ with bachelor's degree or higher	38%	43%
Geography (%)		
In a metro area	78%	79%
In a micro area	11%	11%
Not in core-based statistical area	10%	10%

Source: CDFI Fund, Urban Institute analysis of 2012–16 US Census Bureau American Community Survey.
Note: This table includes all 50 states, the District of Columbia, and Puerto Rico. It does not include American Samoa, Guam, Northern Mariana Islands, and the Virgin Islands due to data limitations.

Key Elements of the U.S. Tax System

What are opportunity zones and how do they work?

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Q. How does the current system of international taxation work?

A. All countries tax income earned by multinational corporations within their borders. The United States also imposes a minimum tax on the income US-based multinationals earn in low-tax foreign countries, with a credit for 80 percent of foreign income taxes they've paid. Most other countries exempt most foreign-source income of their multinationals.

TAXATION OF FOREIGN-SOURCE INCOME

Following the 2017 Tax Cuts and Jobs Act (TCJA), the federal government imposes different rules on the different types of income US resident multinational firms earn in foreign countries (table 1).

- Income that represents a "normal return" on physical assets—deemed to be 10 percent per year on the depreciated value of those assets—is exempt from US corporate income tax.
- Income above a 10 percent return—called Global Intangible Low Tax Income (or GILTI)—is taxed annually as earned at half the US corporate rate of 21 percent on domestic income, with a credit for 80 percent of foreign income taxes paid. Because half the US corporate rate is 10.5 percent, the 80 percent credit eliminates the GILTI tax for US corporations except for any income foreign countries tax at less than 13.125 percent. After 2025, the GILTI tax rate increases to 62.5 percent of the US corporate rate, or 13.125 percent, which makes US corporations subject to GILTI tax only on income foreign countries tax at less than 16.406 percent.
- Income from passive assets, such as bonds or certain categories of easily shiftable assets, is taxable under subpart F of the Internal Revenue Code at the full 21 percent corporate rate, with a credit for 100 percent of foreign income taxes on those categories of income.

US companies can claim credits for taxes paid to foreign governments on GILTI and subpart F income only up to their US tax liability on those sources of income. Firms may, however, pool their credits within separate income categories. Excess foreign credits on GILTI earned in high-tax countries, therefore, can be used to offset US taxes on GILTI from low-tax countries. US companies may not claim credits for foreign taxes on the 10 percent return exempt from US tax to offset US taxes on GILTI or subpart F income.

Key Elements of the U.S. Tax System

How does the current system of international taxation work?

TABLE 1

Taxation of Foreign-Source Income of US Multinationals

Type	2018–25	2026 and after
Normal returns (10% of depreciable basis of tangible capital)	No US corporate income tax	No US corporate income tax
GILTI (intangible profits, defined as profits in excess of 10% of tangible capital)	10.5% US tax rate with credit for 80% of foreign income taxes paid, up to a foreign income tax rate of 13.125%	13.125% US tax rate with credit for 80% of foreign income taxes paid, up to a foreign income tax rate of 16.406%
Subpart F income (passive and certain easily shift-able income)	21% US tax rate with credit for 100% of foreign income taxes, up to the US tax rate	21% US tax rate with credit for 100% of foreign income taxes, up to the U.S. tax rate

Suppose, for example, a US-based multinational firm invests $1,000 in buildings and machinery for its Irish subsidiary and earns a profit of $250 in Ireland, which has a 12.5 percent tax rate. It also holds $1,000 in an Irish bank, on which it earns interest of $50.

- The company pays the Irish government $31.25 of tax on the $250 of profits earned in Ireland plus another $6.25 on the $50 of interest from the Irish bank. Overall, it pays $37.50 of Irish tax on income of $300.
- The company owes no tax to the United States on the first $100 of Irish profits (10 percent of invested capital). It owes a tax before credits of $15.75 on the $150 of GILTI ($250 of profit less the $100 exempt amount). It owes $10.50 (21 percent of $50) on the interest from the Irish bank. So, overall its US tax before credits is $26.25.
- The company can claim a foreign tax credit of $21.25 from its Irish investments. This consists of $15 from the Irish tax on GILTI income (80 percent of .125 × $150) and the full $6.25 of Irish tax on interest income.
- So, overall, the US company pays $37.50 of tax to Ireland and an additional $5.00 to the United States ($26.25 less the $21.25 foreign tax credit) for a total tax liability of $42.50. This can be broken down into
  - $12.50 of Irish tax on the first $100 of profits from the investment;
  - $18.75 of Irish tax plus $0.75 of net US tax on the $150 of GILTI; and
  - $6.25 of Irish tax plus $4.25 of US tax on the $50 of interest income.

TCJA also introduced a special tax rate for Foreign Derived Intangible Income (FDII)—the profit a firm receives from US-based intangible assets used to generate export income for US firms. An example is the income US pharmaceutical companies receive from foreign sales attributable to patents they hold in the United States. The maximum rate on FDII is 13.125 percent, rising to 16.406 percent after 2025. FDII aims to encourage US multinationals to report their intangible profits to the United States instead of to low-tax foreign countries.

Most countries, including all other countries in the G7 (Canada, France, Germany, Italy, Japan, and the United Kingdom), use a territorial system that exempts most so-called "active" foreign income from taxation. Still others have hybrid systems that, for example, exempt foreign income only if the foreign country's tax system is similar to that in the home country. In general, an exemption system provides a stronger incentive than the current US tax system to earn income in low-tax countries because foreign-source income from low-tax countries incurs no minimum tax.

Key Elements of the U.S. Tax System

How does the current system of international taxation work?

Many countries also have provisions, known as "patent boxes," that allow special rates to the return on patents their resident multinationals hold in domestic affiliates.

Most other countries, however, also have rules similar to the US subpart F rules that limit their resident corporations' ability to shift profits to low-income countries by taxing foreign "passive" income on an accrual basis. In that sense, even countries with a formal territorial system do not exempt all foreign-source income from domestic tax.

INBOUND INVESTMENT

Countries, including the United States, generally tax the income foreign-based multinationals earn within their borders at the same rate as the income domestic-resident companies earn. Companies, however, have employed various techniques to shift reported profits from high-tax countries in which they invest to low-tax countries with very little real economic activity.

The US subpart F rules, and similar rules in other countries, limit many forms of profit shifting by domestic-resident companies but do not apply to foreign-resident companies. Countries use other rules to limit income shifting. For example, many countries have "thin-capitalization" rules, which limit companies' ability to deduct interest payments to related parties in low-tax countries in order to reduce reported profits from domestic investments.

TCJA enacted a new minimum tax, the Base Erosion Alternative Tax (BEAT) to limit firms' ability to strip profits from the United States. BEAT imposes a 10.5 percent alternative minimum tax on certain payments, including interest payments, to related parties that would otherwise be deductible as business costs.

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Q. How do US corporate income tax rates and revenues compare with other countries'?

A. The US corporate income tax rate is now lower than the top rate in all other leading economies except for the United Kingdom. Corporate income tax revenues in the United States as a share of gross domestic product have been lower than the average in other leading economies, even before the 2017 reduction in the US corporate tax rate.

CORPORATE TAX RATES

The 2017 Tax Cut and Jobs Act (TCJA) reduced the top US corporate tax rate from 35 percent to 21 percent and the average combined federal and state rate from 38.9 percent to 25.8 percent. As a result, the top US corporate tax rate, including the average state corporate rate, is now lower than that of all other leading economies in the G7 except the United Kingdom (with a 19 percent rate). Further, it is slightly below the average rate, weighted by gross domestic product (GDP), for the other Organisation for Economic Co-operation and Development (OECD) countries (figure 1).

CORPORATE TAX REVENUES

In 2016, even before the rate cut, the United States raised less revenue from corporate income taxes as a share of GDP than the average of other countries in the OECD (figure 2). Revenue has increased as a share of GDP in most OECD countries because base-broadening measures that subject more income to tax have more than offset the cuts in tax rates. In the United States, revenue has varied significantly from year to year with economic conditions and the vagaries of temporary investment incentives. Revenue, however, has remained at slightly over 2 percent of GDP in most years since the 1980s.

The Congressional Budget Office projects that federal corporate revenues will decline to about 1.2 percent of GDP in fiscal year 2018 because of the rate cut and investment incentives in TCJA, and then increase to about 1.5 percent of GDP at the end of the 10-year budget period. These projections assume that bonus depreciation enacted in the TCJA will phase out beginning in 2023 as currently scheduled and that base-broadening measures and the 2026 increases in tax rates for global intangible low-taxed income and foreign-derived intangible income will also occur as scheduled.

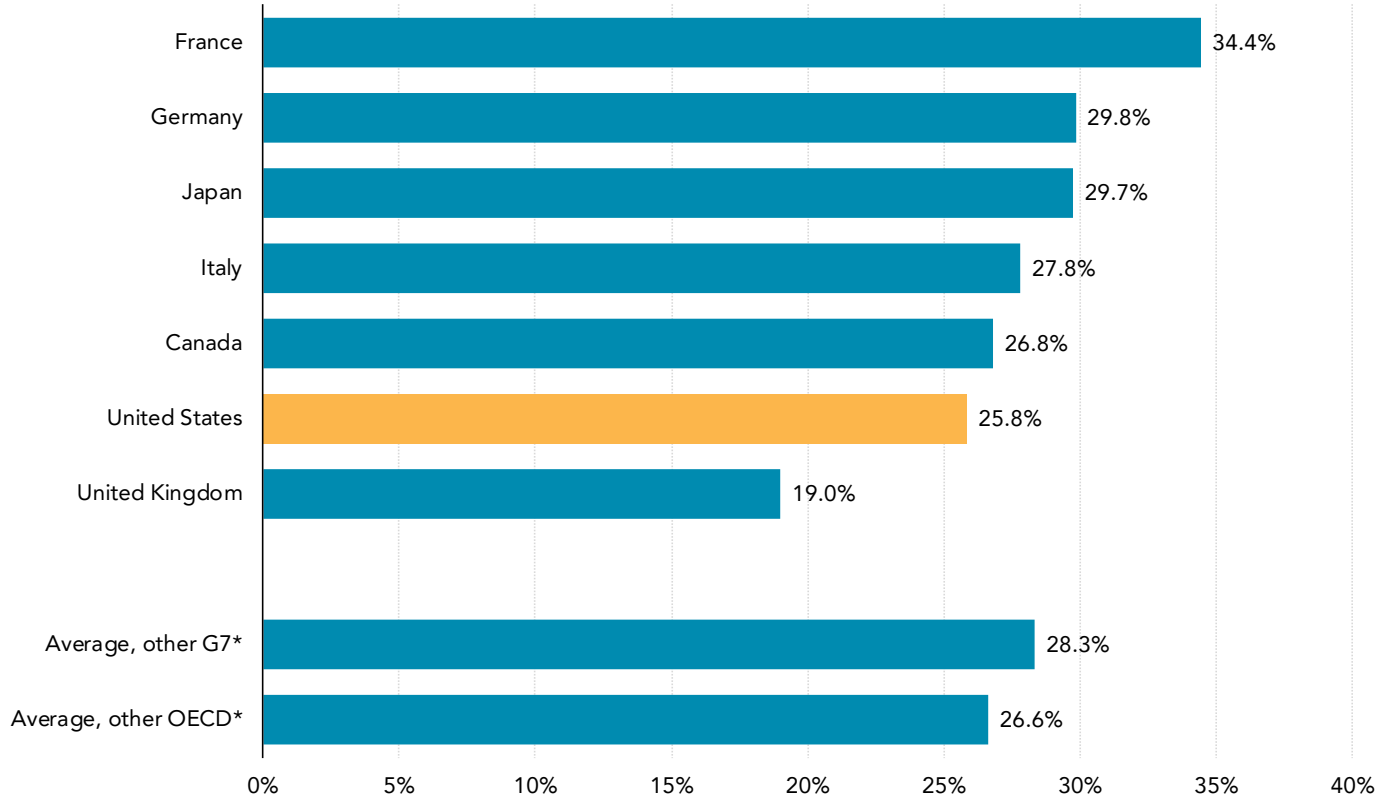
US corporate tax revenues were a smaller share of GDP than in some other developed countries because the US has a narrower tax base and an increasing share of business activity originating in businesses not subject to corporate tax (such as partnerships and subchapter S corporations).

Key Elements of the U.S. Tax System

How do US corporate income tax rates and revenues compare with other countries'?

FIGURE 1

Maximum Corporate Tax Rates Among Leading Economies
2018



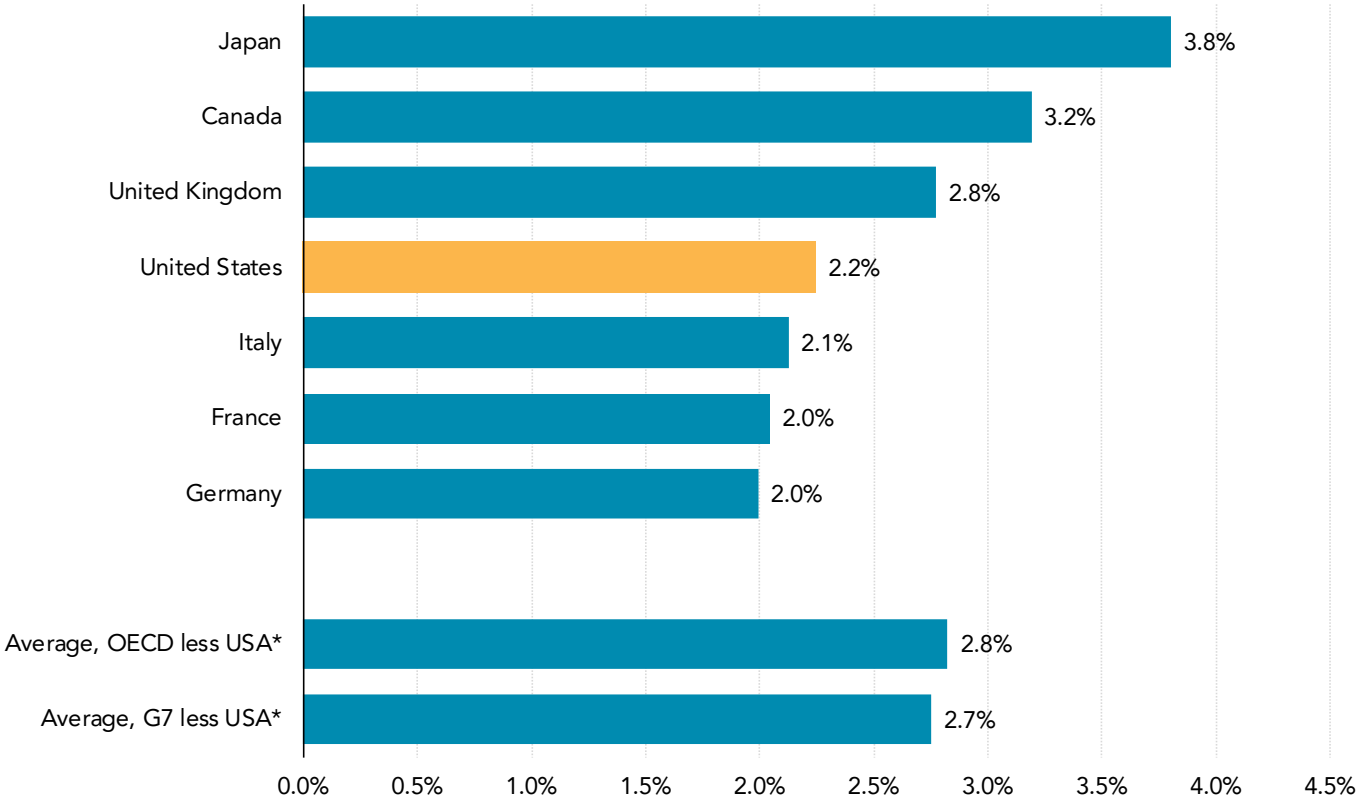
Source: OECD, Table II.1.; Urban-Brookings Tax Policy Center calculations.
Note: Includes taxes of sub-national governments.
* = weighted by GDP

Key Elements of the U.S. Tax System

How do US corporate income tax rates and revenues compare with other countries'?

FIGURE 2

Corporate Tax Revenues as Share of GDP Among Leading Economies
2016



Source: OECD, Table II.1.; Urban-Brookings Tax Policy Center calculations.
Note: Includes taxes of sub-national governments.
* = weighted by GDP

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Q. What are the consequences of the US International Tax System?

A. Despite enactment of the 2017 Tax Cuts and Jobs Act, which reduced incentives, current rules still encourage US multinational firms to earn and report profits in low-tax foreign countries, enable both US- and foreign-based firms to shift profits earned in the United States to other countries, and encourage companies to incorporate in foreign jurisdictions.

INCENTIVES TO EARN AND REPORT PROFITS IN LOW-TAX COUNTRIES

Multinational corporations typically operate overseas through foreign subsidiaries that are mostly taxed as independent corporate entities. This separate entity system gives multinationals incentives to shift reported profits to their affiliates in low-tax jurisdictions by underpricing sales to them and overpricing purchases from them.

For tax-reporting purposes, most governments require firms to use an "arm's length" standard, setting prices for transactions within the corporate group ("transfer prices") equal to the prices that would prevail if the transactions were between independent entities. Yet ample room remains for firms to manipulate transfer prices, especially for intangible assets such as patents that are unique to the firm and for which there is no easily established market price.

Leading multinationals often shift the ownership of their intangibles, which generate a large share of their worldwide profits, to affiliates in very low tax jurisdictions, such as Ireland and Singapore. Through complex transactions, multinationals can then shift reported profits from these jurisdictions to countries with no corporate income tax, such as Bermuda and the Cayman Islands. Typically, multinationals generate very little real economic activity—as measured by output, employment, sales, or investments in plant and equipment—in tax-free jurisdictions.

Before the 2017 Tax Cuts and Jobs Act (TCJA), US multinationals booked a disproportionate share of their profits in low-tax locations. In 2015, US multinationals reported over one-third of their overseas profits in three low-tax countries: the Netherlands, Ireland, and Bermuda (figure 1). The top 10 foreign locations of their profits, including other low-tax countries such as Luxembourg, Switzerland, Singapore, the UK Caribbean Islands, and the United Kingdom, accounted for almost three-fourths of their non-US profits.

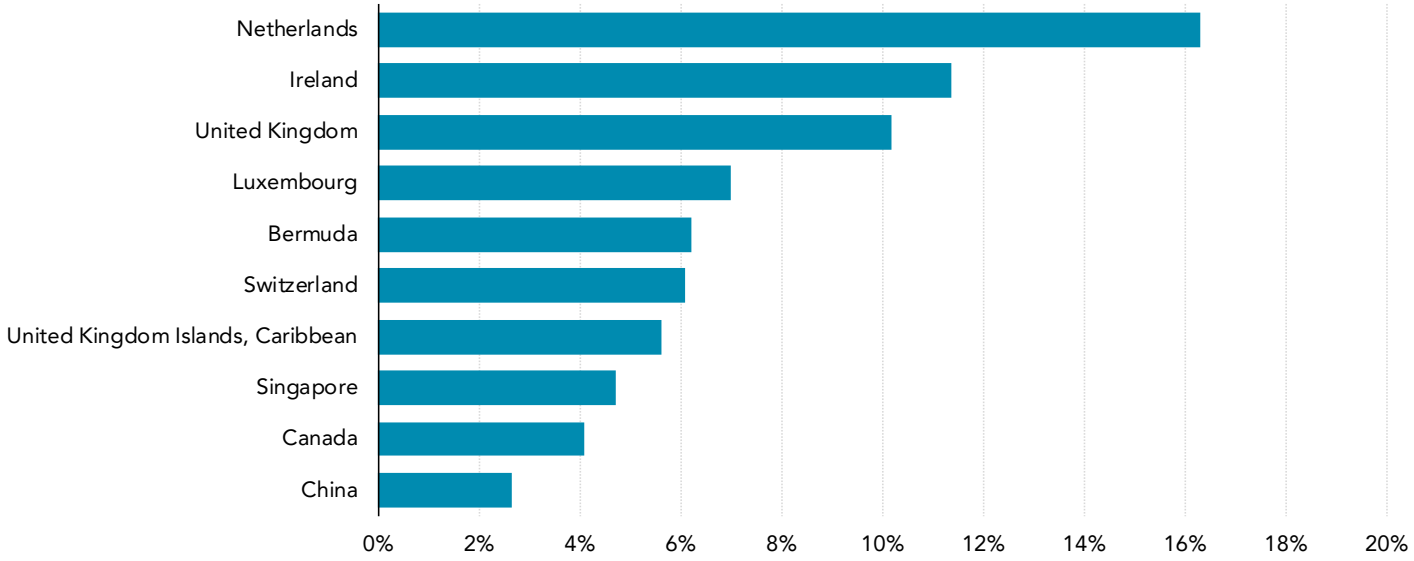
Key Elements of the U.S. Tax System

What are the consequences of the US international tax system?

FIGURE 1

Top 10 Countries for Non-US Profits of US Multinationals

Net income as share of total, 2015



Source: Bureau of Economic Analysis, *US Direct Investment Abroad (USDIA), Activities of US Multinational Enterprises (MNEs)*, "All Foreign Affiliates: Selected Data by Country," 2015.

Despite evidence that firms shift the location of real economic activity in response to tax-rate differences among countries, a substantial share of US multinationals' real activity remains in high-tax countries. These are mostly large economies with close ties to the United States (figure 2). Before TCJA, the effective corporate tax rates on new investments in such countries was slightly lower than the US rate.

The TCJA substantially reduced, but did not eliminate, the incentive for US corporations to shift profits to tax havens. It did this by introducing a new minimum tax on Global Low Tax Intangible Income (GILTI) at 10.5 percent beginning in 2018, increasing to 13.125 percent in 2026. The GILTI rate remains below the 21 percent US corporate rate and the rate in other countries in the G7 (which ranges from 19 percent in the United Kingdom to 34 percent in France). TCJA also reduced incentives for US companies to hold intangible assets in low-tax foreign countries by providing a special rate (13.125 percent beginning in 2018 and 16.406 percent beginning in 2026) for export income from intangible assets held in the United States (Foreign Derived Intangible Income).

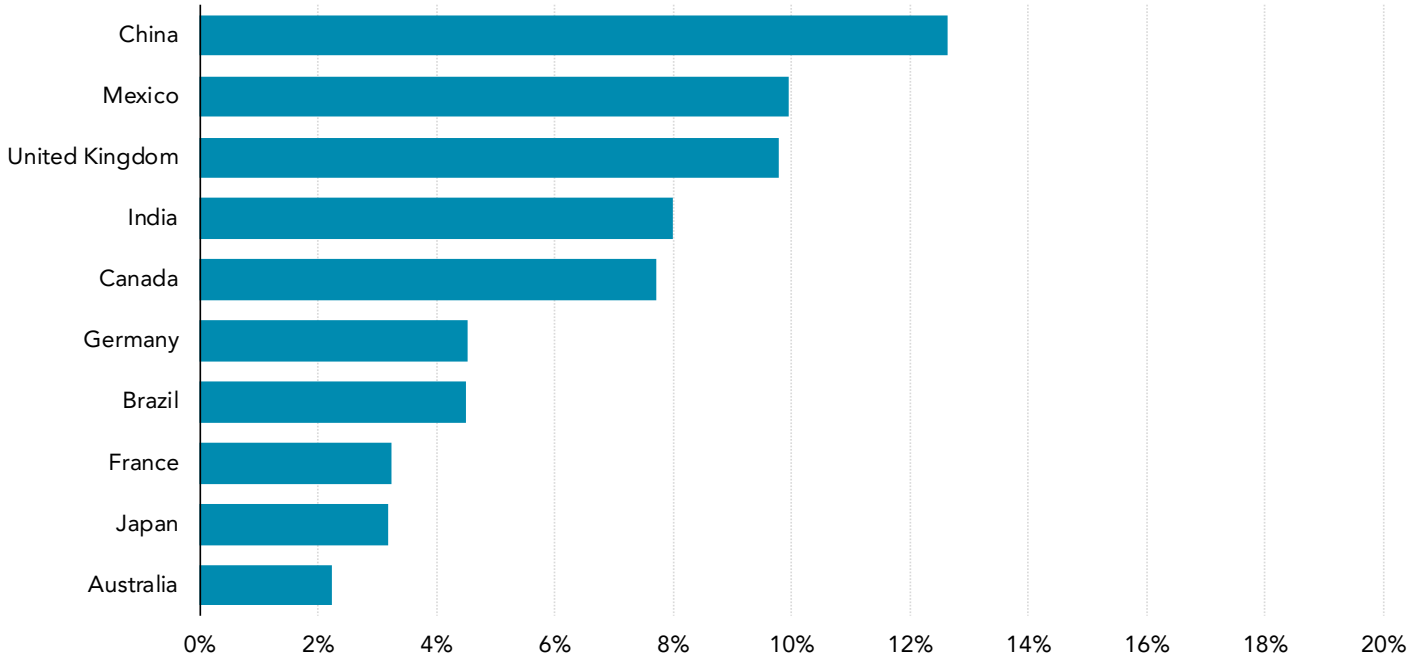
How TCJA affects the location of reported profits and real activities of US multinationals overseas will not be known for several years. However, we can expect in a few years that US companies will report substantially lower shares of their profits in low-tax countries with little economic activity.

Key Elements of the U.S. Tax System

What are the consequences of the US international tax system?

FIGURE 2

Top 10 Countries for Non-US Employment of US Multinationals



Source: Bureau of Economic Analysis, *US Direct Investment Abroad (USDIA), Activities of US Multinational Enterprises (MNEs)*, "All Foreign Affiliates: Selected Data by Country," 2015.

INCENTIVES TO INCORPORATE OVERSEAS

The United States bases its definition of corporate residence on place of incorporation. This definition need not be consistent with where a company's production and employment is located, where its sales take place, where its shareholders reside, or even where its top managers live.

For some firms, the tax benefits of foreign residence, combined with the lack of economic substance to the residence definition, have led them to shift the formal incorporation of their parent companies overseas. This type of transaction ("inversion") can often be accomplished without changing the location of any real business activities.

Over the years, Congress has enacted rules to limit inversions. A company can still "redomicile," though, by merging with a foreign-based company under certain conditions, including that the original foreign company contribute at least 20 percent of the shares of the new merged company if other conditions are not met. The TCJA added new provisions to penalize new inversions. In exchange for TCJA eliminating the tax on repatriated dividends, it imposes a 35 percent transition tax on overseas assets that newly inverted firms held before TCJA. Other US companies with foreign assets pay a comparable transition tax at 15.5 percent for cash and 8 percent for other assets. TCJA also introduced other penalties on newly inverted firms, including a provision that makes dividends to shareholders taxable as ordinary income instead of at the preferred rates generally applied to qualified dividends and long-term capital gains.

Key Elements of the U.S. Tax System

What are the consequences of the US international tax system?

The current US system still provides benefits for some multinational corporations to establish their parent company's residence outside the United States, although this incentive is smaller at the new reduced corporate tax rate. The United States now imposes GILTI on the intangible profits US-resident corporations earn in low-tax countries, while our major trading partners have so-called territorial systems that exempt active foreign-source profits. In addition, rules for US controlled foreign corporations limit US-based multinationals' ability to use debt-equity swaps and other earnings-stripping techniques to shift reported income out of the United States. But the United States is unable to apply its controlled foreign corporation rules to foreign-resident multinationals.

The US Department of the Treasury (2016), however, has recently issued new regulations to deter earnings stripping through interest payments to foreign-related parties and the Base Erosion and Anti-abuse Tax (BEAT), enacted as part of TCJA, imposes a minimum tax on a base that disallows deductions for certain payments, including interest, to foreign-related parties. Both Treasury regulations and BEAT aim to limit foreign-resident multinationals' ability to shift profits out of their US affiliates, although BEAT also affects US-resident companies.

A corporation's formal residence may be losing significance in an increasingly global economy where capital flows freely and a firm's research and development, production, and sales are often spread worldwide. The location of a multinational firm's investment, jobs, research and development, and tax revenue matter more than the site of its parent company. Corporate residence, however, does have some effect on US tax revenues and arguably may matter for research and development and other high-value activities often associated with a company's headquarters.

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Q. How does the tax system affect US competitiveness?

A. The international tax policies that best encourage firms to invest in the United States are not necessarily the policies that best help US multinational companies compete with foreign-based multinationals. Policymakers face a trade-off among goals.

WHAT IS COMPETITIVENESS?

Many—really all—politicians favor "international competitiveness," but the term means different things to different people. To some, it means domestic firms or industries can compete with their foreign counterparts in a global marketplace. For them, this translates into support for "mercantilist" policies that seek to increase exports, reduce imports, or promote more US activity in certain sectors, such as manufacturing.

An alternative form of mercantilism seeks to promote the growth of a country's resident multinational corporations without regard to whether they produce at home or overseas. Concerns about the competitiveness of US multinationals often follow from an assumption that these firms generate spillover benefits for the economy in which they are headquartered. For example, the knowledge created by research and development (R&D) (typically conducted at headquarters) often gets diffused to other domestic producers, boosting productivity more broadly.

By contrast, many economists view free trade and capital movements as mutually beneficial because they raise living standards in all countries. These economists define "competitive" policies as those that increase Americans' standard of living over the long run, without regard to their effects on the balance of trade, the net direction of international capital flows, or success in expanding specific activities, such as manufacturing or R&D.

Global international tax practices seek to promote free capital movements by preventing double taxation of international capital flows. These same practices assign the capital-importing countries rights to tax profits (i.e., the country where production facilities are located).

The capital-exporting country has two ways to avoid double taxation. The first method is simply to exempt taxation of the foreign-source income of its resident companies. The second method is to tax the worldwide income of its resident companies but to allow them to claim credits for foreign income taxes so that their income is taxed at the home-country rate rather than the rate in the country where the income is earned. These two approaches have different implications for a country's attractiveness either as a location for productive investment or as a place for multinational corporations to establish residence.

Although the promise of beneficial spillovers provides an argument for using the tax code to promote R&D

and other headquarters activities, direct subsidies such as research credits would be a more cost-effective way to encourage research.

HOW CAN TAX POLICIES ATTRACT INVESTMENT?

Following the 2017 Tax Cuts and Jobs Act (TCJA), the US corporate tax system no longer discourages investment in the United States by US- and foreign-based corporations. Now the top corporate tax rate in the United States (including the effect of state-level taxes) is slightly below the average corporate tax rate of our major trading partners. In addition, capital recovery provisions are more generous in the United States than in many other countries, especially through 2022 when companies can immediately deduct 100 percent of costs of machinery and equipment investment in the United States. (This bonus depreciation provision phases out between 2023 and 2027 at 20 percentage points per year.)

Provisions that make it easier in the United States than in most other countries to establish businesses whose owners benefit from limited liability without being subject to corporate-level taxation also encourage domestic investment. For example, many US corporations lease office buildings from real-estate investment trusts, which pay no corporate income tax, instead of owning them and facing US corporate income tax on the profits they generate.

The US tax system after TCJA continues to encourage US-based multinationals to invest in low-tax foreign countries instead of at home. US multinationals pay no US tax on foreign-source income up to 10 percent of the value of their tangible foreign capital (the value, net of past depreciation, of machinery, equipment, and structures). But most of the overseas tangible capital of US multinationals is in other major economies with corporate tax rates now similar to or slightly higher than the US corporate tax rate. Exemption of these profits, then, provides little additional benefit. On these investments, there would be no US tax liability—even in a worldwide system—because the credit for foreign income taxes would fully offset US corporate income tax liability.

HOW CAN TAX POLICIES ATTRACT CORPORATE HEADQUARTERS?

The US tax system places US multinationals at a competitive disadvantage with foreign-based multinationals that have income from low-tax countries. US companies now face a 10.5 percent minimum tax on global intangible low-taxed income, defined as global profits above 10 percent of tangible capital. In contrast, most countries in the Organisation for Economic Co-operation and Development and all the other countries in the G7 (Canada, France, Germany, Italy, Japan, and the United Kingdom) have exemption systems that allow their resident multinationals to pay only the foreign tax rate on most of their overseas profits.

The US and many other countries have controlled foreign corporation (CFC) rules that tax some forms of US multinationals' foreign-source income as it accrues in their foreign subsidiaries at the same rate as domestic-source income. The goal of CFC rules is to prevent schemes that shift the reported profits resident multinationals earn at home to their affiliates in low-tax foreign countries. Because CFC rules, however, apply only to domestic-resident multinationals, they do not prevent similar schemes by foreign-resident multinationals to strip profits from their affiliates in high-tax countries.

Several countries have enacted new taxes on foreign-resident multinationals operating in their countries, including the diverted profits tax in the United Kingdom and similar measures in Italy and India. Many countries also have "thin-capitalization" rules that limit interest deductions to prevent outbound income

shifting. The base erosion and anti-abuse tax (BEAT) in TCJA is a new measure that limits income shifting out of the United States by both US and foreign-resident companies. The BEAT imposes an alternative minimum tax on a tax base that disallows the deduction of certain payments to related parties. Some companies may find ways to avoid the BEAT, and the provision may also do unintended collateral harm to other companies, so its effectiveness is debatable. Nonetheless, BEAT is an effort to improve the competitive position of US-based multinationals by limiting the ability of foreign-based companies to strip profits from their US operations.

WOULD A VALUE-ADDED TAX OR DESTINATION-BASED CASH FLOW TAX INCREASE US COMPETITIVENESS?

Some commentators argue that substituting a value-added tax (VAT) for all or part of the corporate income tax would improve the US trade balance. Unlike the corporate income tax and other levies imposed on income earned in the United States, VATs typically exempt exports and tax imports.

But most economists dispute the claim that a VAT would improve the trade balance, arguing that any benefit to net exports from a VAT would be offset by a resulting appreciation of the US dollar relative to other currencies. In fact, some research suggests that countries that rely heavily on VATs for revenue have lower net exports than those that don't.

Replacing some or all of the corporate income tax with a VAT would, however, affect the trade position of some industries relative to others. Exemptions and lower rates within a VAT affect the relative prices consumers pay for different goods and services but do not distort trade patterns because VAT burdens do not depend on where goods and services are produced. In contrast, preferences within the corporate income tax do affect production location, improving the competitiveness of some US producers while worsening the competitiveness of others, because the tax does affect relative costs of production.

In 2017, House Republicans considered and then abandoned a plan for a destination-based cash flow tax (DBCFT) to replace the corporate income tax. The DBCFT was similar to a VAT in that it would have allowed immediate recovery of capital expenses and would have exempted exports from tax and disallowed a deduction for imports. (It differed from a VAT by allowing companies to deduct wages.) Many commentators expressed concern that the DBCFT would hurt US importers, but prominent economists argued that exchange rates would adjust to neutralize any trade effects of its border-adjustments feature.

Key Elements of the U.S. Tax System

How does the tax system affect US competitiveness?

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Q. How would formulary apportionment work?

A. Under the current global system, multinational firms determine their profits separately in each tax jurisdiction in which they operate. An alternative system would allocate a firm's worldwide income across countries using a formula based on some combination of its sales, assets, and payroll in each jurisdiction.

HOW FORMULARY APPORTIONMENT WORKS

Under formulary apportionment, a multinational corporation would allocate its profits across countries based on its sales, payroll, and capital base in each jurisdiction. The corporation would pay US corporate tax on the share of its worldwide income allocated to the United States. An alternative formula would base a corporation's US taxes only on the fraction of its worldwide sales destined for domestic consumers, a so-called "destination-based" corporate profits tax.

Many states in the United States use a formulary apportionment system to determine their taxable share of US-source corporate profits. The formulas have been historically based on a weighted average of the shares of sales, payroll, and assets in the state. But some states have shifted to a sales-only apportionment system to remove any incentive to shift employees or facilities to other jurisdictions.

The adoption of formulary apportionment by states was motivated by the widespread perception that states are so highly integrated economically that it is impractical to determine using a separate-entity system how much of a firm's income is earned by an affiliate in one state and how much by an affiliate in another.

ADVANTAGES OF FORMULARY APPORTIONMENT

Formulary apportionment would remove the current artificial incentive for multinationals to shift reported income to low-tax locations. Tax liabilities, instead, would be allocated by a measure (or measures) of their real economic activity in each location. These measures are far more difficult to manipulate for tax purposes than the division of profits among separate entities within a firm.

Formulary apportionment would also reduce the tax system's complexity and the administrative burden it imposes on firms. Firms would no longer have to allocate income or expenses across countries for tax purposes. Because intra-firm transactions would not affect the measure of domestic profits, there would be no need for transfer-pricing rules for intra-firm transactions, which would remove a major source of dispute between corporations and tax authorities.

There would also no longer be a need for controlled foreign corporation rules because all profits assigned

to foreign activities would be exempt. For this reason, there would also no longer be a need for foreign tax credits, so firms with deemed profits from intangible assets (GILTI) would have no incentive to earn taxable profits in high-tax foreign countries to increase the availability of offsetting tax credits in low-tax countries.

Absent behavioral responses, the United States and countries with similar tax rates would gain revenue under formulary apportionment: firms' shares of real economic activity in these countries typically exceed the shares of income they now report as originating there instead of in tax havens. The move to formulary apportionment could therefore be made revenue neutral by reducing corporate tax rates. Moreover, formulary apportionment would make a multinational corporation's tax liability independent of both its legal residence and its legal form (for example, branch or subsidiary). Formulary apportionment would thus remove any incentive for corporate inversions in which firms from two countries merge and establish their residence in a low-tax country to reduce their tax liabilities.

PROBLEMS AND DISADVANTAGES OF FORMULARY APPORTIONMENT

Significant issues, however, emerge in designing and implementing a global formulary apportionment system. And such a system would create new incentives for tax avoidance and could increase the incentive to shift real investments to low-tax countries.

Formulary apportionment would require an agreement among the major economies to scrap the current separate-entity system and to agree on how to allocate corporate income among jurisdictions. It would also require agreement on common accounting methods for measuring corporate profits.

A unilateral move by the United States to formulary apportionment would result in double taxation of some multinationals' income and exemption of other income. That's because different countries would use radically different methods of allocating income among jurisdictions.

A formulary apportionment system would introduce new boundary problems between high-tax and low-tax activities. While the current separate-entity system creates incentives to shift reported profits among firms within a multinational corporation, formulary apportionment provides incentives to shift profits between multinationals and separately owned firms. For example, if physical assets help determine the location of a multinationals' profits, a firm might well have an incentive to contract its low-margin manufacturing activities in high-tax jurisdictions to independently owned firms instead of establishing a manufacturing subsidiary within the firm to reduce its share of capital assets allocated to high-tax countries.

Further, formulary apportionment could worsen the incentive to shift real activities to low-tax countries because intangible assets—a large share of value for many leading multinational companies—are part of a firm's total profits but are absent from the allocation formula. Intangible assets magnify the effects on the firm's tax liability of putting more real capital in low-tax countries. They increase the share of both the firm's return to real capital and its return to the intangible profits taxed at lower rates.

Some analysts and commentators favor sales- or destination-based allocation of corporate profits because firms are least likely to reduce sales in a jurisdiction simply to reduce tax liability. A problem with a sales-based allocation, however, is that multinationals can then avoid tax on the profits from their intangible assets by selling their products to independent distributors in low-tax countries, who would then resell them throughout the world. Although rules could be written to prevent such abuses, they would be cumbersome

and hard to enforce. Most multinationals sell most of their output primarily to other companies in complex supply chains rather than directly to final consumers.

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Q. What are inversions, and why do they happen?

A. An inversion is a transaction in which a US-based multinational company merges with a smaller foreign company and then establishes its residence in the foreign company's country. As a foreign resident, the company can sometimes significantly reduce its taxes without changing the location of any real business activities.

The current US system treats multinational enterprises whose parent companies are incorporated in the United States (US-resident multinationals) differently from those that are resident elsewhere. The United States imposes a minimum tax on the active profits above a 10 percent rate of return that its multinationals accrue within their foreign affiliates, while our major trading partners have so-called territorial systems that exempt their resident multinationals' active foreign-source income. In addition, US anti-abuse rules limit US-based multinationals' ability to use debt-equity swaps to shift reported income out of the United States, but do not apply the same limits to foreign-resident multinationals. New provisions, however, place limits on these profit-shifting activities by foreign-resident multinationals.

The United States bases its definition of corporate residence on place of incorporation. This definition need not be consistent with where a company's production is located, where its sales take place, where its shareholders reside, or even where its top managers live.

In prior years, the tax benefits of foreign residence, combined with the residence definition's lack of economic substance, led some US-based multinationals to formally incorporate their parent companies overseas. This transaction ("inversion") can often be accomplished without changing the location of any real business activities. Some recent research (Rao 2015), however, finds that inverted companies over time increase their shares of employees and investment overseas compared with companies that did not invert.

In the two decades before enactment of the 2017 Tax Cuts and Jobs Act (TCJA), US multinationals accumulated a large amount of unrepatriated foreign cash, increasing the motivation for inversion transactions (Clausing 2014). TJCA eliminated taxes on repatriation of foreign-source income, thereby ending the incentive for US companies to retain assets overseas. In lieu of the repatriation tax, TCJA imposed a minimum tax of 10.5 percent on certain accrued foreign-source income and a one-time transition tax of 15.5 percent for cash assets and 8 percent for non-cash assets accumulated in foreign affiliates before the end of 2017. The transition tax is payable on a back-loaded schedule over eight years. These new taxes are payable whether or not a company repatriates its foreign assets, so firms are no longer encouraged to retain assets overseas. In response to TCJA, US firms reduced their overseas cash holdings, using most of the repatriated funds to pay their shareholders dividends and to repurchase shares.

Key Elements of the U.S. Tax System

What are inversions, and how will TCJA affect them?

Over the years, Congress has enacted rules to limit inversions. Simple inversions—a US company establishes a foreign affiliate, which then becomes the parent company—no longer work because the United States would continue to treat the new company as a US resident. A company can still "redomicile," though, by merging with a foreign-based company under certain conditions; these include a requirement that the original foreign company contribute at least 20 percent of the shares of the newly merged company if other conditions are not met.

A recent wave of inversion transactions, like previous waves, generated considerable concern among US policymakers and led to legislative proposals and administrative measures to impose additional limits on merger transactions. The US Department of the Treasury in 2014 issued new regulations to prevent avoidance of the 20 percent threshold on foreign ownership and to make it more difficult for newly merged companies to repatriate earnings accrued before the merger tax-free. In 2016, Treasury issued additional regulations (Shay 2014; US Department of the Treasury 2016) that reclassified certain debt transactions between related parties as equity instead of debt. The regulations deterred foreign-based companies from paying their US affiliates' tax-deductible interest to other affiliates in low-tax countries, a practice known as income stripping.

TCJA included additional measures to deter inversions. The transition tax rate on inverted firms' existing overseas assets was set at the full pre-TCJA rate of 35 percent instead of the reduced rates of 8 and 15.5 percent for other firms' assets. And the dividends shareholders receive from any newly inverted firms are taxable as ordinary income instead of at the reduced rates generally applied to qualified dividends and capital gains.

While Congress and the public have viewed inversions with great concern, changes in existing US corporations' residence are not the only way the share of world output by US-based multinationals can decline over time. Foreign-based multinationals can purchase smaller US companies or divisions of larger ones. New companies can be chartered overseas instead of in the United States. And foreign-based multinationals can expand faster than US-based companies if US tax laws place US multinationals at a disadvantage. In the long run, limits on inversions may be less important in promoting US corporate residence than tax laws in the United States and overseas that create a level playing field between US-resident and foreign-resident companies with operations in both the United States and our major trading partners.

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Key Elements of the U.S. Tax System

What is a territorial tax and does the United States have one now?

Q. What is a territorial tax and does the United States have one now?

A. Under a territorial tax, the United States would not tax profits earned overseas by US-resident corporations. The Tax Cuts and Jobs Act effectively exempted some of these profits, but retained taxation on some categories of foreign profits and imposed a new minimum tax on another.

When corporations based in one country earn profits from production in other countries, the countries involved must decide on the appropriate tax base. Such rules should prevent multiple layers of taxation from impeding international trade and investment flows while providing that corporate profits are taxable somewhere.

One option is a territorial tax system that taxes only the portion of a corporation's income originating within the country's borders. This prevents double taxation of cross-border flows because resident corporations' foreign-source income is exempt from tax.

Another option is a worldwide system that taxes all domestic-source income, as well as the foreign-source income of resident corporations. To prevent double taxation, countries with worldwide systems allow their resident corporations to claim tax credits to offset their foreign income taxes. They also typically allow their resident companies to defer tax on active profits earned by foreign affiliates (controlled foreign corporations, or CFCs) until those profits are repatriated to the parent company. This feature of tax systems—known as deferral—substantially reduces effective tax rates on foreign-source income in countries with worldwide systems, making them not that different from territorial systems.

Territorial and worldwide systems would be the same if all countries had the same tax rates. Then, credits under a worldwide system would exactly offset otherwise-payable taxes on foreign-source income. But the systems are different if countries have different corporate tax rates. Territorial systems encourage a country's resident multinational corporations to shift real investment and reported profits to low-tax foreign countries. Worldwide systems (with deferral) reduce this incentive because resident corporations pay the domestic tax rate when they repatriate profits earned in low-tax countries. But worldwide systems place resident corporations at a disadvantage compared with companies based in countries with territorial systems that impose no domestic tax on the profits their resident companies earn in low-tax foreign countries. Most countries have moved closer to territorial systems by eliminating taxation of the repatriated dividends their resident companies receive from their CFCs.

Key Elements of the U.S. Tax System

What is a territorial tax and does the United States have one now?

IMPLEMENTING TERRITORIAL TAXATION

Implementing territorial systems requires defining the source of a multinational corporation's profits. This was straightforward when most profits were attributable to physical assets with a fixed location, such plant, equipment, and structures. Today, however, an increasing share of profits comes from returns to intangible assets, such as patents, trademarks, and copyrights. Firms in technology, pharmaceuticals, and other sectors have been able to reduce their tax liability by shifting ownership of and profits from intangible assets to low-tax jurisdictions where little real economic activity occurs. By charging affiliates in high-tax jurisdictions a royalty for these intangible assets, such firms lower their overall tax bills. Also, firms can often allocate corporate debt and overhead costs among jurisdictions in ways that reduce their tax burdens.

Countries have two basic strategies to prevent companies from eroding the domestic corporate tax base by assigning reported profits to low-tax foreign jurisdictions. The first approach is to enact detailed rules that define the source of profits. These include rules to determine the "transfer prices" companies can report on goods traded within a multinational group; rules for allocating interest, overhead, and research costs; and provisions to limit interest deductions on debt between related parties. The recent report on base erosion and profit shifting by the Organisation for Economic Co-operation and Development includes a long list of recommendations for how to curb income shifting.

The second approach applies limited worldwide taxation as a backup to territorial taxation. Most advanced countries have enacted so-called CFC rules that subject some forms of "passive" income (such as interest and dividends) their resident multinationals earn within CFCs to current taxation. The subpart F rules in the US Internal Revenue Code, enacted in 1962, are an example of such a provision. By taxing certain types of easy-to-shift income on a worldwide basis, CFC rules limit the benefit of income shifting. CFC rules, however, only apply to a country's resident multinationals and therefore do not prevent foreign-resident companies from shifting profits earned within a country's borders to low-tax jurisdictions.

THE CURRENT US TAX SYSTEM

The current US system is a hybrid between a territorial and a worldwide system. The Tax Cuts and Jobs Act (TCJA) eliminated taxation of repatriated dividends but expanded taxation of income accrued within CFCs. The current system can be characterized as a territorial system for normal returns from foreign investment, defined in the US tax law as return of up to 10 percent on tangible assets, because these returns face no US corporate income tax. The result is that US companies investing overseas and foreign-resident companies from countries with territorial systems both pay only the local corporate income tax rate in countries where they place physical capital assets. In addition, US companies no longer have an incentive to avoid US taxation by contracting production to locally owned firms, as they would under worldwide taxation.

The new tax law, however, departs from territorial taxation in its treatment of intangible profits, which represent the bulk of profits for some of the largest US multinational corporations. Because TCJA eliminated the tax on repatriated dividends, it increased the rewards for income shifting: profits now not only accrue tax-free overseas, but are also tax-free when brought back to the US parent. To counter this, TCJA included GILTI, the tax on global intangible low-taxed income. A low-rate tax on intangible profits as they accrue will reduce the incentive to shift these profits out of the United States.

Finally, the new tax law retains the long-standing rules in subpart F for taxing the passive income US firms accrue within their foreign affiliates. These rules, and similar rules in other countries, have long been viewed

as a needed backstop to prevent base erosion in territorial systems.

Bottom line—the US system is a hybrid between a territorial and a worldwide system. It still retains some incentives of a pure territorial system to invest in lower-tax foreign countries instead of at home and to shift reported profits to lower-tax jurisdictions. And it still retains some features of a worldwide system that may place US multinationals at a competitive disadvantage compared with multinationals resident in other jurisdictions. But the hybrid nature of the system makes the problem of income shifting smaller than it would be in a pure territorial system and makes the competitiveness problem smaller than it would be in a pure worldwide system. And the lower 21 percent corporate rate in the new tax law makes both problems smaller than under the previous corporate rate of 35 percent.

Finally, the system continues to be extremely complex. How companies will adjust their behavior in response to revised incentives and how effective the IRS will be in enforcing the new rules remains to be seen.

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Q. What is the TCJA repatriation tax and how does it work?

A. The Tax Cuts and Jobs Act repatriation tax is a one-time tax on past profits of US corporations' foreign subsidiaries.

Before the 2017 Tax Cuts and Jobs Act (TCJA), the United States generally taxed its corporations and residents on their worldwide income. However, a US corporation could defer foreign income by retaining earnings indefinitely through a foreign subsidiary. The US corporation would pay US tax on the foreign earnings only when they were repatriated (by a dividend from the foreign subsidiary, for example). Upon repatriation, the earnings would be subject to US taxation at a rate up to 35 percent, with a credit for foreign taxes paid. The repatriation typically resulted in a net US tax obligation because the US tax rate was usually higher than the foreign tax rate. As of 2015, US corporations accumulated more than $2.6 trillion of earnings in foreign subsidiaries, according to the Joint Committee on Taxation.

Pursuant to the TCJA, the United States now generally exempts the earnings of a US firm from active businesses of foreign subsidiaries, even if the earnings are repatriated (i.e., there now is a 100 percent dividend-received deduction). But, as a transition to the new system and to avoid a potential windfall for corporations that had accumulated unrepatriated earnings abroad, the new law taxes these earnings as if they were repatriated but at preferred lower rates.

There are two tax-preferred rates for the foreign earnings deemed repatriated: foreign earnings held in cash and cash equivalents were taxed at 15.5 percent and those not held in cash or cash equivalents at only 8 percent. The TCJA permits a US corporation to pay any tax on the deemed repatriations in installments over eight years. The tax revenue raised by this transition tax on earnings accumulated abroad was estimated at $340 billion over the 10 years from 2018 to 2027.

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Q. What is the TCJA base erosion and anti-abuse tax and how does it work?

A. The BEAT, a new tax under the Tax Cuts and Jobs Act, limits the ability of multinational corporations to shift profits from the United States by making deductible payments to their affiliates in low-tax countries.

Over the past several decades, US multinational corporations have used a variety of techniques to shift profit from the United States to other countries (and, thereby, have eroded the US tax base). A US-based multinational corporation might, for example, pay an affiliate in a lower-taxed country to use patents or other intellectual property in the United States. This would increase the US corporation's costs, thus reducing their reported profits in the United States and increasing their revenue and their reported profits in the lower-taxed country, potentially lowering the corporation's overall tax bill. Prior US tax laws attempted to limit profit shifting, mainly by regulating what are called transfer prices between companies, but the Internal Revenue Service struggled to enforce these laws effectively.

To limit future profit shifting, the Tax Cuts and Jobs Act (TCJA) added a new tax, the BEAT (base erosion and anti-abuse tax). The BEAT targets large US corporations that make deductible payments, such as interest, royalties, and certain service payments, to related foreign parties. The BEAT is a minimum tax add-on: A US corporation calculates its regular US tax, at a 21 percent rate, and then recalculates its tax at a lower BEAT rate after adding back the deductible payments. If the regular tax is lower than the BEAT, then the corporation must pay the regular tax plus the amount by which the BEAT exceeds the regular tax. The BEAT rate is 5 percent in 2018, 10 percent in 2019 through 2025, and 12.5 percent in 2026 and beyond.

For example, suppose, in 2019, a US corporation has $300 million of gross income but pays deductible royalties to a foreign affiliate of $200 million. The corporation's regular tax liability is $21 million (21 percent of $100 million), but its alternative tax is $30 million (10 percent of $300 million), so the corporation would pay $30 million to the United States (the regular tax of $21 million plus the BEAT of $9 million).

The BEAT applies only to large multinational enterprises, those with gross receipts of more than $500 million (averaged over the prior three years). It also applies only to a corporation that makes more than 3 percent of its total deductible payments to foreign affiliates. However, the BEAT excludes payments that can be treated as cost of goods sold. For example, if a US company properly accounts for interest or royalties as part of the cost of its inventory, the interest or royalties are not added back to the BEAT tax base.

What is the TCJA base erosion and anti-abuse tax and how does it work?

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Toder. Eric. 2018. "Explaining the TCJA's International Reforms." *TaxVox* (blog). February 2.

Q. What is global intangible low-taxed income and how is it taxed under the TCJA?

A. Global intangible low-taxed income is the income earned by foreign affiliates of US companies from intangible assets such as patents, trademarks, and copyrights. The Tax Cuts and Jobs Act imposes a new minimum tax on this income.

Before the 2017 Tax Cuts and Jobs Act (TCJA), the United States generally taxed its firms and residents on their worldwide income. However, US firms could defer the tax on foreign subsidiaries' active business earnings until those earnings were repatriated to the United States as dividends. After the TCJA, the United States generally exempts earnings from active businesses of US firms' foreign subsidiaries, even if the earnings are repatriated. (The United States still taxes the income from passive investments of foreign subsidiaries.)

But Congress worried that completely exempting US multinationals' foreign earnings might exacerbate the incentive to shift profits to low-tax jurisdictions abroad. So, Congress added a new 10.5 percent minimum tax on global intangible low-taxed income (GILTI) to discourage such profit shifting. GILTI is intended to approximate the income from intangible assets (such as patents, trademarks, and copyrights) held abroad. Congress considered intangible assets highly mobile—and sought to discourage US firms from shifting these assets offshore.

More specifically, a US business must include GILTI in its gross income annually. GILTI is calculated as the total active income earned by a US firm's foreign affiliates that exceeds 10 percent of the firm's depreciable tangible property. A corporation (but not other businesses) can generally deduct 50 percent of the GILTI and claim a foreign tax credit for 80 percent of foreign taxes paid or accrued on GILTI. Thus, if the foreign tax rate is zero, the effective US tax rate on GILTI will be 10.5 percent (half of the regular 21 percent corporate rate because of the 50 percent deduction). If the foreign tax rate is 13.125 percent or higher, there will be no US tax after the 80 percent credit for foreign taxes.

For example, suppose a US corporation is the sole shareholder of a foreign corporation with a manufacturing plant in Ireland, which has a 12.5 percent tax rate. Suppose the plant cost $100 million to construct, and the foreign income is $30 million (after properly allocating expenses). The corporation would calculate GILTI of $20 million (total foreign income minus 10 percent of $100 million of depreciable assets). The US tax on GILTI would be $2.1 million before credits for foreign taxes (half of the $20 million of GILTI times the 21 percent corporate tax rate), and the net US tax after credits would be $0.1 million ($2.1 million−$2 million credit for Irish taxes). In practice, the calculations are much more complicated, as US corporations may have multiple operations abroad—and how to properly allocate expenses among them is unclear.

Key Elements of the U.S. Tax System

What is global intangible low-taxed income and how is it taxed under the TCJA?

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Q. What is foreign-derived intangible income and how is it taxed under the TCJA?

A. Foreign derived intangible income is income that comes from exporting products tied to intangible assets, such as patents, trademarks, and copyrights, held in the United States. The Tax Cuts and Jobs Act taxes this income at a reduced rate.

As part of the 2017 Tax Cuts and Jobs Act, Congress lowered the tax rate for US corporations' foreign-derived intangible income (FDII). Congress effectively reduced the tax rate on foreign-derived sales and service income to 13.125 percent, rather than the regular 21 percent, seeking to encourage US corporations to export more goods and services, and locate more intangible assets in the United States.

The FDII computation is complicated, but it is intended to approximate income from the sale of goods and services abroad attributable to US-based intangible assets such as patents, trademarks, and copyrights. As with the provisions of the new law related to global intangible low-taxed income, Congress approximated the income attributable to a US firm's intangible assets by the income that exceeds a 10 percent deemed return on its depreciable tangible property. The share of the excess income allocated to the sale of goods and services abroad is taxed at a reduced rate.

For example, suppose a US corporation earned $100 million, with tangible assets of $200 million. The firm would allocate the deemed intangible income, $80 million ($100 million of earnings−$20 million deemed return on its tangible assets), between foreign and domestic sales of goods and services. The United States would tax the share of the $80 million allocated to foreign sales at 13.125, rather than the regular 21 percent. In 2026, the rate on FDII will rise from 13.125 to 16.83 percent.

Further Reading

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