Congressional Budget Office
Nonpartisan Analysis for the U.S. Congress

Options for Reducing the Deficit, 2023 to 2032

Volume I: Larger Reductions

DECEMBER | 2022

Notes

The estimates for the options in this report were completed in October 2022. They may differ from previous or subsequent cost estimates for legislative proposals that resemble the options presented here.

Unless this report indicates otherwise, all years referred to regarding budgetary spending and revenues are federal fiscal years, which run from October 1 to September 30 and are designated by the calendar year in which they end.

Some of the tables in this report give values for two related concepts: budget authority and outlays. Budget authority is the authority provided by federal law to incur financial obligations that will result in immediate or future outlays of federal government funds. Outlays generally represent the issuance of checks, disbursement of cash, or electronic transfer of funds made to liquidate an obligation.

The numbers in the text, tables, and figures are in nominal (current-year) dollars unless otherwise indicated. Those numbers may not add up to totals because of rounding. In the tables, for changes in outlays, revenues, and the deficit, negative numbers indicate decreases, and positive numbers indicate increases. Thus, negative numbers for outlays and positive numbers for revenues reduce the deficit, and positive numbers for outlays and negative numbers for revenues increase it.

Certain changes in tax provisions would reduce outlays for refundable tax credits; those effects are incorporated in the estimates.

The budgetary effects of options are generally calculated relative to the 10-year spending and revenue projections in Congressional Budget Office, *The Budget and Economic Outlook: 2022 to 2032* (May 2022), www.cbo.gov/publication/57950. Consistent with CBO's regular practice, spending and revenue projections are updated to reflect legislation as it is enacted. For this volume, unless otherwise noted, estimates include the effects of the 2022 reconciliation act (Public Law 117-169) and other legislation enacted before August 17, 2022.

CBO's website includes a search tool that allows users to filter options by savings amount, major budget category, budget function, topic, and date (www.cbo.gov/budget-options). The tool includes all the options that appear in this report. It also includes options that were analyzed in the past and were not updated for this report but that remain informative. In addition, the website includes previous editions of this report (www.cbo.gov/about/products/major-recurring-reports#4).

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Options for Reducing the Deficit, 2023 to 2032—Volume I: Larger Reductions

Introduction

In the Congressional Budget Office's May 2022 baseline projections, which reflect the assumption that current laws governing taxes and spending generally remain unchanged, federal debt held by the public rises from 98 percent of gross domestic product (GDP) in 2022 to 110 percent of GDP in 2032 and 185 percent of GDP by 2052 (see Figure 1). Debt that is high and rising as a percentage of GDP could slow economic growth, push up interest payments to foreign holders of U.S. debt, heighten the risk of a fiscal crisis, elevate the likelihood of less abrupt adverse effects, make the U.S. fiscal position more vulnerable to an increase in interest rates, and cause lawmakers to feel more constrained in their policy choices.[1]

To put the federal budget on a sustainable long-term path, lawmakers would need to make significant policy changes—taking actions to cause revenues to rise more than they would under current law, reducing spending for large benefit programs to amounts below those currently projected, or adopting some combination of those approaches. To help inform lawmakers as they address budgetary challenges, CBO periodically issues a compendium of policy options that would reduce the deficit.

This year, CBO has separated the options into two volumes based on the size of the budgetary savings produced by the options. This volume contains estimates and detailed discussions for 17 large options. Each of those options would either reduce the deficit from 2023 to 2032 by more than $300 billion or, in the case of Social Security options, have a comparably large effect in later decades. A second volume provides estimates of the budgetary savings from 59 options, each of which would decrease federal spending or increase federal revenues over the next decade by less than $300 billion.[2]

For each option in this volume, the explanatory text gives background information, outlines the option, discusses its estimated budgetary effects, provides qualitative information on the option's distributional effects, describes the economic effects of the option, and summarizes other important effects. The budgetary effects identified for most of the options span the 10 years from 2023 to 2032 (the period covered by CBO's baseline budget projections). A discussion of longer-term effects is included for cases in which the budgetary effects in later years would differ significantly from those over the 2023–2032 period.

As a collection, the options are intended to reflect a range of possibilities, not a ranking of priorities or an exhaustive list. The inclusion or exclusion of an option does not imply that CBO endorses it or opposes it, and the report makes no recommendations. The report also does not contain comprehensive budget plans; it would be possible to devise such plans by combining options (although options may interact in ways that increase or decrease their effect on deficits).

The Federal Deficit and Its Components

In CBO's most recent baseline budget projections from May 2022, federal deficits average 5.1 percent of GDP (or $1.6 trillion) per year between 2023 and 2032. By comparison, over the past 50 years, the annual deficit has averaged 3.5 percent of GDP. By 2032, the projected deficit equals 6.1 percent of GDP, and in every year from 2025 to 2032, federal deficits exceed 4.5 percent of GDP. At no time since at least 1930 have deficits remained that large for longer than five years. Federal deficits continue to grow beyond 2032 (see Figure 2 on page 4).

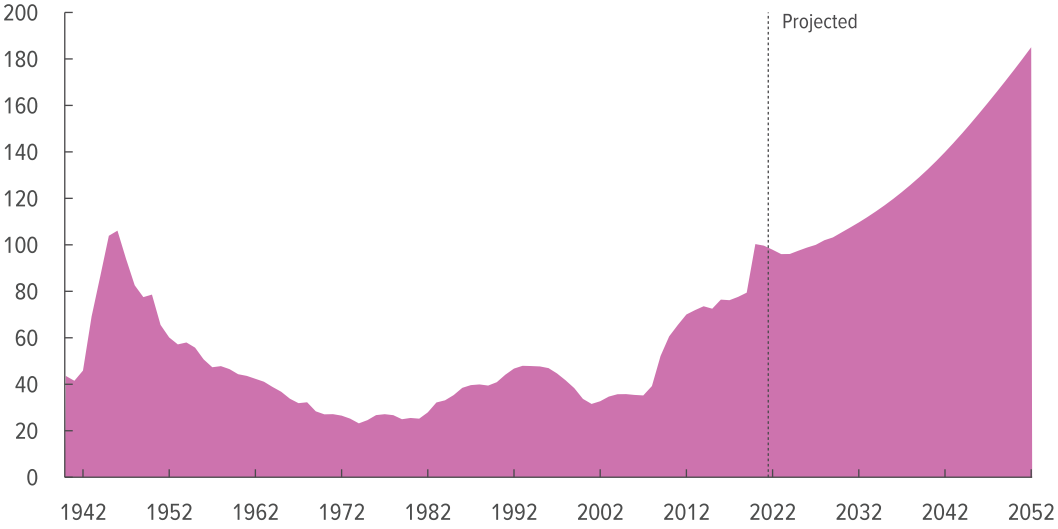
The primary deficit—that is, the deficit excluding net interest outlays—measures the amount by which spending on government goods and services exceeds revenues from federal taxes. Between 2023 and 2032, the primary deficit is projected to grow from $540 billion (or 2.1 percent of GDP) to $1.1 trillion (or 2.9 percent of GDP). Net interest outlays are projected to grow even more over the next 10 years—from 1.7 percent of GDP to 3.3 percent of

1. For an analysis of the economic effects of delaying the stabilization of federal debt, see Congressional Budget Office, *The Economic Effects of Waiting to Stabilize Federal Debt* (April 2022), www.cbo.gov/publication/57867.

2. Congressional Budget Office, *Options for Reducing the Deficit, 2023 to 2032—Volume II: Smaller Reductions* (December 2022), www.cbo.gov/publication/58163.

Figure 1.

Federal Debt Held by the Public, 1940 to 2052



Federal debt held by the public is projected to increase in most years in the projection period, reaching 110 percent of gross domestic product in 2032—higher than it has ever been. In the two decades that follow, growing deficits are projected to push federal debt higher still, to 185 percent in 2052.

Data source: Congressional Budget Office. See www.cbo.gov/publication/58164#data.

CBO's most recent long-term projection of federal debt was completed in July 2022. See Congressional Budget Office, *The 2022 Long-Term Budget Outlook* (July 2022), www.cbo.gov/publication/57971.

GDP—as interest rates and federal debt rise. Net interest outlays are projected to account for a growing share of total federal outlays over time. In CBO's projections, that share increases from 8 percent of outlays in 2023 to 13 percent in 2032.

Mandatory Spending. Mandatory spending—which is projected to total $3.7 trillion in 2023, or 63 percent of federal outlays—consists of spending that is generally governed by statutory criteria and is not normally constrained by the annual appropriation process. It also includes certain types of payments that federal agencies receive from the public and from other government agencies. Those payments are classified as offsetting collections or offsetting receipts, and they reduce gross mandatory spending. Lawmakers generally determine spending for mandatory programs by setting the programs' parameters, such as eligibility rules and benefit formulas, rather than by appropriating specific amounts each year.

Spending for Social Security, Medicare, and Medicaid is projected to account for 75 percent of mandatory outlays and 51 percent of noninterest spending in 2023; by 2032, under current law, those percentages would be even greater. Spending on Social Security and Medicare combined is projected to increase from 8.9 percent of GDP in 2023 to 11.2 percent of GDP in 2032. Spending on Medicaid over that same period is projected to decrease slightly from 2.3 percent of GDP to 2.2 percent of GDP.

Discretionary Spending. Discretionary spending—which totals $1.8 trillion in 2023 in CBO's May 2022 baseline—is controlled by lawmakers through appropriation acts.[3] Those acts fund a wide array of activities, including national defense, transportation programs, veterans' health care benefits, certain other health care programs, education grants, housing programs, and the administration of justice. Such spending provides some direct benefits to individuals, funds grants to local governments and private entities, pays for federal employees' salaries and benefits, and funds contracts for goods and services provided by the private sector.

In CBO's baseline, funding for discretionary programs is projected to grow at the rate of inflation. Under that assumption, discretionary spending is projected to

3. CBO's May 2022 baseline does not incorporate the effects of the continuing resolution enacted on September 30, 2022. That law provided funding for most discretionary programs through December 16. If that funding was continued through the end of fiscal year 2023, CBO estimates that discretionary funding for that year would total $1.6 trillion, compared with $1.8 trillion in budget authority projected in CBO's May 2022 baseline.

decrease from 6.7 percent of GDP in 2023 to 6.2 percent in 2032. Defense spending typically accounts for roughly half of discretionary spending: In the May 2022 baseline, outlays for defense programs account for 45 percent of discretionary spending in 2023.

Revenues. Federal revenues are projected to total $4.9 trillion in 2023. Together, individual income taxes and payroll taxes account for 85 percent of that total. Revenues are projected to fall from 18.6 percent of GDP in 2023 to 17.6 percent in 2025 and then grow to 18.2 percent of GDP in 2032. Over the past 50 years, revenues have averaged 17.3 percent of GDP.

The pattern of revenues between 2023 and 2032 is partially driven by scheduled changes in tax rules, including changes to individual income tax provisions that will boost revenues after 2025 and scheduled changes to corporate tax provisions that will initially boost and then lower corporate tax receipts.

Options for Significant Deficit Reduction

Large changes would be necessary to significantly alter the trajectory of federal debt over the long term.[4] In recent editions of this report, CBO has generally focused on options that would reduce the deficit by at least $10 billion over the 10-year projection period. Over the 2023–2032 period, primary deficits are projected to total $7.7 trillion, so the effects of many of those options are small relative to the size of the deficit.

This volume includes 17 options, some of which have been included in prior editions and some of which are new, that would reduce the deficit by between $184 billion and $3 trillion over the 2023–2032 period (see Table 1). As a collection, the options reflect a range of possible levers that policymakers could use for significant deficit reduction, and they provide information about the varying budgetary, distributional, and economic effects of those levers.

Of the 10 spending options in the volume, 7 focus on changes to the federal government's largest benefit programs—Social Security, Medicare, and Medicaid. Together, those programs are projected to account for half of total outlays from 2023 to 2032: Social Security spending is projected to account for 24 percent, Medicare spending is projected to account for 16 percent, and Medicaid spending is projected to account for 9 percent. The other 3 spending options provide context for possible changes to the remaining broad categories of federal spending. Options that focus on specific ways to reduce spending on smaller programs are included in *Options for Reducing the Deficit, 2023 to 2032—Volume II: Smaller Reductions.*

The 7 revenue options in this volume would either make changes to the two largest existing revenue sources—individual income taxes and payroll taxes—or impose new taxes. Relative to receipts from individual income taxes and payroll taxes, those from corporate income taxes and excise taxes are small, and options that would increase revenues from those sources are included in *Options for Reducing the Deficit, 2023 to 2032—Volume II: Smaller Reductions.*

Analysis of Options in This Volume

Each option includes an estimate of the 10-year budgetary effects of the option, a qualitative description of how the option would affect households at different points in the income distribution, and a discussion of the broader effects the option would have on individuals' incentives to work, save, and invest. The discussion of distributional effects is based on CBO's analysis of the distribution of household income, and the discussion of economic effects builds from the models that CBO uses to analyze the economic effects of policy changes.

Estimates of Budgetary Effects. The budgetary effects of most of the options examined in this report are measured in relation to the spending and revenues that CBO projected in its May 2022 baseline.[5] Unless otherwise noted, estimates include the effects of the 2022 reconciliation act (Public Law 117-169), and other legislation enacted before August 17, 2022. The estimates of tax provisions in this volume were prepared by the staff of the Joint Committee on Taxation (JCT).

In creating its mandatory baseline budget projections, CBO generally assumes that federal fiscal policy follows current law and that programs currently scheduled to

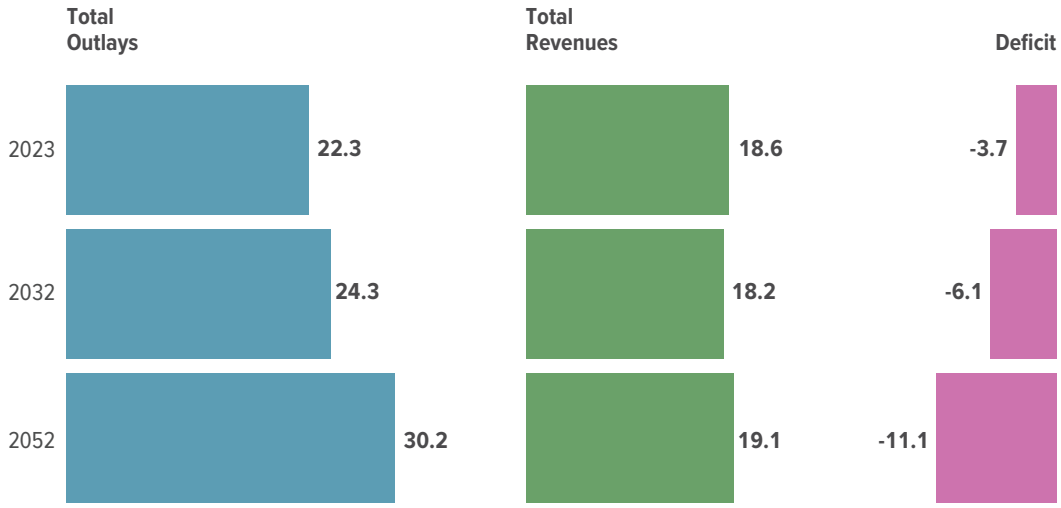
4. For a discussion of the size of policy changes needed to reach various debt targets, see Congressional Budget Office, *The 2022 Long-Term Budget Outlook* (July 2022), www.cbo.gov/publication/57971.

5. CBO's baseline projections of defense discretionary spending do not reflect programmatic details for force structure, acquisition, and the maintenance of specific weapon systems. Therefore, the effects of options to reduce defense spending are calculated relative to the Department of Defense's (DoD's) planned spending as laid out in its 2023 Future Years Defense Program—which provides details about DoD's plans for the 2023–2027 period—and CBO's projection of the costs of implementing that plan.

Figure 2.

CBO's May 2022 Baseline Projections of Outlays, Revenues, and the Deficit

Percentage of Gross Domestic Product



In CBO's projections, deficits grow steadily in the coming decades. As a share of gross domestic product, the deficit in 2052 is triple the deficit in 2023. Over the 2023–2032 period, primary deficits amount to $7.7 trillion and total deficits are $15.8 trillion.

Data source: Congressional Budget Office. See www.cbo.gov/publication/58164#data.

Table 1.

Projected Savings From Options for Reducing the Deficit

Billions of Dollars

Option	Title	Savings, 2023–2032[a]
1	Establish Caps on Federal Spending for Medicaid	501 to 871
2	Limit State Taxes on Health Care Providers	41 to 526
3	Reduce Federal Medicaid Matching Rates	68 to 667
4	Increase the Premiums Paid for Medicare Part B	57 to 448
5	Reduce Medicare Advantage Benchmarks	392
6	Reduce Tax Subsidies for Employment-Based Health Insurance	500 to 893
7	Reduce Social Security Benefits for High Earners	40 to 184
8	Set Social Security Benefits to a Flat Amount	270 to 593
9	Increase the Maximum Taxable Earnings That Are Subject to Social Security Payroll Taxes	670 to 1,204
10	Reduce Spending on Other Mandatory Programs	580
11	Reduce the Department of Defense's Annual Budget	995
12	Reduce Nondefense Discretionary Spending	332
13	Increase Individual Income Tax Rates	502 to 1,329
14	Eliminate or Limit Itemized Deductions	541 to 2,507
15	Impose a New Payroll Tax	1,136 to 2,253
16	Impose a Tax on Consumption	1,950 to 3,050
17	Impose a Tax on Emissions of Greenhouse Gases	571 to 865

Data sources: Congressional Budget Office; staff of the Joint Committee on Taxation. See www.cbo.gov/publication/58164#data.

a. For options affecting primarily mandatory spending or revenues, savings sometimes would derive from changes in both. When that is the case, the savings shown include effects on both mandatory spending and revenues.

expire or to begin in future years will do so.[6] In addition, under section 257 of the Balanced Budget and Emergency Deficit Control Act of 1985 (Deficit Control Act), CBO is required to assume that entitlement programs, including Social Security and Medicare, will be able to make all scheduled payments. For example, CBO's projections reflect an assumption that scheduled Social Security benefits would be paid even if the program's trust funds were exhausted and annual payroll tax revenues were inadequate to fund those payments.

In creating its discretionary baseline budget projections, CBO generally projects funding for discretionary programs to grow each year with inflation as required by section 257 of the Deficit Control Act. Funding translates to outlays when the money is spent. Some funding is spent quickly, such as that provided for salaries and expenses for federal employees. Other funding, such as that for construction contracts, can be spent over several years. CBO estimates how quickly funds would be spent on the basis of how long the money is available for obligation by federal agencies and on historical patterns of related spending.

JCT's estimates measure the budgetary effects of options against CBO's baseline, which reflects the assumption that scheduled changes in provisions of the tax code will take effect and no additional changes to those provisions will be enacted.[7]

The estimates in this report generally reflect changes in the behavior of individuals, businesses, and other entities. They do not incorporate macroeconomic effects—that is, behavioral changes that affect total output in the economy. Those effects are discussed qualitatively in each option.

Options that would impose an indirect tax at an intermediate stage of production and sale (such as a consumption tax) or that would increase employers' contributions for payroll taxes would reduce the amount of income subject to income and payroll taxes. The estimates for options in this report that would impose indirect taxes or increase employers' contributions for payroll taxes include an offset that accounts for those reductions.[8]

The discussion of each option highlights the major sources of uncertainty that are specific to that option. However, there is also uncertainty about the ways in which revenues from various sources, spending for individual programs, and the economy will evolve under current law that results in general uncertainty in projections of the budgetary effects of the option. Changes to the economy or to the course of the ongoing coronavirus pandemic would affect the estimates for any option in this volume, as would other world events.

The estimated budgetary effects of the options do not reflect the extent to which the options would reduce interest payments on federal debt. Those savings may be included as part of a comprehensive budget plan (such as a Congressional budget resolution), but CBO does not generally make such calculations for individual pieces of legislation or for individual options of the type discussed here. For the large options included in this volume, the interest savings could be significant, especially for options that would generate large savings in the

6. That assumption applies to most, but not all, mandatory programs. Following procedures established in the Deficit Control Act, CBO's projections incorporate the assumption that some mandatory programs scheduled to expire in the coming decade under current law will instead be extended. In particular, in CBO's baseline, all such programs that predate the Balanced Budget Act of 1997 and that have outlays in the current year above $50 million are presumed to continue. For programs established after 1997, continuation is assessed on a program-by-program basis in consultation with the House and Senate Committees on the Budget. The Supplemental Nutrition Assistance Program (SNAP) is the largest expiring program assumed to be extended in the baseline.

7. For more information on JCT's method for estimating revenues, see Joint Committee on Taxation, *Summary of Economic Models and Estimating Practices of the Staff of the Joint Committee on Taxation*, JCX-46-11 (September 19, 2011), www.jct.gov/publications/2011/jcx-46-11/. As specified in the Deficit Control Act, CBO's baseline reflects the assumption that expiring excise taxes dedicated to trust funds will be extended (unlike other expiring tax provisions, which are assumed to follow the schedules set forth in current law).

8. For more information on the use of offsets for indirect taxes, see Congressional Budget Office, *CBO's Use of the Income and Payroll Tax Offset in Its Budget Projections and Cost Estimates* (October 2022), www.cbo.gov/publication/58421. For information on JCT's method for estimating income and payroll tax offsets to indirect taxes, see Joint Committee on Taxation, *The Income and Payroll Tax Offset to Changes in Excise Tax Revenues*, JCX-59-11 (December 23, 2011), www.jct.gov/publications/2011/jcx-59-11/. For information on JCT's method for estimating income and payroll tax offsets to payroll taxes, see Joint Committee on Taxation, *The Income and Payroll Tax Offset to Changes in Payroll Tax Revenues*, JCX-89-16 (November 18, 2016), www.jct.gov/publications/2016/jcx-89-16/. For JCT's current excise tax offsets, see Joint Committee on Taxation, *Income and Payroll Tax Offsets to Changes in Excise Tax Revenues for 2022–2032*, JCX-6-22 (April 29, 2022), www.jct.gov/publications/2022/jcx-6-22/.

earlier years of the 10-year period.[9] For instance, reducing outlays or increasing revenues in 2024 by $50 billion would reduce interest outlays by approximately $13 billion between 2024 and 2032.

Estimates for options could differ from cost estimates for similar proposals that CBO or JCT might produce later, for several reasons. First, the proposals on which those estimates were based might not precisely match the options presented here. Second, the baseline budget projections against which such proposals would be measured might have changed and thus would differ from the projections used for this report. Third, future estimates might reflect more recent data and improvements in estimating methodology. And finally, estimates for legislation directly affecting one program might include indirect effects on other programs that are not encompassed by the estimates in this volume.

Options in this report could be used as building blocks for broader changes. In some cases, however, combining various spending or revenue options would produce budgetary effects that would differ from the sums of those estimates as presented here because some options would overlap or interact in ways that would change their budgetary effect.

Analysis of Distributional and Economic Effects. Large changes to federal spending or taxes would not affect all households in the same way and would also have broader effects on the economy. Each option in this volume includes a qualitative discussion of how the option would affect households across the income distribution. The discussion of the allocation of the budgetary effects of each option is based on CBO's analysis of the distribution of household income, wherein the agency assesses how federal fiscal policies affect households' income after transfers and taxes.[10] Each option also includes a qualitative discussion of how the option would affect people's decisions about how much to work, save, or invest. Those responses, which would affect total output, are not incorporated in the estimates of budgetary effects that are included for each option.

Each of the options in this volume would reduce the deficit and so would also reduce federal debt. Lowering federal debt would mean that the amount of funds available for private investment would increase, decreasing a phenomenon known as crowding out. An increase in private investment would raise the capital stock and thus boost output. Greater output would have a positive effect on people across the income distribution.

Reducing federal borrowing would also put downward pressure on interest rates. That reduction in rates would reduce the burden of interest outlays on the federal budget. The overall effect of each option on the economy and the income distribution would depend on the combination of the positive effects of debt reduction, which are common to all options, and the specific economic and distributional effects of each policy change.

9. For estimates of how changes in revenues and outlays would affect debt service, deficits, and debt under CBO's May 2022 baseline projections, see Congressional Budget Office, "How Changes in Revenues and Outlays Would Affect Debt Service, Deficits, and Debt" (interactive, June 2022), www.cbo.gov/publication/58171.

10. For more details on CBO's analysis of the distribution of household income, see Congressional Budget Office, *The Distribution of Household Income, 2019* (November 2022), www.cbo.gov/publication/58353.

Option 1—Mandatory Spending Function 550

Establish Caps on Federal Spending for Medicaid

Billions of Dollars	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	Total 2023–2027	Total 2023–2032
Caps on Overall Spending[a]												
Apply Caps to All Eligibility Categories, With Growth of Caps Based on the CPI-U												
Change in Outlays	0	-2	-48	-61	-81	-96	-111	-129	-151	-173	-193	-853
Change in Revenues[b]	0	*	-1	-1	-2	-2	-2	-3	-3	-3	-3	-17
Decrease (-) in the Deficit	0	-2	-47	-60	-79	-94	-109	-126	-148	-170	-190	-836
Apply Caps to All Eligibility Categories, With Growth of Caps Based on the CPI-U Plus 1 Percentage Point												
Change in Outlays	0	-2	-25	-33	-48	-57	-67	-79	-95	-110	-108	-516
Change in Revenues[b]	0	*	-1	-1	-1	-2	-2	-2	-3	-3	-3	-15
Decrease (-) in the Deficit	0	-2	-24	-32	-47	-55	-65	-77	-92	-107	-105	-501
Caps on Spending per Enrollee[c]												
Apply Caps to All Eligibility Categories, With Growth of Caps Based on the CPI-U												
Change in Outlays	0	-2	-3	-69	-86	-104	-123	-143	-165	-188	-161	-884
Change in Revenues[b]	0	*	*	-1	-1	-1	-2	-2	-2	-3	-3	-13
Decrease (-) in the Deficit	0	-2	-3	-68	-85	-103	-121	-142	-163	-185	-158	-871
Apply Caps to All Eligibility Categories, With Growth of Caps Based on the CPI-U Plus 1 Percentage Point												
Change in Outlays	0	-2	-3	-38	-50	-62	-76	-90	-106	-123	-94	-550
Change in Revenues[b]	0	*	*	-1	-1	-1	-1	-2	-2	-2	-2	-11
Decrease (-) in the Deficit	0	-2	-3	-37	-49	-61	-75	-88	-104	-121	-92	-539

Data sources: Congressional Budget Office; staff of the Joint Committee on Taxation.

CPI-U = consumer price index for all urban consumers; * = between -$500 million and zero.

a. This policy would be enacted in 2023 and would take effect in October 2024. A reduction in the deficit would occur in 2024 because CBO expects that states that would have opted to expand Medicaid coverage in 2024 would choose not to do so in anticipation of the caps' taking effect in 2025.

b. Estimates include the effects on Social Security payroll tax receipts, which are classified as off-budget.

c. This policy would be enacted in 2023 and would take effect in October 2025. A reduction in the deficit would occur in 2024 and 2025 because CBO expects that states that would have opted to expand Medicaid coverage in 2024 and 2025 would choose not to do so in anticipation of the caps' taking effect in 2026.

Background

Medicaid is a joint federal-state program that covers acute and long-term health care for groups of low-income people, chiefly families with dependent children, elderly people (those 65 or older), nonelderly people with disabilities, and—at the discretion of individual states—other nonelderly adults whose family income is up to 138 percent of the federal poverty guidelines. The federal and state governments share in the financing and administration of Medicaid. The federal government provides the majority of Medicaid's funding; establishes the statutory, regulatory, and administrative structure of the program; and monitors states' compliance with the program's rules. As part of its responsibilities, the federal government determines which groups of people and which items and medical services states must cover if they participate in the program and which can be covered at states' discretion. For their part, the states administer the program's daily operations, determine eligibility, reimburse health care providers and health care plans, and determine which optional eligibility and service categories to adopt. The result is wide variation

among states in levels of enrollment, the scope of services covered, payment rates for providers and health care plans, and spending per capita, among other aspects of how the program is implemented.

In 2021, the states received, in aggregate, $521 billion in federal funding for Medicaid and spent $260 billion of their own funds for the program. The Congressional Budget Office expects that, under current law, federal spending for Medicaid will increase faster than general inflation, in part because of continued growth in health care costs and in part because more states are expected to expand Medicaid coverage under the Affordable Care Act (ACA). (To date, 38 states and the District of Columbia have done so.)

Under current law, almost all federal funding is open-ended: If a state spends more because enrollment increases or costs per enrollee rise, larger federal payments are generated automatically. The federal government's share varies by state, by the type of cost (that is, costs for medical or administrative services), and by eligibility category. On average, the federal government pays about 65 percent of the program's costs, with a range among the states of 54 percent to the current high of 79 percent. That range mainly reflects the variation in states' per capita income and in the share of enrollees (if any) in each state that became eligible for Medicaid as a result of the optional expansion of eligibility under the ACA. The federal government currently pays 90 percent of the costs of medical services provided to those enrollees.

Under this option, the amount that states receive from the federal government to operate the program would be capped. If the combined federal and state costs of Medicaid exceeded the upper limit established by the federal government, then federal spending would not increase above the cap and states would be responsible for providing additional funds.

Key Design Choices That Would Affect Savings

There are a variety of ways to design caps that would yield significant federal Medicaid savings. If lawmakers decided to consider such caps, a number of major policy choices, with important implications, would have to be made. Those key design choices include the following:

- Whether to set overall or per-enrollee caps;
- What categories of Medicaid spending and what eligibility categories to include in the spending limits;
- Which year's spending to select as a base year so that the specified growth factor, or percentage rate of increase, could be applied to calculations of total spending;
- What growth factor to use to limit the increase in Medicaid spending over time; and
- Whether spending for the optional expansion of coverage under the ACA would also be subject to the caps (thus creating additional complexities for states that have not yet expanded coverage but might do so in the future).

Overall or per-Enrollee Spending Caps. The first key design choice would be whether to establish a cap on federal Medicaid spending across the board or to cap the amount available per enrollee.

Overall Caps. In general, overall caps would consist of a maximum amount of funding that the federal government would provide a state to operate Medicaid. Once established, and depending on the way they were scheduled to increase, the federal caps generally would not fluctuate in response to rising or falling enrollment or as a result of changes in the cost of providing services. However, the rate of growth in the caps could be set so that they accounted for population growth or allowed for automatic increases during economic downturns.

Per-Enrollee Caps. For caps on per-enrollee spending, the federal government would set an upper limit on federal payments for each Medicaid enrollee, on average. Under such a plan, the federal government would provide funds based on each person enrolled in the program, but only up to a specified amount per enrollee. As a result, each state's total federal funding would be limited to the product of the number of enrollees and the capped per-enrollee spending amount. Individual enrollees whose care proved to be more expensive than the average could still generate additional federal payments, as long as the total per capita average did not exceed the cap. Unlike an overall spending cap, such an approach would allow for additional funding if enrollment rose (for example, when a state chose to expand eligibility under the ACA or as a result of an increase in enrollment during an economic downturn). Funding would decline if Medicaid enrollment fell (for example, when a state chose to restrict enrollment or when enrollment fell as a result of an improving economy).

Spending and Eligibility Categories. A second key design choice would relate to spending and eligibility

categories. Options to cap federal Medicaid spending could target all Medicaid spending and eligibility categories or limited categories of services and enrollees. For example, the caps could cover all acute care services but allow long-term services and supports to remain uncapped. The caps could also target spending for nondisabled adults and children but leave spending for the disabled and elderly uncapped. Although many possible combinations of services and enrollees could be subject to caps, in general, the more categories that were capped, the greater the potential for federal budgetary savings.

Base Year. A third key design choice for establishing caps on federal spending for Medicaid would entail selecting a particular year of Medicaid outlays as a base year, calculating that year's total spending for the service categories and eligibility groups that were included, and then increasing those amounts by the selected growth factor. The base year would not usually be the first year in which the caps took effect; rather, it would be the year from which the future spending growth would be measured and limited (as described in the next section). Thus, for overall and per-enrollee spending caps alike, the selection of the base year would be important: A higher base-year amount would lead to higher caps (and smaller federal savings) than a lower base-year amount would.

An important consideration in selecting a base year is whether to use a past or future year. Choosing a past year in which actual Medicaid expenditures were known would prevent states from increasing spending in the base year to boost their future spending limits. States could increase spending in a future base year by taking the following steps: raising payment rates for providers and health care plans; making additional onetime supplemental payments; or moving payments for claims from different periods into the base year. Those responses would increase Medicaid spending and lower federal savings.

Another consideration about the base year is whether any unique policies or economic conditions were in effect that influenced Medicaid spending and enrollment in that year. The years 2020 and 2021 provide examples: Specifically, the coronavirus pandemic and the federal policy response to that public health emergency dramatically affected Medicaid spending and enrollment. The federal government increased its own share of total Medicaid expenditures by 6.2 percentage points in states that agreed to allow all eligible people to remain enrolled in the program, regardless of changes to their economic status or personal circumstances that would otherwise cause them to lose coverage. Choosing one of those years as the base year would essentially lock in the greater spending that arose from the economic disruption and the policies implemented in response, which would not persist once the public health emergency ended. To avoid the distortionary effects of the public health emergency when selecting a past year for the base year, it would be necessary to select 2019 or an earlier year; or spending in the base-year calculation would need to be adjusted to remove the effects of the public health emergency on Medicaid.

Growth Factors. A fourth key design choice would be determining the annual growth rate of the limit on Medicaid spending. The growth factor would be one of the most important drivers of savings from Medicaid caps because the caps would essentially be limits on the degree to which the federal government allowed its payments to grow over time. The growth factor could be set to meet specific savings targets or to achieve other specific policy purposes. For example, if a growth factor was set higher than the rate of increase projected for Medicaid spending under current law, little or no budgetary savings might be anticipated, but some other policy objective could be met, such as protecting the federal government from unanticipated cost increases in the future. Alternatively, the growth factor could be set to make the increase in federal Medicaid spending—overall or per enrollee—match changing prices in the economy as measured, for example, by the consumer price index for all urban consumers (CPI-U). Or the growth factor could be set to reflect the growth in health care costs per person, perhaps as measured by the per capita increase in national health care expenditures, or at a rate that was consistent with economic growth as measured by the increase in per capita gross domestic product.

Growth factors that were tied to price indexes or to overall economic growth, however, would not generally account for increases in the average quantity or intensity of medical services of the sort that have occurred in the past. Moreover, the growth factors would not account for advances in medical technology that affect health care costs and could lead to a disconnect between the cost of care and the limit on federal payments.

In general, the smaller the growth factor relative to CBO's projected growth rate for federal Medicaid spending under current law, the greater the projected federal budgetary savings would be. Smaller growth factors would increase the possibility that federal funding would not keep pace with increases in states' costs per Medicaid enrollee or, in the case of overall caps, with increases in Medicaid enrollment. If so, the likelihood that states

would not be able to maintain current services or coverage would increase.

The Optional Expansion of Medicaid. A fifth key design choice would pertain to the optional expansion of Medicaid. Since January 2014, states have been permitted to extend eligibility for Medicaid to most people whose income is below 138 percent of the federal poverty guidelines. Under the terms of the ACA, the federal government covers 90 percent of the costs for this eligibility category. Designing the federal spending caps to include the expansion of Medicaid would add complexity, particularly for states that chose to adopt the expansion after the base year.

For states that have not yet expanded coverage under the ACA, data from an earlier base year would not reflect spending for this category. Should any of those states subsequently adopt the expansion, the annual limits established by an overall spending cap would fail to account for the spending of that group of enrollees. For per-enrollee caps, the additional enrollment from the coverage expansion would generate additional federal spending, but average per capita spending for adults in the base year would not account for the higher federal payment for newly eligible people under current law. In addition, the average would not reflect any differences between expected costs related to the health status of those new enrollees and costs for people who would have been eligible before the expansion. In designing Medicaid caps, those issues could be addressed in one of several ways or there could be no special adjustments for that group.

Option

CBO analyzed two approaches that would limit federal Medicaid spending: establishing overall spending caps and establishing per-enrollee caps. For both approaches, CBO analyzed limits on spending for all medical services to all eligibility groups. Further, to illustrate a range of savings, CBO used a pair of alternative growth factors for each type of cap: either the annual change in the CPI-U or the change in the CPI-U plus 1 percentage point (referred to here as the CPI-U plus 1). Under each alternative, states would retain their current authority concerning optional benefits, optional enrollees, and payment rates for providers and health care plans.

For all of the alternatives, CBO chose 2019 as the base year to avoid the impact of the public health emergency on Medicaid enrollment and spending in 2020 and 2021. Overall caps would take effect in October 2024; per-enrollee caps would take effect one year later. That additional year would be the minimum necessary to allow the Centers for Medicare & Medicaid Services (CMS) to complete the complex gathering of data needed to arrive at state-specific caps for each group of enrollees. For overall and per-enrollee caps alike, federal matching rates would continue as they are under current law. Medicaid's disproportionate share hospital payments (which are already capped), the Vaccines for Children program, and administrative spending would all be excluded, as would Medicaid assistance with Medicare cost sharing and premiums for those dually eligible for both programs.

For the per-enrollee spending caps, CBO assumed that separate spending limits would be set for five Medicaid eligibility groups in each state: the elderly (people age 65 or older); people with disabilities; children; nondisabled, nonelderly adults whose eligibility category existed before enactment of the ACA; and adults made eligible by the ACA (in states that have expanded coverage). States would be permitted to cross-subsidize groups, meaning that states could spend above the upper limit for an eligibility group as long as they spent less than the limit for another group by an amount sufficient to maintain total spending below the overall program limit. CBO also assumed that CMS would either create a new data source or modify an existing data source to capture the necessary spending and enrollment information for the five groups. CBO anticipates that no additional states would expand coverage under the ACA and therefore the Secretary of Health and Human Services would not need to adjust the caps to reflect estimated additional spending in any state that adopted the expansion after the base year.

Effects on the Budget

The savings to the Medicaid program under each alternative would vary widely. The most important factor affecting the amount of savings would be the rate by which Medicaid spending was permitted to grow under the alternatives.

Caps on Overall Spending. Under the specifications listed here, CBO estimates that the overall caps would reduce the deficit by $836 billion between 2024 and 2032 using the CPI-U growth factor and by $501 billion using the CPI-U plus 1 growth factor. Those net effects on the deficit reflect larger gross savings to Medicaid that are partially offset by increases in other types of mandatory spending and a reduction in revenues. The gross savings to Medicaid would be $921 billion between 2024 and 2032 using the CPI-U growth factor and $576 billion using the CPI-U plus 1 growth factor. Savings in 2032 would amount to about 17 percent of projected federal Medicaid spending using the CPI-U growth factor and 11 percent using the CPI-U plus 1 growth factor.

The gross savings from establishing caps on overall spending would be partially offset because of responses by states and individuals to the caps. With the policy specifications described above, reductions in federal Medicaid spending resulting from the overall caps would represent large reductions in state revenues. Therefore, in CBO's assessment, states would take a variety of actions to reduce the additional costs they would face, including restricting enrollment. Some states would discontinue coverage for enrollees made eligible by the ACA, and all states that would have adopted such coverage in the future would no longer choose to do so. Of those people who lost Medicaid coverage, some would gain access to subsidized health insurance coverage through the marketplaces established by the ACA because they would qualify for subsidies to buy coverage if other eligibility criteria were met. The rest would enroll in other coverage, principally through an employer, or become uninsured. CBO and the staff of the Joint Committee on Taxation (JCT) estimate that roughly 65 percent of people who lost Medicaid coverage would become uninsured under caps that were adjusted for inflation using either the CPI-U or the CPI-U plus 1 growth factor.

For the caps on overall spending, the agencies estimate—using the CPI-U growth factor—that the additional marketplace and employment-based coverage would increase federal outlays by $68 billion and decrease revenues by $17 billion from 2024 through 2032. Using the CPI-U plus 1 growth factor, the agencies estimate that the additional coverage would increase outlays by $59 billion and decrease revenues by $15 billion over the same period.

The net savings from capping overall spending would depend greatly on the growth factor. The lower CPI-U growth factor, when compared with the CPI-U plus 1 growth factor, would increase savings by an additional $334 billion. The net savings could be made larger or smaller by adding or subtracting additional percentage points from the CPI-U, and the change to net savings would be reasonably, though not perfectly, proportional to the change. That is, each additional 1 percentage-point reduction in the growth factor would increase savings to Medicaid by a similar dollar amount, but the offsets attributable to the loss of Medicaid coverage would increase by less. The reason for the difference is that states have limited flexibility to lower enrollment while complying with federal guidelines. Therefore, increasingly smaller growth factors would cause states to reach the limit of that flexibility, and no additional reductions would be anticipated.

Caps on per-Enrollee Spending. Under the policies specified above, CBO estimates that the per-enrollee caps would reduce the deficit by $871 billion between 2024 and 2032 using the CPI-U growth factor and by $539 billion using the CPI-U plus 1 growth factor. Those net effects on the deficit reflect larger gross savings to Medicaid that are partially offset by increases in other types of mandatory spending and a reduction in revenues. CBO estimates that establishing caps on per-enrollee spending would generate gross savings to Medicaid of $934 billion between 2024 and 2032 using the CPI-U growth factor and of $593 billion using the CPI-U plus 1 growth factor. The savings would represent about 20 percent and 13 percent, respectively, of projected federal Medicaid spending in 2032.

As with the caps on overall spending, the gross savings from per-enrollee caps would be partially offset. Although per-enrollee caps would provide additional federal payments for each enrollee, caps below projections of federal per-enrollee spending would create a loss of revenues to states for each enrollee relative to current law. Therefore, CBO anticipates that some states also would take action to restrict enrollment under per-enrollee caps. In addition, CBO and JCT estimate that roughly 63 percent of enrollees who lost Medicaid coverage would become uninsured using either growth factor. The remainder would instead either obtain subsidized health insurance through the marketplaces or enroll in an employment-based plan. For per-enrollee caps, the agencies estimate—using the CPI-U growth factor—that the additional coverage would increase federal outlays by $50 billion and decrease revenues by $13 billion from 2024 through 2032. Using the CPI-U plus 1 growth factor, the agencies estimate that the additional coverage would increase outlays by $43 billion and decrease revenues by $11 billion over the same period.

As with caps on overall spending, the net savings from capping per-enrollee spending would depend greatly on the growth factor. The lower CPI-U growth factor, when compared with the CPI-U plus 1 growth factor, would increase savings by an additional $331 billion. The estimated net savings could be made larger or smaller by adding or subtracting additional percentage points from the CPI-U, and the change to net savings would be reasonably, though not perfectly, proportional. That is, each additional 1 percentage-point reduction in the growth factor would increase savings to Medicaid by a similar dollar amount; the offsetting increases in outlays and reductions in revenues attributable to the loss of Medicaid coverage would increase by less.

Using the same base year, the same growth factors, and the same implementation date, CBO estimates that per-enrollee caps would save the federal government more than caps on overall spending. The per-enrollee caps would have a larger effect on the deficit because of the way federal spending would change in response to state eligibility restrictions. As explained above, CBO expects that states would respond to both the per-enrollee caps and the overall caps by seeking to offset a portion of the additional costs they would face, including by taking steps to restrict eligibility. Under per-enrollee caps, the reduction in enrollment would cause the states to receive less federal funding, and the federal government to save more, because funding would be tied directly to enrollment. By contrast, under the overall caps, the reduction in enrollment would not change the amount of federal funding that would be available to states because that funding would not be affected by changes in enrollment. However, other combinations of base-year data, growth factors, and implementation dates could result in overall caps' saving more than per-enrollee caps.

Uncertainty About the Budgetary Effects

There are two principal sources of uncertainty in the estimates of savings arising from this option. First, if projected spending growth, which averages 5.5 percent in the second half of the 10-year period, was substantially lower in the absence of the caps than CBO projects, the savings realized by capping Medicaid spending would be significantly smaller. In an extreme case, if spending growth under current law was less than the CPI-U in each year, then capping Medicaid growth by implementing either the overall caps or the per-enrollee caps would produce no savings. By contrast, if spending growth under current law was substantially higher than CBO projects, then the savings would be significantly larger, as would the pressure on states to make adjustments to their programs.

The second source of uncertainty pertains to whether and how states would choose to alter their Medicaid programs in response to the caps. Under per-enrollee caps, if a state chose to leave its Medicaid program unchanged and instead found other ways to offset the loss of federal funds, there would be little or no change in total combined federal and state Medicaid spending or enrollment. In addition, the federal government would incur few or no offsetting costs and revenue reductions associated with former Medicaid enrollees' obtaining other subsidized health insurance. By contrast, if under per-enrollee caps states made more significant reductions than expected to future Medicaid spending and enrollment, federal Medicaid savings would be larger and more former Medicaid enrollees would obtain subsidized health insurance or become uninsured, which would increase the associated offsetting costs. Under overall caps, states' changes to enrollment would have no effect on federal savings because federal payments would not adjust as enrollment changed. However, such changes would affect enrollees and health care providers.

Distributional Effects

In its distributional analysis, CBO allocates reductions in spending directly to the beneficiaries of that spending program. Most Medicaid enrollees' income is under 138 percent of the federal poverty guidelines, so the effects of reduced Medicaid spending would fall principally on households toward the bottom of the income distribution. (In 2022, the federal poverty guideline is $13,590 for single-person households in the 48 contiguous states and the District of Columbia and increases by $4,720 with each additional household member.)

Medicaid enrollees are not the only group that would be affected by a reduction in federal Medicaid spending. Medicaid payments from the federal and state governments go directly to health care providers, health care plans, and companies that sell prescription drugs. If, in response to lower federal payments, states reduced providers' payment rates, discontinued coverage for optional services, or covered fewer people, compensation throughout the health care industry would fall, affecting people across the income distribution, including some health care providers at the top of the distribution.

For the purposes of these estimates, CBO anticipates that, on average, states would replace about one-third of the lost federal funds; however, the agency does not project how individual states would respond to the change. To replace lost federal spending, states could reduce spending in other areas, increase existing taxes, or introduce new taxes. Each of the potential responses would have its own specific distributional effects, and the net effect of the option would reflect the impact of reduced Medicaid spending and the consequences of those other changes.

Economic Effects

In addition to having the behavioral effects reflected in conventional budget estimates, such as the ones shown above, a reduction in Medicaid spending could affect the labor supply and people's saving; those effects would apply both to enrollees and to employees in the health care industry. For enrollees, a reduction in Medicaid spending could lead to poorer health outcomes and thus reduce the number of able-bodied workers and

their productivity. Because many enrollees are disabled, elderly, or children, and do not or cannot work, the decrease in the labor supply would most likely be small. But, for those who do work, a loss of benefits could increase the number of hours they work to compensate for the need to spend more of their own resources on health care. Whether the combination of those two effects would increase or decrease the total number of hours that enrollees work is uncertain, but the economywide effect on hours worked would probably be small.

A reduction in benefits that caused enrollees to increase their own medical spending could cause them to cut back on other types of consumption and on saving. Because lower-income households have lower saving rates, which can be zero or even negative, the effect on such households' finances could be consequential, possibly leading to a significant increase in medical debt and bankruptcies. Economywide, the effect on saving would probably be small.

Across the health care industry, the effect of Medicaid cuts would vary widely and would depend on each provider's mix of Medicaid patients and other types of patients. The labor supply of health care workers and the amount they save could be reduced because of a decrease in their income. That decrease in income would result if there was a drop in the demand for services or a reduction in Medicaid payment rates. Reductions in Medicaid eligibility and enrollment could also lead to increased enrollment in higher-paying private plans, increasing some health care workers' income, the number of hours they work, and the amount they save. Economywide, the net effect on hours worked and saving would probably be small.

As with distributional effects, CBO does not project how individual states would respond to the changes and does not estimate the specific economic effects of each potential response. The net effect of the option would reflect the impact of reduced Medicaid spending and the consequences of those other changes.

Other Considerations

Caps on federal Medicaid spending would represent a fundamental restructuring of Medicaid financing. In addition to their consequences for the federal budget, the limits on federal spending would have significant consequences for states. Capped federal spending would create uncertainty for states as they planned future budgets because it could be difficult to predict whether Medicaid spending would exceed the caps and thus require additional state spending. Moreover, depending on the structure of the caps, Medicaid might no longer serve as a countercyclical source of federal funds for states during economic downturns. (Under overall caps, the states might not automatically receive more federal funds if a downturn caused an increase in Medicaid enrollment.)

If the limits on federal payments were set low enough, additional costs—perhaps substantial costs—would be shifted to states. States then would need to decide whether to commit more of their own revenues to Medicaid or reduce Medicaid spending by cutting payments to health care providers and health care plans, eliminating optional services, restricting eligibility for enrollment, or (to the extent feasible) arriving at more efficient methods for delivering services. Under proposals that led to significant reductions in federal payments, many states would find it difficult to offset the reduced federal payments solely through improvements in program efficiency. If reductions in federal payments were large enough, states would probably resort to a combination of all approaches. All of those effects would be magnified beyond 2032 as the difference between the capped federal payments and the full cost of providing services to Medicaid enrollees grew wider over time.

Enrollees would be affected in various ways if states reduced providers' payment rates or payments to managed care plans or cut covered services. If states reduced payment rates, fewer providers might be willing to accept Medicaid patients, especially given that, in many cases, Medicaid's rates are already significantly below those of Medicare or private insurance for some of the same services. If states reduced payments to Medicaid managed care plans, some plans might shrink their provider networks, curtail quality assurance, or drop out of the program altogether. If states reduced covered services, some enrollees might decide either to pay out of pocket for medical services or to forgo those services entirely.

Related CBO Publications: *Preliminary Analysis of Legislation That Would Replace Subsidies for Health Care With Block Grants* (September 2017), www.cbo.gov/publication/53126; *Federal Grants to State and Local Governments* (March 2013), www.cbo.gov/publication/43967

Option 2—Mandatory Spending Function 550

Limit State Taxes on Health Care Providers

Billions of Dollars	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	Total 2023–2027	Total 2023–2032
Lower the Tax Threshold to 5 Percent												
Change in Outlays	0	-2	-3	-4	-5	-5	-5	-6	-6	-6	-14	-42
Change in Revenues[a]	0	*	*	*	*	*	*	*	*	*	*	-1
Decrease (-) in the Deficit	0	-2	-3	-4	-5	-5	-5	-6	-6	-6	-14	-41
Lower the Tax Threshold to 2.5 Percent												
Change in Outlays	0	-11	-14	-17	-21	-25	-30	-31	-32	-34	-63	-215
Change in Revenues[a]	0	*	*	*	-1	-1	-1	-1	-1	-1	-2	-6
Decrease (-) in the Deficit	0	-11	-14	-17	-20	-24	-29	-30	-31	-33	-61	-209
Eliminate the Tax Threshold												
Change in Outlays	0	-28	-35	-44	-53	-63	-74	-78	-82	-86	-160	-542
Change in Revenues[a]	0	-1	-1	-1	-2	-2	-2	-2	-2	-3	-5	-16
Decrease (-) in the Deficit	0	-27	-34	-43	-51	-61	-72	-76	-80	-83	-155	-526

Data sources: Congressional Budget Office; staff of the Joint Committee on Taxation.

This option would take effect in October 2023.

* = between -$500 million and zero.

a. Estimates include the effects on Social Security payroll tax receipts, which are classified as off-budget.

Background

Medicaid is a joint federal-state program that covers acute and long-term health care for groups of low-income people, chiefly families with dependent children, elderly people (those 65 or older), nonelderly people with disabilities, and—at the discretion of individual states—other nonelderly adults whose family income is up to 138 percent of the federal poverty guidelines. State governments operate the program under federal statutory and regulatory oversight, and the federal government reimburses a portion of each state's costs at matching rates that vary on the basis of enrollees' eligibility category and the state's per capita income. The rest of the funding for Medicaid comes from state revenues, either from general funds or from another source. Most states finance at least a portion of their Medicaid spending through taxes collected from health care providers. In 2021, states collected a total of $23 billion from health care providers through such taxes.

In the late 1980s and early 1990s, states increasingly used taxes on health care providers to increase the amount of state funding available for Medicaid. That funding was used to generate additional federal matching payments to the states. A number of states established "hold harmless" arrangements with providers, wherein they taxed providers who received a large amount of Medicaid payments or taxed Medicaid providers at higher rates than other providers of the same type. The intention was to return the collected taxes to those providers in the form of higher Medicaid payments. The result was that states could collect revenues from providers that would be returned to those same providers, leaving them at least no worse off (that is, held harmless), while adding revenues to the states in the form of federal matching payments. Those arrangements effectively shifted some of the cost of funding Medicaid from the states to the federal government without the use of states' general funds. Between 1989 and 1993, federal Medicaid spending increased by an average of 20 percent annually, peaking at 29 percent in 1992.

In response, lawmakers began to require states that taxed health care providers to collect those taxes at uniform rates, regardless of the number of Medicaid patients served, from all providers of the same type (hospitals, for example). In addition, states generally were no longer allowed to establish hold-harmless arrangements in which they offset taxes on providers with increased Medicaid payments to those same providers. However,

federal law provided for a "safe harbor" exception that allows a state to use hold-harmless arrangements when it collects taxes at a rate that does not exceed 6 percent of a provider's net revenues from treating patients.

Any tax revenues collected under hold-harmless arrangements that exceed 6 percent of providers' revenues are deducted from a state's total Medicaid expenditures before the federal government determines the amount of matching funds for that state.

Option

This option consists of three alternatives, all of which would take effect in October 2023.

- Under the first alternative, the safe-harbor threshold would be lowered to 5 percent.
- Under the second alternative, the threshold would be lowered to 2.5 percent.
- Under the third alternative, the threshold would be eliminated; that is, states would no longer be allowed to collect revenues under hold-harmless arrangements.

Lowering or eliminating the safe-harbor threshold would reduce the amount of federal matching payments that were available to states on the basis of revenues collected from taxes on providers.

Effects on the Budget

The Congressional Budget Office and the staff of the Joint Committee on Taxation (JCT) estimate that capping the safe-harbor threshold at 5 percent (the first alternative) would reduce the deficit by $41 billion from 2024 to 2032 and that capping it at 2.5 percent (the second alternative) would reduce the deficit by $209 billion over that period. Eliminating the safe-harbor threshold (the third alternative) would reduce the deficit by $526 billion from 2024 to 2032. The estimated growth in savings over that period under all three alternatives reflects CBO's expectation that states' collections of tax revenues would increase at the rate of growth of overall health care spending for the types of providers that are typically taxed.

The large difference in savings generated by the three alternatives is a result of the distribution of taxes that states impose on providers. Those tax rates vary widely, from under 1 percent to the maximum allowable rate of 6 percent. Therefore, the lower the threshold, the greater the effects would be on tax revenues collected from providers. Lowering the threshold to 5 percent would eliminate the tax revenues collected above that rate, whereas lowering the threshold to 2.5 percent would go further and eliminate the revenues collected above that rate. Eliminating the threshold would affect all tax revenues collected from providers under hold-harmless arrangements. States that collected the most revenues as a share of their spending from such arrangements would be disproportionately affected.

The amount of savings generated by the option would depend significantly on the extent to which states chose to adjust their Medicaid programs in response to the lower thresholds. With less revenues from taxes on providers, states would face two choices: whether to spend the same amount on Medicaid using other state revenues or whether to cut Medicaid spending by the difference in revenues collected under the old and new thresholds. In the first case, states might replace lost revenues by raising additional general revenues or by reducing spending elsewhere in their budgets and transferring those amounts to Medicaid spending. In that case, the federal government would continue to match the same amount of state spending and there would be no change in federal spending. Alternatively, states could decide not to replace the lost revenues and instead cut their Medicaid spending by lowering payment rates to providers or by reducing optional medical services, which would reduce federal spending because the amounts matched by the federal government would be smaller.

CBO expects that different states would respond to a lower safe-harbor threshold in different ways. Most states would probably not replace all of the revenues lost as a result of implementing the lower threshold. The reason states would not replace all of the lost revenues is that the health care providers being taxed typically benefit directly from higher Medicaid payment rates, making the imposition of such taxes an easier choice for states than alternative choices for replacing such revenues. However, most states would probably not attempt to replace the full amount of the lost revenues by cutting Medicaid spending because they would deem other choices to be preferable. For the purposes of these estimates, CBO anticipates that different states would choose their own mix of those approaches, and, on average, states would replace half of the lost revenues.

CBO therefore estimates that the gross savings from establishing caps on overall spending would be partially offset because of states' responses to the reduction in

the safe-harbor threshold. CBO expects that some states would adopt the strategies described above, including discontinuing coverage for enrollees made eligible by the Affordable Care Act (ACA). In addition, some states that would have adopted such coverage in the future would no longer choose to do so. Among people who lost Medicaid coverage, some would gain access to subsidized health insurance coverage through the marketplaces established by the ACA, and the rest would enroll in other health insurance, principally through an employer, or become uninsured.

The magnitude of the offsets would be proportional to the amount of federal Medicaid savings—equal to about 12 percent or 13 percent of the gross savings. CBO and JCT estimate that, if the threshold was lowered to 5 percent, $46 billion in Medicaid savings would be offset from 2024 to 2032 by additional subsidies for employment-based coverage and for coverage obtained through the health insurance marketplaces. Those added subsidies would increase outlays by $4 billion and decrease revenues by $1 billion. If the threshold was lowered to 2.5 percent, CBO and JCT estimate, $239 billion in Medicaid savings would be offset by additional subsidies that would increase outlays by $24 billion and decrease revenues by $6 billion. If the threshold was eliminated, CBO and JCT estimate, Medicaid savings would total $605 billion and the offsets would total $79 billion, for a net federal savings of $526 billion.

Uncertainty About the Budgetary Effects

A large source of uncertainty in the estimates is how states would respond to the change in the safe-harbor threshold. The estimate that states would replace half of the lost revenues with other revenue sources or by reducing spending in other areas is highly uncertain. To the extent that the average response by the states would be to make larger cuts to Medicaid, the federal government's savings would be greater, and to the extent that the average response by the states was to make smaller cuts to Medicaid, the savings would be smaller.

Distributional Effects

In its distributional analysis, CBO allocates reductions in spending directly to the beneficiaries of that spending program. Most Medicaid enrollees' income is under 138 percent of the federal poverty guidelines, so the effects of reduced Medicaid spending would fall principally on households toward the bottom of the income distribution. (In 2022, the federal poverty guideline is $13,590 for single-person households in the 48 contiguous states and the District of Columbia and increases by $4,720 with each additional household member.)

Medicaid enrollees are not the only group that would be affected by a reduction in Medicaid spending. Medicaid payments from the federal and state governments go directly to health care providers, health care plans, and companies that sell prescription drugs. If, in response to lower tax revenues from providers, states reduced providers' payment rates, discontinued coverage for optional services, or covered fewer people, compensation throughout the health care industry would fall, affecting people across the income distribution, including some health care providers at the top of the distribution.

For the purposes of these estimates, CBO anticipates that, on average, states would replace half of the lost revenues; however, the agency does not project how individual states would respond to the change. To replace lost revenues, states could reduce spending in other areas, increase existing taxes, or introduce new taxes. Each of the potential responses would have its own specific distributional effects, and the net effect of the option would reflect the impact of reduced Medicaid spending and the consequences of those other changes.

Economic Effects

In addition to having the behavioral effects reflected in conventional budget estimates, such as the ones shown above, a reduction in Medicaid spending could affect the labor supply and people's saving; those effects would apply both to enrollees and to employees in the health care industry. For enrollees, a reduction in Medicaid spending could lead to poorer health outcomes and thus reduce the number of able-bodied workers and their productivity. Because many enrollees are disabled, elderly, or children, and do not or cannot work, the decrease in the labor supply would most likely be small. But, for those who do work, a loss of benefits could increase the number of hours they work to compensate for the need to spend more of their own resources on health care. Whether the combination of those two effects would increase or decrease the total number of hours that enrollees work is uncertain, but the economywide effect on hours worked would probably be small.

A reduction in benefits that caused enrollees to increase their own medical spending could cause them to cut back on other types of consumption and on saving.

Because lower-income households have lower saving rates, which can be zero or even negative, the effect on such households' finances could be consequential, possibly leading to a significant increase in medical debt and bankruptcies. Economywide, the effect on saving would probably be small.

Across the health care industry, the effect of Medicaid cuts would vary widely and would depend on each provider's mix of Medicaid patients and other types of patients. The labor supply of health care workers and the amount they save could be reduced because of a decrease in their income. That decrease in income would result if there was a drop in the demand for services or a reduction in Medicaid payment rates. Reductions in Medicaid eligibility and enrollment could also lead to increased enrollment in higher-paying private plans, increasing some health care workers' income, the number of hours they work, and the amount they save. Economywide, the net effect on hours worked and saving would probably be small.

As with distributional effects, CBO does not project how individual states would respond to the change and does not estimate the specific economic effects of each potential response. The net effect of the option would reflect the impact of reduced Medicaid spending and the consequences of those other changes.

Option 3—Mandatory Spending Function 550

Reduce Federal Medicaid Matching Rates

Billions of Dollars	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	Total 2023–2027	Total 2023–2032
Use the Same Matching Rate for All Categories of Administrative Services												
Change in Outlays	0	-7	-7	-7	-7	-7	-8	-8	-8	-9	-28	-68
Remove the FMAP Floor												
Change in Outlays	0	-63	-63	-67	-70	-73	-77	-80	-85	-89	-263	-667
Reduce the Matching Rate for Enrollees Made Eligible by the ACA												
Change in Outlays	0	-45	-50	-61	-66	-71	-76	-81	-87	-94	-222	-631
Change in Revenues[a]	0	-1	-2	-3	-3	-3	-3	-4	-4	-4	-9	-27
Decrease (-) in the Deficit	0	-44	-48	-58	-63	-68	-73	-77	-83	-90	-213	-604

Data sources: Congressional Budget Office; staff of the Joint Committee on Taxation.

This option would take effect in October 2023.

ACA = Affordable Care Act; FMAP = federal medical assistance percentage.

a. Estimates include the effects on Social Security payroll tax receipts, which are classified as off-budget.

Background

Medicaid is a joint federal-state program that covers acute and long-term health care for groups of low-income people, chiefly families with dependent children, elderly people (those 65 or older), nonelderly people with disabilities, and—at the discretion of individual states—other nonelderly adults whose family income is up to 138 percent of the federal poverty guidelines. State governments operate the program under federal statutory and regulatory oversight, and both the federal and state governments share in the costs of the program. The federal government's share varies by state, by the type of cost (that is, costs for medical or administrative services), and by eligibility category.

For medical services used by most Medicaid enrollees—those who were not made eligible by the Affordable Care Act (ACA)—the share of Medicaid costs paid by the federal government is specified by the federal medical assistance percentage rate (FMAP rate). The FMAP rate is determined by a formula that provides a higher rate of federal reimbursement for states with lower per capita income relative to the national average and a lower rate for higher-income states. By law, a state's FMAP rate can be no less than 50 percent and no more than 83 percent. The national average matching rate over the 2024–2032 period for services provided to those enrollees is projected to be 60 percent, with states contributing the remaining 40 percent. In 2021, federal spending governed by the FMAP formula was $397 billion, or about 75 percent of total federal Medicaid spending. Federal spending for states with FMAP rates set at the 50 percent floor accounted for 38 percent of that amount.

The federal government's share of costs for medical services is considerably larger for enrollees who became eligible for Medicaid because of the optional expansion of eligibility under the ACA. That law allowed states to expand eligibility to all adults under age 65 (including parents and adults without dependent children) who have income below 138 percent of the federal poverty guidelines. (Thirty-eight states and the District of Columbia have adopted the expansion.) For those who are eligible as a result, the federal government's share of Medicaid costs is fixed at 90 percent and does not vary by state. That higher matching rate was made available—even though those enrollees' health risks are typically lower than the health risks of some other eligible groups, such as the elderly and disabled—in order to lower the financial cost to states of covering a group that had not generally been covered previously. In 2021, federal spending for services provided to those newly eligible enrollees was $99 billion, or about 20 percent of total federal Medicaid spending.

The federal government's share of administrative expenses is also specified by statute and varies by the category of such costs, but not by state. The federal government's share of general administrative expenses is 50 percent; however, for 25 specified categories of administrative costs, the federal share ranges from about 70 percent to 100 percent. For example, the federal government pays 75 percent of the cost of employing skilled medical professionals for Medicaid administration, 75 percent of the cost of utilization review (the process of determining the appropriateness and medical necessity of various health care services), 90 percent of the cost of developing systems to manage claims and information, and 100 percent of the cost of prescription-drug monitoring programs. The overall average federal share for administrative expenses was 62 percent in 2021. That year, federal spending for Medicaid administration was $20 billion, or about 5 percent of total federal Medicaid spending.

Option

This option consists of three alternatives, each of which would go into effect in October 2023.

- Under the first alternative, the federal government's share for all categories of administrative spending would be 50 percent.
- Under the second alternative, the 50 percent floor on the FMAP rate that applies to medical services for enrollees not made eligible by the ACA would be removed. Consequently, FMAP rates would fall below 50 percent for states with the highest per capita income. The Congressional Budget Office estimates that this alternative would affect 13 states, and the new matching rates for those states would be between 4 percent and 49.75 percent.
- Under the third alternative, the federal share of medical expenditures for enrollees made eligible by the ACA would be based on the same FMAP formula that applies to all other enrollees.

Effects on the Budget

The amount of savings resulting from each alternative would vary significantly. CBO estimates that under the first alternative—setting the federal share for all categories of administrative spending at 50 percent—the net effect would be a reduction in spending of $68 billion from 2024 to 2032. Under the second alternative—eliminating the 50 percent floor on the FMAP rate—the net effect would be a reduction in spending of $667 billion from 2024 to 2032. Savings in 2032 would amount to about 1 percent of projected federal Medicaid spending under the first alternative and 11 percent under the second. For both of those alternatives, CBO estimates that the reductions in spending would increase over the period in line with the projected growth in Medicaid spending.

Under the first two alternatives, CBO anticipates, states would probably respond by reducing the rates they pay providers and cutting coverage of optional medical services, but not by limiting eligibility. Under the first alternative, the reduction in federal funding would be modest when compared with total federal Medicaid spending and would be insufficient to induce states to restrict eligibility. Under the second alternative, most of the affected states would probably not seek savings by reducing eligibility because they have a history of expanding Medicaid coverage.

CBO estimates that the third alternative—setting the federal share of medical expenditures for enrollees made eligible by the ACA so that it equals the rate used for other enrollees—would reduce the deficit by $604 billion from 2024 to 2032. That estimated reduction in the deficit reflects a decrease of $752 billion in federal Medicaid spending; in 2032, those savings would amount to 12 percent of projected federal Medicaid spending. Medicaid's savings would be partially offset because some people would lose Medicaid coverage and subsequently obtain other federally subsidized health insurance. CBO anticipates that, in response to the reduced federal share for enrollees made eligible by the ACA, some states would discontinue coverage for that category of enrollees. States adopted the expansion expecting the higher matching rate, and several of them expanded coverage because of the enhanced FMAP rate. In addition, CBO expects that all states that would have adopted such coverage in the future would no longer choose to do so.

People who did not receive Medicaid coverage because of reductions in the optional expansion would instead receive subsidies through the health insurance marketplaces established by the ACA, obtain employment-based coverage, or become uninsured. CBO and the staff of the Joint Committee on Taxation estimate that, from 2024 to 2032, the resulting subsidies for coverage obtained through the health insurance marketplaces and for employment-based coverage would increase outlays by $121 billion and decrease revenues by $27 billion.

The net reduction in the deficit would increase over time in line with projected increases in health care spending. It would also increase over time because the additional state coverage expansions that are projected to occur under current law would be discontinued under the third alternative.

The estimated savings for all three alternatives depend on expectations about how states would respond to the loss of federal funds. As a result of less federal funding, states would have to spend more of their own funds to maintain the same eligibility levels, covered services, and provider payment rates that they have in their current Medicaid programs. Therefore, states would need to decide whether to spend additional funds from other state sources or to cut spending by some, or all, of the amount of lost federal funding. If states chose to maintain their current programs by replacing the lost federal funding with their own, the federal government would save the amount resulting from the change to the federal share. Alternatively, if states decided not to replace the lost federal funding, they could instead reduce the size and scope of their Medicaid programs sufficiently to keep their spending more consistent with previous levels. That would reduce federal spending even further because the federal government's share, as lowered under the alternatives, would be based on smaller programs.

CBO expects that different states would respond to less federal funding in different ways. Most states would probably not replace all of the lost federal funding with state funding because full replacement could put substantial pressure on state budgets. However, most states would probably not cut their share of Medicaid funding by the full amount of the lost federal funding because they would deem other choices to be preferable. For the purposes of these estimates, CBO anticipates that, on average, states would replace half of the lost federal share.

All three of the alternatives could be adjusted to achieve different amounts of savings.

- Under the first alternative, the federal government could pay larger or smaller shares of administrative costs.
- Under the second alternative, smaller savings could be achieved by setting a floor that was lower than the current-law rate of 50 percent, but without eliminating the floor entirely.
- The third alterative could achieve smaller savings by specifying a share of federal payments for enrollees made eligible by the ACA that was smaller than the current-law rate of 90 percent but larger than the share for other enrollees. For larger savings, the federal share for those enrollees could be made smaller than the share for other enrollees.

Uncertainty About the Budgetary Effects

The amount of savings from all three alternatives is uncertain because the savings would be partly dependent on how states responded to the loss of federal funds. The estimate that states would replace half of the lost revenues with other revenue sources or reduce spending in other areas is uncertain. To the extent that the average state response was to make larger cuts to Medicaid, the savings would be greater, and to the extent that the average state response was to make smaller cuts to Medicaid, the savings would be smaller. For the third alternative, it is similarly uncertain how many of the people who lost Medicaid coverage would become uninsured and how many would obtain coverage from other subsidized sources.

Distributional Effects

In its distributional analysis, CBO allocates reductions in spending directly to the beneficiaries of that spending program. Most Medicaid enrollees' income is under 138 percent of the federal poverty guidelines, so the effects of reduced Medicaid spending would fall principally on households toward the bottom of the income distribution. (In 2022, the federal poverty guideline is $13,590 for single-person households in the 48 contiguous states and the District of Columbia and increases by $4,720 with each additional household member.)

Medicaid enrollees would not be the only group affected by a reduction in federal Medicaid spending. Medicaid payments from the federal and state governments go directly to health care providers, health care plans, and companies that sell prescription drugs. If states responded to the lower matching rates for Medicaid by reducing providers' payment rates, discontinuing coverage for optional services, or covering fewer people, compensation throughout the health care industry would fall, affecting people across the income distribution, including some health care providers at the top of the distribution.

For both enrollees and providers, the effects of the second alternative would occur only in states whose FMAP rates fell below the 50 percent floor. The effects of the third alternative would fall only on those states that have expanded coverage under the ACA or that would choose to do so in the future.

For the purposes of these estimates, CBO anticipates that, on average, states would replace half of the lost federal funds; however, the agency does not project how individual states would respond to the change. To replace lost federal funding, states could reduce spending

in other areas, increase existing taxes, or introduce new taxes. Each of the potential responses would have its own specific distributional effects, and the net effect of the option would reflect the impact of reduced Medicaid spending and the consequences of those other changes.

Economic Effects

In addition to having the behavioral effects reflected in conventional budget estimates, such as the ones shown above, the reduction in Medicaid spending could affect the labor supply and people's saving; those effects would apply both to enrollees and to employees in the health care industry. For enrollees, a reduction in Medicaid spending could lead to poorer health outcomes and thus reduce the number of able-bodied workers and their productivity. Because many enrollees are disabled, elderly, or children, and do not or cannot work, the decrease in the labor supply would most likely be small. But, for those who do work, a loss of benefits could increase the number of hours they work to compensate for the need to spend more of their own resources on health care. Whether the combination of those two effects would increase or decrease the total number of hours that enrollees work is uncertain, but the economywide effect on hours worked would probably be small.

A reduction in benefits that caused people to increase their own medical spending could cause them to cut back on other types of consumption and on saving. Because lower-income households have lower saving rates, which can be zero or even negative, the effect on such households' finances could be consequential, possibly leading to a significant increase in medical debt and bankruptcies. Economywide, the effect on saving would probably be small.

Across the health care industry, the effect of Medicaid cuts would vary widely and would depend on each provider's mix of Medicaid patients and other types of patients. The labor supply of health care workers and the amount they save could be reduced because of a decrease in their income. That decrease in income would result if there was a drop in the demand for services or a reduction in Medicaid payment rates. Reductions in Medicaid eligibility and enrollment could also lead to increased enrollment in higher-paying private plans, increasing some health care workers' income, the number of hours they work, and the amount they save. Across the health care industry, the effect of Medicaid cuts would vary widely and would depend on each provider's mix of Medicaid patients and other types of patients. Economywide, the net effect on hours worked and saving would probably be small.

As with distributional effects, CBO does not project how individual states would respond to the changes and does not estimate the specific economic effects of each potential response. The net effect of the option would reflect the impact of reduced Medicaid spending and the consequences of those other changes.

Other Considerations

The second and third alternatives would affect enrollees in various ways if states reduced providers' payment rates or payments to managed care plans or cut covered services. If states reduced payment rates, fewer providers might be willing to accept Medicaid patients, especially given that, in many cases, Medicaid's rates are already significantly below those of Medicare or private insurance for some of the same services. If states reduced payments to Medicaid managed care plans, some plans might reduce the size of their provider networks, curtail quality assurance, or drop out of the program altogether. If states reduced covered services, some enrollees might decide either to pay out of pocket for medical services or to forgo those services entirely.

Option 4—Mandatory Spending Function 570

Increase the Premiums Paid for Medicare Part B

Billions of Dollars	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	Total 2023–2027	Total 2023–2032
Change in Outlays												
Increase the Basic Premium	0	-8	-18	-29	-41	-54	-57	-61	-66	-72	-95	-406
Freeze Income Thresholds for Income-Related Premiums	0	-1	-1	-2	-4	-5	-7	-9	-12	-16	-8	-57
Combine Both Alternatives	0	-9	-19	-31	-44	-58	-62	-68	-75	-83	-102	-448

This option would take effect in January 2024.

Background

Medicare is a federal health insurance program for people age 65 or older and for younger people with long-term disabilities or end-stage renal disease. In Part B of Medicare, which covers physicians' and other outpatient services, everyone who chooses to enroll is charged a basic premium. (Most people do not have to pay a premium for Part A, which mainly covers inpatient hospital care. People who enroll in Part A or Part B may choose to also enroll in Part D, the outpatient prescription drug benefit, which carries an additional premium that is subsidized for some enrollees.)

The Part B basic premium in calendar year 2023 is scheduled to be $164.90 per month, or about 25 percent of expected Part B costs per enrollee age 65 or older. Premiums can be higher or lower than the basic premium for enrollees who receive Part B benefits through the Medicare Advantage program. (In that program, private insurers assume the responsibility for, and the financial risk of, providing Medicare benefits.) Low-income enrollees with few assets can receive subsidies through Medicaid to cover their Part B premium.

In addition to the Part B basic premium, some enrollees pay an income-related premium (IRP) if their modified adjusted gross income (MAGI) exceeds a certain amount. (For the purposes of the IRP, MAGI is equal to taxpayers' adjusted gross income plus any tax-exempt interest they receive.) Enrollees who pay an IRP fall in one of five tiers, depending on their income. The amounts are set so that the basic premium and the IRP together are expected to cover between 35 percent and 85 percent of average Part B costs for enrollees age 65 or older (see the table on the next page).

The income thresholds are indexed to the consumer price index for all urban consumers (CPI-U), except for the threshold for the highest income tier, which is frozen until 2028 and then indexed to the CPI-U thereafter. The share of Part B enrollees who are subject to IRPs is projected to increase from about 9 percent (approximately 5 million people) in calendar year 2023 to about 12 percent (approximately 9 million people) in calendar year 2032 as growth in income for affected enrollees slightly outpaces indexing of the thresholds.

Option

This option includes three alternatives for increasing the amount that Medicare enrollees pay in Part B premiums. Each alternative would take effect in January 2024.

- The first alternative would increase the basic premium from 25 percent to 35 percent of expected Part B costs per enrollee. The basic premium would increase by 2 percentage points at the beginning of each calendar year starting in 2024 until it reached 35 percent of expected costs in 2028 and then would remain at that percentage. By calendar year 2032, the Part B basic premium would reach $402.64 per month, the Congressional Budget Office estimates. The increase in the basic premium would not affect total premiums paid by enrollees who are subject to the IRP because their premiums would cover at least 35 percent of total expected costs, as they do under current law. Enrollees whose premiums are covered by Medicaid under current law would also be unaffected because that coverage would not change.
- The second alternative would freeze all the income thresholds for IRPs from 2024 to 2032.

Income Thresholds and Total Monthly Premiums in 2023 for Enrollees Who Pay Income-Related Premiums for Medicare Part B

Income Range for Single Filers	Income Range for Married Couples Filing Jointly	Percentage of Expected Costs	Total Monthly Part B Premium
$97,001 – $123,000	$194,001 – $246,000	35	$230.80
$123,001 – $153,000	$246,001 – $306,000	50	$329.70
$153,001 – $183,000	$306,001 – $366,000	65	$428.60
$183,001 – $499,999	$366,001 – $749,999	80	$527.50
$500,000 or more	$750,000 or more	85	$560.50

The information in this table applies to calendar year 2023.

"Income" refers to modified adjusted gross income, which is adjusted gross income plus tax-exempt interest income.

Premiums are set to cover the specified percentages of expected costs for Medicare enrollees who are age 65 or older.

- The third alternative would combine the changes in the first two alternatives: increasing the Part B basic premium to 35 percent of expected costs per enrollee and freezing the income thresholds for IRPs.

Effects on the Budget

CBO estimates that the first alternative—increasing the basic premium to 35 percent of expected costs per enrollee—would decrease the deficit by $406 billion between 2024 and 2032. CBO estimates that the second alternative—freezing the income thresholds for IRPs—would reduce the deficit by $57 billion between 2024 and 2032 and increase the share of enrollees who pay an IRP from 9 percent to almost 10 percent in 2024 and from 12 percent to 17 percent in 2032. The third alternative—combining the first two alternatives—would reduce the deficit by $448 billion between 2024 and 2032. That amount is slightly less than the sum of the savings from the other two alternatives (if implemented separately) because those alternatives would affect overlapping groups of enrollees. Some people with income near the lowest IRP threshold would have their premium increased to 35 percent under either of the first two alternatives, and the government would receive additional premium income from that group only once if both policies were implemented together.

CBO's estimates are based on its assessment of how many people would pay a higher Part B premium under each of the alternatives, and how much higher those people's premiums would be. That assessment—particularly as it pertains to the freezing of IRP thresholds—is derived in part from the agency's analysis of the distribution of income for all people age 65 or older. (The agency estimates that very few Medicare enrollees under the age of 65 would satisfy the criteria to be subject to an IRP.) CBO's analysis of the increase in the basic premium under the first and third alternatives accounts for increased Medicaid spending on the approximately 20 percent of Part B enrollees whose premiums are paid by that program.

The estimates reflect CBO's expectation about the way current and future Medicare enrollees would respond to each of the three alternatives. Increases in premiums (basic or income-related) discourage enrollment. CBO anticipates that, if implemented, all of the alternatives would result in an increase in the number of people who would delay enrollment in Medicare Part B by maintaining coverage through a current or former employer. CBO expects that people without such coverage would be unlikely to delay enrollment and that current enrollees would be unlikely to disenroll from Part B for two reasons: First, Part B basic premiums would probably be lower under the option than most private insurance premiums, as they are under current law; and second, people whose Part B coverage was postponed or interrupted and who had no other qualifying health insurance coverage would face permanent penalties if they later enrolled or reenrolled in that program.

If the basic premium increased by a smaller amount, to ultimately cover less than 35 percent of expected costs, the budgetary savings from the option would change in approximate proportion to the change in the premium increase. If the basic premium increased by a larger amount, to cover more than 35 percent of costs, the resulting savings could increase more than proportionally. As long as lawmakers specified that enrollees in the lowest IRP tier would have to pay the

higher basic premium instead of their current 35 percent total premium, the premium increase would apply to more enrollees and thereby produce additional savings. However, larger premium increases would also induce more people to delay enrollment in or potentially disenroll from Medicare Part B. That behavioral effect could either increase or decrease the savings that would result from the option, because both premium receipts and Medicare spending would be reduced, and it is unclear which reduction would be larger. For instance, the people who expected to use the fewest Part B–covered services (resulting in the least Part B spending) might be the most likely to disenroll or delay enrollment in Part B if the basic premium increased. In that case, the decrease in premium receipts would be larger than the decrease in spending, and the savings from the option would be reduced.

Uncertainty About the Budgetary Effects

CBO's estimates rely in part on its projection of the income distribution of Medicare enrollees. That projection is uncertain, in part, because a relatively large share of income for that group comes from sources that are less predictable, such as dividends and capital gains. That uncertainty in the projection of the income distribution leads, in turn, to uncertainty in CBO's estimate of the number of Medicare enrollees who would pay higher premiums under the option.

Another source of uncertainty is the projection of the basic premium for Part B. The premium could be lower than CBO projects, for example, if per-enrollee spending grew more slowly than anticipated. If the premium was lower than projected, the option (which would increase each affected enrollee's premium by a specified percentage) would result in less savings because each affected enrollee's premium would increase by a smaller dollar amount. Conversely, if the premium was higher than projected, the savings from the option would be greater.

Additionally, uncertainty exists about the number of people age 65 or older who would choose to delay enrollment in Medicare, as well as the amount of money that Medicare would spend on their Part B–covered services if they remained enrolled. CBO expects that, if IRP thresholds were frozen, the small percentage of people who continued to work, maintain insurance coverage through their employer, and delay enrollment in the Medicare program to avoid paying the IRP would increase. That increase could be larger or smaller than CBO anticipates, depending on how many people would be subject to the IRP on the basis of their income, how many of them would have access to employment-based coverage, and how many would choose to maintain that coverage in order to avoid paying the IRP.

Distributional Effects

Because this option would affect the Medicare-enrolled population, it would primarily affect people age 65 or older, as well as people under 65 with long-term disabilities. In CBO's baseline projections of the distribution of income, income includes Social Security and Medicare benefits. As a result, people age 65 or older are slightly more likely than others to be in higher-income households. None of the alternatives would affect Medicare enrollees whose Part B premiums are covered by Medicaid because those enrollees do not pay their own premiums out of pocket.

Increasing the Part B basic premium (the first and third alternatives) would affect all enrollees except those whose premiums are paid by Medicaid and those near the top of the income distribution. Specifically, enrollees would face a higher premium if their income was not high enough to pay an IRP but their income or assets were too high to qualify for subsidies through Medicaid. Some Medicaid-eligible enrollees would also face higher premiums either because they had Medicaid coverage but did not qualify for a premium subsidy or because they did not participate in Medicaid despite qualifying to do so. Premiums would increase by the same dollar amount for every affected enrollee. As a result, the increase in premiums would equal a larger share of income for lower-income households than for higher-income households.

Freezing the IRP thresholds (the second and third alternatives) would affect a smaller and higher-income population than would increasing the basic premium. People whose income fell slightly below the current-law IRP thresholds in 2024 and subsequent years would pay a higher premium if those thresholds were frozen. In particular, enrollees would pay a higher premium if their income exceeded one of the 2023 IRP thresholds—which would remain in force under the option—but did not exceed the values that the threshold would have grown to under current law. Because the lowest of the 2023 IRP thresholds is $97,000 for single filers and $194,000 for married couples who file jointly, most people facing higher premiums would be in the middle or near the top of the income distribution. The number

of people who would face higher premiums under the second and third alternatives would grow over time.

Economic Effects

In addition to having the behavioral effects reflected in conventional budget estimates, such as the ones shown above, increasing the premiums paid for Medicare Part B would also affect people's incentives to save and work. If the basic premium was increased, as under the first and third alternatives, most enrollees would have to spend more money out of pocket for their coverage every month. As a result, most Medicare enrollees who currently pay the basic premium would reduce their consumption and draw down their savings more rapidly.

Changes in the labor supply of current Medicare enrollees would be mixed. Faced with higher premiums, some enrollees would choose to work more hours, perhaps by taking a part-time job or by working more hours at an existing job if they were employed. However, certain enrollees with relatively low income might choose to work fewer hours in order to become eligible for Medicaid, which could cover the Part B premium. Additionally, the labor supply of younger people who were not yet enrolled in Medicare would probably also increase, and they would most likely reduce their consumption in order to save more money to cover their expected future Medicare premiums. On net, the premium increase would probably increase total hours worked and reduce total saving economywide. However, because the premium increase would be modest relative to the average income of affected enrollees, the macroeconomic effects would probably be small.

Freezing the IRP thresholds (the second and third alternatives) would have more muted effects on the economy than increasing the basic premium. One reason for that outcome is that freezing the thresholds would affect considerably fewer people between 2024 and 2032 than would increasing the basic premium, so any response by affected enrollees would have a smaller effect on the overall economy. Additionally, in most cases, the premium increase for enrollees affected by freezing IRP thresholds would represent a smaller percentage of their (higher) income than would be the case for enrollees affected by an increase in the basic premium.

Other Considerations

Increasing the basic premium for Medicare Part B would increase costs for state Medicaid programs. States' costs would increase because Medicaid covers Part B premiums for most people enrolled in both Medicare and Medicaid, and states share in the costs of providing Medicaid benefits.

Option 5—Mandatory Spending Function 570

Reduce Medicare Advantage Benchmarks

Billions of Dollars	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	Total 2023–2027	Total 2023–2032
Change in Outlays	0	0	-15	-37	-47	-56	-48	-58	-63	-68	-99	-392

This option would take effect in January 2025.

Background

The Medicare Advantage program allows Medicare beneficiaries—people age 65 or older and those with disabilities—to enroll in private plans for their Medicare coverage instead of the publicly administered Medicare fee-for-service (FFS) program. About 26 million Medicare beneficiaries (or 42 percent of that population) were enrolled in a Medicare Advantage plan in 2021. Those private plans cover nearly all services, except for hospice care, that are included under Medicare Part A (Hospital Insurance) and Part B (Medical Insurance). Most plans also provide the prescription drug benefits covered under Part D and other benefits as well. Those other benefits include reduced cost sharing for services covered under Parts A and B and coverage of additional services, such as vision or dental care, that are not provided by Medicare FFS. More than 90 percent of beneficiaries have the option of enrolling in a Medicare Advantage plan that includes prescription drug coverage for no additional premium beyond the Part B premium. However, about one-third of Medicare Advantage beneficiaries enroll in plans that charge an additional premium.

Beneficiaries who enroll in Medicare FFS can purchase a separate medigap plan that covers a portion of their cost sharing, but premiums for those plans tend to be much higher than premiums for Medicare Advantage plans. The federal government pays Medicare Advantage plans a fixed amount for each beneficiary and the plans then bear the cost of any health care expenses incurred by the beneficiary for services covered by the plan.

Payments to Medicare Advantage plans depend in part on bids that the plans submit—indicating the per capita amount they will accept for providing the benefits covered by Parts A and B—and in part on how those bids compare with predetermined benchmarks set by the federal government. (Plans that provide prescription drug benefits also receive an additional payment from the Part D program that is not related to those benchmarks.) Most plans bid below the benchmark, and they receive their bid plus a rebate. That rebate—equal to a percentage of the difference between the bid and the benchmark—must be devoted primarily to reducing premiums for Part B or Part D, reducing cost sharing, or covering additional services that Medicare FFS does not cover. Those cost-sharing reductions and additional services can make Medicare Advantage plans more attractive to beneficiaries than Medicare FFS. The small share of plans that bid at or above the benchmark receive the benchmark and must collect an additional premium from enrollees that reflects any difference between the bid and the benchmark.

Payments are further adjusted using risk scores to reflect differences in beneficiaries' expected spending because of health conditions and other characteristics. Plans also receive additional payments—referred to as quality bonuses—that are tied to their average quality score. Quality scores are determined on the basis of a weighted average of ratings that reflect consumer satisfaction and the performance of plans' providers on a range of measures related to clinical processes and health outcomes.

Benchmarks are currently tied to the projected spending for an average beneficiary in Medicare FFS in the same county. Adjustments are made to decrease benchmarks in counties where those costs are projected to be high and to increase benchmarks in counties where those costs are projected to be low. Counties are divided into four equal groups, or quartiles, according to the ranking of their projected FFS costs. Counties in the lowest quartile of projected FFS costs are assigned benchmarks equal to those costs plus 15 percent, and counties in the second-lowest quartile are assigned benchmarks equal to their projected FFS costs plus 7.5 percent. Counties in the second-highest quartile are assigned benchmarks equal to their projected FFS costs, and counties in the highest

quartile of projected FFS costs are assigned benchmarks equal to their projected FFS costs minus 5 percent.

The Medicare Payment Advisory Commission estimates that the federal government pays Medicare Advantage plans an average of 4 percent more than it would cost the Medicare FFS program to cover a similar beneficiary (Medicare Payment Advisory Commission, 2022). Three main factors account for the fact that payments to Medicare Advantage plans exceed FFS costs.

- First, about half of the people enrolled in Medicare Advantage plans reside in counties in which benchmarks, by design, are constructed to exceed estimated FFS costs by 7.5 percent or by 15 percent.
- Second, beneficiaries in Medicare Advantage have higher estimated risk scores, on average, than similar beneficiaries in Medicare FFS, in part because Medicare Advantage plans have an incentive to record more health conditions. That incentive exists because a plan's payment increases when the risk scores of its enrollees increase. The Medicare Payment Advisory Commission estimates that payments to Medicare Advantage plans were 3.6 percent higher in 2020 as a result of their tendency to record more health conditions.
- Third, quality bonuses apply only to Medicare Advantage plans—creating an additional cost that does not apply to Medicare FFS enrollees.

The additional payments to Medicare Advantage plans are allocated in part to additional benefits for Medicare Advantage enrollees and in part to plans' administrative costs and profits.

Option

This option would reduce benchmarks in the Medicare Advantage program by 10 percent, beginning in January 2025. That reduction would be applied uniformly across all counties. All other methods for calculating payments to Medicare Advantage plans would continue as required under current law.

Effects on the Budget

The Congressional Budget Office estimates that reducing benchmarks by 10 percent would reduce mandatory spending by $392 billion from 2025 through 2032. That estimate reflects both the direct reduction in Medicare Advantage spending that would occur because of reduced benchmarks and the increase in spending that would result because some beneficiaries would shift from Medicare Advantage plans to Medicare FFS.

CBO estimates that, before accounting for changes in enrollment, the reduction in benchmarks would reduce federal spending on Medicare Advantage by $405 billion. That reduction in spending would represent 6.6 percent of spending on Medicare Advantage between 2025 and 2032 under current law. All else being equal, a reduction in benchmarks would cause payments to plans to decrease, primarily because rebates would be reduced. Some additional savings would occur as plans adjusted their bids in response to the benchmark reductions. Holding plans' bids constant, smaller rebates would reduce the benefits (additional services and cost-sharing reductions) that plans would be allowed to offer, making them less attractive to beneficiaries. In CBO's assessment, plans would lower their bids by about 50 percent of the reduction in benchmarks to avoid decreasing their benefits by the full amount of the benchmark reductions and thereby ensure that the plans remained attractive to enrollees.

Changes in enrollment in Medicare Advantage plans under the option would cause much smaller budgetary effects, increasing federal spending by $13 billion from 2025 through 2032. CBO estimates that the percentage of Medicare beneficiaries who enrolled in a Medicare Advantage plan would continue to grow under the option, but that percentage would grow more slowly than it would under current law. Recent evidence suggests that plans would largely shield beneficiaries from reductions in benefits by reducing their bids in response to cuts in benchmarks.

Although insurers would reduce their plan benefits by a small percentage of the lower benchmarks, Medicare Advantage plans would remain an attractive choice for beneficiaries for two reasons. First, CBO anticipates that plans would reduce the benefits that enrollees value the least and retain the benefits that enrollees value the most. Second, plans would continue to offer coverage at a lower out-of-pocket cost to beneficiaries than the cost beneficiaries would pay to enroll in Medicare FFS and purchase a medigap plan. For those reasons, most people who enrolled in Medicare Advantage under current law would continue to find Medicare Advantage plans attractive, but a small percentage of beneficiaries would respond to the reductions in plan benefits by choosing not to enroll in a Medicare Advantage plan. In CBO's estimation, after the reduction in benchmarks, the

federal government would pay slightly more, on average, to cover those beneficiaries in the Medicare FFS program than it would have if they enrolled in a Medicare Advantage plan. Changes in enrollment would therefore offset a small portion of the budgetary savings.

CBO anticipates that some plans might exit the Medicare Advantage market, but the budgetary effects of such actions would be minimal. Medicare Advantage insurers have canceled plans in some markets in response to past policy changes. However, most enrollees in canceled plans have been able to enroll in another Medicare Advantage plan.

CBO also anticipates that, to some extent, the amount of savings would increase or decrease proportionally with the reduction in benchmarks. Reducing benchmarks by an amount that was smaller than 10 percent would decrease the amount of savings by a roughly proportional amount. However, reducing benchmarks by a much larger amount than 10 percent (for example, by 20 percent or more) would increase savings by a smaller than proportional amount. Those very large reductions would lead to less than proportional savings because they would be more likely to cause private plans to exit the Medicare Advantage program in large numbers and lead more beneficiaries to enroll in the Medicare FFS program.

Uncertainty About the Budgetary Effects

The two largest sources of uncertainty underlying CBO's estimates are as follows: the extent to which plans would adjust their bids, and the extent to which fewer Medicare beneficiaries would enroll in Medicare Advantage plans in response to the reduction in benchmarks. CBO projects that plans would adjust their bids to partially offset reduced benchmarks. However, those adjustments could be larger or smaller than CBO anticipates. If plans reduced their bids by more than the agency anticipates, the budgetary savings would be larger, and if plans reduced their bids by less than CBO anticipates, the savings would be smaller.

Additionally, reducing benchmarks could affect people's decisions about enrolling in Medicare Advantage to a greater or lesser degree than the agency expects. CBO anticipates that most beneficiaries would continue to find Medicare Advantage plans attractive under the option, because plans would adapt to payment reductions in ways that would preserve the benefits enrollees value most; thus, in the agency's estimation, enrollment in Medicare Advantage would continue to grow under the option, albeit more slowly than under current law. In recent years, even when benchmarks have decreased, new and existing Medicare beneficiaries have continued to enroll in Medicare Advantage plans. However, if plans increased premiums or reduced the generosity of benefits in response to lower plan payments by more than CBO anticipates, then enrollment in Medicare Advantage could grow more slowly or decline. Slower growth in enrollment would decrease estimated savings. Alternatively, if enrollment did not change at all in response to lower benchmarks, then savings under the option would be larger than CBO estimates.

The budgetary effects of the option could also differ from CBO's estimates if other actors, such as regulators, responded in ways that the agency did not anticipate. For example, the budgetary savings could be smaller if the Centers for Medicare & Medicaid Services took steps to increase other types of payments to Medicare Advantage plans—as they did following the payment reductions enacted under the Affordable Care Act.

Distributional Effects

Because this option would affect the Medicare-enrolled population, it would primarily affect people age 65 or older, as well as people under 65 with long-term disabilities. In CBO's baseline projections of the distribution of income, income includes Social Security and Medicare benefits. As a result, people age 65 or older are slightly more likely than others to be in higher-income households. However, the reductions in the generosity of benefits under this option would be concentrated among Medicare beneficiaries who are currently enrolled in a Medicare Advantage plan. Those beneficiaries are more likely to have low to moderate household income than beneficiaries enrolled in the Medicare FFS program (Koma, Cubanski, and Neuman, 2021). Effects would also vary by geography within the Medicare Advantage program because enrollment, plan participation, and payments vary widely across counties under current law.

Medicare beneficiaries might not be the only group affected by the reduction in benchmarks. CBO anticipates that insurance companies that provide Medicare Advantage plans would reduce their bids in response to the lower benchmarks, which would reduce the profitability of those companies. As a result, the shareholders and employees of those companies would probably also be affected by the reduction in benchmarks.

Economic Effects

In addition to having the behavioral effects reflected in conventional budget estimates, such as the ones shown above, this option could affect people's decisions about saving and work. Those effects would be small or negligible. The option could have a very small effect on the saving behavior of Medicare beneficiaries. As Medicare Advantage plans became less generous, enrollees' out-of-pocket costs would increase. People could pay those additional costs by spending less on other goods and services, or by saving less. The option would have little impact on individuals' decisions about work. Some people might delay retirement and work longer because their choices for health insurance coverage in retirement would become less generous, but that effect would be very small. The option probably would not affect the labor supply decisions of existing Medicare beneficiaries who were already retired or not working for other reasons.

Other Considerations

CBO estimates that, under current law, Medicare's Hospital Insurance Trust Fund will be exhausted in 2030 when outlays will exceed the trust fund's available balance. This option would extend the exhaustion date for the trust fund a few years beyond 2032, which is the end of the agency's current 10-year budget window.

The option would also make it more likely that the Medicare Advantage program would attain one of its stated goals—achieving savings for the Medicare program. Over the course of the program's history, the federal government has paid private plans more than it would have cost Medicare to cover similar beneficiaries under the traditional FFS program. In some counties, where Medicare Advantage payments are much higher than FFS costs, those payments would continue to be higher than FFS costs under the option. In other counties, where payments are already close to or below FFS costs, Medicare Advantage payments would be lower than FFS costs.

Two other goals of the Medicare Advantage program are to provide beneficiaries with choices for their Medicare coverage and to provide additional benefits not offered under Medicare FFS. Although the number of plans might decrease in some areas, Medicare beneficiaries would continue to have access to a wide set of choices of private plans under this option, in CBO's assessment. However, the benefits available in those plans would become less generous because plans would not fully absorb the reductions in benchmarks by increasing their efficiency or lowering their profits. Additionally, some plans might begin charging a premium, and others might increase their premiums. Beneficiaries would continue to have lower out-of-pocket expenses for health care services and premiums if they enrolled in a Medicare Advantage plan than they would if they received their coverage through Medicare FFS and purchased a medigap plan that provided the types of reduced cost sharing that are typically included in Medicare Advantage plans.

Works Cited: Medicare Payment Advisory Commission, *Report to the Congress: Medicare Payment Policy* (March 2022), Chapter 12, https:/tinyurl.com/y85xwnpt; Wyatt Koma, Juliette Cubanski, and Tricia Neuman, *A Snapshot of Sources of Coverage Among Medicare Beneficiaries in 2018* (Kaiser Family Foundation, March 2021), https://tinyurl.com/mr4daaze

Option 6—Revenues

Reduce Tax Subsidies for Employment-Based Health Insurance

Billions of Dollars	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	Total 2023–2027	Total 2023–2032
Limit the Income and Payroll Tax Exclusion for Employment-Based Health Insurance to the 50th Percentile of Premiums												
Change in Mandatory Outlays	0	0	0	1.0	1.8	2.3	2.6	3.4	3.3	4.1	2.8	18.4
Change in Revenues[a]	0	0	0	68.2	104.1	117.8	131.8	146.6	162.7	180.5	172.2	911.6
Decrease (-) in the Deficit	0	0	0	-67.2	-102.3	-115.5	-129.1	-143.2	-159.5	-176.4	-169.4	-893.2
Limit the Income and Payroll Tax Exclusion for Employment-Based Health Insurance to the 75th Percentile of Premiums												
Change in Mandatory Outlays	0	0	0	0.6	1.7	1.9	2.1	2.4	2.4	3.0	2.3	14.0
Change in Revenues[a]	0	0	0	35.0	54.7	63.8	73.3	83.6	95.2	108.1	89.7	513.7
Decrease (-) in the Deficit	0	0	0	-34.4	-53.0	-61.9	-71.2	-81.2	-92.9	-105.1	-87.4	-499.8
Limit Only the Income Tax Exclusion for Employment-Based Health Insurance to the 50th Percentile of Premiums												
Change in Mandatory Outlays	0	0	0	-0.1	0.5	0.7	0.6	1.1	1.0	1.6	0.4	5.4
Change in Revenues[a]	0	0	0	48.8	74.6	84.6	94.9	105.8	117.6	130.4	123.4	656.8
Decrease (-) in the Deficit	0	0	0	-48.9	-74.1	-84.0	-94.3	-104.7	-116.6	-128.9	-123.0	-651.4

Data sources: Staff of the Joint Committee on Taxation; Congressional Budget Office.

This option would take effect in January 2026.

a. Estimates include the effects on Social Security payroll tax receipts, which are classified as off-budget.

Background

The federal tax system provides preferential treatment for health insurance that people buy through an employer. That treatment applies to payments and contributions made both by employers and by employees. Unlike cash compensation, employers' payments for their employees' health insurance premiums are excluded from income and payroll taxes. For about 90 percent of workers enrolled in employment-based coverage, the amount they pay for their share of health insurance premiums is also excluded from income and payroll taxes. Those workers are enrolled in what are often referred to as cafeteria plans, which allow them to choose between a taxable benefit, such as cash wages, and nontaxable fringe benefits.

The federal tax system, as well as most state tax systems, also subsidizes health care costs not covered by insurance by excluding from income and payroll taxes the contributions made to various health spending accounts that employees can use to cover those costs. Examples include employees' contributions to flexible spending arrangements (FSAs), employers' contributions to health reimbursement arrangements (HRAs), and employers' and employees' contributions to health savings accounts (HSAs). On average, the exclusion from taxation of premiums and contributions to health spending accounts provides larger subsidies for people who have higher income (and, generally, higher tax rates) or more expensive health insurance plans.

By subsidizing employment-based health insurance, the tax exclusion encourages firms to offer a more generous benefit package to recruit and retain employees. The exclusion also encourages workers to enroll in employment-based insurance rather than other types of insurance, such as that obtained through the nongroup market. (The nongroup health insurance market is the private market in which individuals and families purchase health insurance directly from an insurer rather than obtaining it through a group purchaser, such as an employer or a union.) The exclusion also encourages firms to offer health coverage with lower cost sharing (such as plans without a deductible), more covered services, and broader provider networks. In 2019, according to the Medical Expenditure Panel Survey, 85 percent of private-sector employees worked for an employer that offered health insurance coverage; 78 percent of those employees were eligible for that coverage (the rest were ineligible for various reasons, such as working

only part time); and 73 percent of those eligible workers chose to enroll in a plan offered by their employer. Most eligible workers who choose not to enroll in a plan offered by their employer are covered by a plan offered by the employer of a spouse or parent. In 2022, the Congressional Budget Office estimates, 58 percent of Americans under the age of 65, or 156 million people, have health insurance based on their own employment or the employment of a family member.

The favorable tax treatment of employment-based health benefits is one of the federal government's largest tax expenditures. (Tax expenditures are exclusions, deductions, preferential rates, deferrals, and credits in the tax system that resemble federal spending in that they provide financial assistance for specific activities, entities, or groups of people.) Including effects on both income taxes and payroll taxes, that expenditure is projected to total $641 billion in 2032.

This option would limit the exclusion of employment-based health insurance from taxation, thereby increasing tax revenues and reducing federal deficits. That approach would largely preserve the current-law structure that gives preferential tax treatment to employment-based coverage. Other approaches to subsidizing employment-based coverage that are not considered here could also be structured to raise additional revenue and would present different trade-offs. For example, a flat refundable tax credit would provide an incentive for people to take up health insurance and would not influence the type of insurance or provide larger subsidies to workers with higher income or more expensive insurance plans.

Key Design Choices

If lawmakers wanted to reduce the tax subsidies for employment-based health insurance by limiting the tax exclusion, they would face a number of decisions about how to do so. Those key design choices include the following:

- Whether to subject only contributions to health insurance premiums to taxation or whether to also include contributions to various health spending accounts, such as FSAs, HRAs, and HSAs;
- Whether to set a limit on how much of those contributions can be excluded from taxable income or fully eliminate the tax exclusion; and
- Whether to subject the contributions to income taxes, payroll taxes, or both.

What Types of Contributions to Tax. One decision facing lawmakers would be whether to tax only the contributions that employers and employees make to health insurance premiums or whether to also tax payments to accounts such as FSAs, HRAs, and HSAs. Taxing all health-related contributions would raise more revenue than subjecting only premium contributions to taxation. Taxing only premium contributions would create an incentive for employers to contribute more to those other health-related accounts and less to premiums to avoid taxes.

Whether to Fully or Partially Eliminate the Tax Exclusion. Another decision facing lawmakers would be whether to tax all contributions, thereby eliminating the exclusion, or only some of them. For example, the exclusion could be retained, but with an upper limit that applied to all taxpayers, or the exclusion could be phased down for higher-income workers. Such limits could also be allowed to vary according to the composition of an employer's workforce. That is, certain workforce characteristics—such as age, sex, occupation, or location—that are associated with workers' average health care costs could be taken into consideration when setting the limit for a firm. In general, making a larger share of premium contributions subject to taxation (through lower limits on the exclusion) would lead to a larger increase in revenues relative to current law.

Additionally, if a limit was placed on the exclusion, lawmakers would need to decide whether and how to increase that limit over time. If the limit was indexed to the rate of inflation for health insurance premiums, then a roughly constant share of plan premiums would exceed the limit and be subject to some taxation. The limit could also be indexed to the rate of overall inflation for all goods and services, which has tended to be lower than the growth rate of health insurance premiums. If the limit did increase more slowly than premiums, an increasing share of plans would be affected by the option over time.

What Types of Taxes to Impose. Lawmakers would also need to decide whether to subject the contributions to income taxation, payroll taxation, or both. On average, workers enrolled in employment-based plans face higher federal income tax rates than payroll tax rates. CBO and the staff of the Joint Committee on Taxation (JCT) estimate that those workers' average marginal income tax rate—the percentage of an additional dollar of income that is paid in income taxes—would be about 18 percent

in 2026, whereas their average marginal payroll tax rate (including both the employer's and the employee's shares of payroll taxes) would be about 14 percent. Therefore, subjecting contributions to income taxation would raise more revenue than subjecting them to payroll taxation, all else being equal, and doing both would raise the most revenue. Because higher-income workers face higher income tax rates, subjecting contributions to income taxation only would raise a greater share of revenue from higher-income households than would subjecting contributions to both payroll and income taxes.

Option

This option consists of three alternatives that would limit the tax exclusion for contributions to health insurance premiums and health spending accounts. Each of those alternatives would go into effect in January 2026:

- Under the first alternative, the exclusion of all health-related contributions from income and payroll taxes would be limited to the 50th percentile of employment-based health insurance premiums and then indexed for overall inflation in subsequent years.
- Under the second alternative, that exclusion from income and payroll taxes would be limited to the 75th percentile of premiums and then indexed for overall inflation in subsequent years.
- Under the third alternative, the exclusion from income taxes would be limited to the 50th percentile of premiums and indexed for overall inflation in later years, but the exclusion from payroll taxes would continue without limit.

Limit the Income and Payroll Tax Exclusion to the 50th Percentile of Premiums. The first alternative would impose a limit on the extent to which employers' and employees' contributions for health insurance premiums—and to FSAs, HRAs, and HSAs—could be excluded from income and payroll taxation. Specifically, starting in 2026, the total amount of contributions for a worker's premiums and health spending accounts that exceeded $8,900 a year for individual coverage and $21,600 a year for family coverage would be included in the worker's taxable income—that is, contributions exceeding those limits would be subject to both income and payroll taxes. Those limits would be based on the 50th percentile of employment-based health insurance premiums in 2024, meaning that 50 percent of all premiums for single and family coverage would be below those respective amounts in that year. To set the tax exclusion limits in 2026 and later years, those 2024 premium percentiles would be indexed for inflation using the chained consumer price index for all urban consumers (chained CPI-U), one measure of overall price inflation. The same limits would apply to the deduction for health insurance available to self-employed people.

Limit the Income and Payroll Tax Exclusion to the 75th Percentile of Premiums. Like the first alternative, the second alternative would impose limits on the extent to which contributions could be excluded from income and payroll taxation. Under this alternative, however, the limits would be higher: $11,200 a year for individual coverage in 2026 and $27,600 a year for family coverage. Those limits would be based on the 75th percentile of employment-based health insurance premiums in 2024, meaning that 75 percent of all premiums for single and family coverage would be below those respective amounts in that year. To set the tax exclusion limits in 2026 and later years, those percentiles would be inflated using the chained CPI-U.

Limit Only the Income Tax Exclusion to the 50th Percentile of Premiums. The third alternative would impose a limit on the extent to which contributions could be excluded from income taxation, but the exclusion for payroll taxation would remain unlimited. Starting in 2026, contributions that exceeded $8,900 a year for individual coverage and $21,600 a year for family coverage would be included in employees' taxable income and subject to income taxes. Those are the same limits as the ones described in the first alternative, and they, too, would be indexed for inflation using the chained CPI-U.

Effects on the Budget

In general, each of this option's alternatives would reduce federal deficits by increasing tax revenues. However, each alternative would also affect outlays. The changes in outlays reflect increased spending on Medicaid, the Children's Health Insurance Program (CHIP), and subsidies for health insurance purchased through the marketplaces established by the Affordable Care Act, as well as decreased spending on refundable tax credits.

Limit the Income and Payroll Tax Exclusion to the 50th Percentile of Premiums. The first alternative would decrease cumulative federal deficits by $893 billion between 2026 and 2032, CBO and JCT project. Revenues would rise primarily because many of those who retained employment-based coverage would receive a smaller benefit from the tax exclusion. (For

example, in 2032, the capped tax exclusion would reduce the combined federal income and payroll tax liability of policyholders with employment-based coverage by an average of about $5,100; the current-law exclusion reduces that liability by an average of about $7,200.) The benefit from the tax exclusion would be reduced for two main reasons: First, some workers would enroll in lower-premium plans to avoid taxation, resulting in higher taxable wages and profits. Second, some premium contributions would exceed the threshold and be treated as taxable income. To a lesser extent, revenues would also rise because the number of people with employment-based coverage would decline.

Large employers (those who employ 50 or more people) are required by law to provide affordable health insurance to their employees or be subject to certain penalties. Additional penalty payments by large employers who no longer offered health insurance coverage to their employees would also increase revenues, although by only a very small amount. However, additional tax credits for health insurance purchased through the marketplaces would reduce revenues. In all, revenues through 2032 would be $912 billion higher than under current law.

Those increased revenues would be offset, to a small degree, by $18 billion in additional outlays—primarily because of increased subsidies for health insurance purchased through the marketplaces and increased spending on Medicaid and CHIP. By reducing the appeal of employment-based health insurance, this alternative would also cause about 3.5 million fewer people to have such coverage in 2032 than would be the case under current law. Of those people, about 1.1 million would buy health insurance directly through the nongroup market (that is, either in the health insurance marketplaces or from insurers outside of the marketplaces), about 0.6 million would enroll in Medicaid or CHIP, and about 1.8 million would be uninsured.

Limit the Income and Payroll Tax Exclusion to the 75th Percentile of Premiums. The second alternative would decrease cumulative federal deficits by $500 billion by 2032, CBO and JCT estimate. Specifically, the alternative would increase revenues by $514 billion and outlays by $14 billion. Although revenues and outlays would increase for the same reason that they would under the first alternative, the changes would be smaller under this alternative because the tax-exclusion threshold would be higher. Consequently, fewer plans and fewer premium dollars would be subject to taxation. Also, like the first alternative, this one would reduce the appeal of employment-based health insurance, causing about 2.1 million fewer people to have such insurance in 2032 than would have it under current law. Of those people, roughly 600,000 would buy health insurance through the nongroup market, about 400,000 would enroll in Medicaid or CHIP, and about 1.1 million would be uninsured.

Limit Only the Income Tax Exclusion to the 50th Percentile of Premiums. The third alternative would decrease cumulative federal deficits by $651 billion by 2032, CBO and JCT estimate. Revenues would be $657 billion higher, and outlays would be $5 billion higher. The amount of revenues collected would be smaller than under the first alternative because health insurance contributions would still be exempt from payroll taxation. Outlays would offset revenues to a lesser degree than under the first and second alternatives because fewer people who gave up employment-based insurance would enroll in subsidized health insurance. This alternative would cause about 2.6 million fewer people to have employment-based insurance in 2032 than would be the case under current law. Of those people, about 800,000 would buy health insurance through the nongroup market, about 400,000 would enroll in Medicaid or CHIP, and about 1.3 million would be uninsured.

Differences in Revenue Effects Across the Alternatives. The first alternative, which would set a limit for the tax exclusion at the 50th percentile of premiums, would generate substantially more revenue in 2032 than the second alternative, which would set a limit at the 75th percentile. In 2032, for example, the first alternative would raise $181 billion in additional revenues, whereas the second alternative would raise $108 billion in revenues, a difference of $73 billion. Setting the limit at the lower threshold would generate two-thirds more revenue because it would affect a larger share of plans and would generate more revenue for each plan that was affected. Because of those two factors, a simple, linear relationship between the percentile used to set the limit and the amount of revenues collected does not exist. Therefore, the difference in the amount of revenues that would be generated by the first and second alternatives should not be used to approximate the change in revenues from setting the limit at other percentile points.

Differences in Deficit Effects Over Time. The net deficit reduction resulting from each alternative would grow substantially over time. The first alternative would reduce the deficit by $67 billion in 2026, and that amount would grow to $176 billion by 2032. For the second alternative, the deficit reduction would grow

from $34 billion in 2026 to $105 billion in 2032. The third alternative would reduce the deficit by $49 billion in the first year of the 2026–2032 period and by $129 billion in the last. The increasing amount of deficit reduction under each alternative would be the result of indexing the exclusion thresholds to the chained CPI-U, which would increase the threshold amounts more slowly than the projected growth of health insurance premiums under current law. Over time, that effect would increase the share of workers with plans subject to taxation and increase the share of premiums above the threshold for those plans.

Analytic Methods. Each alternative was estimated using CBO and JCT's microsimulation models. Those models use a combination of detailed survey and administrative data to construct a nationally representative sample of employers and individuals in order to estimate the distribution of health insurance coverage, premiums, and taxes under both current law and different policy scenarios. The microsimulation models were particularly useful for capturing the effects of this option because they approximate a wide range of behavioral responses that different types of employers and households would make in response to the policy changes. For each alternative, the agencies' models calculated the after-tax price for employment-based insurance (accounting for the reduction in the tax exclusion), computed the cost of insurance coverage choices available to workers on the basis of their household's characteristics, and then estimated firms' decisions to offer health insurance and households' choices to enroll in such insurance. Those models also accounted for the fact that some firms and workers would substitute less expensive coverage—such as that available through high-deductible health insurance plans or health maintenance organizations (HMOs)—to reduce their taxes under the option. Finally, CBO and JCT used that estimated enrollment to calculate the total tax revenues that would be generated by reducing the tax exclusion and the offsetting spending increases on subsidies for other types of coverage.

Uncertainty About the Budgetary Effects

These estimates reflect complex interactions among many entities—including employers, households, and insurers—and are therefore inherently uncertain. One substantial source of uncertainty is whether and how insurers would reduce premiums to minimize or avoid the taxation of employers' and employees' health-related contributions. Insurers could adjust coverage in many ways: They could change the scope of benefits, patients' cost sharing, the breadth of the network, utilization management, administrative expenses, or prices negotiated with health care providers. A 2016 survey conducted by the Kaiser Family Foundation and the Health Research & Educational Trust (Claxton and others, 2016) found that a small share of employers had taken steps to reduce premiums because the Affordable Care Act's excise tax on high-cost, employment-based health coverage was scheduled to take effect in 2020. (That tax was repealed in 2019.) If insurers were better able than anticipated to lower premiums to avoid taxation, the option would probably reduce employment-based coverage by less than CBO and JCT project. However, the option would still reduce the deficit by about the same amount that CBO and JCT estimate. That is because the lower premiums would reduce the additional revenues generated by the taxation of health care contributions but would also result in higher taxable wages and salaries.

An additional source of uncertainty is employers' willingness to continue offering health insurance without the full benefit of the tax exclusion. In general, federal deficits would be reduced by larger amounts if fewer workers enrolled in employment-based health insurance under the alternatives. They would be reduced by smaller amounts if more workers remained enrolled in such insurance. Firms offer health insurance to compete for workers in the labor market. If many employers still felt the need to continue offering coverage despite the higher costs under the option, other employers might be pressured to offer such coverage as well, leading to a smaller than anticipated decline in offers and a smaller than anticipated reduction in deficits. However, if employers perceived that many workers would prefer wages (or other forms of compensation) to more costly health insurance under the option, more firms could choose not to offer such coverage, leading to a larger than anticipated reduction in the deficit. In general, there is greater uncertainty about the effects of larger reductions in the tax exclusion, such as those that would occur under the first alternative, because the empirical literature has primarily addressed small changes to the after-tax price of employment-based insurance.

Another source of uncertainty relates to the share of workers with an offer of employment-based insurance who would enroll in that insurance under the option. Each alternative would increase the amount paid by affected workers for their insurance coverage, including

their premium contributions and the taxes they pay on contributions exceeding the limit. CBO and JCT expect that those higher costs would cause some workers who would have enrolled in such insurance under current law to decline that coverage. If more workers than anticipated decided to decline coverage under the option, a larger reduction in the deficit would result because a greater share of total compensation would be subject to taxation. However, if fewer workers than anticipated declined coverage under the option, the deficit reduction would be smaller because, for workers enrolling in employment-based insurance, the premium amount above the threshold would be taxed.

In addition, the estimates are sensitive to growth in premiums for employment-based health insurance. For example, if premiums for such coverage grew faster than in CBO and JCT's baseline projections, fewer people would obtain such coverage, all else being equal. Under the alternatives discussed here, faster growth in premiums relative to the chained CPI-U would increase the revenues collected by the federal government because a larger share of premiums would exceed the alternatives' thresholds and would become taxable compensation. However, fewer workers would have employment-based coverage both under current law and under the option if premiums for employment-based coverage grew at faster rates than CBO and JCT project; therefore, the net effect of the option on the deficit could be larger or smaller than the estimates presented here.

Long-Term Effects

Although these alternatives would preserve much of the benefit of the tax exclusion in the first few years after enactment, the longer-term effects would depend significantly on how quickly premiums for employment-based health insurance grew relative to the index (the chained CPI-U) used to increase the limits under the alternatives. By design, in 2024, when the caps would be set, about half of all plans would not be subject to the limits specified by the first and third alternatives, and three-quarters of plans would not be subject to the limits specified in the second alternative. However, CBO and JCT anticipate that, under current law, private health insurance premiums will continue to grow faster than the chained CPI-U. At those current-law growth rates, the agencies expect, about 29 percent of premiums for employment-based plans would be below the limits imposed by the first and third alternatives by 2032, and 50 percent of premiums would be below the limits specified by the second alternative.

Insurers and employers could take several approaches to keep premiums under the option's limits to avoid taxation. If those approaches were largely successful at slowing the growth of premiums for employment-based coverage, the federal government would collect relatively little revenue on premium contributions that exceeded those limits and more revenue on taxable wages and profits. However, if premiums continued to grow faster than the chained CPI-U under the alternatives, substantially more plans would be subject to the limits under these alternatives, particularly after 2032, and a much larger share of premiums for those plans would be taxed. Those taxes would increase employers' and employees' effective health insurance costs and could lead to a considerable decline in the number of employers that offered health insurance.

Distributional Effects

Limiting the tax exclusion for employment-based health insurance would not have a uniform effect on households across the income distribution. Households without employment-based coverage, which tend to have lower income than those with that coverage, would not be directly affected by this option. All three alternatives would increase the after-tax cost of health insurance for workers whose premiums exceeded the limit, regardless of income level. However, in general, the value of the tax exclusion is greater for workers with higher income, partly because those workers face higher tax rates and because they are more likely to be offered coverage by their employer. In addition, higher-income workers are typically offered more generous plans with higher premiums and are more likely to have accounts such as FSAs and HSAs, further increasing the value of the tax exclusion. As a result, most methods of limiting the tax exclusion would reduce the benefit of the exclusion more for higher-income households than for lower-income households.

The distributional effects would depend on design choices. For example, higher-income households face higher income tax rates but pay lower payroll tax rates because only earnings up to a maximum, which is $147,000 in 2022, are subject to Social Security payroll taxes. As a result, the effects of the third alternative, limiting the exclusion from income taxation only, would fall more heavily on higher-income households than would the effects of the other two alternatives.

Economic Effects

In addition to having the behavioral effects reflected in conventional budget estimates, such as the ones shown

above, limiting the tax exclusion for employment-based health insurance would, to a certain degree, alter the incentives for people to work and affect how employers structure their compensation to compete for workers. For people who highly value health insurance, a reduction in the share of total labor compensation that consists of health insurance would more strongly reduce their incentive to work than it would for those who might prefer other forms of compensation, such as wages. As a result, this option would reduce work incentives more for older people or for those with high expected health care utilization than for younger or healthier people.

For employers, the option would marginally limit the incentive for them to compete for workers by offering more generous health insurance, particularly if that additional generosity caused a plan's premium to exceed the limit. That change in incentives would lead firms to use other forms of compensation to compete in the labor market. By increasing the cost of offering health insurance, the option would disproportionately affect firms that have workforces with high health care spending or that operate in areas with above-average health care costs. Without adjustments to the tax-exclusion limits for workforce characteristics that are associated with higher spending, such as age or sex, those limits could discourage employers from hiring workers that were expected to have higher health care costs or to reduce the compensation of those workers. Similarly, to minimize health care costs, larger firms operating in multiple locations would have an increased incentive to limit operations in high-cost areas.

Other Considerations

Reducing tax subsidies for employment-based health insurance would affect many aspects of health care in the United States, including employers' decisions about offering health insurance, the cost of health care, health insurance coverage, adverse selection, and the health of the population.

Effects on Employers' Decisions About Offering Health Insurance. Placing a limit on the tax exclusion would cause fewer employers to offer health care coverage than would be the case under current law. CBO and JCT estimate that the first alternative would cause 600,000 fewer workers to receive an offer of employment-based insurance than the 109 million workers who, under current law, are projected to receive an offer in 2032. That effect would be smaller under the second and third alternatives, though fewer firms would offer insurance under those alternatives as well. The agency expects that fewer employers would offer health insurance coverage under this option because its after-tax cost would increase, and research has shown that—accounting for the tax exclusion—the price of coverage influences the decisions that firms make about offering health insurance.

Effects on Health Care Costs. Placing a limit on the tax exclusion would make total health care spending lower than it would be under current law. The alternatives examined here would increase taxes for a large share of employment-based plans, particularly those providing more generous benefits or covering more expensive workforces. Those higher taxes would give employers an increased incentive to offer lower-premium plans that exclude high-cost providers, cover fewer services, and require enrollees to pay a larger share of the costs out of pocket than under current law. In addition, that increase in tax liability might lead employers to exert additional pressure on insurers and health care providers to reduce prices or decrease unnecessary care. Those strategies would potentially reduce the income of health care providers, which could reduce the supply of care.

Effects on Health Insurance Coverage. The tax increases that would result from these alternatives would affect health insurance coverage through two main mechanisms. First, fewer employers would offer health insurance to their employees. Although most people whose employers stopped offering health insurance would instead buy coverage in the nongroup market or enroll in Medicaid or CHIP, CBO and JCT anticipate that some workers would forgo coverage. Second, for many workers at firms that continued to offer coverage, the cost of that coverage would increase, because part of their premium contribution would be taxed. In addition, the benefits of that coverage would decrease, because employers would offer plans with higher cost sharing, fewer covered services, or narrower networks. That increase in costs coupled with a decrease in benefits would reduce the share of workers with an offer of employment-based coverage who take up that coverage. CBO and JCT estimate that the take-up rate would decrease from 83 percent under current law to 81 percent under the first alternative in 2032. (That change would be smaller for the second and third alternatives.) As with those workers who would no longer receive an offer of employment-based coverage under this option, some who chose not to take up coverage from their employer would enroll in other forms of health insurance and some would forgo such coverage.

Effects on Adverse Selection. In general, people who anticipate needing health care services are more likely to buy health insurance than otherwise similar people who do not need such services—a phenomenon often referred to as adverse selection. CBO and JCT expect that this option would, to a limited extent, increase the extent of adverse selection in employment-based insurance relative to current law. Specifically, healthier workers would be more likely than less healthy workers to forgo that coverage because of the higher costs and lower benefits under the option. The effects of that increase would probably be small over the 2026–2032 period because most workers would continue to enroll in employment-based health insurance if it was offered. However, in the longer term, as the value of the tax exclusion was more substantially reduced under this option, further reductions in enrollment by healthier workers might lead to more substantial increases in premiums and larger decreases in enrollment.

Effects on People's Health. By increasing the number of people without health insurance, all three of the alternatives analyzed here would reduce the amount of care received and worsen some people's health. Furthermore, depending on the strategies that employers and insurers chose to reduce premiums for employment-based health insurance, the alternatives could also worsen the health of those who continued to have that coverage. People with more generous insurance tend to use more health care services than those with less generous plans—a phenomenon often called moral hazard. Under the alternatives, enrollees in employment-based coverage would, on average, pay a larger share of their health care costs out of pocket. Those higher out-of-pocket costs would lead to a reduction in the total amount of health care services used by those enrollees. Evidence from the RAND Health Insurance Experiment suggests that increasing out-of-pocket costs for enrollees to curb premiums could worsen people's health by reducing the use of both effective and ineffective care (Brook and others, 2006). However, the experiment showed that more tightly managing care through the increased use of HMO plans is less likely to have negative health effects.

Related CBO Publications: *The Distribution of Major Tax Expenditures in 2019* (October 2021), www.cbo.gov/publication/57413; *Federal Subsidies for Health Insurance Coverage for People Under Age 65: 2018 to 2028* (May 2018), www.cbo.gov/publication/53826

Works Cited: Gary Claxton and others, *Employer Health Benefits: 2016 Annual Survey* (Kaiser Family Foundation and Health Research & Educational Trust, 2016), https://tinyurl.com/2rrpkztr; Robert H. Brook and others, *The Health Insurance Experiment: A Classic RAND Study Speaks to the Current Health Care Reform Debate*, Research Brief (RAND Corporation, 2006), www.rand.org/pubs/research_briefs/RB9174.html

Option 7—Mandatory Spending Function 650

Reduce Social Security Benefits for High Earners

Billions of Dollars	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	Total 2023–2027	Total 2023–2032
Change in Outlays												
Add a bend point at the 70th percentile of earners and reduce PIA factors over 9 years	0	*	*	-1	-1	-2	-4	-7	-10	-15	-2	-40
Add a bend point at the 50th percentile of earners and reduce PIA factors over 9 years	0	*	-1	-2	-4	-7	-12	-18	-27	-38	-7	-109
Add a bend point at the 50th percentile of earners and reduce PIA factors over 5 years	0	*	-1	-4	-7	-13	-21	-32	-45	-61	-12	-184

This option would take effect in January 2024.

Estimates include budgetary effects for Social Security benefits; that spending is classified as off-budget.

PIA = primary insurance amount; * = between -$500 million and zero.

Background

Social Security is the largest single program in the federal government's budget. It comprises two parts: Old-Age and Survivors Insurance (OASI) and Disability Insurance (DI). OASI pays benefits to retired workers, their eligible dependents, and some survivors of deceased workers. DI pays benefits to disabled workers and their dependents until those workers are old enough to claim full retirement benefits under OASI.

The Social Security benefit paid to a retired worker who claims benefits at the full retirement age or to a disabled worker is called the primary insurance amount (PIA). The Social Security Administration (SSA) calculates that amount using a formula applied to a worker's average indexed monthly earnings (AIME). A worker's AIME is a measure of average taxable monthly earnings; the average is taken over the 35 years in which a retired worker received the highest annual earnings.

The SSA separates the AIME into three brackets using two threshold amounts, often called bend points. In calendar year 2022, the first bend point is $1,024 and the second bend point is $6,172. The AIME in each of the three brackets is multiplied by three corresponding factors (90 percent, 32 percent, and 15 percent) to calculate the PIA; the largest factor applies to the bracket containing the lowest average indexed earnings. The benefit formula is thus progressive; that is, because PIA factors are larger for lower earning brackets, the benefit is larger as a share of lifetime earnings for someone with a lower AIME than it is for a person with a higher AIME. The bend points change each year with average wages, but the PIA factors do not change.

Key Design Choices

One way to reduce benefits for high earners is to decrease the share of their AIME that is counted in the PIA by adding a bend point in the PIA formula and changing the PIA factors for new beneficiaries with higher lifetime earnings. Three key design choices, with important implications for both budgetary savings and beneficiaries, would have to be made:

- Where to set the new bend point;
- What change to make to the PIA factors; and
- How to phase in the policy.

New Bend Point. Under current law, there are two bend points—the thresholds at which PIA factors change—in the benefit calculation formula. Adding a bend point would split one bracket, resulting in a total of four brackets. Where the new bend point was set would affect the number of beneficiaries whose benefits would change. It would also affect how much those beneficiaries' benefits would change.

PIA Factors. Reducing PIA factors would decrease the benefit amount for certain workers. Only new beneficiaries with an AIME at or above the bend points being

multiplied by a lower PIA factor (compared with those PIA factors under current law), would be affected. The lower the PIA factors and the lower the new bend point, the larger the number of beneficiaries that would be affected and the larger the benefit cut that the affected beneficiaries would receive.

Phase-in Period. Phasing in the change to the benefit calculation would avoid an abrupt drop in benefits for workers who were about to retire. A longer phase-in period would allow more time for beneficiaries to respond to the change. However, savings during the phase-in period would be smaller than those under an alternative that fully implemented the lower PIA factors in a shorter time.

Option

This option would create an additional bend point in the PIA formula and would change the PIA factors for new beneficiaries with higher lifetime earnings. People already receiving Social Security benefits would not be affected. The option consists of three alternatives, each of which would be phased in starting in January 2024.

Under the first alternative, a bend point would be added at the 70th percentile of earners—that is, about 70 percent of newly eligible beneficiaries would have an AIME below the new bend point. That bend point would be about $5,880 (in 2022 dollars). The bottom 70 percent of newly eligible beneficiaries would receive the same benefits as under current law; the top 30 percent of newly eligible beneficiaries (those whose AIME was at or above the new bend point) would receive smaller benefits than under current law.

PIA factors would also change under this alternative. The PIA factor for the lowest bracket would remain at 90 percent, and the factor would remain at 32 percent for the second-lowest bracket (although that bracket would be smaller than it is under current law). The PIA factor applied between the new bend point and the highest bend point would decrease from 32 percent to 10 percent, and the PIA factor applied above the highest bend point would be reduced from 15 percent to 5 percent. Those changes would be phased in over nine years (see the figure on the next page).

Under the second alternative, the additional bend point would be set at the 50th percentile of earners. The new bend point would be about $3,930 (in 2022 dollars). PIA factors would also change under this alternative. Like in the first alternative, they would be set at 90 percent, 32 percent, 10 percent, and 5 percent, and the changes would be phased in over nine years.

Under the third alternative, the new bend point would be added at the 50th percentile, as in the second alternative. PIA factors would change as in the first two alternatives and would be set at 90 percent, 32 percent, 10 percent, and 5 percent. However, unlike in the first two alternatives, the change to the PIA factors would be phased in over five years.

After implementation, benefits for all newly eligible beneficiaries would still increase over time, although people with relatively high lifetime earnings who were affected by this option would receive smaller benefits than they would under current law. The benefits for people with earnings below the new bend point would be unchanged from those scheduled under current law. Real benefits—that is, benefits adjusted to remove the effects of inflation—would be larger for future cohorts than for current cohorts.

Effects on the Budget

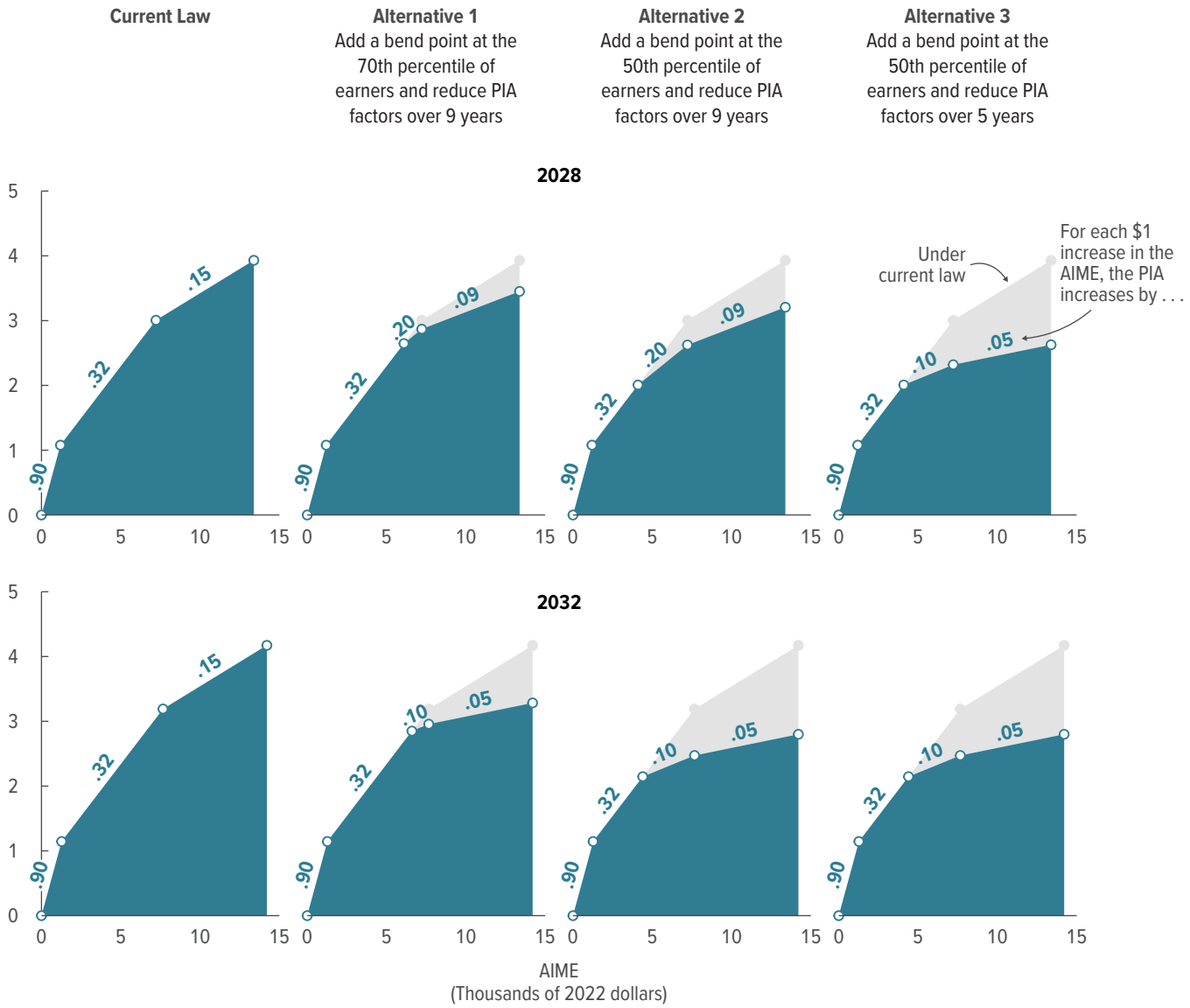
The first alternative, which would add a bend point at the 70th percentile of earners, would reduce Social Security outlays by a total of $40 billion through 2032, the Congressional Budget Office estimates. The second alternative, which would create an additional bend point at the 50th percentile, would reduce Social Security outlays by a total of $109 billion through 2032. And the third alternative would decrease Social Security outlays by $184 billion through 2032 because the changes would be phased in over a shorter period than in the second alternative.

Those estimates are based on CBO's projections of the number of beneficiaries who would be affected by the option and the average reduction in their benefits. Under the first alternative, CBO estimates that in 2032, about 30 percent of new beneficiaries would be affected and would receive smaller benefits than they would under current law. On average, those people would receive an average of 12 percent less in benefits under the first alternative than under current law.

Setting the new bend point at a lower percentile of the earnings distribution would affect more beneficiaries and reduce benefits by more for the people affected. As

Calculating Initial Social Security Benefits With Additional Bend Point Alternatives

PIA (Thousands of 2022 dollars)



Data source: Congressional Budget Office. See www.cbo.gov/publication/58164#data.

All three alternatives would be phased in starting in 2024. In 2028, the third alternative would be fully phased in. In 2032, the first and second alternatives would be fully phased in.

AIME = average indexed monthly earnings; PIA = primary insurance amount.

a result, the 10-year savings under the second alternative would be more than two-and-a-half times the savings under the first alternative. In 2032, under the second alternative, about half of new beneficiaries would receive benefits that were smaller than those they would receive under current law, CBO estimates. The people affected would receive an average of 20 percent less in benefits.

Benefits would be reduced more quickly and by larger amounts for affected beneficiaries under the shorter phase-in period of the third alternative. The 10-year savings under the third alternative would therefore be about 70 percent larger than the estimated savings under the second alternative. Under the third alternative, as under the second one, about half of new beneficiaries would receive benefits that are smaller than under current law

in 2032. On average, those people affected would receive 20 percent less. About half of beneficiaries—those with lower lifetime earnings—would not receive smaller benefits under this alternative.

Uncertainty About the Budgetary Effects

The overall savings from this option could be larger or smaller than shown for at least two reasons. First, savings may differ from those projected here because earnings may evolve differently than CBO currently projects. The share of workers with an AIME above the new bend point in the next 10 years is uncertain, and so savings from reducing benefits for those workers are also uncertain. Second, if the option induced beneficiaries to change when they claimed benefits, the short-term reductions in Social Security outlays could be very different than projected because the number of beneficiaries would change.

Changes in when people began claiming benefits would not alter lifetime benefits significantly, and the uncertainty about those changes would matter less in the long run than in the short term. That is because annual benefit amounts depend more on when people claim than lifetime benefits do. People who claim before their full retirement age receive smaller annual benefits than their full benefit amount but collect benefits for a longer time until they die, and people who claim after their full retirement age receive larger annual benefits because they will receive the delayed retirement credit, but they collect benefits for a shorter period.

Long-Term Effects

Annual savings from all three alternatives would continue to grow after 2032 as the new benefit structure applied to more beneficiaries. In all three alternatives, only people who were born in 1962 or later would be affected. Benefits paid to people born before 1962 would continue to be subject to the same formula as under current law. By the 2050s, nearly all beneficiaries would have been born in 1962 or later and the percentage of the beneficiaries receiving benefits under the new structure would approach 100 percent. Thereafter, the savings from this option would stabilize.

Social Security outlays under the first alternative would be 1 percent lower in 2032 than under current law and 5 percent lower in 2052. When measured as a percentage of total economic output, the program's outlays would total 6.0 percent of gross domestic product (GDP) in 2052, 0.3 percentage points lower than CBO projects under current law.

Under the second alternative, Social Security outlays would be 2 percent lower in 2032 and 11 percent lower in 2052 than under current law. When measured as a share of GDP, those outlays would be 0.7 percentage points lower in 2052 than scheduled under current law.

The third alternative would reduce Social Security outlays by 3 percent in 2032 relative to outlays scheduled under current law. In 2052, it would lower them by 12 percent (or 0.8 percentage points of GDP).

Those projections reflect the assumption that Social Security will continue to pay benefits as scheduled under current law, regardless of the status of the program's trust funds. CBO projects that, combined, the Social Security trust funds will be exhausted in calendar year 2033. Beyond that point, trust fund balances would no longer be available to make up the gap between benefits specified in current law and annual trust fund receipts. If CBO were to analyze a scenario in which benefits were limited to the amounts payable from dedicated funding sources after trust fund exhaustion, those payable benefits would be smaller than scheduled benefits beginning in 2034.

The three alternatives would also affect other measures of the Social Security program in the long term. The program has both dedicated revenue sources (in the form of payroll taxes paid by employees, employers, and self-employed people and income taxes on benefits) and trust funds. The sustainability of a program with those features is often measured by its estimated actuarial balance, which is the sum of the present value of annual income over a given period and the initial balance in the trust fund for that period, minus the sum of the present value of annual outlays over that period and the present value of a year's worth of benefits at the end of the period. For Social Security, that difference is traditionally presented as a percentage of the present value of taxable payroll or GDP over 75 years. A present value is a single number that expresses a flow of past and future income (in the form of tax revenues and other income) or payments (in the form of benefits and other outlays) in terms of an equivalent lump sum received or paid at a specific time. The value depends on the rate of interest, known as the discount rate, used to translate past and future cash flows into current dollars at that time.

The Social Security program is currently projected to have a negative actuarial balance (or an actuarial shortfall) over 75 years. All three alternatives would improve the program's 75-year actuarial balance. Considered as a share of GDP, the actuarial shortfall would decline by about 0.3 percentage points (about a 15 percent improvement compared with an actuarial shortfall of 1.7 percent of GDP under current law) under the first alternative. The second and third alternatives would both improve the 75-year actuarial balance, considered as a share of GDP, by 0.6 percentage points, a reduction of more than one-third from what would occur under current law.

Estimates of the actuarial balance do not account for revenues or outlays after the 75-year projection period. Outlays are projected to be larger than revenues at the end of that period, and although all three alternatives would shrink that gap relative to current law, none of the alternatives would eliminate it. In each case, that gap would persist after the 75th year. To put Social Security on a stable path beyond the 75th year, a policy would need to do more to address the gap between revenues and outlays.

Another common measure of Social Security's sustainability is a trust fund's date of exhaustion—the year in which its balance will reach zero. In CBO's projections, the combined Old-Age, Survivors, and Disability Insurance (OASDI) trust funds are exhausted in calendar year 2033. All three alternatives would delay the combined trust funds' projected exhaustion date by 1 year.

Distributional Effects

The Social Security program, on net, is progressive—that is, the benefits received from the program, measured relative to taxes paid into the program over the beneficiary's lifetime, tend to be higher for lower-income households than for higher-income households. This option would increase that progressivity. It would continue to provide the same Social Security benefits as scheduled under current law to people who have low lifetime earnings while reducing payments relative to current law for people with higher lifetime earnings.

This discussion focuses on two ways to examine the distributional effects of a change in Social Security benefits. One is to evaluate how the fully implemented changes would affect the distribution of household income in a given year. The other is to estimate the changes to the benefits people receive over their lifetime and how that would vary along the distribution of lifetime household earnings.

In a given year after implementation, the alternatives described here would reduce the income of people in higher-income households by more than they would reduce income for people in lower-income households when compared with incomes under current law. Most Social Security beneficiaries are age 65 or older. In CBO's baseline distribution of household income after transfers and taxes, income includes Social Security benefits. As a result, people in that age group are slightly more likely than others to be in higher-income households. Moreover, within that group, all of the alternatives described here would reduce benefits and income after taxes and transfers for higher-income beneficiaries but leave benefits and income after taxes and transfers for beneficiaries with lower income unchanged.

When considered in isolation, Social Security taxes are regressive—that is, people with higher earnings (in particular, those with earnings above the taxable maximum) pay a smaller percentage of their total earnings in payroll taxes than those with lower earnings. However, the regressivity of Social Security taxes is counterbalanced by the progressivity of Social Security benefits. Specifically, people with lower earnings during their lifetime tend to receive a larger share of their earnings in benefits over their lifetime. Two factors contribute to the progressivity of benefits: First, the benefit formula replaces a larger share of earnings for people with lower lifetime earnings; and, second, people with lower lifetime earnings are more likely than average to receive disability benefits. Those factors are partially offset by the fact that people with higher lifetime earnings tend to live longer than average, which means that they collect retired-worker benefits for more years. Although the benefits received by people with lower earnings tend to be larger as a share of earnings over their lifetime, people with high earnings, on average, collect more in total benefits. This option would reduce that difference in total lifetime benefits and increase the progressivity of the program.

This option would also have different effects depending on when beneficiaries were born. Because the option would be phased in over either five or nine years, there would be no effects on current beneficiaries, and among new beneficiaries, the effects would be smaller for people who became eligible before the alternatives were fully phased in.

Changes to Social Security Benefits Relative to Earnings for Different Groups If a New Bend Point Was Added

Percent

	Lifetime Household Earnings Quintile[a]	Average Lifetime Benefits Relative to Lifetime Earnings for Beneficiaries, by 10-Year Birth Cohort			
		1960s	1970s	1980s	1990s
		Under Current Law			
No change	Lowest	33	35	34	32
	Middle	19	20	19	17
	Highest	8	8	8	7
		Percentage Change From Current Law[b]			
Add a bend point at the 70th percentile of earners and reduce PIA factors over 9 years	Lowest	*	*	*	*
	Middle	*	-1	-1	*
	Highest	-6	-14	-15	-14
Add a bend point at the 50th percentile of earners and reduce PIA factors over 9 years	Lowest	*	-1	-1	*
	Middle	-3	-8	-7	-8
	Highest	-10	-25	-26	-26
Add a bend point at the 50th percentile of earners and reduce PIA factors over 5 years	Lowest	*	*	-1	-1
	Middle	-4	-8	-7	-6
	Highest	-15	-26	-26	-26

Data source: Congressional Budget Office. See www.cbo.gov/publication/58164#data.

PIA = primary insurance amount; * = between -1 percent and zero.

a. The lowest, middle, and highest fifths of people within a 10-year birth cohort ranked by lifetime household earnings. For someone who is single in all years, lifetime household earnings equal the present value of inflation-adjusted earnings over that person's lifetime. In any year in which a person is married, the lifetime household earnings equal the average of the couple's earnings, adjusted for economies of scale in household consumption.

b. Each alternative's effect is measured as a percentage change from the current-law value. For example, under current law, the ratio of average lifetime benefits to lifetime earnings for high earners born in the 1990s will be 7 percent, CBO estimates. If a bend point was added at the 70th percentile of earners and changes to PIA factors were phased in over 9 years, the 1 percentage-point decrease in that ratio—from 7 percent to 6 percent—is expressed as a 14 percent decrease in this table.

Considering the combined effects for people with different average lifetime earnings and for people who were born at different times, CBO expects that, under all the alternatives discussed here, the ratio of average lifetime benefits to average lifetime earnings would remain about the same or would be lower than under current law for people in all quintiles (or fifths) of the lifetime household earnings distribution. (Lifetime benefits in this analysis include the present value of all Social Security benefits except those received by young widows, young spouses, and children. The values of benefits are net of income taxes that some recipients pay on their benefits.)

For people in the lowest quintile, those changes would be 1 percent or less (see the table above). Some people in that lowest quintile would see their benefits reduced because, in this analysis, people are ranked based on their lifetime household earnings. In the case of married couples, one individual may have relatively high lifetime earnings whereas that person's spouse may have very low lifetime earnings. Because their lifetime household earnings are equal to the average of their earnings, they may both be included in the bottom fifth of the household earnings distribution. In that case, the higher earning spouse would see reduced benefits under the option, but the lower earning spouse would not. That results in showing a small decrease in benefits, on average, for that lowest quintile.

The effects on people with higher earnings would vary more among the three alternatives. For all the alternatives, the reduction relative to current law in lifetime benefits as a percentage of lifetime earnings would be greatest, on average, for people in the highest quintile of

the earnings distribution. For example, such people born in the 1980s and 1990s would see a 26 percent reduction in that measure under the second and third alternatives. Those effects would be larger under the second alternative than under the first one. The faster phase-in under the third alternative means that the effects on those born in the 1960s would be larger under the third alternative than under the second one.

Economic Effects

In addition to having the behavioral effects reflected in conventional budget estimates, such as the ones shown above, benefit reductions would affect the economy, and those effects would evolve over time as people adjusted their behavior in response to the policy change.

First, some future beneficiaries would probably increase their savings while they were working to offset the reduction in Social Security benefits. Second, the reduction in benefits would probably induce some older workers to work more hours or to delay retirement and remain in the labor force longer than they would have otherwise.

Related Options in This Volume: Option 8, "Set Social Security Benefits to a Flat Amount" (page 45), Option 9, "Increase the Maximum Taxable Earnings That Are Subject to Social Security Payroll Taxes" (page 51)

Related CBO Publications: *CBO's 2021 Long-Term Projections for Social Security: Additional Information* (July 2021), www.cbo.gov/publication/57342; *Social Security Policy Options, 2015* (December 2015), www.cbo.gov/publication/51011

Option 8—Mandatory Spending Function 650

Set Social Security Benefits to a Flat Amount

Billions of Dollars	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	Total 2023–2027	Total 2023–2032
Change in Outlays												
Set Social Security benefits to 150 percent of the federal poverty guidelines	0	-1	-3	-8	-13	-21	-32	-46	-63	-83	-25	-270
Set Social Security benefits to 125 percent of the federal poverty guidelines	0	-2	-8	-19	-33	-51	-74	-102	-134	-170	-62	-593

This option would take effect in January 2024.

Estimates include budgetary effects for Social Security benefits; that spending is classified as off-budget.

Background

Social Security is the largest single program in the federal government's budget. It comprises two parts: Old-Age and Survivors Insurance (OASI) and Disability Insurance (DI). OASI pays benefits to retired workers, their eligible dependents, and some survivors of deceased workers. DI pays benefits to disabled workers and their dependents until those workers are old enough to claim full retirement benefits under OASI.

To be eligible for Social Security benefits, a worker is required to have a sufficient history of earnings in employment subject to Social Security payroll taxes. Benefits for retired and disabled workers are based on past earnings. In particular, benefits are based on average indexed monthly earnings (AIME), a measure of taxable earnings over a worker's lifetime. In the computation of AIME, past taxable earnings are indexed using the average wage indexing series (AWI) to reflect the general rise in average wages in the economy that tends to occur over time. A progressive formula is then applied to the AIME to compute the primary insurance amount (PIA), an amount that is a key determinant of a worker's initial benefit. The progressive formula means that benefits replace a higher percentage of earnings for workers with lower earnings than for workers with higher earnings. In years after initial eligibility, a cost-of-living adjustment (COLA) is applied to the PIA to reflect annual growth in consumer prices. In September 2022, the average monthly benefit was $1,674 for retired workers and $1,363 for disabled workers.

For retired-worker beneficiaries, initial benefits depend on the age at which a recipient chooses to start claiming them. Those who claim benefits at their full retirement age (FRA), also called the normal retirement age, receive a benefit equal to their PIA. (The FRA varies by the year of birth of the worker and is 67 for workers who turn 62 in 2022 or later.) Retired-worker beneficiaries are eligible to begin receiving benefits when they turn 62. Those who claim benefits before their FRA receive a benefit that is smaller than their PIA, and those who claim after their FRA receive a benefit that is larger than their PIA. (That permanent increase in monthly benefits is called the delayed retirement credit.) For example, for workers with an FRA of 67, monthly benefits are 70 percent of the PIA for those who claim benefits at the age of 62 and 124 percent of the PIA for people who wait until age 70 to claim. (There are no additional benefit increases if people claim benefits after age 70.)

Benefits for eligible dependents and survivors of retired and disabled workers are based on the worker's PIA and may also be adjusted on the basis of the age at which benefits are claimed and other factors. Before any adjustments, a dependent spouse, a child of a retired worker, or a child of a disabled worker receives 50 percent of the worker's PIA. A child of a deceased worker receives 75 percent of the worker's PIA. A widow or widower receives 100 percent of the worker's PIA.

Under this option, the PIA for all retired or disabled workers would be the same; that amount would no longer depend on past earnings. Workers with high lifetime incomes would see reductions in benefits under this option

compared with the benefits scheduled under current law. Some workers with low lifetime earnings would receive larger benefits than are scheduled under current law.

Key Design Choices

Several key design choices about a new flat benefit would have to be made, including the following:

- Where to set the new benefit level;
- What eligibility requirements to use for the benefit;
- Whether to retain claiming-age adjustments; and
- What benefits to provide for dependents and survivors.

Benefit Level. The amount of the flat benefit would have important implications for workers' benefits and the budgetary effect of the option. The size of the reduction in Social Security spending would depend on the benefit amount under this option relative to the average benefit under current law. The smaller the new flat benefit, the larger the resulting savings and the more beneficiaries who would face a benefit reduction relative to benefits scheduled under current law.

Eligibility Requirements. Whether to require earnings in employment subject to Social Security payroll taxes to be eligible for the flat benefit would affect the number of beneficiaries under this option. Keeping the same eligibility requirements as under current law would not change the population eligible to receive benefits. Waiving any requirement for an earnings history to receive the flat benefit would result in more beneficiaries than under current law, which would reduce the savings from the option.

Claiming-Age Adjustments. Under current law, retired-worker beneficiaries can claim benefits before their FRA, but their benefits are reduced. Eliminating that reduction would lead to beneficiaries claiming earlier than if they were only allowed to claim their full benefits at their FRA. It would therefore reduce savings from the option. In addition, eliminating the benefit reduction for early claiming would discourage work.

Under current law, retired-worker beneficiaries can receive benefit increases when they delay claiming after their FRA. Eliminating the delayed retirement credit would increase long-term savings from the option but would discourage work.

Benefits for Dependents. Maintaining dependent and survivor benefits would mean that Social Security would continue to provide financial support to family members of worker beneficiaries. However, the reduction in Social Security outlays would be larger if those benefits were not provided.

Option

This option consists of two alternatives, both of which would take effect in January 2024. Under both alternatives, in any given year, Social Security benefits for all newly eligible beneficiaries at their full retirement age would be the same—an amount that would be determined relative to the federal poverty guidelines (commonly known as the federal poverty level, or FPL) for a single person. The FPL is $1,133 per month in 2022.

The FPL is adjusted annually using the consumer price index for all urban consumers (CPI-U). In both alternatives, the initial benefit amount for workers who became eligible for Social Security would also be adjusted using the CPI-U instead of the AWI; after 2024, initial benefits would increase for newly eligible beneficiaries each year, but those increases would be smaller than under current law.

For both alternatives, eligibility criteria for Social Security benefits and adjustments to benefit levels for early and delayed claiming would remain unchanged from current law, and all disabled workers would be eligible for the flat dollar benefit upon entitlement. Additionally, both alternatives would provide benefits to dependents and survivors as under current law.

- Under the first alternative, the flat benefit amount would be set to 150 percent of the FPL, which would equal about $1,770 per month in calendar year 2024.
- Under the second alternative, the flat benefit amount would be set to 125 percent of the FPL, equaling about $1,480 per month in calendar year 2024.

For people with low earnings, benefits under this option would be greater than they would be under current law and would remain so for future cohorts in the coming decade, even though initial benefits would grow more slowly than under current law. For high earners who became eligible after the policy was implemented, a flat benefit amount set at 150 percent or 125 percent of the FPL would be smaller than what workers with comparable earnings histories would receive under current law, on the basis of their past earnings.

Effects on the Budget

If implemented, the first alternative would reduce Social Security outlays by a total of $270 billion through 2032, according to estimates by the Congressional Budget Office. The second alternative would reduce Social Security outlays by a total of $593 billion through 2032.

Under current law, the benefits that retired or disabled workers initially receive are indexed to the AWI, so average new benefits grow at the same rate as average economywide wages. Under this option, the flat benefits received at the FRA for each successive cohort would grow with prices, as measured by changes in the CPI-U, which tends to grow more slowly than average earnings. As a result, the estimated savings would depend in part on the projected growth of average real wages. In CBO's projections, average real wages grow by 1.1 percent annually, which indicates the reduction in the annual growth rate of new benefits under this option relative to that under current law.

The savings from such changes would depend on the amount of the flat benefit relative to PIAs under current law. If the benefit amount was set to an amount that is higher than the average under current law, a flat benefit would result in additional Social Security spending. Conversely, if the benefit amount was set to an amount lower than the average under current law, the flat benefit would yield budgetary savings. It would also lower the beneficiaries' income.

The increases or decreases in Social Security benefits and income would affect some beneficiaries' eligibility for, and benefits from, means-tested programs, such as Supplemental Security Income (SSI) and the Supplemental Nutrition Assistance Program (SNAP). Some people would collect larger Social Security payments and would, as a result, receive fewer benefits from those programs; others, whose Social Security benefits would be smaller, might receive more benefits from means-tested programs. The estimates for this option do not include effects on programs other than Social Security.

Uncertainty About the Budgetary Effects

The overall savings from this option could be larger or smaller than shown for at least two reasons. First, savings might differ from those projected here because average real wages could evolve differently than CBO currently projects. Second, the estimates of savings rely on a projection about when Social Security beneficiaries claim their benefits. If the option induced beneficiaries to change when they claimed benefits, the short-term reductions in Social Security outlays could be very different than projected because the number of beneficiaries would change.

Changes in when people began claiming benefits would not change their lifetime benefits significantly, and the uncertainty about those changes matters more in the short term than in the long term. People who claim before their FRA receive less than their full benefit amount but collect benefits for a longer time until they die, and people who claim after their FRA receive larger benefits because of the delayed retirement credit but collect benefits for fewer years.

Long-Term Effects

Annual savings from both alternatives would continue to grow after 2032 as the new benefit structure applied to more beneficiaries and as average new benefits grew more slowly than they would under current law. The savings would continue to grow even after the new benefit structure applied to all beneficiaries as the effect of slower benefit growth compounded each year.

The first alternative would reduce Social Security outlays by 4 percent in 2032, by 14 percent in 2042, and by 23 percent in 2052 from what would be scheduled to occur under current law, CBO estimates. When measured as a percentage of total economic output, the program's outlays would total 5.3 percent of gross domestic product (GDP) in 2042 and 4.9 percent of GDP in 2052, amounts that are 0.8 percentage points and 1.4 percentage points, respectively, lower than CBO projects under current law for those years.

Those projections reflect the assumption that Social Security will continue to pay benefits as scheduled under current law, regardless of the status of the program's trust funds. CBO projects that, combined, the Social Security trust funds will be exhausted in calendar year 2033. Beyond that point, trust fund balances would no longer be available to make up the gap between benefits specified in current law and annual trust fund receipts. If CBO were to analyze a scenario in which benefits were limited to the amounts payable from dedicated funding sources after trust fund exhaustion, those payable benefits would be smaller than scheduled benefits beginning in 2034.

Under the second alternative, Social Security outlays would be lower by 8 percent in 2032, by 22 percent in 2042, and by 33 percent in 2052 than what would be scheduled to occur under current law. Measured as a

percentage of GDP, Social Security's outlays under the second alternative would be 1.4 percentage points lower in 2042 and 2.1 percentage points lower in 2052 than the agency currently projects under current law. As in the first alternative, those changes to Social Security outlays would be smaller if analyzed on a payable benefits basis.

Both alternatives would affect measures of Social Security's sustainability as well. The program has both dedicated revenue sources (in the form of payroll taxes paid by employees, employers, and self-employed people and income taxes on benefits) and trust funds. The sustainability of a program with those features is often measured by its estimated actuarial balance, which is the sum of the present value of annual income over a given period and the initial balance in the trust fund for that period, minus the sum of the present value of annual outlays over that period and the present value of a year's worth of benefits at the end of the period. For Social Security, that difference is traditionally presented as a percentage of the present value of taxable payroll or GDP over 75 years. A present value is a single number that expresses a flow of past and future income (in the form of tax revenues and other income) or payments (in the form of benefits and other outlays) in terms of an equivalent lump sum received or paid at a specific time. The value depends on the rate of interest, known as the discount rate, used to translate past and future cash flows into current dollars at that time.

The Social Security program is currently projected to have a negative actuarial balance (or an actuarial shortfall) over 75 years. Estimates of the actuarial balance do not account for revenues or outlays after that period. Under current law, outlays are projected to be larger than revenues at the end of that period, and the difference would grow thereafter, resulting in an increasing deficit for the trust funds after the 75th year.

Both alternatives would improve the 75-year actuarial balance. Under the first alternative, the actuarial shortfall would decline to 0.2 percent of GDP (an 88 percent improvement compared with an actuarial shortfall of 1.7 percent of GDP under current law), and Social Security tax revenues would exceed outlays by increasing amounts in the 2070s, leading to a growing surplus for the trust funds. That surplus would continue after the 75th year.

Under the second alternative, Social Security tax revenues would exceed outlays by increasing amounts starting around the 2050s, resulting in a growing annual surplus for the trust funds. As a result, the 75-year actuarial balance would be a positive 0.3 percent of GDP, compared with a negative 1.7 percent of GDP under current law. After the 75th year, under that alternative, outlays would continue to decline as a percentage of GDP, and the surplus would continue to rise.

Another common measure of Social Security's sustainability is the trust fund's date of exhaustion—the year in which its balance will reach zero. In CBO's projections, the combined Old-Age, Survivors, and Disability Insurance trust funds are exhausted in calendar year 2033. The first alternative would delay the combined trust funds' projected exhaustion date by two years. Under the second alternative, the combined trust funds would be exhausted in 2038, five years later than the projected exhaustion date under current law. However, under the second alternative, the trust funds' income would rise above the scheduled benefits later in the projection period. If scheduled benefits were paid in full throughout the period, as assumed for this analysis, and the trust funds operated with temporarily negative balances, the annual surpluses later in the projection period would result in a positive trust fund balance again in the 2060s.

Distributional Effects

Setting Social Security benefits to a flat amount would not affect all recipients equally. For instance, Disability Insurance beneficiaries tend to have smaller benefits, on average, than Old-Age Insurance (OAI) beneficiaries, so benefits would increase by more and for a larger share of DI beneficiaries than for OAI beneficiaries. This discussion focuses on two ways to examine the distributional effects of a change in Social Security benefits. One is to evaluate how the fully implemented changes would affect the distribution of household income in a given year. The other is to estimate the changes to the benefits people receive over their lifetime and how that would vary along the distribution of lifetime household earnings (see the table on the next page).

In a given year after implementation, both alternatives would tend to increase income after transfers and taxes for households with low income and to reduce such income for households with high income, when compared with incomes under current law. Most Social

Changes to Social Security Benefits Relative to Earnings for Different Groups If Benefits Were Set to a Flat Amount

Percent

	Lifetime Household Earnings Quintile[a]	Average Lifetime Benefits Relative to Lifetime Earnings for Beneficiaries, by 10-Year Birth Cohort			
		1960s	1970s	1980s	1990s
		Under Current Law			
No change	Lowest	33	35	34	32
	Middle	19	20	19	17
	Highest	8	8	8	7
		Percentage Change From Current Law[b]			
Set Social Security benefits to 150 percent of the federal poverty guidelines	Lowest	23	32	32	19
	Middle	-10	-20	-24	-30
	Highest	-33	-47	-51	-55
Set Social Security benefits to 125 percent of the federal poverty guidelines	Lowest	13	14	12	*
	Middle	-19	-32	-37	-41
	Highest	-39	-55	-59	-62

Data source: Congressional Budget Office. See www.cbo.gov/publication/58164#data.

* = between -1 percent and zero.

a. The lowest, middle, and highest fifths of people within a 10-year birth cohort ranked by lifetime household earnings. For someone who is single in all years, lifetime household earnings equal the present value of inflation-adjusted earnings over that person's lifetime. In any year in which a person is married, lifetime household earnings equal the average of the couple's earnings, adjusted for economies of scale in household consumption.

b. Each alternative's effect is measured as a percentage change from the current-law value. For example, under current law, the ratio of average lifetime benefits to lifetime earnings for high earners born in the 1990s will be 7 percent, CBO estimates. If benefits were set to 150 percent of the federal poverty guidelines, that ratio would fall by about 4 percentage points to 3 percent. That decline is expressed as a 55 percent decrease in this table.

Security beneficiaries are age 65 or older. In CBO's baseline distribution of household income after transfers and taxes, income includes Social Security benefits. As a result, people in that age group are slightly more likely than others to be in higher-income households. Moreover, within that group, both alternatives described here would tend to increase benefits and income after taxes and transfers for lower-income beneficiaries and reduce benefits and income after taxes and transfers for higher-income beneficiaries.

The second alternative would provide a smaller benefit amount than the first alternative. Thus, it would increase income after transfers and taxes for fewer beneficiaries and by less than the first alternative would, and it would reduce income after transfers and taxes by more and for a larger number of beneficiaries than the first alternative would.

The Social Security program, on net, is progressive: the benefits received from the system measured relative to taxes paid into the system over a person's lifetime tend to be higher for lower-income households than for higher-income households. This option would increase that progressivity.

When considered in isolation, the Social Security tax is regressive—that is, people with higher earnings (in particular, those with earnings above the taxable maximum) pay a smaller percentage of their total earnings in payroll taxes than those with lower earnings. However, the regressivity of the Social Security tax is counterbalanced by the progressivity of Social Security benefits: People with lower earnings during their lifetime tend to receive a larger share of their earnings in benefits over their lifetime. Two factors contribute to the progressivity of benefits. One, the benefit formula replaces a larger share of earnings for people with lower lifetime earnings and, two, people with low lifetime earnings are more likely than average to receive disability benefits. Those factors are partially offset by the fact that people with higher lifetime earnings tend

to live longer than average, which means that they collect retired-worker benefits for more years.

This option would increase the progressivity of the program over the course of a person's lifetime because it would increase benefits for people with relatively low lifetime earnings and decrease benefits for those with higher lifetime earnings. CBO expects that, under both alternatives, the ratio of average lifetime benefits to average lifetime earnings would be higher than or roughly the same as under current law for people in the lowest quintile of the lifetime household earnings distribution. (Lifetime benefits in this analysis include the present value of all Social Security benefits except those received by young widows, young spouses, and children. The values of benefits are net of income taxes that some recipients pay on their benefits.)

For example, for such people born in the 1970s and 1980s, that measure would increase by about one-third under the first alternative and by 12 percent to 14 percent under the second one. For people in the middle and highest quintiles of the earnings distribution, that ratio would be lower under both alternatives than under current law, and the reduction relative to current law in lifetime benefits as a percentage of lifetime earnings would be larger for people born later than for those born earlier. That is because benefits would grow more slowly over time under this option than under current law for each successive cohort of beneficiaries.

Benefits would be smaller under the second alternative than under the first alternative. Thus, under the second alternative, low earners would receive a smaller benefit increase and relatively higher earners would face larger benefit reductions compared with current law than they would under the first alternative.

Economic Effects

In addition to having the behavioral effects reflected in conventional budget estimates, such as the ones shown above, setting Social Security benefits to a flat amount could affect the labor supply of Social Security beneficiaries. Because additional work would no longer result in larger benefits by increasing the taxable earnings that could be counted in the calculation of the PIA (as it does in some cases under current law), people might have less incentive to work under this option. However, people who would receive smaller benefits under this option than under current law could have more incentive to work or to delay retirement to maintain the same standard of living. In addition, those beneficiaries would probably save more while they were working to offset the reduction in Social Security benefits under this option relative to current law.

Other Considerations

For beneficiaries who claim benefits at or after their FRA, the flat benefits under this option would be greater than the federal poverty guidelines for a single-person household, thus reducing poverty for that group. Some beneficiaries who received larger benefits from Social Security could have those increases partially offset by a reduction in benefits from means-tested support programs because the benefits provided by those programs generally decline as overall income increases.

Because benefits would grow with prices rather than average wages, Social Security would replace an increasingly smaller share of earnings, leading beneficiaries to rely more on other sources of retirement income to maintain their preretirement standard of living.

Related Options in This Volume: Option 7, "Reduce Social Security Benefits for High Earners" (page 38), Option 9, "Increase the Maximum Taxable Earnings That Are Subject to Social Security Payroll Taxes" (page 51)

Related CBO Publications: *CBO's 2021 Long-Term Projections for Social Security: Additional Information* (July 2021), www.cbo.gov/publication/57342; *Social Security Policy Options, 2015* (December 2015), www.cbo.gov/publication/51011

Option 9—Revenues

Increase the Maximum Taxable Earnings That Are Subject to Social Security Payroll Taxes

Billions of Dollars	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	Total 2023–2027	Total 2023–2032
Decrease (-) in the Deficit												
Raise the taxable share to 90 percent of earnings[a]	-21.7	-69.2	-68.6	-69.6	-70.8	-72.2	-73.2	-74.0	-74.8	-75.9	-299.9	-669.9
Subject earnings greater than $250,000 to payroll taxes	-31.4	-107.8	-113.4	-117.1	-120.8	-127.5	-134.3	-142.0	-150.3	-159.3	-490.5	-1,203.9

Data sources: Staff of the Joint Committee on Taxation; Congressional Budget Office.

This option would take effect in January 2023.

This option would increase receipts from Social Security payroll taxes (which would be off-budget). That increase would be offset in part by a reduction in individual income tax revenues (which would be on-budget).

a. Estimates include increased outlays for additional payments of Social Security benefits, which would be classified as off-budget.

Background

Social Security—which consists of Old-Age and Survivors Insurance and Disability Insurance—is financed primarily by payroll taxes on employers, employees, and the self-employed. Only earnings up to a maximum, which is $147,000 in calendar year 2022, are subject to the taxes, and only earnings below the maximum are used to determine benefits. The Social Security tax rate is 12.4 percent of earnings. Employees have 6.2 percent of earnings deducted from their paychecks, and the remaining 6.2 percent is paid by their employers. Self-employed individuals generally pay 12.4 percent of their net self-employment income.

In 2021, receipts from Social Security payroll taxes totaled $952 billion. Of that amount, $901 billion was from payroll taxes assessed on employers and employees, and $51 billion was from payroll taxes that self-employed individuals paid on their earnings.

When payroll taxes for Social Security were first collected in 1937, about 92 percent of earnings from jobs covered by the program were below the maximum taxable amount. During most of the program's history, the maximum was increased only periodically, so the percentage varied greatly. It fell to a low of 71 percent in 1965 and by 1977 had risen to 85 percent. Amendments to the Social Security Act in 1977 boosted the amount of covered taxable earnings, which reached 90 percent in 1983. Those amendments also specified that the taxable maximum be adjusted, or indexed, annually to match the growth in average wages. Despite those changes, the percentage of earnings that is taxable has declined in the past decade because earnings for the highest-paid workers have grown faster than average earnings. Thus, in 2020, about 83 percent of earnings from employment covered by Social Security fell below the maximum taxable amount.

Option

This option consists of two alternatives that would increase the share of earnings subject to payroll taxes.

- The first alternative would increase the taxable share of earnings from jobs covered by Social Security to 90 percent in calendar year 2023. (In later years, the maximum would grow at the same rate as average wages, as it would under current law.) Increases in the taxable maximum would increase scheduled benefits for affected workers.
- The second alternative would apply the 12.4 percent payroll tax to earnings over $250,000 in addition to earnings below the maximum taxable amount under current law. (For example, in 2023, all earnings below $160,200—the taxable maximum for that year—would be taxed, as would earnings above $250,000. Earnings between $160,200 and $250,000 would not be taxed.) The taxable maximum would continue to grow with average wages, but the $250,000 threshold would not change, so the gap between the two would shrink. The Congressional Budget Office projects that the taxable maximum would exceed $250,000 in calendar year 2036; after that, all earnings from jobs covered by Social Security would be subject to payroll taxes. The current-law taxable maximum would still be used for calculating benefits, so scheduled benefits would not change under this alternative.

Effects on the Budget

According to the staff of the Joint Committee on Taxation (JCT), implementing the first alternative would raise the maximum taxable amount to $300,000 in calendar year 2023 and increase revenues by an estimated $692 billion from 2023 through 2032. Because Social Security benefits are tied to the amount of earnings on which taxes are paid, however, some of that increase in revenues would be offset by additional benefits paid to people with earnings above the maximum taxable amount under current law. On net, this alternative would reduce federal budget deficits by an estimated $670 billion over the 10-year period. If the maximum taxable amount was adjusted by a different amount, the change in revenues would not necessarily be proportional because earnings are not evenly distributed.

Implementing the second alternative would decrease the deficit by $1.2 trillion from 2023 through 2032, according to JCT.

Although the estimates presented here reflect the assumption that total compensation would remain unchanged, they allow for behavioral responses to the higher tax. (Total compensation comprises taxable wages and benefits, nontaxable benefits, and employers' contributions to payroll taxes.) If total compensation remained unchanged, then increases in employers' contributions to payroll taxes would have to reduce other forms of compensation. The decrease in taxable wages and benefits would reduce the income base for individual income and payroll taxes, partially offsetting the increase in employers' payroll taxes. The estimates for the option reflect that income and payroll tax offset.

In addition, the higher payroll taxes would create an incentive for employers and employees to seek to change the composition of compensation by shifting from taxable compensation, such as wages and salary, to forms of nontaxable compensation, such as employment-based health insurance. The estimates account for that behavioral response.

Uncertainty About the Budgetary Effects

The estimates for this option are uncertain primarily because of uncertainty surrounding CBO's underlying projections of income subject to Social Security payroll taxes. Those projections rely on CBO's projections of the economy over the next decade—particularly projections of wages, income distribution, and employment—which are inherently uncertain. However, CBO's projections of wages are typically less variable than its projections of other sources of income, such as capital gains realizations or corporate profits.

Distributional Effects

By making more earnings subject to Social Security payroll taxes, both alternatives, in a given year, would increase taxes for households with higher income. The first alternative would increase taxes for all individuals with earnings above the current-law taxable maximum, whereas the second alternative would affect only those with earnings above $250,000. (Because the $250,000 threshold would be fixed, an increasing number of people would face higher taxes over time. After 2036, when the current-law taxable maximum would exceed that threshold, it would affect those with earnings above the taxable maximum.)

The Social Security program, on net, is progressive—that is, the benefits received from the program, measured relative to taxes paid into the program over the beneficiary's lifetime, tend to be higher for lower-income households than for higher-income households. When considered in isolation, Social Security taxes are regressive—that is, people with higher earnings, in particular those with earnings above the taxable maximum, pay a smaller percentage of their total earnings in Social Security payroll taxes than those with lower earnings. The regressivity of Social Security taxes is counterbalanced by the progressivity of Social Security benefits. Specifically, people with lower earnings during their lifetime tend to receive a larger share of their earnings in benefits over their lifetime. Two factors contribute to the progressivity of benefits: First, the benefit formula replaces a larger share of earnings for people with lower lifetime earnings; and, second, people with lower lifetime earnings are more likely than average to receive disability benefits. Those factors are partially offset by the fact that people with higher lifetime earnings tend to live longer than average, which means that they collect retired-worker benefits for more years.

By making more earnings subject to Social Security payroll taxes, both of this option's alternatives would increase taxes on people with high earnings and therefore would increase the progressivity of the program overall. Even under the first alternative, which would increase benefits for affected workers, the additional benefits would be significantly smaller than the increase in taxes; thus, it would increase the progressivity of the program.

Economic Effects

In addition to having the behavioral effects reflected in conventional budget estimates, such as the ones shown above, changing the share of earnings subject to Social Security payroll taxes would also affect people's incentive to work. Those with earnings between the existing taxable limit and the higher thresholds under the first alternative, and those with earnings above the $250,000 threshold under the second alternative, would earn less after taxes for each additional hour worked. The decline in after-tax earnings would have opposing effects. On the one hand, people would tend to work fewer hours because lower earnings would make other uses of their time relatively more attractive. On the other hand, because their after-tax income would decline, they would also tend to work more hours to maintain the same standard of living. On balance, CBO estimates, the first effect would be greater than the second effect, and thus people in those earnings ranges would work less.

Under the first alternative, the incentive to work would also change for people with earnings above the new higher limit. Those people would not see any reduction in the return on their additional work because their income would exceed the taxable maximum. However, they would pay more in payroll taxes, so they would still experience a decline in their after-tax income. As a result, that group would work more.

Other Considerations

Either alternative would increase revenues for the Social Security program, which, according to CBO's projections, will not have sufficient income to finance the benefits that are due to beneficiaries under current law. If current law remained in place, Social Security tax revenues, which already are less than spending for the program, would grow more slowly than spending for Social Security benefits. In CBO's long-term projections of the economy and budget under current law, the combined Old-Age and Survivors Insurance and Disability Insurance trust funds are projected to be exhausted in calendar year 2033. If the trust funds were exhausted, then the Social Security Administration would still be able to pay some benefits, but it would not have the authority to make payments in excess of the payroll taxes received each year. The first alternative, which would increase the taxable share of earnings from jobs covered by Social Security to 90 percent, would delay the exhaustion of the combined trust funds by 4 years, until calendar year 2037. The second alternative, which would apply the 12.4 percent payroll tax to earnings over $250,000, would delay the exhaustion of the combined trust funds by 13 years, until calendar year 2046.

Related Options in This Volume: Option 7, "Reduce Social Security Benefits for High Earners" (page 38), Option 8, "Set Social Security Benefits to a Flat Amount" (page 45)

Related CBO Publications: *The 2022 Long-Term Budget Outlook* (July 2022), www.cbo.gov/publication/57971; *CBO's 2021 Long-Term Projections for Social Security: Additional Information* (July 2021), www.cbo.gov/publication/57342; *Social Security Policy Options, 2015* (December 2015), www.cbo.gov/publication/51011

Option 10—Mandatory Spending Functions 600, 700

Reduce Spending on Other Mandatory Programs

Billions of Dollars	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	Total 2023–2027	Total 2023–2032
Total Change in Mandatory Outlays	-1	-49	-60	-62	-64	-69	-64	-69	-71	-73	-236	-580
Change in outlays for VA disability compensation	0	-17	-26	-27	-28	-31	-27	-31	-32	-33	-98	-253
Change in outlays for income security programs	-1	-31	-34	-35	-36	-37	-36	-38	-39	-39	-138	-327

Under this option, changes to VA disability compensation would take effect in January 2024; changes to child nutrition programs would take effect in July 2023; and changes to all other affected programs would take effect in October 2023.

VA = Department of Veterans Affairs.

Background

Mandatory spending on programs other than Social Security and the major health care programs (referred to as other mandatory spending in this option) accounted for 50 percent of mandatory outlays and 36 percent of all outlays in 2021. Most of the outlays for other mandatory programs in that year were for temporary programs (or temporary expansions to existing programs) established in response to the coronavirus pandemic. In 2019, before the establishment of those temporary programs, other mandatory spending accounted for 21 percent of mandatory outlays and 13 percent of total outlays. The Congressional Budget Office projects that, under current law, such spending would decline to 15 percent of mandatory outlays and 9 percent of total outlays by 2032.

Other mandatory spending consists of spending on a variety of programs, including those focused on income security (such as the Supplemental Nutrition Assistance Program, or SNAP; the Supplemental Security Income program, or SSI; and refundable portions of the earned income tax credit and the child tax credit), retirement benefits for federal employees, and some benefits for veterans. Many of those programs are funded by general revenues, although some programs are paid for, in part, through revenues dedicated to trust funds that support those programs.

Under this option, spending for certain large mandatory programs without dedicated trust funds would be reduced. Specifically, this option would reduce spending on the two components of such spending that are projected to be the largest over the 2023–2032 period: disability compensation paid by the Department of Veterans Affairs (VA) and income security programs.

For VA disability compensation, the reduction would be achieved by applying a means test to VA disability payments (that is, by limiting eligibility for households with higher income). For income security programs, this option would involve a 15 percent reduction in spending that could be achieved in different ways. Refundable tax credits and unemployment compensation would not be affected.

In CBO's estimation, this option would reduce the federal deficit by $580 billion over the 2023–2032 period. The change to VA disability compensation would reduce outlays by $253 billion, or 17 percent. Reducing spending on income security programs by 15 percent would save $327 billion from 2023 to 2032, CBO estimates. The total reduction would amount to 1.3 percent of total mandatory spending and 8.8 percent of other mandatory spending in 2032 in CBO's baseline; over the 2023–2032 period, they would equal 1.3 percent of total mandatory spending and 7.4 percent of other mandatory spending in the baseline.

Means-Test VA Disability Compensation for Veterans With Higher Income

In 2021, 5.2 million veterans received disability compensation from VA because of medical conditions or injuries that occurred or worsened during active-duty service; about 280,000 of them received compensation for the first time that year. Service-connected disabilities vary widely in severity and type and include the loss of a limb, anxiety, and hearing loss. VA determines whether a veteran has a service-connected disability and assigns a rating to each condition on the basis of the severity of the disability from zero (little or no impairment) to 100 percent (highest impairment) in increments of 10. The amount of base

compensation veterans receive depends on their combined (overall) rating. VA disability compensation is tax free, indexed to inflation, and—with some exceptions—continues in the form of a monthly annuity for the rest of the veteran's life. In calendar year 2022, base compensation rates ranged from $150 to $3,330 per month.

According to federal law, the Secretary of Veterans Affairs "shall adopt and apply a schedule of ratings of reductions in earning capacity from specific injuries or combination of injuries. The ratings shall be based, as far as practicable, upon the average impairments of earning capacity resulting from such injuries in civil occupations." (See 38 U.S. §1155.) The current system of ratings is generally based on physicians' and lawyers' judgments made in 1945 about the effects of service-connected conditions on jobs requiring manual or physical labor. In practice, those effects were estimates of the earnings that veterans were expected to lose in the civilian labor market for a given service-connected disability, on average, and were not linked to the specific labor market experience of the person receiving the rating. Ratings for many medical conditions have not changed since then. In those cases, advances in medical technology and changes in the economy may not be reflected in the ratings.

VA disability compensation is structured differently than disability compensation for people who are not veterans. Veterans who work remain eligible for payments; most working-age veterans who receive VA disability compensation are in the labor force. By contrast, Social Security Disability Insurance pays cash benefits only to adults who are judged to be unable to perform "substantial gainful activity" and sharply limits the income recipients can earn without losing benefits.

VA disability compensation has increased substantially faster than inflation, both in total spending and on a per-recipient basis, a trend that CBO expects to continue. In 2021, VA paid about $110 billion in disability benefits, four times the amount that it paid in 2000 (after removing the effects of inflation), even though the number of veterans in the United States declined by more than 30 percent, from about 26 million to 19 million. Spending per recipient (after removing the effects of inflation) rose from about $11,000 in 2000 to nearly $22,000 in 2021.

Lawmakers could make several structural changes to VA's disability compensation program to limit future spending growth on the program. This option focuses on one approach: means-testing VA disability compensation.

Option Component. Under this option, VA would means-test all current and prospective recipients of VA disability compensation beginning in January 2024; after that date, veterans would receive full payments only if their gross household income in the prior calendar year was less than an inflation-indexed threshold for that year. Disability benefits would be phased out at a constant rate for veterans with income above the threshold: For every additional two dollars of gross household income, disability compensation would decrease by one dollar. Under that phaseout, veterans whose gross household income was $170,000 or higher in calendar year 2023 and who would have received the average annual payment would no longer receive any disability compensation from VA in calendar year 2024. There would be no adjustment in the income threshold for household size. The current eligibility requirements and benefits would not change for the surviving family members of a veteran or service member.

The income threshold below which veterans would receive full benefits in 2024 would be set at $125,000. That threshold corresponds to the 70th percentile of total household income for the entire country in 2019, according to data from the U.S. Census Bureau, with adjustments for inflation to reach the threshold value applicable to 2024 benefits. Roughly 1.5 million of the 5 million veterans receiving disability compensation had household income that exceeded the 70th percentile of income in the United States in 2019, excluding VA disability payments. (That value is also roughly triple the VA national income threshold, one of several limits VA uses to determine if veterans without special eligibility factors qualify for VA-provided health care.) After 2024, the threshold would rise with the consumer price index for urban wage earners and clerical workers.

For this component, gross household income is defined as the income (before deductions) received by the veteran, his or her spouse, and any dependents in the prior calendar year. Income includes wages and salaries as well as unearned income, such as Social Security benefits, investment income, or withdrawals from a retirement account, but excludes VA disability payments. Household income would be used to determine eligibility rather than individual income because household income is a more comprehensive assessment of all the financial resources available to a veteran.

To determine eligibility for disability compensation, income could be reported by the veteran, by other government agencies, or by a combination of sources. Similar

to what it does for veterans who qualify for health care based on low income, VA could require veterans to submit a financial assessment to determine initial eligibility for disability compensation payments. Regardless of how income was reported, veterans would receive notice of any changes in payments and could appeal VA's determination. Verifying household income in the prior year would take time, and any adjustment to that measure of income could result in the need for VA to provide additional payments or recover overpayments.

Effects on the Budget. CBO estimates that reducing or eliminating VA disability benefits for households whose gross household income exceeded the threshold would lower mandatory spending by $253 billion between 2023 and 2032 relative to CBO's baseline. In 2024, the number of veterans who would no longer receive any payments would total 1 million, and the number receiving reduced benefits would equal about 500,000, CBO estimates. Those numbers would increase to 1.1 million and 550,000 veterans in 2032, respectively. Savings would total $33 billion in that year, a reduction of 19 percent in the program's spending.

CBO's estimates are based on two primary inputs. One is CBO's analysis of the distribution of household income for veterans receiving disability income. That analysis draws upon national survey data, which rely on respondents' self-reported income in 2019. The second input is CBO's analysis of the historical rates of growth in the number of recipients of VA disability compensation and in payments per recipient.

Uncertainty About the Budgetary Effects. CBO's estimate is uncertain for three main reasons. First, the national survey measure of household income may differ from VA's measure of gross household income because of differences in how income is measured—for example, the survey includes only regular sources of income, so it might understate household income—and because the survey data depend on respondents' recall and willingness to report income accurately. As a result, the actual percentage of veterans in households with income exceeding the threshold could be smaller or larger than CBO estimates. Second, the estimate relies on CBO's projections of the veteran population and disability compensation payments, which are inherently uncertain. Third, some veterans may choose to forgo disability payments because they would have to submit an income statement to VA when applying for benefits; if some veterans did so, outlays would decrease by more than CBO estimates. Because no veterans are currently required to submit an income statement to receive disability compensation and because of the unique properties of the program, there is no strong basis for determining how many veterans would opt out of receiving those payments.

Distributional Effects. Veterans in households with higher income would have less income after accounting for reductions in or the elimination of disability compensation benefits. Those reductions would vary considerably depending on the veteran's disability rating and income. Veterans in households with lower income would be unaffected.

Economic Effects. In addition to having the effects reflected in conventional budget estimates, such as the ones shown above, means-testing VA disability compensation could affect veterans' decisions about working, saving, and investing. Economywide, those effects would probably be small. Some people in households with income above the threshold might change how and to what extent they participate in the labor market—either by reducing their number of hours or weeks worked or by dropping out of the labor force—to keep full VA disability payments. That outcome would be more likely to occur if a member of the household already worked part-time or otherwise had low earnings. Other people might choose to work more to make up for lost VA income. Certain veterans would be especially unlikely to change their participation in the labor market: About 20 percent of veterans collecting VA disability compensation with household income exceeding the threshold in 2019 had a head of household who was 65 or older and was not employed.

Households that lost VA payments might save or spend less than they did before means-testing was implemented, particularly those households with higher income who previously received relatively large benefits. Veterans in higher-income households with low disability ratings and, therefore, relatively small payments, would be unlikely to change their behavior.

Other Considerations. VA's disability program could be considered compensation that recognizes the hardships of military service and special risks faced by service members. The program could also provide compensation for a diminished quality of life as a result of service-connected injuries. Such considerations could suggest that VA disability compensation be paid regardless of financial need.

There are other approaches to applying a means test to the VA disability compensation program, and they

would have different effects than the ones outlined here. For example, means-testing could apply only to newly eligible veterans. Under that alternative, the savings over the 2023–2032 period would be much smaller, at $50 billion, but over a longer term, the annual savings for a policy that applied only to newly eligible veterans would approach the savings for a policy that applied to all veterans. Lawmakers could also decide to exclude from means-testing veterans with certain types of injuries or disability ratings or those of particular ages.

Applying a means test using the wages and salaries of the veterans rather than household income might better target benefits to veterans who have experienced a reduction in earnings. However, focusing on wages and salaries would deviate from the approach that VA currently uses to means-test for health care benefits. Additionally, means-testing earnings could have a disparate impact on certain groups of veterans. For instance, veterans who rely on earnings would be more likely to have a reduction in VA payments than older veterans who no longer work.

No matter how a means test was applied, it would be new for the Veterans Benefits Administration, the branch of VA that administers compensation programs, and it would create new administrative responsibilities. It is likely, however, that because VA has experience processing means-testing forms and determining eligibility (through the Veterans Health Administration), instituting similar procedures for disability compensation would be less difficult and less costly than if VA did not have such a system in place for health care. Managing overpayments and underpayments would also impose additional administrative costs on VA.

Reduce Spending on Income Security Programs

Numerous federal programs provide cash payments and in-kind benefits to enhance the security of people's income and alleviate some of the adverse consequences of having low income. This option component focuses on income security programs that do not affect revenues and do not have a dedicated trust fund.

The two largest programs affected under this option are the Supplemental Nutrition Assistance Program and Supplemental Security Income program, both of which are means tested. SNAP provides benefits to low-income households for the purchase of food, and SSI provides cash payments to people who are aged or disabled and who have low income and few assets.

The other income security programs that this option would trim are those that support foster care, those that provide family support, and those that provide child nutrition. Foster care and related programs partially reimburse states for the cost of providing foster care, adoption assistance, and kinship guardian assistance to children. Family support programs include Temporary Assistance for Needy Families, Child Support Enforcement, Child Care Entitlement to States, and other technical assistance, which fund a broad array of services for children and their parents. Child nutrition programs include the National School Lunch Program, the School Breakfast Program, the Child and Adult Care Food Program, the Summer Food Service Program, and the Special Milk Program, through which the government provides commodities and cash payments to reimburse participating schools and institutions for at least part of the cost of meals served to school-age children.

The option would not reduce spending on income security provided through the tax system. As a result, it would not reduce outlays for the refundable portions of the earned income tax credit or the child tax credit. The option also would not trim unemployment compensation because part of that program's financing comes from taxes dedicated to the program.

Spending on SNAP grew from $63 billion in 2019 to $149 billion in 2022 because of increased participation and actions taken by policymakers. The maximum benefit amounts for SNAP are determined by the price of the Thrifty Food Plan (TFP), a basket of foods selected by the Department of Agriculture that would provide a nutritious diet for a household of a particular size. The Department of Agriculture recently reevaluated the TFP, and, largely as a result of that reevaluation, the price of the TFP was about 23 percent higher in 2022 than it was in 2021. In addition, CBO projects that many SNAP participants will continue to receive emergency allotments as authorized by the Families First Coronavirus Response Act (Public Law 116-127) until the month following the end of the public health emergency declared because of the coronavirus pandemic. In CBO's May 2022 projections, the public health emergency ends in July 2023, and thus the emergency allotments would conclude in August 2023. The Pandemic Electronic Benefit Transfer program will also continue to add to spending on SNAP into 2023, CBO projects. Because of the expiration of those temporary allotments and an anticipated decline in participation, spending on

SNAP is projected to fall from $140 billion in 2023 to $110 billion in 2024.

The other programs affected by this option component are smaller than SNAP. SSI is the second largest program: Spending held steady at about $60 billion per year from 2019 through 2022. Spending for programs that support foster care, provide family support, and provide child nutrition assistance rose from a total of $55 billion in 2019 to a total of $68 billion in 2022. That increase in spending was driven by pandemic-related policies.

In an average month during recent years, about 40 million people received assistance with purchasing food through SNAP, and about 8 million people received cash payments from the federal government through SSI. Under current law, the maximum monthly SNAP benefit in 2022 was $250 for a person living alone (excluding the emergency allotments that will expire once the current public health emergency declaration is lifted) in the contiguous 48 states and the District of Columbia. The maximum monthly SSI benefit is $841 for an individual in calendar year 2022. To be eligible for those benefits, people must have low income. As a result, the benefits received from income security programs are often a major source of income for recipients. Additionally, the amount of benefits received generally declines if earnings increase, which can deter recipients from working.

Option Component. This option would reduce the amount of mandatory federal funding for most income security programs by 15 percent. Most of those changes would take effect in October 2023. Changes to child nutrition programs would take place in July 2023 to coincide with the beginning of the school year.

Many approaches could be used to reduce spending by 15 percent. For programs for which federal law specifies eligibility criteria and benefit amounts, such as SNAP and SSI, spending could be reduced by tightening eligibility criteria, which would reduce the number of recipients. Alternatively, the reduction in spending could be achieved through a broader decrease in benefits levels and administrative costs.

Effects on the Budget. CBO estimates that cutting income security programs by 15 percent would reduce mandatory spending by $327 billion between 2023 and 2032. The estimated savings associated with other percentage reductions would be proportional to the size of the reduction. For example, if spending was reduced by 30 percent, the savings would double.

Uncertainty About the Budgetary Effects. The main source of uncertainty in the estimate over the next 10 years is the unpredictability of the number of people who will receive benefits from income security programs. Program participation depends on the number of people who meet the eligibility criteria and the percentage of those eligible people who apply, both of which are difficult to estimate accurately. For example, if participation in SNAP and SSI exceeded CBO's projections, then reductions to the benefits those programs provide per recipient would reduce spending more than CBO estimates because the costs of the programs would be larger than CBO projects.

Distributional Effects. Many of the programs included in this component are available only to people with income below a certain threshold, so households toward the bottom of the income distribution would see the largest decreases in average household income. For example, for SNAP, states must set their gross income limit no higher than 200 percent of the federal poverty guidelines, and many households have no cash income in the months they receive SNAP benefits. (Households with elderly or disabled members face different eligibility criteria.)

Economic Effects. In addition to having the effects reflected in conventional budget estimates, such as the ones shown above, reducing benefits for income security programs would affect the economy's output through several channels. During the first few years, overall demand would fall because beneficiaries would have less income to spend, which would reduce the economy's output. That reduction would be partially offset by an expansion of the labor supply; the benefit reductions would cause some people to work more and some to remain in the labor force longer than they would have otherwise. The loss of economic output from beneficiaries' spending less would dissipate in the longer term, but the expansion of the labor supply would continue to boost economic output.

Other Considerations. This component could lead to worse health outcomes, long-term reductions in earnings, and more crime. Researchers have found evidence that SNAP benefits lead to higher birthweights and better health in adulthood for child recipients. For females,

receiving SNAP benefits during early childhood also appears to increase earnings in adulthood. (Those gains would not occur within the next 10 years.) Finally, recent research indicates that providing benefits through SNAP or SSI reduces the likelihood of the recipients' committing financially motivated crimes.

Related Options in *Options for Reducing the Deficit: 2023 to 2032—Volume II: Smaller Reductions*, www.cbo.gov/publication/58163: Option 12, "Eliminate Subsidies for Certain Meals in the National School Lunch, School Breakfast, and Child and Adult Care Food Programs," Option 15, "End VA's Individual Unemployability Payments to Disabled Veterans at the Full Retirement Age for Social Security," Option 16, "Reduce VA's Disability Benefits to Veterans Who Are Older Than the Full Retirement Age for Social Security," Option 17, "Narrow Eligibility for VA's Disability Compensation by Excluding Veterans With Low Disability Ratings," Option 44, "Include Disability Payments From the Department of Veterans Affairs in Taxable Income"

Related CBO Publications: *Work Requirements and Work Supports for Recipients of Means-Tested Benefits* (June 2022), www.cbo.gov/publication/57702; *Possible Spending Paths for Veterans' Benefits* (December 2018), www.cbo.gov/publication/54881; *Child Nutrition Programs: Spending and Policy Options* (September 2015), www.cbo.gov/publication/50737; *The Effects of Potential Cuts in SNAP Spending on Households With Different Amounts of Income* (March 2015), www.cbo.gov/publication/49978; *Temporary Assistance for Needy Families: Spending and Policy Options* (January 2015), www.cbo.gov/publication/49887; *Veterans' Disability Compensation: Trends and Policy Options* (August 2014), www.cbo.gov/publication/45615

Option 11—Discretionary Spending Function 050

Reduce the Department of Defense's Annual Budget

Billions of Dollars	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	Total 2023–2027	Total 2023–2032
Change in Spending												
Budget authority	0	-64	-90	-105	-132	-138	-142	-146	-150	-154	-391	-1,121
Outlays	0	-37	-68	-88	-112	-126	-133	-139	-144	-148	-305	-995

This option would take effect in October 2023.

The estimated outlay savings reflect the Congressional Budget Office's assessment of how quickly total funding provided to the Department of Defense is spent and do not reflect the details of any particular alternative.

Background

Each year, the Department of Defense (DoD) presents a budget request to the Congress that is designed to align military forces to the National Security Strategy (NSS) within fiscal constraints. In its 2023 budget request, DoD requested an active military force of 1.3 million by the end of fiscal year 2023 (known as end strength) and a budget of $773 billion, which represents 46 percent of all proposed discretionary funding for that year. In fiscal year 2021, budget authority for defense programs was about 10 percent of the total federal budget (mandatory and discretionary) and about 44 percent of all discretionary budget authority. The Congressional Budget Office projects that, under DoD's current plans, funding for defense programs would be $966 billion in 2032 (or $802 billion in 2023 dollars).

National security priorities change over time, and when an Administration issues an NSS, it describes policy choices for how the United States will defend itself by inducing favorable behavior in other nations, deterring military aggression, and shaping an international community based on rules that support the interests of the United States and its allies. Those goals can be achieved in a number of ways, primarily through four elements of national power: diplomatic actions, such as building coalitions; information campaigns to influence world opinion; military actions to deter and counter aggression; and economic actions, such as opening trade or imposing sanctions.

The elements of national security that have the largest effects on the size and shape of military forces are the deterrence of military aggression by adversaries and the preparation to counter aggression should deterrence fail. In the NSS published in 2017, the strategic approach for deterring military aggression relied heavily on the threat of rapid defeat of enemy forces by U.S. combat forces. For that strategy to be successful, the U.S. military would need to demonstrate the ability to strike with sufficient speed and firepower and to maneuver forces in a way that would overwhelm an enemy's military (known as military overmatch) to reverse any territory or advantages an adversary would attempt to gain through military aggression. In 2021, an interim NSS was published. It emphasized an integrated approach to national security, placing less importance on the threat of using U.S. combat forces and more on the threat of broad-based punitive actions by the United States and its international partners against an aggressor. The full NSS published in October 2022 emphasizes the same approach.

The composition and focus of military forces have begun to change under the 2021 strategic guidance, but the military is a large, complex organization—it takes considerable time to adjust the number and types of units in the force and to acquire new capabilities necessary to support alternative military approaches. Thus, the current force is still one largely designed to meet the objectives outlined in the 2017 NSS.

Reducing DoD's budget would require some combination of cutting the size of the force, purchasing fewer or less expensive weapons, reducing the cost of operating and maintaining equipment in service, and decreasing the costs of training personnel. This option encompasses three possible strategic approaches for configuring the military within the confines of a smaller budget.

The general-purpose nature of military forces means there are many ways to accommodate changes and structure the

forces to implement a fixed strategy. If, after analysis and testing, a force structure cannot be identified that meets both budgetary targets and strategic objectives, one or possibly both constraints will have to be eased.

Option

This option consists of three alternatives that would reduce DoD's funding by $1.1 trillion over 10 years ($1.0 trillion in 2023 dollars). In all three, the reduction would be achieved by decreasing the number of full-time active component forces by between 18 percent and 21 percent relative to the 2023 force. Budget cuts would be phased in over the first five years of the period, and funding would grow with the rate of inflation thereafter. In 2032, the resulting DoD budget under this option would be 9 percent smaller in real terms (after removing the effects of inflation) than the amount of DoD funding provided in 2022.

The three alternatives in this option provide broad examples of how a force structure might be reconfigured to implement different strategies that aim to deter military aggression under a smaller DoD budget and how the United States would react should deterrence fail. Those alternatives are designed to be high-level illustrations of the different strategies that could be pursued under a given budget and have not been subject to the analysis and planning that DoD puts into crafting war plans or building a Future Years Defense Program (FYDP). Strategically, the alternatives vary in the degree to which the United States would rely on the threat of using U.S. combat forces to support national security goals. Structurally, they differ in how personnel reductions would be distributed, in the speed with which combat forces could be used, and in the size and composition of the combat forces the United States would commit to support allies and coalition partners (see the figure on the next page).

In all three alternatives, only units in the active forces would be affected. Units in the reserve forces would remain unchanged. Preserving reserve forces would allow the military to retain the capacity and capabilities of a larger force at a lower cost. If international conditions changed or deterrence failed, reserve forces could be mobilized for combat operations, though more slowly than active forces could be. Under each alternative, the remaining active and reserve forces would be highly ready and units would be manned, trained, and equipped according to their intended design.

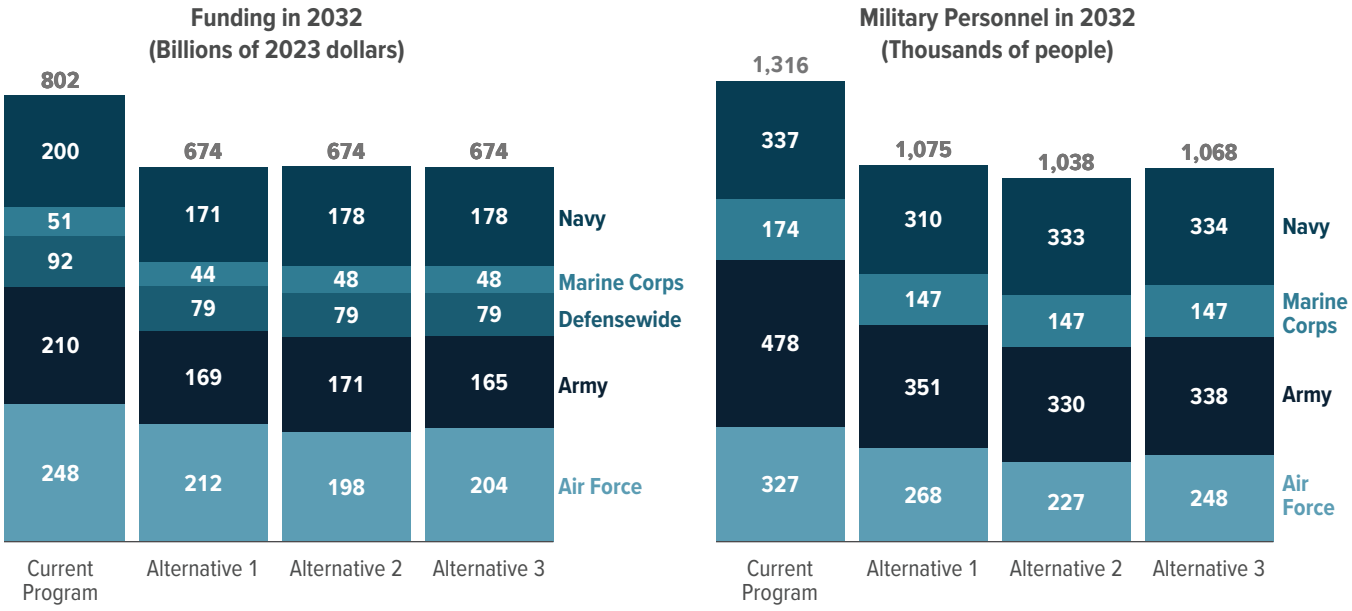
Alternative 1: Reduce Military Manpower by 18 Percent Overall and Maintain Current Composition. Under this alternative, active military manpower would be reduced by 18 percent by 2032. The number of most types of units would be reduced in proportion to their 2023 level of funding in the 2023 FYDP. As a result, the current composition of the force, which roughly reflects the 2017 NSS, would not change (see the table on page 63). However, some units could face slightly larger or slightly smaller reductions for two reasons. First, to preserve modernization plans, units with older equipment (like F-15 fighter squadrons) might face larger reductions than units with newer equipment (like F-35 fighter squadrons). Second, because units consist of discrete elements, it might not be possible to reduce the number of items by the same percentage as the overall percentage change in the force.

Deterrence under this alternative would rely on the United States' demonstrating the resolve and ability to conduct a rapid, large-scale combat action that would deal a crushing military defeat against any aggressor. Doing so would require U.S. combat forces to be able to overmatch an aggressor's military forces and thereby deny an aggressor its objectives outright. Allies and coalitions would be expected to provide only marginal support.

Under this alternative, if the United States found itself in conflict with another great power, it would have to rapidly mobilize considerable assets to support deployment of a U.S. combat force capable of ending the conflict and restoring peace and stability quickly. The force developed to provide deterrence would be the same force that would be deployed should deterrence fail.

Alternative 2: Reduce Military Manpower by 21 Percent Overall and Increase Support for Coalition Forces. Under this alternative, the number of active military personnel would be reduced by 21 percent overall relative to the 2023 force. The reduction would be concentrated in ground combat and tactical aviation units, including brigade combat teams, infantry battalions, and carrier strike groups. Enough units would remain in the active force to maintain proficiency in combined arms warfare (the ability to integrate and command a large military force containing a wide array of separate and distinct capabilities, such as infantry, tanks, artillery, fighter jets, and naval gunfire). DoD would maintain sufficient forces, equipment, and infrastructure to enable

Effect on the Services of Various Alternatives for a Reduced Defense Budget



Data source: Congressional Budget Office. See www.cbo.gov/publication/58164#data.

Current program refers to CBO's projection of the costs of implementing the Department of Defense's plans outlined in the 2023 Future Years Defense Program.

the mobilization of reserve combat forces and the creation of more combat units should the need arise.

The total number of ships in the Navy would increase under this alternative, as would the number of units with capabilities that enhance long-range strikes (missiles), logistics, allied training and collaboration, and command and control. The new mix of units would be able to assist in training and support of coalition combat forces.

Under this alternative, the United States would seek to deter acts of military aggression against allies, such as violations of national sovereignty, through an integrated use of national power. It would rely less on U.S. combat forces and more on the other elements of U.S. national power: threatening severe economic sanctions, influencing world opinion to make the aggressor a pariah state, and backing that message with clear diplomatic actions, much like the United States' response to Russia's invasion of Ukraine. The military elements of deterrence in this option would rely on U.S. military actions to strengthen allied combat forces, such as greater commitment to security force assistance programs (such as the actions taken to assist Ukraine before the invasion) that would work to strengthen U.S. allies' defenses and make them undesirable targets for potential aggressors.

Should deterrence fail, the United States would initially refrain from using its own combat forces and would rely on the prior collaborative training and material support provided to coalition allies in the region that enhanced their defense capability. U.S. combat forces would only be deployed if allied forces failed to halt and reverse military aggression. However, unlike in the first alternative, the United States would not be able to deploy a large ground combat force quickly—if that became necessary—because time would be needed to mobilize reserve units and build new units to create a force that would guarantee success in combat operations.

Alternative 3: Reduce Military Manpower by 19 Percent Overall and Increase U.S. Control of the Global Commons. This alternative would further deemphasize the use of U.S. combat forces, and the number of active military personnel would be reduced by 19 percent overall relative to the 2023 force; most of the reductions would occur in ground and air combat units. The United States would focus its defense resources on maintaining and enhancing the nation's primacy in freedom of navigation at sea, in the air, and in space (collectively known as the global commons). The number of Navy ships would increase and the mix would be reconfigured to better maintain U.S. control of sea lanes, with

Change in the Number of Units in the Total Force Under Various Alternatives

			Alternative 1		Alternative 2		Alternative 3	
Service	Unit	Units in 2023	Units in 2032	Change (Percent)	Units in 2032	Change (Percent)	Units in 2032	Change (Percent)
Army	Aviation Brigades	28	22	-21	23	-18	24	-14
	Brigade Combat Teams	60	51	-15	48	-20	49	-18
	Long Range Strike Missile Battalions	0	6	n.a.	28	n.a.	9	n.a.
	Security Force Assistance Brigades	5	4	-20	10	100	10	100
	Acquisition Funding (Percent)	100	84	-16	83	-17	83	-17
Marine Corps	Air-Land-Sea Attack Missile Units	0	0	n.a.	14	n.a.	14	n.a.
	Marine Corps Aircraft Complements	24	20	-17	15	-38	15	-38
	Marine Corps Infantry Battalions	32	28	-13	29	-9	29	-9
Navy	Amphibious Ships	36	29	-19	59	64	44	22
	Carrier Strike Groups	20	17	-15	15	-25	19	-5
	Logistics Ships	59	51	-14	79	34	69	17
	Maritime Aviation Squadrons	8	7	-13	7	-13	7	-13
	Submarines	67	55	-18	55	-18	54	-19
	Surface Warfare Ships	122	100	-18	158	30	128	5
	Unmanned Naval Vessels	0	10	n.a.	25	n.a.	15	n.a.
	Acquisition Funding (Percent)	100	84	-16	83	-17	83	-17
Air Force	Bomber Aircraft Squadrons	9	9	0	9	0	9	0
	Cargo Aircraft Squadrons	40	35	-13	22	-45	30	-25
	Fighter-Attack Aircraft Squadrons	100	79	-21	59	-41	69	-31
	Tanker Aircraft Squadrons	35	25	-29	18	-49	20	-43
	Unmanned Aerial Systems Squadrons	27	25	-7	39	44	30	11
	Acquisition Funding (Percent)	100	84	-16	83	-17	83	-17

Data source: Congressional Budget Office. See www.cbo.gov/publication/58164#data.

n.a. = not applicable.

an increased number of surface combatants and combat logistic ships. The number of security force assistance brigades and missile units would also increase to enhance support to coalition allies. Enhanced support might include pre-positioning sets of combat equipment and war stocks managed by the U.S. military intended to support regional allied forces. Compared with the other alternatives, this alternative would focus more on the acquisition of intelligence, surveillance, and reconnaissance capabilities, especially for the Air Force and Space Force.

The composition of the force under this alternative would be designed to maintain control of the flow of goods and commerce in the global commons, to maintain ready access to ports and logistics hubs by U.S. forces and coalition allies, and, if necessary, to deny adversaries access to the commons. A smaller number of ground and air combat units would remain in the active force to maintain proficiency in combined arms warfare, and the nation would rely more heavily on the reserve component to preserve combat power. This alternative would place much more emphasis on maintaining minimal but sufficient forces, equipment, and infrastructure to support a national mobilization (activation of the reserve component and creation of new military units) to increase the size of active ground and air forces for large-scale combat operations.

Like the second alternative, this alternative would seek to deter military aggression by helping allies strengthen

themselves against attack and by building strong regional coalitions to support unified military, economic, and diplomatic actions. Military deterrence would be achieved by the threat of locking an aggressor out of the commons. Should deterrence fail, the U.S. military would pressure an adversary by limiting its freedom of movement in the global commons—that is, restricting its flow of trade and military support. Under this alternative, the United States would only commit large ground and air forces in a regional conflict if those other approaches failed.

Effects on the Budget

This option would save $1.1 trillion in budget authority over the 2023–2032 period relative to DoD's plan in the 2023 FYDP. (The reduction in outlays would be a bit smaller, at about $1.0 trillion.) In 2032, funding under this option would be $812 billion, a 5 percent increase in nominal dollars from proposed funding for 2023 in the Administration's budget request. (Measured in 2023 dollars, funding under this option for 2032 would be $674 billion, 13 percent less than the amount proposed for 2023.)

A 13 percent reduction in real defense funding over 10 years, though substantial, would be smaller than the two largest reductions that have occurred since the Korean War. First, reductions after the Cold War resulted in a 30 percent decline, in real terms, in annual budgets between 1988 and 1997. Second, real defense funding declined by 17 percent between 2012 and 2015 after the Budget Control Act of 2011 was enacted. That law generally capped defense and nondefense discretionary funding. (Those caps, which are no longer in effect, were later raised several times: Between 2016 and 2021, real defense spending rose by 9 percent.)

CBO's estimates of savings for this option were calculated on a different basis than for nondefense options. (This approach is consistent with CBO's practice for defense options in other publications.) Because CBO's baseline projections of defense discretionary spending do not reflect programmatic details for force structure, acquisition, and maintenance of specific weapon systems, the effects of this option were calculated relative to DoD's planned spending as laid out in its 2023 FYDP, which provides details about DoD's plans for the 2023–2027 period, and CBO's projection of the costs of implementing that plan. Over the 2023–2032 period, CBO's baseline projections of funding for discretionary defense programs are about $220 billion more than funding projected on the basis of the FYDP. Therefore, if one of the alternative force structures under this option was implemented, the savings relative to CBO's baseline projections would be larger than the estimated reduction in outlays shown in this option.

CBO estimated how the reduction in defense spending would affect the composition of the military using a modified version of CBO's enhanced interactive force structure tool. Given a force that includes a mix of capabilities aligned to a specific strategic and military approach, the force structure tool automatically adjusts the number and types of key combat units until a force structure is found that will fit within resource and policy constraints. The tool mechanically creates force structure options; how well a force might perform in meeting strategic objectives is beyond the scope of the tool. To relate changes in the force to strategic approaches, CBO relied on past and current national security literature.

Uncertainty About the Budgetary Effects

Although the change in discretionary spending is fixed for this option, the estimates of the resulting force structure are uncertain for two main reasons. First, there is programmatic uncertainty; that is, it is uncertain whether a military force with the desired capability can be created on schedule using available resources. Second, there is strategic uncertainty; that is, the global security environment is inherently uncertain, and that environment informs strategy and force structure design.

Programmatic uncertainty reflects the risk that the desired force cannot be realized in time (or at all). Every year, DoD uses the planning, programing, budgeting, and execution (PPBE) process to set priorities that align programs to strategy within resource constraints, resulting in the FYDP. Despite rigorous testing during the planning and design phase, a new unit might not produce the desired capability. Delays in equipment acquisition schedules, cost overruns because of an increase in the scope of a program, failure to develop desired technologies, or issues in systems integration could result in a failure to achieve the desired capabilities. Through the PPBE system, DoD's leadership responds to failed assumptions about the performance of new units or the need for acquisition programs, adjusting plans and programs accordingly and capturing those changes in a subsequent FYDP.

The force structure alternatives presented here are simple, illustrative estimates, defined in broad strokes to change the size and composition of the force so that it meets resource and strategic constraints. CBO does not have the resources to test proposed force structure alternatives for all the possible programmatic risks that could occur in achieving the alternatives.

Strategic uncertainties are typically harder to predict than programmatic uncertainties and include changes in an adversary's military tactics and capabilities, emerging unforeseen threats, natural and manmade disasters, and economic perils. If global security conditions changed, the strategy, the program, or both would need to be adjusted. DoD addresses strategic changes by adjusting strategies and by using the PPBE system to adapt forces, programs, and budgets to new conditions.

Distributional Effects

Defense spending is focused on producing military power to support national security objectives, such as maintaining global peace and security by deterring aggression or enhancing U.S. global influence. All households benefit from the public good of peace and security generated by defense spending and many other elements of national power. In CBO's distributional analyses, spending on national security as a public good is distributed among all households. As a result, a reduction in defense spending would be distributed among households across the income distribution.

Economic Effects

This option could have effects on economic output that are not reflected in conventional budget estimates such as the ones shown above. Reducing defense spending would not have clear effects on aggregate hours worked, saving, or investment. However, eliminating military jobs could have significant short-term effects, including a reduced demand for goods and services, which would probably reduce economic output. It could also have some longer-term effects, including reduced human capital development because there would be fewer military jobs, as well as a reduction in national productivity if lower defense spending meant less was spent on the development of new technology.

A reduction in active military end strength on the order of 18 percent (or about 326,000 jobs) over five years would result in an uneven distribution of economic effects across the United States. It would probably have the greatest direct effect on communities that have a large fraction of their population serving in the military, working for DoD, or working for defense contractors. Such a change in employment would have ripple effects across the economy as those relatively high-paying jobs were eliminated and workers were displaced from military forces and defense industries. Therefore, defense spending cuts would result in lower income for certain workers, and those effects could be permanent for some people. However, the displacement of workers in defense industries and the military would provide opportunities for other industries to hire those skilled individuals. Because of those shifts, the overall economy would probably not be permanently harmed in terms of production and employment.

Military spending can enhance economic productivity through development of human capital and new technology. Some people argue that the military can offer an effective training and jobs program for young, low-skilled people and that when they leave the service, those people can enter higher-skilled occupations. According to that argument, reducing military training could reduce economic productivity. However, studies about the cost of military personnel suggest that it may not be the most efficient use of government funds to generate skilled workers.

Military research and development (R&D), such as medical advances and new safety equipment, may enhance U.S. economic productivity as well. Studies indicate that government-financed investment in R&D—including that for defense—stimulates an increase in privately funded R&D efforts. One study has shown that a 10 percent increase in government-financed R&D leads to a 5 percent increase in privately financed R&D in the targeted firm or industry (Moretti, Steinwender, and Van Reenen, 2021).

In addition to those direct effects on the economy, defense spending provides the peace and stability necessary for a strong economy. Peace and stability foster economic prosperity, but it is not immediately clear how much defense spending is needed to ensure peace and stability or how much an increase or decrease would affect it. Measuring military deterrence is difficult; therefore, it is possible that additional funds spent to ensure national security and stability might be better used to support other elements of national power or other policy goals.

Other Considerations

Each year, the United States pays to maintain a military that is ready to support a set of national security objectives. In times of relative peace, military forces coupled with the other elements of national power allow the United States to influence its competitors, deterring them from aggressive military actions against allies and coalition partners. Because the nature of deterrence lies in the minds of the United States' competitors, it is difficult to establish a direct relationship between defense budgets and deterrence.

National Security With a Smaller Military. Achieving savings by reducing the size of the active force would impose certain risks. A smaller force might lead to diminished deterrence and an increase in the chance of military aggression by a global competitor. Even if a smaller force did provide similar deterrence, if deterrence failed, a smaller active force could present several liabilities. Depending on the size and composition of the force, military leaders would need more or less time to generate a force of an appropriate size and lethality to ensure success in combat operations. Without detailed analysis and military planning, it is hard to determine the time needed to increase the size of the force, and therefore it is difficult to assess the risk that forces would not be ready in time for some military scenarios. That risk would be greater if the force became too small to practice and retain vital capabilities. As the size of budget reductions grew, so too would the risk of not being able to restore forces in a timely manner.

Some of the potential risks in having a smaller active force could be mitigated by investing more in reserve forces. Military capacity and capability could be maintained in the part-time reserve component at a lower cost than in a highly ready active force. However, those cost savings would come with the risk of reserve forces requiring more time to mobilize for combat operations unless U.S. leadership had the foresight to expand the military in response to a deterioration in the security situation well before a conflict began.

Potential Risk to the Military Industrial Base. Reduced spending would not necessarily slow weapon system development and advancement, but it would reduce the number of new weapon systems fielded. With a smaller force, smaller inventories of equipment on hand, and perhaps slowed modernization and fielding, specialized military production capacity would probably decrease. That would mean less work for defense contractors and reduced defense manufacturing capacity.

Measures could be put in place to offset risks to the industrial base. Logistics and acquisition planning could offset some risk by developing capabilities in DoD's logistics systems. Those actions, which would come at a cost, include preserving and storing unused weapon systems; retaining excess federal depot maintenance capacity to restore equipment in times of crisis; planning and practicing for the reconstitution of military units so that DoD's leadership has confidence in their capability and understanding of the timelines; and identifying and promoting U.S. commercial manufacturing production capacity that could be tapped for military production in times of crisis. DoD already has measures in place to mitigate risks to the industrial base, but a smaller military would require even more careful management, planning, and programming.

National Security With Less Emphasis on Military Solutions. Being the world's leading military power provides many benefits to the United States in terms of status and influence. The competency of U.S. military forces tends to make them a focus of national security planning. But military power is only one element of national power. The elements of national power work together to enhance one another, giving any one element the potential to accomplish more than it could alone. Other elements are necessary for supporting U.S. influence around the world and protecting citizens at home, including the nation's economic power and the dollar's role as the world's reserve currency, U.S. leadership in diplomatic efforts and coalition building, and positive messaging about the United States in media and the world marketplace. Depending on economic conditions, reducing the national debt, thereby lowering borrowing costs and decreasing the chance of a fiscal crisis, may better maintain the international geopolitical role of the United States and reduce the likelihood that policymakers may feel fiscal constraints when faced with increasing national security spending to prepare for or respond to an international crisis.

In some cases, nonmilitary elements of national power may be better suited to address a problem than military ones. Public health crises, economic crises, disaster relief, and civil unrest are problems that are not the core focus of military planning and force design, but in the past, the military has been used for such crises out of convenience. If fewer resources were available for military solutions,

national leadership would probably have to consider relying more on other elements of national power. A shift in focus, enhancing the roles that other government agencies play in national preparedness for some kinds of events that affect the United States' security, could result in more balance among the elements of national power and better outcomes, even though resources for national security were reduced.

Related CBO Publications: *Long-Term Costs of the Administration's 2022 Defense Budget* (January 2022), www.cbo.gov/publication/57541; *CBO's Interactive Force Structure Tool* (May 2022), www.cbo.gov/force-structure-tool; *Illustrative Options for National Defense Under a Smaller Defense Budget* (October 2021), www.cbo.gov/publication/57128; *The U.S. Military's Force Structure: A Primer, 2021 Update* (May 2021), www.cbo.gov/publication/57088; *Replacing Military Personnel in Support Positions With Civilian Employees* (December 2015), www.cbo.gov/publication/51012

Work Cited: Enrico Moretti, Claudia Steinwender, and John Van Reenen, *The Intellectual Spoils of War? Defense R&D, Productivity, and International Spillovers*, Working Paper 26483 (National Bureau of Economic Research, December 2021), www.nber.org/papers/w26483

Option 12—Discretionary Spending Functions 400, 500

Reduce Nondefense Discretionary Spending

Billions of Dollars	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	Total 2023–2027	Total 2023–2032
Change in Spending												
Spending authority	0	-41	-42	-42	-43	-44	-45	-46	-47	-48	-168	-398
Outlays	0	-12	-29	-35	-38	-40	-42	-44	-45	-46	-115	-332

This option would take effect in October 2023.

Spending authority includes both budget authority and obligation limitations for certain transportation programs.

Background

Nondefense discretionary spending is controlled by lawmakers through appropriation acts, which specify how much money can be obligated for certain government programs in specific years. Those acts fund a wide array of federal activities that provide direct benefits to individuals, give grants to state and local governments and private entities, pay for federal employees' salaries, and fund contracts for goods and services provided by the private sector. Nondefense discretionary spending also includes outlays for certain highway and airport infrastructure and public transit programs whose funding is considered mandatory. The outlays for those programs are considered discretionary because annual appropriation acts limit the obligations that can be made from the mandatory funding.

Most nondefense discretionary funding is provided one year at a time; that funding translates to outlays when the money is spent, which can occur over one or more years. In its 10-year baseline projections, the Congressional Budget office projects nondefense discretionary spending in accordance with section 257 of the Deficit Control Act. That section requires projections of funding for discretionary programs to grow each year with inflation. For any program without an appropriation provided for future years, CBO projects funding in those years by applying an inflation factor to the most recently appropriated amount.

In 2019, nondefense discretionary funding (including obligation limitations for certain transportation programs) totaled $718 billion and outlays totaled $661 billion. Federal programs to address the effects of the coronavirus pandemic increased that funding to $1,204 billion and $938 billion in 2020 and 2021. Outlays also increased in those years, to $914 billion and $895 billion, respectively.

A broad range of federal programs are funded through nondefense discretionary appropriations, including the following:

- Air, rail, road, and maritime transportation programs of the Department of Transportation ($104 billion in 2019, including obligation limitations of $60 billion);
- Programs for early childhood, elementary and secondary education, and some post-secondary programs, including job training, administered by the Department of Education and other agencies ($99 billion in 2019);
- Health and other benefit programs for veterans provided by the Department of Veterans Affairs ($87 billion in 2019);
- Scientific research and space programs administered by the National Science Foundation, the National Institutes of Health, and the National Aeronautics and Space Administration ($67 billion in 2019);
- Diplomatic and consular programs and international aid programs administered by the Department of State and the Agency for International Development ($56 billion in 2019);
- Law enforcement programs in the Department of Justice and the Department of Homeland Security ($55 billion in 2019);
- Housing assistance programs for low-income tenants provided by the Department of Housing and Urban Development ($51 billion in 2019); and
- Management of the nation's natural resources and the environment, including activities of the National Park Service and programs of the Environmental Protection Agency ($45 billion in 2019).

In most years, transportation and education programs account for the largest shares of nondefense discretionary outlays. In 2019, for example, outlays for programs in those areas accounted for 29 percent of the total. In 2020 and 2021, a larger-than-usual share of nondefense discretionary outlays was for health care programs other than those for veterans (20 percent and 16 percent, respectively, compared with 10 percent in 2019). The difference is largely attributable to increased outlays for programs related to the pandemic.

Much of the federal government's discretionary spending for transportation and education programs takes the form of grants to state and local governments. Those federal grants are intended to contribute to the funding for construction of highways and public transit facilities and to the funding of education for children from low-income households and children with disabilities. In most cases, state and local governments have broad latitude in deciding how to use those funds as long as they meet the program's requirements.

Federal grants are rarely the only source of funding for the projects and programs they support; state and local governments also contribute funds for those purposes. Typically, state and local governments must meet certain spending requirements to receive federal money. For many highway and transit programs, grants from the federal government pay for 80 percent of the cost of funded projects. To receive federal funds, state and local governments must cover the remaining 20 percent with their own resources, such as state tax revenues or bond issues. For education grant programs, the requirements are different. Instead of matching requirements, many education grant programs include maintenance of effort requirements. For many programs, to avoid reductions in federal grant amounts, a local education agency must spend at least 90 percent of what it spent the previous year from nonfederal sources.

Option

There are many possible paths to implementing reductions to nondefense discretionary spending. Policymakers could choose to make small reductions in many programs to achieve a targeted amount of savings. Alternatively, policymakers could opt to focus on fewer programs but reduce spending for those programs by a greater amount, perhaps eliminating some of them. Some changes would be straightforward, whereas others might have more complicated interactions with other federal programs.

Under this option, the reductions would be achieved by decreasing funding for two of the largest areas of nondefense discretionary spending: Specifically, funding for grants to state and local governments for certain transportation and education programs would be reduced by one-third of the amounts projected for those programs in CBO's baseline. Although reducing spending on grants would affect the budgets of state and local governments, those reductions would not have major interactions with other federal programs.

Effects on the Budget

Reducing spending authority (that is, budget authority and obligation limitations) for grants to state and local governments for certain transportation and education programs by one-third would result in funding reductions of $398 billion from 2024 to 2032. Those reductions would reduce the deficit by $332 billion over the same period. The reductions would amount to 2.1 percent of total discretionary outlays and 3.6 percent of nondefense discretionary outlays in 2032 in CBO's baseline; over the 2024–2032 period, they would equal 1.8 percent of total discretionary outlays and 3.3 percent of nondefense discretionary outlays in the baseline.

Obligation limitations for grants to state and local governments for highways and mass transit programs would be reduced by one-third, or $25 billion, in 2024; those reductions would increase to $29 billion in 2032. (Obligation limitations for those programs in CBO's baseline projections total $75 billion in 2024 and $88 billion in 2032.) Making such changes in each year over the 2024–2032 period would reduce outlays by $190 billion over that period.

Federal funding for elementary and secondary education would be similarly reduced by one-third; those reductions would amount to $16 billion in 2024 and would rise to $19 billion in 2032, resulting in a reduction in outlays of $141 billion over the 2024–2032 period. In CBO's baseline, funding for those programs increases from $48 billion to $56 billion over that period. Funding for the two largest discretionary grant programs for elementary and secondary education—Title I grants for the education of children from low-income households and special education grants for the education of children with disabilities—is projected to total $34 billion in 2024 and $40 billion in 2032 in CBO's baseline.

Funds for highway and transit grants may take up to five years from the year of obligation to materialize as outlays. That lag occurs because the federal government obligates all the funds necessary for covering its share of the cost of a highway project but reimburses states only after they incur eligible expenses. About one-quarter of the savings in

outlays associated with a reduction in obligations in a given year are projected to occur in the same year, and less than half occur the following year. A small portion of obligation limitations is not used each year and therefore expires, and a small portion of obligations never results in outlays.

Federal grants to state and local governments for highways and transit are financed mostly through the Highway Trust Fund, which has separate accounts for each mode of transportation. Those accounts are funded through a variety of excise taxes on fuels and excise and use taxes on certain kinds of trucks and tires. In recent years, outlays from the trust fund have routinely exceeded revenues from those taxes. As a result, the Congress has transferred money from the general fund of the Treasury to the Highway Trust Fund. In CBO's current baseline, outlays continue to exceed revenues, and accumulated balances in both the highway and the transit accounts are exhausted in 2027. This option would delay the projected exhaustion of the transit account until 2029 and the highway account until after 2032. (CBO's projections of outlays from the Highway Trust Fund are unaffected by whether the fund is exhausted.)

Because school years typically span more than one fiscal year, appropriations for education grant programs generally include funding for both the current fiscal year and the following fiscal year. Under this option, outlays arising from grants to state and local governments for elementary and secondary education would decrease over multiple years after funding amounts were reduced.

Uncertainty About the Budgetary Effects

The main source of uncertainty in this option is the rate at which outlays would occur. If state and local governments adjusted their spending plans in response to smaller federal grants, the speed at which outlays occurred could change.

Uncertainty about future economic developments also affects uncertainty about the option's budgetary effects. For example, a recession could affect the speed with which outlays occurred. On the one hand, if state and local governments expanded highway construction projects to increase employment in a recession, outlays could occur more rapidly. On the other hand, if a recession reduced the resources available to state and local governments to spend as required under some grant programs, outlays could occur at a slower pace.

Distributional Effects

In CBO's distributional analysis, spending on highways and transit benefits all households, whereas spending on education benefits households with school-aged children. Within those groups, certain households are more likely to be directly affected by the reductions in grants to state and local governments for highways, transit, and education. Those reductions would also have broader effects on the economy over time.

Highway and transit grants are distributed to state and local governments on the basis of a variety of factors, including population, highway miles, tax payments to the Highway Trust Fund, and the amount of local transit infrastructure. The distributional effects of the reductions in highway grants would depend on how state and local governments adjusted their spending to account for the smaller amounts. Reductions in transit grants would be felt largely in urban areas because almost all public transportation trips are taken on urban transit systems serving areas with at least 50,000 residents.

Grants to state and local governments for education supplement state and local funding for the education of children from low-income households and children with disabilities. They are largely distributed according to formulas that include both the population of children and the population of children in low-income households in a community. Additionally, eligibility for early childhood education funded by federal grants is generally limited to young children from families with low income, so, in the near term, children in lower-income households would be more likely to be affected by this option. Over time, a reduction in spending on education would have broader effects on the economy.

Economic Effects

Reducing spending on highways, transit, and education would have effects on economic output that are not reflected in conventional budget estimates such as the ones shown above. Federal grants to state and local governments for highways, transit, and education are an investment in infrastructure and human capital. That investment contributes to future productivity and economic output as new capital is put in place and the labor force becomes more skilled. Reducing those grants to state and local governments would slow the pace at which new transportation capital was put in place and the labor force became more productive. The lower amount of investment under this option would contribute to slower economic growth in the long term.

Reductions in spending on education programs would, over the long term, slow the rate at which the skills of the U.S. workforce grew, resulting in smaller increases in

average earnings and output over time. Because federal education grants to state and local governments primarily support the education of children who will not enter the labor force for many years, some of those effects would occur well into the future. In the short term, reductions in grants for early childhood education programs would increase the cost of child care, affecting parents' employment decisions. On average, parents' employment would decrease slightly and their consumption of goods and services other than child care would probably decrease as well. That reduction in parents' employment in the short term would slow their accumulation of work experience and so also would reduce their employment and wage growth in the long run.

Other Considerations

Some of the reduction in federal grants to state and local governments for highways, transit, and education could be offset by greater spending by state and local governments for those purposes. A study of federal highway grants suggests that state and local governments would increase per capita spending on highway capital projects from their own revenues by 26 cents for every one dollar reduction in federal highway grants. Although there are no similar estimates of the rate of substitution for other types of federal grants, some substitution would be likely as state and local governments continued to operate grant-funded programs with reduced federal funds. State and local governments might also change the way they spent their funds for those purposes as the reduced federal support would weaken state and local governments' incentives to align their spending priorities with those of the federal government.

Reducing grants to state and local governments for transportation and education is just one possible way to decrease funding for nondefense discretionary programs. Instead of focusing reductions on those programs, policymakers could focus cuts on other areas of the budget or reduce funding for a broader set of programs. Such alternative paths to reducing nondefense discretionary funding would have different distributional and economic effects than those presented here. In addition, reducing funding for some nondefense discretionary programs would increase outlays in other areas of the budget; for example, reducing discretionary funding for veterans' health care programs would cause increases in outlays for mandatory health care programs such as Medicare. As a result, alternative paths to reducing funding by about $400 billion would not necessarily have the same effect on the deficit as the path considered in this option.

Enacting these or any other reductions of a similar size to nondefense discretionary funding would require policymakers to make difficult choices. For example, this option focuses on reductions to transportation and education grants to state and local governments, but the Infrastructure Investment and Jobs Act (Public Law 117-58) enacted in November 2021 recently boosted funding for programs that would be affected by this option significantly. (Other nondefense discretionary programs also received funding under that law.) Cutting nondefense discretionary outlays might require policymakers to cut back some of those recent increases, just as they would have to examine other programs that have seen funding boosts in recent years.

Related Options in *Options for Reducing the Deficit, 2023 to 2032—Volume II: Smaller Reductions*, www.cbo.gov/publication/58163: Option 35, "Reduce Funding for Certain Grants to State and Local Governments," Option 56, "Increase Excise Taxes on Motor Fuels and Index Them for Inflation"

Related CBO Publications: *Federal Financial Support for Public Transportation* (March 2022), www.cbo.gov/publication/57636; *Economic Effects of Expanding Subsidized Child Care and Providing Universal Preschool* (November 2021), www.cbo.gov/publication/57630; Sheila Campbell and Chad Shirley, *Fiscal Substitution in Spending for Highway Infrastructure*, Working Paper 2021-13 (October 2021), www.cbo.gov/publication/57430; *Effects of Physical Infrastructure Spending on the Economy and the Budget Under Two Illustrative Scenarios* (August 2021), www.cbo.gov/publication/57327; *Reauthorizing Federal Highway Programs: Issues and Options* (May 2020), www.cbo.gov/publication/56346; *Federal Investment, 1962 to 2018* (June 2019), www.cbo.gov/publication/55375; *Public Spending on Transportation and Water Infrastructure, 1956 to 2017* (October 2018), www.cbo.gov/publication/54539; Sheila Campbell, *Fiscal Substitution of Investment for Highway Infrastructure*, Working Paper 2018-08 (August 2018), www.cbo.gov/publication/54371; "How CBO Analyzes the Economic Effects of Changes in Federal Subsidies for Education and Job Training" *CBO Blog* (May 3, 2017), www.cbo.gov/publication/52361; *The Macroeconomic and Budgetary Effects of Federal Investment* (June 2016), www.cbo.gov/publication/51628; *Federal Grants to State and Local Governments* (March 2013), www.cbo.gov/publication/43967

Option 13—Revenues

Increase Individual Income Tax Rates

Billions of Dollars	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	Total 2023–2027	Total 2023–2032
Decrease (-) in the Deficit												
Raise all tax rates on ordinary income by 1 percentage point	-72.4	-106.6	-111.3	-102.1	-102.2	-107.4	-112.0	-117.0	-122.3	-127.9	-494.6	-1,081.3
Raise tax rates on ordinary income in the four highest brackets by 2 percentage points	-37.4	-54.9	-57.3	-47.5	-45.6	-47.9	-49.3	-51.4	-53.9	-56.7	-242.7	-501.9
Impose a surtax of 1 percentage point on AGI above the standard deduction and exemption	-66.1	-117.6	-122.4	-127.7	-133.5	-139.7	-145.5	-151.9	-158.7	-166.0	-567.3	-1,329.1
Impose a surtax of 2 percentage points on AGI above the sum of the standard deduction, exemptions, and the threshold of the fourth ordinary income tax bracket	-37.5	-70.5	-73.1	-74.9	-77.4	-81.1	-84.1	-87.4	-91.6	-96.2	-333.4	-773.8

Data source: Staff of the Joint Committee on Taxation.

This option would take effect in January 2023.

AGI = adjusted gross income.

Background

As specified in the tax code, an individual income tax is imposed on the wages, salaries, investments, and other forms of income that people earn. The tax code indicates both how to measure income subject to taxation and the tax rates that apply to that income.

Individuals are required to calculate three main measures of income on their tax return: total income, adjusted gross income (AGI), and taxable income. Broader measures of income allow for fewer deductions. The broadest measure of income on an individual tax return is total income, which includes income from all sources not specifically excluded by the tax code. The next-broadest measure is AGI, which is total income minus certain deductions, called statutory adjustments. Those adjustments to income include a portion of the self-employment tax, certain contributions to retirement accounts, and interest on student loans. AGI is typically the measure of income used in the tax code to phase out preferences for higher-income taxpayers. Under current law, no tax rate applies directly to total income or to AGI.

A narrower measure of income—taxable income—is the measure of income that is subject to the individual income tax. Taxable income is AGI minus allowable deductions. Those deductions include personal exemptions (an amount taxpayers can claim on behalf of themselves, their spouses, and their dependents), and either the standard deduction, which is based on filing status, or itemized deductions, which are based on expenses or losses incurred.

The 2017 tax act (Public Law 115-97) temporarily changed the way taxable income is measured by suspending personal exemptions, increasing the value of the standard deduction, and changing limits on itemized deductions. Additionally, a deduction is available to owners of certain pass-through businesses, such as S corporations, partnerships, and sole proprietorships. At the end of calendar year 2025, nearly all provisions of the 2017 tax act that affect individual income taxes are scheduled to expire.

The regular income tax (as opposed to the alternative minimum tax, or AMT, which is described below) is computed using two tax-rate schedules that apply to taxable income. Those schedules depend on the source of the income. The first rate schedule applies to taxable ordinary income, which is taxable income other than qualified dividends and most long-term capital gains. (Qualified dividends include most dividends. Long-term capital gains are those realized on assets held for more than a year.) The second rate schedule applies to taxable

Starting Points for Tax Brackets in 2022 (Dollars)		Statutory Tax Rate on Ordinary Taxable Income (Percent)
Single Filers	Joint Filers	2022
0	0	10
10,275	20,550	12
41,775	83,550	22
89,075	178,150	24
170,050	340,100	32
215,950	431,900	35
539,900	647,850	37

income in the form of qualified dividends and long-term capital gains.

The tax code applies different statutory tax rates to different portions of people's taxable ordinary income. Beginning in 2018, the 2017 tax act lowered the tax rates that apply to ordinary income through 2025. Tax brackets—the income ranges to which different rates apply—vary depending on taxpayers' filing status and are adjusted, or indexed, each year to include the effects of inflation (see the table above). Through calendar year 2025, taxable ordinary income earned by most individuals is subject to the following seven statutory rates: 10, 12, 22, 24, 32, 35, and 37 percent. At the end of 2025, the rates will revert to those in effect under pre-2018 tax law. Specifically, beginning in 2026, the rates will be 10, 15, 25, 28, 33, 35, and 39.6 percent.

A separate rate schedule specified in the tax code applies to taxable income in the form of qualified dividends and most long-term capital gains, with a maximum statutory rate of 20 percent. Investment income received by higher-income taxpayers, which includes income from all capital gains and dividends, is also subject to an additional tax of 3.8 percent.

Certain taxpayers are subject to the AMT. (The AMT works in parallel with the regular income tax; it is similarly structured but has fewer exemptions, deductions, credits, and rates. Households must calculate the amount they owe under both the AMT and the regular income tax and pay the larger of the two amounts.) Those taxpayers face statutory rates of 26 percent and 28 percent on ordinary income; long-term capital gains and dividends are still taxed at a maximum rate of 20 percent. The 2017 tax act significantly limited the reach of the AMT for calendar years 2018 through 2025 by increasing the amount of income that is exempt from the AMT and by limiting the deduction for state and local taxes under the regular income tax.

For tax year 2019, the Internal Revenue Service (IRS) reported $12.1 trillion in total income and $12.0 trillion in AGI on 158 million returns, of which $9.2 trillion was taxable income. Of that taxable income, $8.3 trillion was taxed at ordinary income rates, generating $1.5 trillion in tax liability; a quarter ($2.1 trillion) of ordinary income was taxed at the four highest rates. Of the 158 million returns, 123 million reported taxable ordinary income.

This option focuses on different approaches to increasing individual income tax rates.

Key Design Choices

Raising individual income tax rates to increase revenues could be accomplished in several ways. To implement such a change, policymakers would need to consider two key design choices:

- Which measure of income to use for the tax base; and
- Which taxpayers would be affected by the change.

Which Measure of Income to Use for the Tax Base. Increasing the rate of existing taxes on ordinary income could raise revenues without placing an additional administrative burden on taxpayers and the IRS. Using a broader measure of income as the base for income taxes would add some administrative burden but could raise more revenue than a change to ordinary rates. For example, a tax could be levied on AGI or on total income. Imposing a new tax on AGI would limit the value of exemptions and deductions, whereas a tax on total income would limit the value of exemptions, deductions, and statutory adjustments.

Which Taxpayers Would Be Affected by the Change. Individual income taxes are progressive—that is, higher-income households pay a larger share of their income in taxes than lower-income households do. The progressivity of the tax system would increase if a policy change imposed a larger increase in taxes (as a share of income) on households with higher income than on households with lower income. That could occur if rates increased only for people at higher levels of income or only on certain types of income received mostly by higher-income taxpayers. (For example, most capital gains are realized by people with significant wealth and income.) But rate changes also would raise the value of exclusions and deductions used largely by higher-income taxpayers.

Option

This option consists of four alternatives for raising revenues under the individual income tax. Each would go into effect in January 2023.

- Under the first alternative, all statutory tax rates on ordinary income (income subject to the regular rate schedule) would increase by 1 percentage point. For example, in 2023, the top rate of 37 percent would increase to 38 percent, and in 2026, the top rate of 39.6 percent would increase to 40.6 percent.
- Under the second alternative, the statutory tax rates on ordinary income in the four highest brackets (24 percent or more through 2025, and 28 percent or more after 2025) would increase by 2 percentage points. For example, in 2023, the top rate of 37 percent would increase to 39 percent, and in 2026, the top rate of 39.6 percent would increase to 41.6 percent.
- Under the third alternative, a surtax of 1 percentage point would be imposed on adjusted gross income above the sum of the standard deduction and personal exemptions. For example, a single taxpayer with AGI of $1,000,000 in 2023 would pay a 1 percent tax on the $986,150 of his or her AGI above $13,850 (a standard deduction of $13,850 and a personal exemption of zero).
- Under the fourth alternative, a surtax of 2 percentage points would be imposed on adjusted gross income above the sum of the standard deduction, personal exemptions, and the threshold of the fourth ordinary income bracket ($95,375 for single filers and $190,750 for joint filers in 2023). For example, a single taxpayer with AGI of $1,000,000 in 2023 would pay a 2 percent tax on the $890,775 of his or her AGI that was above $109,225 (a standard deduction of $13,850, a personal exemption of zero, and the threshold of the fourth ordinary income bracket for single filers).

Effects on the Budget

The first and second alternatives would modify specific individual income tax rates on ordinary income, whereas the third and fourth alternatives would apply to AGI. Because the third and fourth alternatives would affect a broader measure of income, both would result in a significantly larger reduction in the deficit than the similar percentage-point increase in rates that would be implemented under the first two alternatives.

If implemented, the first alternative—raising all statutory tax rates on ordinary income by 1 percentage point—would reduce the deficit by a total of $1.1 trillion from 2023 to 2032, according to estimates by the staff of the Joint Committee on Taxation (JCT). The second alternative—raising rates only on ordinary income in the four highest brackets by 2 percentage points—would target specific individual income tax rates and thus affect fewer taxpayers but would increase those rates by a larger amount. Such a change would reduce the deficit by $502 billion from 2023 to 2032, according to JCT. The revenues realized by raising rates on ordinary income would be affected by the share of taxpayers subject to the AMT. As more taxpayers became subject to the AMT after 2025, less revenue would be raised from an increase in ordinary income tax rates.

The third alternative—imposing a tax rate of 1 percentage point on AGI above the sum of a taxpayer's standard deduction and personal exemption amounts—would reduce the deficit by $1.3 trillion from 2023 to 2032, according to JCT. The fourth alternative—imposing a tax rate of 2 percentage points on AGI above the sum of a taxpayer's standard deduction, personal exemption, and the starting point of the fourth ordinary income tax bracket—would affect fewer taxpayers than the third alternative. That alternative would reduce the deficit by $774 billion from 2023 to 2032, JCT estimates.

Because they would increase marginal tax rates, all of the alternatives would most likely affect taxpayers' behavior. (The marginal tax rate is the percentage of an additional dollar of income that is paid in taxes.) For example,

because the first two alternatives would increase marginal tax rates on ordinary income, people might shift income from taxable forms to nontaxable or tax-deferred forms. That could be accomplished in several ways: For instance, they might substitute tax-exempt bonds for other investments, opt for more tax-exempt fringe benefits instead of cash compensation, or spend more on tax-deductible items and less on other items (for instance, by paying more toward their home mortgage interest and spending less on other things). Taxpayers would also have an incentive to mischaracterize or not report the nature of some income. Specifically, increasing rates on ordinary income would increase taxpayers' incentive to mischaracterize labor compensation and profits, which are taxed at ordinary rates, as capital gains. These estimates reflect such behavioral responses.

Imposing a tax on AGI, which would raise the marginal tax rate on both ordinary income and income from capital gains and dividends, would probably result in a smaller set of behavioral responses. Taxpayers would most likely still shift income from taxable forms to nontaxable or tax-deferred forms; but, because AGI is a broader measure of income than ordinary taxable income, there would be fewer ways to do so. Taxpayers could still opt for more fringe benefits that are excluded from AGI or realize fewer capital gains, either by deferring the sale of their capital assets or by not selling some of those assets during their lifetime. However, the incentives to increase spending on tax-deductible items and recharacterize income as capital gains would not exist.

Those behavioral responses would be more pronounced if larger increases in individual income taxes were implemented. As a result, the deficit effects of large rate increases or surtaxes might not be proportional to the estimates shown here.

Uncertainty About the Budgetary Effects

The estimates of the budgetary effects of this option are uncertain for two main reasons. First, they rely on the Congressional Budget Office's 10-year projections of the economy and of individual income under current law, which are inherently uncertain. Second, they rely on estimates of how taxpayers would shift income and change reported income in response to the change in tax rates. Those estimates are based on observed responses to prior changes to tax rates, which might differ from the responses to the changes considered here. The estimates for the alternatives to increase the rates on ordinary income may be more uncertain than the estimates for an AGI surtax because the opportunities for behavioral responses to a surtax on AGI would be more limited.

Distributional Effects

By increasing rates for all ordinary income brackets by 1 percentage point, the first alternative would increase the amount of federal income taxes paid by all households with ordinary income. By increasing rates only on ordinary income in the four highest tax brackets, the second alternative would increase taxes only for higher-income households. That change would increase the progressivity of the tax system because, without tax increases at the lower end of the income distribution, it would place a relatively larger burden on higher-income households.

The third alternative—imposing a surtax of 1 percentage point on AGI above the personal exemption and standard deduction—would increase the amount of federal income taxes paid by almost all households. But compared with a 1 percentage-point increase in all tax rates on ordinary income, a tax on AGI would have a larger effect on the share of income paid in taxes by higher-income households. The various exclusions, deductions, credits, and preferential tax rates on certain investment income under the individual income tax currently allow some higher-income households, especially those whose income is primarily in the form of capital gains and dividends, to pay a smaller share of their income in taxes than many lower-income households do, especially those whose income is primarily in the form of wages or salaries. By creating a tax on AGI, a measure of income that has limited exclusions, the third alternative would increase the share of income paid in taxes by some higher-income households compared with the first alternative.

The fourth alternative—imposing a surtax of 2 percentage points on AGI above the sum of the personal exemption, standard deduction, and the threshold of the fourth ordinary income tax bracket—would increase the share of income paid in taxes by higher-income households more than the third alternative would. With the larger exemption amount, this surtax would apply only to higher-income households, and with the larger rate increase, the additional amount those households owed would be greater.

Economic Effects

In addition to having the behavioral effects reflected in conventional budget estimates, such as the ones shown above, a change to the individual income tax would affect taxpayers' work and saving behavior. All four alternatives would raise the marginal tax rates that some individuals face. Higher tax rates would reduce people's incentives to work and save. By lowering after-tax wages and salaries, all of the alternatives would discourage people from working because other uses of their time would become relatively more attractive. Increases in tax rates can also cause people to work more hours because having less after-tax income requires additional work to maintain the same standard of living. CBO estimates that, on balance, the former effect would be greater than the latter effect. A new tax on AGI, which includes long-term capital gains and qualified dividends, would raise the marginal rate on capital income, thus discouraging saving and investment.

Other Considerations

As a way to raise revenues, an increase in ordinary income tax rates would offer some small administrative advantages over other types of tax increases because it would require only minor changes to the current tax system. Because there is no tax on AGI under current law, adding one would reduce the transparency of the tax system, making it more complicated for individuals to understand how their actions would affect their income tax liability.

Related Option in This Volume: Option 14, "Eliminate or Limit Itemized Deductions" (page 77)

Related Option in *Options for Reducing the Deficit, 2023 to 2032—Volume II: Smaller Reductions*, www.cbo.gov/publication/58163: Option 37, "Raise the Tax Rates on Long-Term Capital Gains and Qualified Dividends by 2 Percentage Points"

Related CBO Publications: *The Distribution of Major Tax Expenditures in 2019* (October 2021), www.cbo.gov/publication/57413; *The Distribution of Household Income, 2018* (August 2021), www.cbo.gov/publication/57061

Option 14—Revenues

Eliminate or Limit Itemized Deductions

Billions of Dollars	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	Total 2023–2027	Total 2023–2032
Decrease (-) in the Deficit												
Eliminate itemized deductions	-58.1	-96.6	-102.8	-231.5	-305.9	-315.8	-327.6	-340.7	-355.9	-372.3	-794.9	-2,507.4
Eliminate state and local tax deductions	-9.5	-23.4	-23.3	-76.9	-155.9	-157.2	-163.4	-170.1	-177.7	-185.8	-289.0	-1,143.2
Limit the tax benefit of itemized deductions to 15 percent of their total value	-35.8	-57.7	-61.7	-121.3	-159.5	-168.9	-175.6	-183.1	-191.6	-200.7	-436.0	-1,356.0
Limit the tax benefit of itemized deductions to 4 percent of AGI	-15.1	-26.2	-29.4	-48.1	-59.6	-64.3	-68.2	-72.0	-76.7	-81.8	-178.4	-541.4

Data source: Staff of the Joint Committee on Taxation.

This option would take effect in January 2023.

AGI = adjusted gross income.

Background

When preparing their income tax returns, taxpayers may choose to take the standard deduction—a flat dollar amount—or to itemize and deduct certain expenses, such as state and local taxes, mortgage interest, charitable contributions, and some medical expenses. Deductions reduce the amount of income subject to taxation (taxable income). Taxpayers benefit from itemizing when the value of their deductions exceeds the amount of the standard deduction. For calendar year 2022, the basic standard deduction amount ranges from $12,950 for a single filer to $25,900 for a married couple filing jointly, with additional amounts allowed for taxpayers who are age 65 or older or blind.

The change in taxes from deductions depends on the taxpayer's marginal tax rate (the percentage of an additional dollar of income that is paid in taxes). For instance, $10,000 in deductions reduces tax liability by $1,200 for someone in the 12 percent tax bracket and by $2,400 for someone in the 24 percent tax bracket.

Because deductions reduce the cost of incurring certain expenses, they serve as subsidies for undertaking deductible activities. Most of the tax savings from itemized deductions constitute a tax expenditure for the federal government. (Tax expenditures are exclusions, deductions, preferential rates, deferrals, and credits in the tax system that resemble federal spending in that they provide financial assistance for specific activities, entities, or groups of people.)

The tax code imposes several limits on the amount of itemized deductions that taxpayers can claim. Currently, taxpayers cannot deduct more than $10,000 in state and local taxes, nor can they deduct home mortgage interest on loan amounts over $750,000. For some types of expenses, such as medical expenses, only the amount that exceeds a certain percentage of the taxpayer's adjusted gross income (AGI) can be deducted. (AGI consists of income from all sources not specifically excluded by the tax code, minus certain deductions.) The alternative minimum tax (AMT), which acts as a parallel tax system, also serves as a limit on itemized deductions by disallowing some and restricting others. The AMT does not currently affect many taxpayers, but the Congressional Budget Office projects that, once changes put into effect by the 2017 tax act (Public Law 115-97) expire at the end of calendar year 2025, the AMT will affect more than 7 million taxpayers.

Many of the tax rules relating to itemized deductions were also affected by the 2017 tax act and, like those affecting the AMT, are scheduled to expire at the end of 2025. The standard deduction will be reduced by roughly 50 percent, making itemization beneficial for more taxpayers. In addition, several restrictions on deductions that were put in place by the act will no longer be in effect. The limit on state and local taxes will be removed, and the limit on mortgage interest will revert to the higher aggregate loan amount ($1.1 million) set by pre-2018 tax law. Furthermore, several itemized deductions that were temporarily eliminated by the 2017 tax act will be

reinstated, including the deductions for unreimbursed employee expenses and tax preparation fees. Finally, a provision that reduces the overall value of certain itemized deductions will be restored for taxpayers whose AGI exceeds a specified threshold. That limit, originally proposed over 30 years ago by Congressman Donald J. Pease and often called the Pease limitation, can reduce those itemized deductions by up to 80 percent, depending on the taxpayer's income. The net effect of the expiration of those provisions will be to increase the number of taxpayers who itemize and the amount of deductions they claim. Because most statutory tax rates will increase when the 2017 tax act expires, the tax benefit of itemized deductions will also generally increase in 2026.

In calendar year 2017 (before the 2017 tax act took effect), taxpayers claimed itemized deductions on almost 47 million tax returns, according to the Internal Revenue Service. Those itemized deductions totaled $1.4 trillion. By comparison, if the taxpayers who filed those returns had claimed the standard deduction instead, their deductions would have totaled $475 billion, and aggregate taxable income would have been about $925 billion higher. Put another way, those taxpayers collectively received $925 billion more in deductions than they would have received if they had been required to claim the standard deduction.

Because the 2017 tax act nearly doubled the amount of the standard deduction and placed new limits on itemized deductions, taxpayers claimed itemized deductions on fewer than 18 million tax returns in calendar year 2019; those itemized deductions totaled $645 billion. If the taxpayers who filed those returns had claimed the standard deduction instead, then aggregate taxable income would have been $325 billion higher.

Option

This option consists of four alternatives, each of which would take effect in January 2023.

- Under the first alternative, all itemized deductions would be eliminated. As a result, taxpayers who would otherwise itemize deductions would have to claim the standard deduction, which generally would be of less value to them.
- Under the second alternative, the itemized deduction for state and local taxes would be eliminated. Because most taxpayers who itemize deductions pay state and local taxes, this alternative would effectively reduce deductions for almost all itemizers and cause some of them to claim the standard deduction instead.
- Under the third alternative, the tax benefit of itemized deductions would be limited to 15 percent of their total value. As a result, taxpayers in tax brackets with statutory rates above 15 percent would generally receive less benefit from itemized deductions than under current law, whereas taxpayers in tax brackets with statutory rates that are equal to or less than 15 percent would be unaffected by the change. The Pease limitation would also be permanently removed.
- Under the fourth alternative, the tax benefit of itemized deductions would be limited to 4 percent of a taxpayer's AGI. As a result, taxpayers whose savings from itemized deductions exceeded 4 percent of their AGI would receive less benefit from itemized deductions than under current law, whereas taxpayers whose savings from itemized deductions equaled 4 percent or less of their AGI would be unaffected by the change. The Pease limitation would also be permanently removed.

Taxpayers who claim the standard deduction under current law would be unaffected by any of the four alternatives.

Effects on the Budget

The staff of the Joint Committee on Taxation (JCT) estimates that, from 2023 to 2032, the four alternatives would have the following effects:

- Eliminating all itemized deductions would reduce the deficit by $2.5 trillion;
- Eliminating the deduction for state and local taxes would reduce the deficit by $1.1 trillion;
- Limiting the tax benefit of itemized deductions to 15 percent of their total value would reduce the deficit by $1.4 trillion; and
- Limiting the tax benefit of itemized deductions to 4 percent of AGI would reduce the deficit by $0.5 trillion.

Under all four alternatives, the amount of additional revenues would rise sharply after 2025 when most changes to the individual income tax system that were put in place by the 2017 tax act will expire. That increase in revenues would occur for two reasons. First, the expiration of certain provisions of the act will substantially

increase the number of taxpayers who itemize and the amount of deductions they claim. Consequently, the increase in revenues from eliminating deductions would be much larger in later years. Second, statutory tax rates are scheduled to increase after 2025. Because those higher rates will increase the tax benefit of itemized deductions, the revenues raised from the four alternatives would increase as well.

The estimates of the budgetary effects of this option incorporate anticipated reductions in spending by taxpayers on activities that currently qualify as itemized deductions. The degree to which those reductions in spending would affect tax revenues varies among the alternatives. Eliminating all itemized deductions—the first alternative—would remove the tax incentives for taxpayers to spend on deductible items. However, the estimate for that alternative is not sensitive to the resulting reductions in spending on deductible items because all taxpayers would be required to take the standard deduction.

In contrast, eliminating only the itemized deduction for state and local taxes—the second alternative—would reduce the incentive for some taxpayers to spend money on other deductible items, such as mortgage interest and charitable contributions. With fewer allowable itemized deductions, some of the affected taxpayers would no longer benefit from itemizing and would take the standard deduction instead. As a result, they might spend less on other deductible items, but those reductions would not affect their tax liability further. Other affected taxpayers might continue to itemize but would also choose to reduce their spending on other deductible items; that response would affect tax revenues. For example, the increase in housing costs from the loss of the property tax deduction might cause people to purchase less expensive homes, thereby reducing their spending on mortgage interest. That reduction would further decrease their itemized deductions and increase their tax liability, perhaps causing them to choose the standard deduction.

Limiting the tax benefit of deductions to 15 percent of their total value—the third alternative—would reduce the incentive for taxpayers with a top statutory tax rate above 15 percent to spend on deductible items. Affected taxpayers would continue to receive a tax benefit from each additional dollar spent on tax-deductible items, but the tax benefit of each dollar would be less than under current law. This reduction would cause some of those taxpayers to spend less than they currently do on deductible items, an effect that would increase tax revenues.

Limiting the tax benefit of itemized deductions to 4 percent of AGI—the fourth alternative—would eliminate certain taxpayers' incentive to spend more on deductible items because they would not receive any tax benefit for each additional dollar spent above the threshold. Taxpayers who currently receive a tax benefit of more than 4 percent of their AGI from deductible items might reduce that spending because of the reduced tax benefit. However, that reduced spending would not affect revenues unless the reduction caused the tax benefit of the itemized deductions to drop below 4 percent of AGI.

Uncertainty About the Budgetary Effects

The estimated decreases in the deficit from these alternatives are uncertain because both the underlying projection of itemized deductions and the estimated response to the change in the tax treatment of those deductions are uncertain. Projections of spending on deductible items are inherently uncertain because they are based on CBO's projections of the economy over the next decade. That uncertainty is compounded because the projections reflect the effects of the scheduled expiration of many provisions of the 2017 tax act, which are also uncertain. Furthermore, the estimates rely on expectations of how taxpayers would change their behavior in response to changes in the tax treatment of itemized deductions. Those expectations are based on observed responses to past changes, which might differ from the responses to the tax changes considered here. Those behavioral uncertainties are less important for the first alternative, which would eliminate all itemized deductions, and for the fourth alternative, which would limit the tax benefit of itemized deductions to 4 percent of a taxpayer's AGI. That is because reductions in spending on deductible activities would not significantly affect tax revenues under those alternatives.

An additional source of uncertainty is how state and local governments would react to the various alternatives. Many states have changed their tax systems in response to the $10,000 limit on state and local tax deductions to allow certain taxpayers, such as small business owners, to avoid that limit. Such actions by states could increase under this option.

Distributional Effects

Itemized deductions benefit higher-income households more than lower-income households for two reasons:

Higher-income households incur more expenses that can be deducted, which makes them more likely to itemize; and the per-dollar tax benefit of those deductions depends on the taxpayer's marginal tax rate, which rises with income. For example, CBO estimates that in calendar year 2019, more than 75 percent of the tax expenditure for state and local taxes accrued to households with income in the highest quintile (or one-fifth) of the income distribution (11 percent went to households in the top 1 percent). As a result, eliminating or limiting itemized deductions would increase average tax rates—and therefore decrease average after-tax income—more for higher-income households than for lower-income households. Limiting the tax benefit of itemized deductions to 15 percent of their total value (the third alterative) would make the tax benefit more uniform across the income distribution by reducing the tax benefit of deductions for higher-income households while leaving the tax benefit for lower-income itemizers unchanged. Limiting the tax value of itemized deductions to 4 percent of a taxpayer's AGI (the fourth alternative) would increase taxes on itemizers throughout the income distribution because some lower-income households would have deductions that represent a large percentage of their income.

Economic Effects

In addition to having the behavioral effects reflected in conventional budget estimates, such as the ones shown above, changing the availability of itemized deductions could affect the decisions that taxpayers who itemize make about how much to work, save, and invest. Eliminating or limiting itemized deductions would, in effect, increase the marginal tax rate faced by taxpayers who itemize because, most likely, some portion of their additional earnings would be spent on deductible items. When marginal tax rates increase, people have an incentive to work fewer hours because other uses of their time become relatively more attractive. Increases in marginal tax rates can also cause people to work more hours, because having less after-tax income requires additional work to maintain the same standard of living. CBO estimates that, on balance, the former effect would be greater than the latter effect.

Eliminating all itemized deductions, the first alternative, would have the largest effects on aggregate hours worked. Eliminating only state and local tax deductions, the second alternative, would have similar effects on the supply of labor for taxpayers whose itemized deductions—excluding state and local taxes—were smaller than the standard deduction and who, as a result, would take the standard deduction. For those taxpayers who still itemized deductions after the elimination of the deduction for state and local taxes, the second alternative would have a smaller effect on their decisions about how much to work than the first alternative. That is because they would continue to receive a tax benefit for some of their new spending on deductible items.

Limiting the tax benefit of itemized deductions to 15 percent of their total value, the third alternative, would lead to smaller labor supply effects than the first alternative because only taxpayers with marginal tax rates in excess of 15 percent would be affected, and those people who were affected would still receive a tax benefit of 15 percent on each additional dollar spent on deductible items. Limiting the tax benefit of itemized deductions to 4 percent of AGI, the fourth alternative, could cause taxpayers affected by the AGI limit to change the number of hours they work (much as the first alternative would) because each additional dollar spent on deductible items would result in no additional tax benefit. Taxpayers unaffected by the AGI limit would not change the amount of labor they supplied.

By encouraging spending on deductible activities, itemized deductions affect saving and investment decisions and can lead people to over-invest in certain deductible activities at the expense of other more productive activities, which could act as a persistent drag on economic growth. For example, the mortgage interest deduction distorts the housing market by encouraging people to take out larger mortgages and buy more expensive homes, which pushes up housing prices. That leads people to invest more in housing, relative to other more productive assets, than they would if such investments were taxed more equally. Additionally, the deduction for state and local taxes encourages state and local governments to raise taxes and provide more services than they otherwise would if such taxes were not deductible (although some research indicates that total spending by state and local governments is not sensitive to that incentive).

Changing itemized deductions could also significantly disrupt the housing market. Eliminating or limiting the deduction for mortgage interest and property taxes would both increase the cost of owning a home and reduce the price new homebuyers would be willing to pay, thereby reducing the housing wealth of current homeowners. Both effects would cause current homeowners to reduce

spending on goods not related to housing, which could act as a temporary drag on economic growth until the housing market fully adjusted. That is particularly true for the first alternative, which would eliminate all itemized deductions, although there could be similar responses to the second alternative, which would eliminate the deduction for state and local taxes, thus affecting property taxes. Changes to the mortgage interest deduction and the state and local tax deduction made by the 2017 tax act probably had such effects.

Other Considerations

Eliminating or limiting itemized deductions would result in reduced spending on deductible activities. Certain itemized deductions, such as charitable contributions, can have widespread benefits for society. Reducing the incentive to spend on those types of activities could worsen the allocation of resources. However, eliminating or limiting taxpayers' incentive to spend on deductible activities that primarily benefit those taxpayers—such as taxes that support certain types of state and local government spending—could improve the allocation of resources. That is because taxpayers would make decisions about spending on the basis of the benefit they derive from the specified good or service, rather than on the basis of tax considerations.

Allowing certain itemized deductions yields a measure of taxable income that more accurately reflects a person's ability to pay taxes. For example, taxpayers with high medical expenses, casualty and theft losses, or state and local taxes have fewer resources available for paying federal taxes than taxpayers with the same amount of income and smaller expenses or losses (all else being equal). However, if taxpayers directly benefited from the goods and services funded by state and local taxes, concerns about the ability to pay those taxes would be lessened.

Allowing itemized deductions yields a more accurate measure of net income in some other situations. The deduction for payments of interest on money borrowed to purchase taxable investments, known as the investment interest expense deduction, allows people to subtract the costs they incur to earn the income that is being taxed (in much the same way that businesses are allowed to deduct expenses from revenues). Under the alternatives presented here, the ability of taxpayers to subtract such expenses from their taxable income would be eliminated or limited, even though the expense was necessary to generate income that is subject to taxation.

Finally, to itemize deductions, taxpayers must keep records of their deductible expenses and enumerate them on their tax form. Eliminating itemized deductions would therefore simplify the process of filing tax returns.

Related Option in This Volume: Option 13, "Increase Individual Income Tax Rates" (page 72)

Related Option in *Options for Reducing the Deficit, 2023 to 2032—Volume II: Smaller Reductions*, www.cbo.gov/publication/58163: Option 39, "Limit the Deduction for Charitable Giving"

Related CBO Publication: *The Distribution of Major Tax Expenditures in 2019* (October 2021), www.cbo.gov/publication/57413

Option 15—Revenues

Impose a New Payroll Tax

Billions of Dollars	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	Total 2023–2027	Total 2023–2032
Decrease (-) in the Deficit												
Impose a payroll tax of 1 percent on earnings	-51.3	-106.4	-109.7	-112.6	-115.9	-119.8	-123.7	-127.8	-132.1	-136.5	-495.9	-1,135.7
Impose a payroll tax of 2 percent on earnings	-101.5	-211.1	-217.7	-223.4	-229.9	-237.5	-245.4	-253.5	-262.0	-270.8	-983.6	-2,252.7

Data source: Staff of the Joint Committee on Taxation.

This option would take effect in January 2023.

Background

Payroll taxes are levied on the earnings, primarily wages and salaries, of people who work for an employer and on the net earnings of people who are self-employed. Unlike the individual income tax, payroll taxes are not applied to other sources of income, such as interest, dividends, or capital gains. The individual income tax also includes many deductions, exemptions, and credits; by contrast, payroll taxes are generally more straightforward and have few, if any, adjustments. A payroll tax can be paid by an employer or an employee, or by both. Typically, payroll taxes are set at a single uniform rate.

In the United States, payroll taxes are used to finance social insurance programs and are the second-largest source of federal revenues after the individual income tax. The two largest sources of payroll tax revenues are Social Security payroll taxes and Medicare payroll taxes. Social Security payroll taxes are the primary source of financing for Old-Age and Survivors Insurance and Disability Insurance. Only earnings up to a statutory maximum are subject to Social Security taxes. (That maximum amount is $147,000 in calendar year 2022.) The Social Security tax rate is 12.4 percent of earnings: Employees have 6.2 percent of earnings deducted from their paychecks, and the remaining 6.2 percent is paid by their employers. Self-employed individuals generally pay 12.4 percent of their net self-employment income. The primary source of financing for Hospital Insurance (HI) benefits provided under Medicare Part A is HI payroll taxes. The basic Medicare payroll tax rate is 2.9 percent of earnings. For employees, 1.45 percent is deducted from their paychecks and 1.45 percent is paid by their employers. Self-employed individuals generally pay 2.9 percent of their net self-employment income. Unlike payroll taxes for Social Security, the 2.9 percent Medicare payroll tax is levied on all earnings, and no taxable maximum applies.

Option

This option consists of two alternatives. The first alternative would impose a new payroll tax of 1 percent on earnings. The second alternative would impose a new payroll tax of 2 percent on earnings. For both alternatives, the income subject to the tax would match that of the Medicare payroll tax, so there would be no taxable maximum. The new tax would be paid entirely by employees. Self-employed individuals would face the same tax rates as those who work for an employer.

This option would not make any changes to existing payroll taxes. Further, unlike existing payroll taxes, the taxes described in the option would not be tied to the financing of a specific social insurance program.

Effects on the Budget

If implemented, the first alternative—imposing a new payroll tax of 1 percent—would reduce the deficit by $1.1 trillion from 2023 through 2032, according to estimates by the staff of the Joint Committee on Taxation (JCT). JCT estimates that the second alternative—imposing a new payroll tax of 2 percent—would reduce the deficit by $2.3 trillion over the same period, roughly double the effect of the first alternative.

The higher payroll tax would create an incentive for employers and employees to seek to change the composition of compensation, shifting from taxable compensation, such as wages and salary, to forms of nontaxable compensation, such as employment-based health insurance. The estimates account for that behavioral response.

Uncertainty About the Budgetary Effects

The estimates for this option are uncertain primarily because the underlying projections of earnings are uncertain. The estimates rely on the Congressional Budget Office's projections of the economy over the next decade, particularly projections of wages and employment. Those projections are inherently uncertain. However, CBO's projections of wages are typically less variable than its projections of other sources of income, such as capital gains realizations or corporate profits.

Distributional Effects

Under this option, the share of income owed in taxes would rise more for lower-income workers than for higher-income workers. That is because households toward the bottom of the income distribution typically receive a larger share of their income in the form of earnings, which would be subject to the new payroll tax, as opposed to other forms of income, such as capital gains, which would not. As a result, the additional payroll tax would represent a greater proportion of the income of lower-income households than would be the case for higher-income households.

Economic Effects

In addition to having the behavioral effects reflected in conventional budget estimates, such as the ones shown above, a new payroll tax would also affect taxpayers' incentive to work. All people who work would face an increase in their marginal tax rate on earnings. (The marginal tax rate is the percentage of an additional dollar of income that is paid in taxes.) When marginal tax rates increase, there are two effects. First, people have an incentive to work fewer hours because other uses of their time become relatively more attractive. Second, increases in statutory tax rates can cause people to work more hours, because having less after-tax income requires additional work to maintain the same standard of living. CBO estimates that, on balance, the former effect would be greater than the latter effect, and people would reduce the average number of hours they work.

Other Considerations

This option would be easier to implement than most other types of tax changes. Employers already deduct existing payroll taxes from employees' paychecks and remit payments to the federal government. As a result, the administrative burden of imposing a new payroll tax with a single rate and without a taxable maximum would be minimal.

Although the payroll tax in this option would be levied on employees, additional payroll taxes could be levied on employers instead. In CBO's assessment, employers would reduce their employees' earnings over time to leave the cost of those employees' compensation unchanged. Consequently, a tax levied on employers would reduce employees' after-tax earnings in the same way that a tax levied on the employees would. The budgetary effect of a payroll tax levied on employers would be different, however, because the reduction in employees' earnings would reduce the income base for individual income and payroll taxes. That effect would partially offset the increase in payroll taxes. Therefore, a payroll tax split between employers and employees would be estimated to result in less additional revenue than a payroll tax paid entirely by employees.

Related CBO Publications: Dorian Carloni, *Revisiting the Extent to Which Payroll Taxes Are Passed Through to Employees*, Working Paper 2021-06 (June 2021), www.cbo.gov/publication/57089; *Marginal Federal Tax Rates on Labor Income: 1962 to 2028* (January 2019), www.cbo.gov/publication/54911

Option 16—Revenues

Impose a Tax on Consumption

Billions of Dollars	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	Total 2023–2027	Total 2023–2032
Decrease (-) in the Deficit												
Apply a 5 percent VAT to a broad base	0	-210	-330	-330	-330	-340	-360	-370	-380	-400	-1,200	-3,050
Apply a 5 percent VAT to a narrow base	0	-130	-200	-210	-210	-220	-230	-240	-250	-260	-750	-1,950

Data source: Staff of the Joint Committee on Taxation.

This option would take effect in January 2024.

An offset to reflect reduced income and payroll taxes has been applied to the estimates in this table.

VAT = value-added tax.

Background

A consumption tax generally applies to spending on goods and services. There are different forms of such taxes, including value-added taxes (VATs), retail sales taxes, and excise taxes. A VAT is a type of consumption tax levied on the incremental increase in the value of a good or service that occurs at each stage of the supply chain until the final point of sale. For example, a retailer would pay a VAT on the difference between the value of goods it sold to consumers and the value of those goods when it purchased them from manufacturers; the manufacturers would pay a VAT on the difference between the value of the materials used to produce a good and the value of the finished good it sold to retailers. Like a VAT, a retail sales tax is a form of consumption tax collected on the purchase of goods and services, but it is only collected when a consumer purchases the final product. An excise tax, unlike a VAT or a retail sales tax, is generally levied on a smaller set of goods and services and is usually assessed on each unit purchased rather than on the value of the purchase.

The United States does not currently have a broad consumption-based tax at the federal level, although it does impose federal excise taxes on purchases of several types of goods and services, including gasoline, air travel, alcohol, and cigarettes. In addition, most states impose a retail sales tax on many goods and services. By contrast, more than 160 countries—including all members of the Organisation for Economic Co-operation and Development (OECD) other than the United States—have adopted broad-based VATs. In 2020, the average standard VAT rate for OECD countries was 19.3 percent, ranging from 4.5 percent in Andorra to 27 percent in Hungary. Because a VAT is the most common form of broad consumption-based tax, this option focuses on approaches to reduing the deficit by imposing a consumption tax in the form of a VAT.

Key Design Choices

There are many ways to design a VAT. Key design choices include:

- Which goods and services to tax,
- Whether to apply a uniform VAT rate or different rates to different sets of goods and services,
- How to implement the VAT, and
- Whether to exempt small businesses from the tax.

Goods and Services to Tax. A VAT generally does not apply to all purchases of goods and services. Most countries exclude certain categories of goods and services from a VAT, either because they serve a social interest (such as education and health services) or because their value added is difficult to measure (as with financial services). In addition, because a VAT is designed to tax domestic consumption, goods and services produced domestically and exported to other countries are generally excluded from the tax; by contrast, goods and services produced abroad and imported from other countries are generally subject to it. Goods and services excluded from the VAT can be either "zero-rated" (that is, taxed at a rate of zero percent) or exempt from the VAT. If a purchased item is

zero-rated, the seller can claim a tax credit for the VAT that is paid on the purchased inputs—such as materials and equipment—used to produce the good or provide the service. By contrast, if a purchased item is exempted, the seller cannot claim a credit for the VAT paid on inputs purchased to produce that item. As a result, the value of those purchased inputs remains subject to the VAT.

Tax Rates. Although a standard rate usually applies to most goods or services, some are taxed at lower rates. That subset of goods and services generally includes those that represent a larger share of total consumption for households with lower income, such as food and public transportation services. Many countries impose those lower rates to promote equity, but lower VAT rates can also be applied to encourage consumption of goods and services considered to have a social benefit, including books and cultural and entertainment services, or to stimulate employment in specific economic sectors like hospitality and tourism.

Implementing the VAT. There are two primary ways to implement a VAT: the credit-invoice method and the subtraction method. Under the credit-invoice method, the tax is calculated for each transaction. A business remits the VAT collected on the total value of its sales of a particular good or service and claims a credit for the taxes paid on the purchased inputs. Under the subtraction method, the tax is calculated using information about a business's total activity. A VAT applies to the difference between the value of all taxable sales and the sum of all taxable purchases. Differences in how the VAT is administered can affect its budgetary effects. Because the credit-invoice method is generally easier to administer and enforce, it has been adopted in almost every country currently administering a VAT.

Exempting Small Businesses From the Tax. Most countries exempt small businesses (those with total sales below a specified threshold) from VATs because the tax would impose administrative and compliance costs larger than the revenue that would be raised from those businesses. The exemption threshold varies by country and by sector of the economy. However, small businesses that predominantly sell intermediate goods and services to businesses that are subject to the VAT often voluntarily register and collect the VAT. They do so because businesses that are required to remit the VAT cannot claim a credit for the VAT paid on purchases from VAT-exempt businesses.

Option

This option consists of two alternatives. Each alternative would use the credit-invoice method and go into effect on January 1, 2024—a year later than the other revenue options presented in this volume—to provide the Internal Revenue Service time to set up and administer the tax.

The first alternative would apply a 5 percent VAT to a broad base that would include most goods and services. Certain goods and services would be excluded from the base because their value is difficult to measure. Financial services without explicit fees and existing housing services would be exempted. (Existing housing services encompass both the monetary rents paid by tenants and rents imputed to owners who reside in their own homes. Although existing housing services would be excluded under this alternative, a tax on the purchase of new residential housing would cover all future consumption of housing services.) Primary and secondary education would be zero-rated, as would some other services provided by government agencies and nonprofit organizations for a small fee or at no cost. Expenditures for health care reimbursed by the government—primarily costs paid by Medicare and Medicaid—would also be zero-rated. After accounting for those exclusions, the tax base would encompass approximately 59 percent of household consumption in 2024.

The second alternative would apply a 5 percent VAT to a narrower base. In addition to the items excluded under the broad base, the narrow base would exclude certain goods and services that are considered necessary for subsistence or that provide broad social benefits. Specifically, new residential housing, food purchased for home consumption, health care, and postsecondary education would be zero-rated. After accounting for those exclusions, the tax base in this alternative would encompass about 37 percent of household consumption in 2024.

Effects on the Budget

The staff of the Joint Committee on Taxation (JCT) estimates that the first alternative would reduce the deficit by $3.05 trillion from 2024 to 2032, and the second alternative would reduce the deficit by $1.95 trillion over that same period. The reduction in the deficit under the second alternative would be lower than under the first alternative because the VAT would apply to a smaller tax base.

The VAT, like an excise tax, would reduce taxable business and individual income. The resulting reduction in income and payroll tax receipts would partially offset the revenues

raised by the VAT. The estimates for the option reflect that income and payroll tax offset. The estimates also account for taxpayers' noncompliance with a VAT, which would reduce the revenues raised. Additionally, because certain goods are excluded from the VAT, consumers might substitute untaxed goods for taxed goods. However, that substitution is likely to be small for a 5 percent VAT.

The incentives for noncompliance and substitution would probably increase with the VAT rate. As a result, significantly higher VAT rates would probably be associated with less than proportional decreases in the deficit.

Uncertainty About the Budgetary Effects

The amount of revenues raised by a VAT is uncertain because future consumption is uncertain. Another source of uncertainty in the estimate is how taxpayers would respond to a VAT, particularly with regard to compliance. Their compliance would depend on how the tax was implemented and might differ from the responses considered here. In addition, there is uncertainty about how consumers would replace taxed goods and services with those not subject to the tax.

Distributional Effects

A consumption tax would not affect households uniformly. Because families with lower income generally consume a greater share of their income than higher-income families do, a tax on consumption would probably be more burdensome for lower-income households than those with higher income. However, because many households with lower income receive government benefits in the form of means-tested transfers (that is, their eligibility for benefits is tied to income), which are adjusted for changes in prices, those households would be partially protected from the burden of the tax.

Because the burden of a VAT is based on when during their lifetime households consume their income, how the distributional effects of the VAT are determined depends significantly on how households with different economic resources are ranked. The burden of a VAT in relation to households' annual consumption or a measure of their lifetime income—which would account for both life-cycle income patterns and temporary fluctuations in annual income—would appear less regressive than the burden of a VAT in relation to a measure of their annual income, which does not account for those patterns and anomalies. For example, elderly-headed households spend out of accumulated savings and are likely to consume a larger share of their income than nonelderly households. Those elderly-headed households would be ranked higher in the income distribution if their economic resources were measured using their lifetime rather than their annual income.

A VAT would reduce the purchasing power of households' wealth accumulated before the tax went into effect, either because of an increase in the overall price level or, absent changes in the overall price level, because of a reduction in asset values. As a result, the tax would place a higher transitional burden on people with assets that exceed their liabilities than it would place on people with fewer assets than liabilities. Older people, who are more likely to have assets that exceed their liabilities, would probably face a greater burden than other cohorts.

Economic Effects

In addition to having the behavioral effects reflected in conventional budget estimates, such as the ones shown above, a consumption tax would affect households' and businesses' incentives in several ways that would reduce economic growth. That reduction in economic growth would be smaller than it would be for an income tax raising the same amount of revenues. First, a consumption tax could reduce saving and investment, although those effects would probably be small because a consumption tax would reduce the returns from saving and investment by a limited amount. Unlike an income tax, a consumption tax does not reduce the "normal" return on saving (that is, the return that could be obtained from making a risk-free investment) because the tax does not affect households' decisions about whether to consume now or in the future. A consumption tax can reduce returns in excess of a risk-free investment, but a reduction in those returns is less likely than a reduction in the normal return to affect households' and businesses' decisions about how much to save and invest.

Second, a new tax on consumption would probably reduce individuals' labor supply, although the magnitude of that effect is uncertain. On the one hand, it would create an incentive for people to work fewer hours because the reduction in real wages would make time spent on nonwork activity more attractive. On the other hand, it would reduce individuals' purchasing power and the value of their existing wealth, which might result in their increasing the number of hours they worked. The latter effect would probably be smaller.

Other Considerations

As with any new tax, implementing a VAT would impose administrative costs on the federal government and compliance costs on businesses. The magnitude of those costs

would vary depending on the tax's design and implementation method. Administrative costs to the federal government are not included in the estimates for this option. Implementing a VAT would require the federal government to establish a new system to monitor compliance and collect the tax. Research has shown that at least some countries that have implemented a VAT devote significant resources to addressing and enforcing compliance.

Although existing consumption taxes typically apply to the purchase of goods and services, a broad consumption-based tax could also be designed as an individual income tax with an exemption for income received on past savings (such as dividends, capital gains, and interest income) or a deduction for the current year's savings. Alternatively, it could include a business cash flow tax and a tax on wages and salaries. A cash flow tax on businesses would apply to the difference between a business's cash receipts and its expenses. Expenses for current investments paid for by income saved in prior years would be fully deductible in the year those expenses were incurred. Because those investments would not be taxed, a cash flow tax on businesses would be economically equivalent to a consumption tax on their incomes. Similarly, a tax on wages and salaries would be economically equivalent to a consumption tax on workers.

Related Option in This Volume: Option 17, "Impose a Tax on Emissions of Greenhouse Gases" (page 88)

Related CBO Publication: Jaeger Nelson and Kerk Phillips, *The Economic Effects of Financing a Large and Permanent Increase in Government Spending*, Working Paper 2021-03 (Congressional Budget Office, March 2021), www.cbo.gov/publication/57021

Option 17—Revenues

Impose a Tax on Emissions of Greenhouse Gases

Billions of Dollars	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	Total 2023–2027	Total 2023–2032
Decrease (-) in the Deficit												
Apply a $25 tax per metric ton of emissions and increase tax annually by 5 percent, adjusted for inflation	-55.2	-86.2	-83.5	-82.4	-81.8	-81.3	-87.3	-95.4	-102.9	-109.5	-389.0	-865.4
Apply a $25 tax per metric ton of emissions and increase tax annually by 2 percent, adjusted for inflation	-55.2	-84.7	-80.4	-77.3	-74.9	-72.2	-75.0	-79.6	-83.4	-86.2	-372.5	-768.9
Apply a $25 tax per metric ton of emissions (excluding gasoline) and increase tax annually by 2 percent, adjusted for inflation	-43.3	-65.9	-61.0	-57.4	-54.6	-51.6	-54.0	-58.1	-61.5	-63.7	-282.1	-570.9

Data sources: Staff of the Joint Committee on Taxation; Congressional Budget Office.

This option would take effect in January 2023.

An offset to reflect reduced income and payroll taxes has been applied to the estimates in this table.

Background

Greenhouse gases—particularly carbon dioxide (CO_2)—accumulate in the atmosphere as a result of the burning of fossil fuels (such as coal, oil, and natural gas). Other actions such as deforestation and releases of methane from livestock, oil and gas systems, and other sources add to the accumulation of greenhouse gases. That contributes to climate change, which imposes costs on people and countries around the globe, including the United States.

In 2021 the Congressional Budget Office projected that under current law, climate change would result in a 1 percent reduction in the level of real gross domestic product by 2050. That estimate accounts for both negative and positive effects of climate change on economic activity, although it does not capture all the effects that climate change could have. Some aspects of climate change are entirely negative. For instance, wildfires, floods, hurricanes, and tropical storms harm people and reduce the nation's output of goods and services by damaging and destroying buildings, equipment, and inventory. Other aspects of climate change have both positive and negative effects, depending on location or time of year. For example, although the productivity of agricultural land, labor supply, and labor productivity are expected to decline overall, some parts of the country are expected to experience increases in those outcomes.

Although the effects of climate change are expected to increase over time, they are much more uncertain in the more distant future. There is some risk that large changes in global temperatures will trigger catastrophic damage, causing substantial harm to human health and well-being. Moreover, greenhouse gases are long-lived, meaning that they remain in the atmosphere and affect the climate for many decades after they are emitted. Because they have such long-lasting effects, delaying actions to limit emissions of those gases affects the country's ability to avoid potentially harmful effects in the future.

Greenhouse gas emissions of all kinds are typically measured in CO_2 equivalents (CO_2e), or the estimated amount of carbon dioxide that would cause an equivalent amount of warming. Under current law, annual emissions are projected to average 5.9 billion metric tons of CO_2e from 2023 to 2032.

Reducing global emissions of greenhouse gases would decrease the magnitude of climate change and the expected costs and risks associated with it. The federal government regulates some greenhouse gas emissions and provides financial incentives to reduce them, but except for a charge on some methane emissions from the oil and gas industry, it does not directly tax emissions. A well-designed tax that covered most energy-related emissions would result in reduced emissions and their associated

harms. A tax on such emissions would have similar effects to a tax on consumption wherein goods and services would be taxed on the basis of their energy use.

Option

This option consists of three alternatives that would tax emissions of greenhouse gases. (The option would not impose a tax on methane emissions that are already subject to the charge applied to emissions from the oil and gas industry.) Each alternative would go into effect in January 2023.

The first alternative would impose a tax of $25 per metric ton on energy-related emissions of CO_2 in the United States (such as those from electricity generation, manufacturing, and transportation) and on some other greenhouse gas emissions from large U.S. manufacturing facilities. The tax would increase at an annual rate of 5 percent plus the rate of inflation since the previous year.

The second alternative is identical to the first, except that the annual rate of increase would be 2 percent, adjusted for inflation.

Under the third alternative, the tax would also rise by 2 percent each year, adjusted for inflation, but it would exclude gasoline from that tax.

Effects on the Budget

According to estimates made by the staff of the Joint Committee on Taxation and CBO, implementing the first alternative would reduce the deficit by $865 billion from 2023 to 2032. If the tax increased more slowly, as in the second alternative, the deficit would decrease by $769 billion over that period. Excluding gasoline from the tax as well, as in the third alternative, would further limit the decrease in the deficit, to $571 billion. All three alternatives would reduce taxable business and individual income. The resulting reduction in income and payroll tax receipts would partially offset the increase in excise taxes, and the estimates for the option reflect that offset. The estimates also reflect a reduction in emissions that would occur as businesses and consumers responded to the tax.

On average, about 3.9 billion metric tons of greenhouse gas emissions—mostly energy-related CO_2 emissions—would be taxed each year over the 2023–2032 period under the first alternative. About 1 percent more greenhouse gas emissions would be taxed under the second alternative. (Because the tax would increase more slowly than under the first alternative, it would not discourage emissions as strongly. As a result, there would be more emissions subject to the tax.) About 3.0 billion metric tons would be taxed under the third alternative. At the end of 2023, greenhouse gas emissions covered by the tax would be roughly 7 percent lower under the first two alternatives, and around 6.5 percent lower under the third alternative, than is projected under current law. In 2032, energy-related emissions would be 11 percent lower under the first alternative than is projected for that year under current law, 9 percent lower under the second alternative, and 8 percent lower under the third alternative. The first alternative would have a greater effect on emissions because of its greater annual increases in the tax rate. In 2032, the tax rate under the first alternative would be nearly one-third higher than it would be under the other two alternatives.

The third alternative, which exempts gasoline, would reduce greenhouse gas emissions from 2023 to 2032 by 5 percent less than the second alternative would, even though gasoline currently contributes around 20 percent of energy-related CO_2 emissions in the United States. That disparity would arise because gasoline consumption is not very sensitive to changes in price. (A tax of $25 per metric ton of CO_2 would increase the price of gasoline by about $0.22 per gallon.) Exempting gasoline from the tax would reduce the deficit by about $200 billion less from 2023 to 2032 than would the second alternative, which does not exempt gasoline.

The tax would provide incentives for businesses to produce goods and services in ways that yield fewer emissions (for example, by generating electricity from wind rather than from coal) and for individuals to consume goods and services that yield fewer emissions (for example, by choosing vehicles and appliances that are more energy-efficient) or to use them less intensively (for example, by driving less or choosing temperature settings that use less energy). In its initial year, the tax would motivate emissions reductions that cost less than $25 per ton to achieve but not those that would cost more than $25 per ton. In subsequent years, the cost of emissions reductions that businesses and consumers would choose to make would increase along with the annual increase in the tax rate. Because it excludes gasoline, the third alternative in this option would not provide an incentive for businesses and individuals to reduce their vehicle emissions by choosing more fuel-efficient vehicles or driving less.

The effects of choosing a moderately higher or lower tax rate would be roughly linear: Under each alternative, every dollar of increase or decrease in the initial $25 tax rate would cause the deficit effect of the tax over the 10-year period to rise or fall by about 3.5 percent. Similarly, the 10-year decrease in the deficit under each alternative would rise or fall by about 4 percent for every percentage-point increase or decrease in the annual rate of increase in the tax.

Uncertainty About the Budgetary Effects

The estimates for this option are uncertain for two key reasons. First, estimated baseline emissions—that is, the projected amounts of greenhouse gases that would be emitted in the absence of the tax—depend on estimates of future economic activity and of the relative future prices of various fuels and energy technologies. Both kinds of estimates are uncertain. Second, even if those projections were accurate, estimated reductions in emissions stemming from the tax would still be uncertain, in part because they depend on responses to the tax that have uncertain outcomes, such as the development of new technologies.

Long-Term Effects

In the long term, the effect of the tax on emissions of greenhouse gases would be subject to several offsetting factors. Because of technological change, the cost of reducing emissions from any given source will probably decline. But because businesses and consumers would first reduce emissions where it was least costly to do so, over time, the remaining opportunities to reduce emissions would be increasingly costly to achieve using any given technology. At the same time, the increasing tax rate would broaden the set of emissions reductions that businesses and individuals would find worthwhile over time. So even as low-cost ways to reduce emissions were identified and implemented, the rising tax would give businesses and individuals an incentive to implement other, higher-cost ways of reducing emissions. The net effect on the cost of emissions reductions is uncertain. The relationship between that cost and the rising incentive provided by the emissions tax—and thus on future revenues from the tax—is also uncertain.

Distributional Effects

A tax on greenhouse gas emissions would not affect all households uniformly. The total burden of the tax would include its effects on average real (inflation-adjusted) incomes, households' income- and payroll-tax liabilities, relative prices, and relative returns on factors of production. For some of those effects, the burden would be larger, relative to their income, on households with lower income than on those with higher income, and for others it would be relatively larger on higher-income households. Overall, the tax would place a slightly larger relative burden on lower-income households.

The tax would reduce the real value of wages and returns on investment. A larger share of income for higher-income households comes from those sources, so that reduction in real income would place a relatively larger burden on those households. Partially offsetting that effect, however, is the fact that because higher-income households face higher tax rates, they would benefit more from the accompanying reduction in the real burden of income and payroll tax liabilities.

The tax would also introduce a wedge between the prices that consumers pay for goods and services and the returns that investors and workers receive for producing them. The more carbon-intensive the good or service was, the larger the wedge would be. Thus, the tax would increase the cost of producing and consuming goods such as gasoline and electricity relative to other, less carbon-intensive goods such as clothing and food. Lower-income households spend a greater share of income on those energy-related goods than higher-income households do, so that effect would place a relatively larger burden on lower-income households.

Finally, a tax would probably reduce average returns on capital relative to wages, largely because carbonintensive industries tend to be capital intensive. That would slightly narrow the difference in tax burden between lower- and higher-income households because wages make up a larger share of income for households with lower income than for those with higher income because higher-income hosueholds have relatively more investment income.

Economic Effects

In addition to having the behavioral effects reflected in conventional budget estimates, such as the ones shown above, a tax on emissions would affect households' and businesses' incentives in several ways that would have effects on the economy. Because an emissions tax would lead to a slight overall decline in after-tax returns on capital relative to the after-tax returns on labor, incentives to invest would also decline somewhat, and some investment capital would flow toward less capital-intensive

industries. However, that effect is uncertain and would probably decrease over time as factors of production moved among different sectors of the economy to better equalize the effect of the tax on the returns on capital and labor. The tax would increase costs of production for energy-intensive industries to the extent that firms in those industries could not switch to lower-carbon fuels in their production processes. Among fuel suppliers, coal producers in particular could experience a substantial reduction in demand.

The tax would discourage saving to the extent that it reduced consumers' future purchasing power. Because the emissions tax would increase annually in real terms, the expected future cost of consuming goods and services would be higher than the current cost of that consumption. In that sense, it is equivalent to a tax on saving, because it would reduce the purchasing power of income saved for future consumption.

The tax would reduce the real value of wages, which generally would lead people to work less because other uses of their time would become relatively more attractive. (A reduction in real wages could cause some people to work more hours because they would need to work more hours to maintain the same standard of living. On balance, that effect would be smaller, CBO estimates.) The magnitude of the effect on the real value of wages is uncertain because it would depend on both how much the tax affected real income and how the decrease in emissions affected labor productivity. For example, if emissions fell more rapidly than projected, then revenues raised by the tax would be lower, reducing the negative impact the tax would have on real incomes. Additionally, there could be an offsetting positive effect of the tax on labor productivity—and thus wages and real, after-tax incomes—if the reduction in emissions, due to the tax, helped mitigate productivity-lowering harms such as infrastructure damage caused by rising sea levels, airborne particulates from wildfires, exposure to extreme temperatures, and storm damage to property. However, since greenhouse gases are global pollutants, those harms also depend on actions taken by other nations.

Other Considerations

The effects of greenhouse gas emissions on the earth's climate are the same regardless of which country emits them. Reducing emissions in the United States would diminish the probability of catastrophic damage from climate change but would have only a small effect if other countries with high levels of emissions did not also cut them substantially.

The efficacy of the tax in reducing greenhouse gas emissions would depend on the extent to which domestic producers responded to the tax by importing some carbon-intensive goods that they would otherwise have produced domestically—in effect, exporting some of their carbon-intensive production to other countries with less stringent policies toward those emissions. Such "carbon leakage" would occur particularly with goods that are carbon-intensive and easily traded. Ultimately, averting the risk of future damage caused by emissions would depend on collective global efforts to cut emissions.

The administration of the tax would be simpler if it was collected "upstream" (as is done with many excise taxes) where carbon-intensive fuels first enter the economy rather than "downstream" where those fuels are used by individual consumers. For example, the tax could be collected from producers, importers, and refiners of fossil fuels on the basis of the emissions released when those fuels were eventually used, such as to generate electricity. The administrative costs to the federal government of a tax on greenhouse gases would depend on the design of the tax and are not included in the estimates for this option.

A tax on greenhouse gas emissions would interact with existing tax preferences and spending programs that support users and producers of certain fuels and energy technologies. Some of those preferences and programs—subsidies for purchasing electric vehicles, tax preferences for producing electricity from renewable sources, and demonstration projects for carbon capture and storage, for instance—reduce greenhouse gas emissions. The rationale for those forms of government support would be reduced if most energy-related emissions were taxed. Reducing those existing forms of government support would result in additional deficit reductions.

In addition, reducing or eliminating existing support could result in more uniform treatment of all sources of energy production for both investors and users. A more uniform treatment would better allocate capital across its uses, resulting in increased economic efficiency and growth. A tax would induce emissions reductions where they could be achieved at the lowest cost, which—compared with achieving the same overall reductions in other, more costly ways—would free up resources for other purposes.

Related Option in This Volume: Option 16, "Impose a Tax on Consumption" (page 84)

Related CBO Publications: *How CBO Analyzes the Effects of Charging the Oil and Gas Industry for Methane Emissions* (August 2022), www.cbo.gov/publication/58166; Ron Gecan, *How Carbon Dioxide Emissions Would Respond to a Tax or Allowance Price: An Update*, Working Paper 2021-16 (December 2021), www.cbo.gov/publication/57580; Dorian Carloni and Terry Dinan, *Distributional Effects of Reducing Carbon Dioxide Emissions with a Carbon Tax*, Working Paper 2021-11 (September 2021), www.cbo.gov/publication/57399; *Budgetary Effects of Climate Change and of Potential Legislative Responses to It* (April 2021), www.cbo.gov/publication/57019; Evan Herrnstadt and Terry Dinan, *CBO's Projection of the Effect of Climate Change on U.S. Economic Output*, Working Paper 2020-06 (September 2020), www.cbo.gov/publication/56505; *Effects of a Carbon Tax on the Economy and the Environment* (May 2013), www.cbo.gov/publication/44223

About This Document

At the request of the House and Senate Committees on the Budget, the Congressional Budget Office periodically issues a compendium of budget options to help inform federal lawmakers about the implications of possible policy choices that would reduce the deficit. This year, the report is presented in two volumes. This volume, *Options for Reducing the Deficit, 2023 to 2032—Volume I: Larger Reductions*, contains detailed descriptions of 17 options that would each reduce the deficit by more than $300 billion over the next 10 years or, in the case of Social Security options, have a comparably large effect in later decades. A second volume, *Options for Reducing the Deficit, 2023 to 2032—Volume II: Smaller Reductions* (www.cbo.gov/publication/58163), contains short descriptions of 59 options that would each reduce the deficit by less than $300 billion over that 10-year period.

The options come from a variety of sources, including legislative proposals, budget proposals from various Administrations, Congressional staff, other government entities, and private groups. The options are intended to reflect a range of possibilities rather than to rank priorities or present a comprehensive list. The inclusion or exclusion of a particular option does not represent an endorsement or a rejection by CBO. In keeping with CBO's mandate to provide objective, impartial analysis, this report makes no recommendations.

This volume is the result of work by more than 80 people at CBO, whose names are listed on the following page, as well as by the staff of the Joint Committee on Taxation. This volume of the report is available on CBO's website at www.cbo.gov/publication/58164.

CBO seeks feedback to make its work as useful as possible. Please send comments to communications@cbo.gov.

Phillip L. Swagel
Director
December 2022

Overview

Analysts throughout CBO worked on the options that appear in this volume. That work was undertaken by analysts in CBO's Budget Analysis Division (supervised by Theresa Gullo, Leo Lex, Sam Papenfuss, Christina Hawley Anthony, Chad Chirico, Elizabeth Cove Delisle, Justin Humphrey, Paul Masi, Sarah Masi, David Newman, and Susan Willie); Health Analysis Division (supervised by Carrie H. Colla, Chapin White, Berna Demiralp, Tamara Hayford, and Alexandra Minicozzi); Labor, Income Security, and Long-Term Analysis Division (supervised by Julie Topoleski, Molly Dahl, and Xiaotong Niu); Microeconomic Studies Division (supervised by Joseph Kile and Nicholas Chase); National Security Division (supervised by David Mosher and Edward G. Keating); and Tax Analysis Division (supervised by John McClelland, Joseph Rosenberg, Edward Harris, and Joshua Shakin). The estimates of tax provisions in this volume were prepared by the staff of the Joint Committee on Taxation. Adam Abadi, Christian Henry, Omar Morales, Joyce Shin, Sree Yeluri, and Lucy Yuan fact-checked this volume.

Molly Saunders-Scott, along with Scott Laughery, Noah Meyerson, Dan Ready, and James Williamson, coordinated work on this volume. They reviewed that work in conjunction with Mark Doms, Jeffrey Kling, and Robert Sunshine.

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Editing and Publishing

The editing and publishing of this volume were handled by CBO's editing and publishing group, supervised by Lora Engdahl and John Skeen, and the agency's communications team, supervised by Deborah Kilroe. Loretta Lettner and Caitlin Verboon edited this volume. R. L. Rebach and Jorge Salazar created the graphics (with assistance from Casey Labrack) and prepared the text for publication. R. L. Rebach illustrated the cover. Annette Kalicki prepared the online version of the budget options, and Elizabeth Ash prepared a consolidated table of the options to be posted online.