# CBO

# Social Security Policy Options



**JULY 2010**

**A CBO STUDY**

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# Notes

Unless otherwise noted, all years are calendar years.

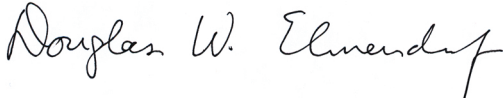Numbers in the text and tables may not add up to totals because of rounding.

# Preface

Social Security is the federal government's largest single program, and as the U.S. population grows older in the coming decades, its cost is projected to increase more rapidly than its revenues. As a result, under current law, resources dedicated to the program will become insufficient to pay full benefits in 2039, the Congressional Budget Office (CBO) projects. Long-run sustainability for the program could be attained through various combinations of raising taxes and cutting benefits; such changes would also affect the Social Security taxes paid and the benefits received by various groups of people. This CBO study examines a variety of approaches to changing Social Security, updating an earlier work, *Menu of Social Security Options,* which CBO published in May 2005. In keeping with CBO's mandate to provide objective, impartial analysis, the current study makes no recommendations.

The study was written by Noah Meyerson, Charles Pineles-Mark, and Michael Simpson of CBO's Health and Human Resources Division, under the direction of Joyce Manchester and Bruce Vavrichek. Research assistance was provided by Philip Armour, Sarah Axeen, and L. Daniel Muldoon. James Baumgardner, Sheila Dacey, Benjamin Page, David Rafferty, Jonathan Schwabish, and Julie Topoleski provided helpful comments on earlier drafts. Andrew Biggs of the American Enterprise Institute and Paul Van de Water of the Center for Budget and Policy Priorities also provided useful comments. (The assistance of external reviewers implies no responsibility for the final product, which rests solely with CBO.)

Kate Kelly edited the manuscript, and Leah Mazade and Sherry Snyder proofread it. Maureen Costantino took the cover photograph and designed the cover, and Jeanine Rees prepared the study for publication. Jonathan Schwabish provided help with graphics. Monte Ruffin produced the initial printed copies, Linda Schimmel coordinated the print distribution, and Simone Thomas prepared the electronic version for CBO's Web site (www.cbo.gov).

Douglas W. Elmendorf
Director

July 2010

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# Summary

Social Security, the federal government's largest single program, provides benefits to retired workers (through Old-Age and Survivors Insurance, OASI), to people with disabilities (through Disability Insurance, DI), and to their families as well as to some survivors of deceased workers. Those benefits are financed primarily by payroll taxes collected on people's earnings. In 2010, for the first time since the enactment of the Social Security Amendments of 1983, Social Security's annual outlays will exceed its annual tax revenues, the Congressional Budget Office (CBO) projects. If the economy continues to recover from the recent recession, those tax revenues will again exceed outlays, but only for a few years. CBO anticipates that starting in 2016, if current laws remain in place, the program's annual spending will regularly exceed its tax revenues.

Social Security's dedicated revenue stream sets it apart from most other federal programs in that the dedicated revenues are credited to trust funds that are used to finance the program's activities. Interest on the balances of those funds also is credited to the funds (which often are treated collectively as the OASDI trust funds). CBO estimates that, unless changes are made to the system, the trust funds combined will be exhausted in 2039. At that point, the resources available to the Social Security program will be insufficient to pay full benefits as they are currently structured.[1]

This CBO study first provides an overview of Social Security and discusses some criteria for evaluating proposals to change the system. It then presents a variety of options for changing the Social Security system and analyzes the financial and distributional effects of those options—that is, how they would affect Social Security's finances and how they would alter the benefits paid to people in various earnings categories and people born in various decades.

## The Outlook for Social Security's Finances

As the population of the United States continues to grow older, the number of Social Security beneficiaries will continue to rise, and the program's outlays will increase faster than its revenues. Long-term projections are unavoidably uncertain but, under a broad range of assumptions, benefits that are scheduled under current law will consistently exceed revenues.

CBO projects that beginning in 2039 the Social Security Administration will not be able to pay those scheduled benefits, however. If revenues were not increased, benefits would need to be cut by about 20 percent in 2040 to equalize outlays and revenues. Those proportionately lower payments, which would be made to all Social Security recipients once the trust funds were exhausted, are known as payable benefits.

A commonly used summary measure of the system's long-term financial condition is the 75-year actuarial balance—a figure that measures the long-term difference between the resources dedicated to Social Security and the program's costs under current law. The actuarial balance is the value of Social Security's revenues over the 75-year period, discounted to their value in current dollars, plus the current balance in the OASDI trust funds,

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1. See Congressional Budget Office, *The Long-Term Budget Outlook* (June 2010), Chapter 3.

minus the present value of future Social Security outlays, minus the value of a year's worth of benefits as a reserve at the end of the period.[2] CBO estimates the 75-year actuarial balance to be -0.6 percent of gross domestic product (GDP); that is, under current law, the resources dedicated to financing the program over the next 75 years fall short of the benefits that will be owed to beneficiaries by about 0.6 percent of GDP.[3] That figure is the amount by which the Social Security payroll tax would have to be raised or scheduled benefits reduced for the system's revenues to be sufficient to cover scheduled benefits. In other words, to bring the program into actuarial balance over the 75 years, payroll taxes would have to be increased immediately by 0.6 percent of GDP and kept at that higher rate, or scheduled benefits would have to be reduced by an equivalent amount, or some combination of those changes and others would have to be implemented.

The actuarial balance averages the smaller deficits that would occur near the beginning of the projection period and the larger ones that would occur near the end. In 2084, scheduled outlays would exceed revenues by 1.4 percent of GDP.

## Policy Options

In this study, CBO analyzes 30 options that are among those that have been considered by various analysts and policymakers as possible components of proposals to provide long-term financial stability for Social Security. The options follow the convention of not reducing initial benefits for people who are currently older than 55, and all would directly affect outlays for benefits or federal revenues dedicated to Social Security.

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2.  CBO discounts those values using a real (inflation-adjusted) discount rate of 3 percent, equal to CBO's estimated long-term interest rate used to compute interest credited to the Social Security trust funds. The actuarial balance is calculated on the basis of Social Security's scheduled benefits, which are the benefits specified under current law without regard to the balances in the system's trust funds. Scheduled benefits are used in this study's analysis of the system's finances because, by definition, the system is in financial balance with payable benefits, which would be set so as to eliminate any system deficit.

3.  The projected actuarial balance can also be expressed as -1.6 percent of taxable payroll.

The options fall into five categories:

- Increases in the Social Security payroll tax,

- Reductions in people's initial benefits,

- Increases in benefits for low earners,

- Increases in the full retirement age, and

- Reductions in the cost-of-living adjustments that are applied to continuing benefits.

Each option is analyzed in isolation, although most proposals to make substantial changes to Social Security combine several provisions. Many options would interact with one another, so combining them might cause changes to the overall finances of the system that are larger or smaller than would be produced by a simple sum of the effects of several discrete options.

This list of options is far from exhaustive. It does not include changes that would draw on general government revenues, create individual accounts, or change the trust funds' investments. Other than an increase in the Social Security payroll tax, changes to federal tax policy are not considered. The options do not include any that apply only to people who receive DI benefits, although some of the options would affect OASI and DI beneficiaries alike.

## Effects of the Options

This study analyzes the overall effect of each option on the finances of the Social Security system. Some options, such as those that would apply the payroll tax rate to all earnings or those that would index initial benefits to prices, would more than eliminate Social Security's actuarial deficit; others would have far smaller financial effects (see Summary Figure 1).

This study also analyzes the options' effects on taxes that would be paid and benefits that would be received by various groups of program participants. For that distributional analysis, participants are grouped by the amount of their lifetime household earnings and by their birth cohort (that is, by the decade in which they were born). Those distributional effects of the options are measured relative to the outcomes that would result both from scheduled benefits and from payable benefits under current law.

**Summary Figure 1.**

# Effects of the Policy Options on the OASDI Trust Fund Actuarial Balance

| Option | Value | Category |
|---|---|---|
| Increase the Payroll Tax Rate by 1 Percentage Point in 2012 | 0.3 | **Change the Taxation of Earnings** |
| Increase the Payroll Tax Rate by 2 Percentage Points Over 20 Years | 0.6 | |
| Increase the Payroll Tax Rate by 3 Percentage Points Over 60 Years | 0.5 | |
| Eliminate the Taxable Maximum | 0.6 | |
| Raise the Taxable Maximum to Cover 90% of Earnings | 0.2 | |
| Tax Covered Earnings Above the Taxable Maximum; Do Not Increase Benefits | 0.9 | |
| Tax Covered Earnings Up to $250,000; Do Not Increase Benefits | 0.5 | |
| Tax All Earnings Above the Taxable Maximum at 4%; Do Not Increase Benefits | 0.3 | |
| Tax All Earnings Above $250,000 at 4%; Do Not Increase Benefits | 0.1 | |
| Raise from 35 to 38 the Years of Earnings Included in the AIME | 0.1 | **Change the Benefit Formula** |
| Index Earnings in the AIME Formula to Prices | 0.2 | |
| Reduce All PIA Factors by 15% | 0.5 | |
| Reduce the Top Two PIA Factors by Roughly One-Third | 0.7 | |
| Reduce the Top PIA Factor by One-Third | 0.1 | |
| Reduce All PIA Factors by 0.5% Annually | 0.4 | |
| Index Initial Benefits to Changes in Longevity | 0.2 | |
| Reduce PIA Factors to Index Initial Benefits to Prices Rather Than Earnings | 1.0 | |
| Lower Initial Benefits for the Top 70% of Earners | 0.5 | |
| Lower Initial Benefits for the Top 50% of Earners | 0.4 | |
| Index the Bend Points in the PIA Formula to Prices | 0.5 | |
| Index Earnings in the AIME and Bend Points in the PIA Formula to Prices | 0.6 | |
| Replace the Current PIA Formula with a New Two-Part Formula | 0.2 | |
| Modify the Special Minimum Benefit and Index It to Growth in Earnings | -0.2 | **Increase Benefits for Low Earners** |
| Introduce a New Poverty-Related Minimum Benefit | * | |
| Enhance Low-Earners' Benefits on the Basis of Years Worked | -0.3 | |
| Raise the FRA to 68 | 0.1 | **Raise the Full Retirement Age** |
| Raise the FRA to 70 | 0.3 | |
| Index the FRA to Changes in Longevity | 0.2 | |
| Reduce COLAs by 0.5 Percentage Points | 0.3 | **Reduce Cost-of-Living Adjustments** |
| Base COLAs on the Chained CPI-U | 0.2 | |

Source: Congressional Budget Office.

Notes: The actuarial balance is the present value of revenues plus the OASDI trust fund balance at the beginning of 2010, minus the present value of outlays from 2010 to 2084, minus a year's worth of benefits as a reserve at the end of the period, expressed as a percentage of the present value of GDP over the period.

The AIME for a retired worker who reaches age 62 after 1990 is calculated on the highest 35 years of earnings on which that worker paid Social Security taxes (up to the taxable maximum, $106,800 in 2010). Earnings before age 60 are indexed to compensate for inflation and for real (inflation-adjusted) growth in wages; earnings after age 59 enter the computations at nominal values. Dividing total earnings by 420 (35 years times 12 months) yields the AIME.

The PIA is the monthly payment to a worker who begins receiving retirement benefits at the full retirement age or to a disabled worker who has never received a retirement benefit reduced for age. For workers who turn 62, become disabled, or die in 2010 (for calculation of survivor benefits), the PIA formula is 90 percent of the first $761 of the AIME plus 32 percent of the AIME between $761 and $4,586 plus 15 percent of the AIME over $4,586. Those percentages constitute the PIA factors.

A COLA is an annual increase in benefits indexed to consumer prices. Under current law, the COLA equals the percentage increase in the CPI-W; the chained CPI-U is an alternative measure of inflation.

OASDI = Old-Age, Survivors, and Disability Insurance; GDP = gross domestic product; AIME = average indexed monthly earnings; PIA = primary insurance amount; FRA = full retirement age; COLA = cost-of-living adjustment; CPI-W = consumer price index for all urban wage earners and clerical workers; chained CPI-U = chained CPI for all urban consumers; * = between -0.05 percentage points and zero.

Some options, such as an across-the-board increase in the payroll tax rate or a flat reduction in benefits, would affect all participants proportionately, but some options would have disparate effects on people in different earnings groups. For example, some options would primarily affect people with higher lifetime earnings by placing an additional tax on earnings above a threshold or by increasing the progressivity of the Social Security benefit formula.

Many options with similar financial effects in the aggregate would affect older and younger generations differently. In particular, the timing of the changes would affect their impact on different generations (as well as the magnitude of the change necessary to bring the system into balance). Some options, such as one that would reduce benefits by a flat 15 percent, would take effect in a single year and would affect all future beneficiaries the same way. Others would be phased in and, initially, would have only small effects. For example, a policy that gradually reduced benefits would have a much larger effect on people whose benefits began in 2040 than it would on those whose benefits began in 2020. Raising tax rates would increase the amounts paid by younger people but make little difference in the sum of taxes paid over a lifetime by people who already have left or are about to leave the workforce.
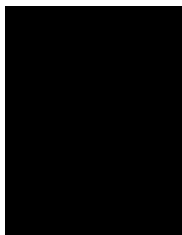
# Social Security Policy Options

## Introduction

The federal government levies taxes on workers to pro-vide Social Security benefits to the elderly, to disabled people, and to their families as well as to some survivors of deceased workers. Although the program is part of the overall federal budget, its funding differs from that of many other programs in the budget: Its spending is financed from two trust funds that are credited with the dedicated tax revenues and from which benefits may be paid, without further legislative action, as long as the trust funds have sufficient balances.[1] The balances that exist today—more that $2 trillion—have accumulated over many years, during which tax revenues credited to the trust funds exceeded the benefit payments from those funds. Interest on the balances is credited to the trust funds.

In 2010, for the first time since the enactment of the Social Security Amendments of 1983, the Congressional Budget Office (CBO) projects that Social Security's annual outlays will exceed its annual revenues, excluding interest credited to the trust funds. As the baby-boom generation (the group of people born between 1946 and 1964) continues to age, the number of Social Security beneficiaries will increase, and outlays will rise faster than revenues. In part because of this growth, the federal bud-get is on an unsustainable path: Without significant changes in government policy, in coming decades the aging of the population and rising health care costs will boost federal outlays sharply relative to the size of the economy under any plausible assumptions about future trends in the economy, demographics, and health care costs.[2] Also because of the growing number of Social Security beneficiaries, CBO projects that, under current law, the Social Security trust funds will be exhausted in 2039. Thereafter, the Social Security Administration will not have the legal authority to pay the full benefits specified in law.

This study analyzes the effects of 30 options for changing Social Security. The options are among those commonly proposed by policymakers and analysts for bringing long-term financial stability to the program.[3] This study describes the options' effects on the finances of the Social Security system, on the taxes the program's participants pay, and on the benefits participants receive. Participants are grouped by their lifetime household earnings and birth cohort (that is, by the decade of their birth).

### An Overview of Social Security

The Social Security Act of 1935 created the federal gov-ernment's largest single program. Currently, 53 million people receive Social Security benefits, and, although Social Security is commonly thought of as a retirement program, only 69 percent of its beneficiaries are retired workers, their spouses, and children (see Figure 1). Another 12 percent of beneficiaries are survivors of deceased workers, and the remaining 19 percent are peo-ple who are receiving Disability Insurance (DI) benefits

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1. Spending for Social Security benefits and receipts from Social Security taxes are part of the unified federal budget but are categorized as "off-budget" for certain budget enforcement procedures.

2. See Congressional Budget Office, *The Long-Term Budget Outlook* (June 2010).

3. CBO presented an analysis of various long-term Social Security options in *Menu of Social Security Options* (May 25, 2005). Versions of some of the options presented in this study also were discussed in Congressional Budget Office, *Budget Options, Volume 2* (August 2009). The Chief Actuary of the Social Security Administration has published a list of policy options that would address the solvency of the Social Security trust funds and other issues related to Social Security benefits and financing. That document, *Individual Changes Modifying Social Security*, is available at www.ssa.gov/OACT/solvency/provisions/index.html. The Social Security Administration's Office of Retirement and Disability Policy has published a series of policy briefs that analyze the distributional effects of various options, available at www.ssa.gov/policy/docs/policybriefs/index.html.

**Figure 1.**

## Distribution of Social Security Beneficiaries, by Type of Benefits Received, 2010
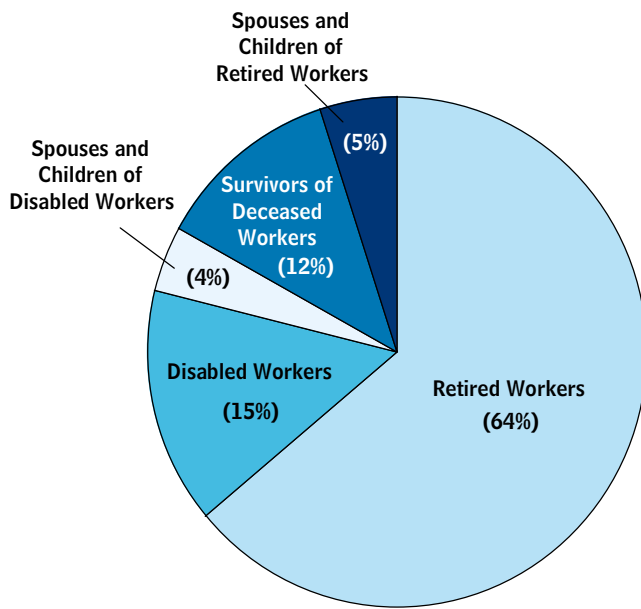


Sources:  Congressional Budget Office; Social Security
Administration, data for May 2010.

as disabled workers or who are the spouses and children of disabled workers. Social Security is an important source of income for the elderly. In 2008, almost 90 percent of people over age 65 received Social Security benefits. Among the population age 65 or older, those benefits were the major source of income (providing at least 50 percent of total income) for 57 percent of families and 90 percent or more of income for almost a third of such families.[4] Consequently, if Social Security benefits were reduced, many people would respond by working and saving more. The responses would be greater if such reductions were announced well in advance of the changes.

Social Security now consists of two parts: Old-Age and Survivors Insurance (OASI), which pays benefits to retired workers and their dependents and to survivors of deceased workers; and Disability Insurance, which pays benefits to workers who become disabled when they are

younger than the full retirement age (FRA, the age at which people can receive unreduced retirement benefits) and to their dependents. Old-Age and Survivors Insurance currently accounts for 82 percent of benefits, and Disability Insurance accounts for 18 percent. CBO projects that outlays for the program in fiscal year 2010 will total $708 billion, roughly one-fifth of the federal budget. Since 1989, administrative expenses have totaled 1 percent or less of program outlays.

During the program's first four decades, spending for Social Security benefits increased significantly relative to the size of the economy, reaching about 4 percent of gross domestic product (GDP) in the mid-1970s. The costs spiked to nearly 5 percent of GDP in the early 1980s, the period that saw the most recent major legislative changes to the program. In the 1990s and early 2000s, spending for Social Security benefits fluctuated between 4.1 percent and 4.6 percent of GDP. During the recent economic downturn, GDP contracted and Social Security outlays increased more rapidly than they would have with stable economic growth because the number of OASI and DI claimants increased as the job market deteriorated. Social Security's outlays rose to 4.8 percent of GDP in 2009, and CBO projects they will remain at that level in 2010.

**Taxes.** Social Security has two primary sources of dedicated tax revenues: payroll taxes and taxes on benefits. Roughly 97 percent of dedicated tax revenues are collected from a payroll tax of 12.4 percent that is levied on earnings and split evenly by workers and their employers at 6.2 percent apiece. Self-employed workers pay the entire 12.4 percent tax on earnings themselves. The payroll tax applies only to taxable earnings—earnings up to a maximum annual amount ($106,800 in 2010). Taxable earnings are about 83 percent of total covered earnings, which are all earnings—from wages and from self-employment income—for employment covered by Social Security. In addition, some Social Security benefits are subject to taxation: In 2009, about 3 percent of Social Security's dedicated tax revenues came from the income taxes that higher-income beneficiaries paid on their Social Security benefits.

**Benefits.** In general, workers are eligible to receive Social Security retirement benefits if they are age 62 or older and have paid a sufficient amount of Social Security

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4.  See Social Security Administration, "Income Sources," in *Income of the Aged Chartbook, 2008,* www.ssa.gov/policy/docs/ chartbooks/income_aged/2008/iac08.html#income.

taxes for at least 10 years.[5] Retirement benefits are reduced for workers who begin to collect Social Security before reaching the full retirement age, currently 66. Workers who are judged unable to perform substantial work because of a physical or mental disability can become eligible for DI benefits at an earlier age and, in many cases, with a shorter employment history. Various rules for determining eligibility and benefits apply to family members of retired, disabled, or deceased workers.

When retired or disabled workers first claim Social Security benefits, payments are based on their average lifetime earnings. The formula used to translate average earnings into benefits is progressive; that is, the replacement rate—the ratio of benefits received to a worker's past earnings—is higher for people with lower average earnings than for people with higher earnings. The Social Security Administration estimates that workers who had average annual earnings throughout their careers and who claim benefits in 2010 at age 65 will be eligible for an annual benefit of about $16,500, an amount that will replace about 40 percent of their average preretirement earnings.

For the purpose of calculating average earnings to determine the initial benefit, the amounts earned in earlier years are converted to current-year values based on changes in average annual earnings in the economy as a whole. Because average national earnings are projected to grow faster than inflation, that indexation will cause average initial benefits to grow in real (inflation-adjusted) terms and will keep the average replacement rate stable. (In later decades, the replacement rate will be slightly lower for workers with average earnings who claim benefits at age 65, mainly because of the scheduled increase in the full retirement age.)

An adjustment is made to retirement benefits on the basis of the age at which a recipient chooses to start claiming benefits: The longer someone waits (up to age 70), the higher the benefits will be. That adjustment is intended to be actuarially fair, so that a person's total lifetime benefits will have an approximately equal value regardless of the age at which he or she begins collecting them. For all

types of benefits, a cost-of-living adjustment (COLA) is made each year after the initial benefits are received to keep pace with annual changes in consumer prices.[6]

**Trust Funds.** Revenues from payroll taxes and from taxes on benefits, along with intragovernmental interest payments, are credited to the two Social Security trust funds—one for OASI and one for DI. The program's benefits and administrative costs are paid from those funds. Legally, the two funds are separate, but they often are described collectively as the OASDI trust funds.

Federal trust funds, including those for Social Security, essentially constitute an accounting mechanism. In a given year, the sum of receipts to a fund along with the interest that might be credited on previous balances, less spending for benefits and administrative costs, constitutes a fund's surplus or deficit. The cash generated by a surplus in any year is turned over to the Treasury in exchange for special Treasury securities. The Treasury uses the cash to finance the government's ongoing activities. If the trust funds' cash receipts are less than their outlays, the Treasury securities they hold are redeemed for cash as needed. The Treasury obtains that cash from other revenues or by borrowing from the public.

The trust funds are part of the federal government, so transactions between Social Security and the Treasury are intragovernmental and have no net effect on federal borrowing from the public or on the unified budget. Any increase in revenues credited to the trust funds or decrease in outlays from the funds makes available additional cash that can be used to finance other government activities without requiring new government borrowing from the public; the trust fund surpluses that were generated in previous years have been used in that way. Similarly, any increase in outlays or decrease in revenues for the OASDI trust funds in some future year will represent a draw on the government's cash in that year. Thus, the balances in the OASDI trust funds (in the form of government securities) are an asset to the Social Security

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5. Most workers need to earn 40 credits (each credit is known as "a quarter of coverage") to be eligible for retirement benefits. Workers can earn up to four credits per year on the basis of the amount they earn for employment that is covered under the program. In 2010, one credit is earned for each $1,120 in wages, so any worker who earns at least $4,480 will receive four credits for the year.

6. Social Security benefits are indexed to inflation as measured by the consumer price index for urban wage earners and clerical workers (CPI-W). The Social Security Administration generally adjusts benefits paid in January on the basis of the change in the CPI-W through the third quarter of the previous calendar year. If the resulting adjustment is negative, no COLA is given. The next COLA is made when the CPI-W for the third quarter of the calendar year exceeds the CPI-W for the third quarter of the last year in which an adjustment occurred.

**Figure 2.**

## U.S. Population Age 65 or Older as a Percentage of the Population Ages 20 to 64, 1962 to 2080

(Percent)
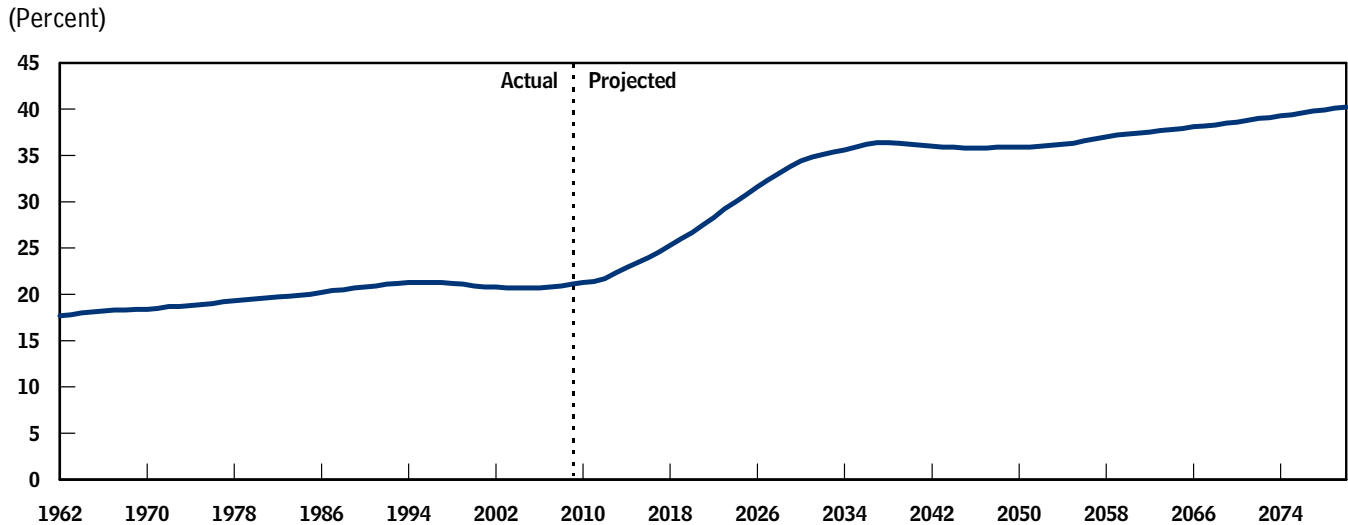


Sources:  Congressional Budget Office; Social Security Administration.

system but a liability to the rest of the government. The resources to redeem government securities in the OASDI trust funds and thereby pay for Social Security benefits in some future year must be generated from taxes, other government income, or government borrowing in that year.

### Social Security Projections

Under current law, the cost of Social Security benefits will escalate in coming decades.[7] Economic growth leads to higher average benefits because benefits are based on past earnings. In addition, changes in the nation's demographic structure will cause total benefits to grow faster than the economy: As the baby-boom generation reaches retirement age, and as decreasing mortality leads to

longer lives and longer retirements, a larger share of the population will be drawing Social Security benefits.[8]

**Rising Cost of Benefits.** Between now and 2035, the number of people age 65 or older will increase by about 90 percent, compared with an increase of more than 10 percent in the number of people between the ages of 20 and 64, CBO projects. Today, that older population is one-fifth the size of the younger population; at those growth rates, it will be more than one-third the size of the younger group by 2035 (see Figure 2). In 2035, about 93 million people will collect Social Security benefits, compared with 53 million today, and the average benefit will have grown nearly as rapidly as GDP per person.

As more baby boomers begin collecting benefits, spending for the program will climb from 4.8 percent of GDP in 2010 to 6.2 percent of GDP in 2035, CBO projects. Spending as a share of GDP will decline slightly over the 15 years after that, to 5.9 percent of GDP, as an increasing number of baby boomers die. However,

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7.  This study uses projections for Social Security as published in Congressional Budget Office, *The Long-Term Budget Outlook,* Chapter 3, based on *An Analysis of the President's Budgetary Proposals for Fiscal Year 2011* (March 2010). Future revenues from income taxes on benefits will depend on future income tax rates. The projections used here reflect the assumptions underlying the extended-baseline scenario published in *The Long-Term Budget Outlook,* namely, that income tax law does not change and income taxes on benefits grow as a share of Social Security benefits throughout the 75-year projection period. Under that report's alternative fiscal scenario, in contrast, income taxes on benefits are assumed to remain a constant share of benefits after 2020. As a result, projected Social Security revenues are slightly lower under the alternative fiscal scenario.

8.  Expectations regarding how the baby boomers will fare financially in retirement are summarized in Congressional Budget Office, *The Retirement Prospects of the Baby Boomers*, Issue Brief (March 18, 2004); for additional details, see *Baby Boomers' Retirement Prospects: An Overview* (November 2003) and *Will the Demand for Assets Fall When the Baby Boomers Retire?* Background Paper (September 2009).

demographers generally anticipate that life expectancy will continue to increase, and CBO projects that Social Security outlays will resume their upward trajectory relative to GDP after 2050, reaching 6.3 percent in 2080.[9]

The aging of the population is primarily responsible for the growth in Social Security's outlays as a percentage of GDP. If the age distribution of the population remained constant, Social Security outlays would decline slightly, from 4.8 percent of GDP today to 4.3 percent of GDP in 2035 and remain approximately at that level thereafter; the decline would occur because the full retirement age will continue to rise under current law, effectively reducing benefits. Social Security's total benefits would remain a generally constant share of GDP in the absence of aging because scheduled benefits are indexed to growth in earnings and (after initial benefits are received) to inflation. If that indexation were changed in certain ways, average benefits could be significantly lower than those under current law. For example, if initial benefits grew at the same rate as average prices (rather than at the same rate as average wages as they do under current law), average benefits—and thus total outlays—would be one-third lower by 2060 and one-half lower by 2080. Alternatively, if continuing benefits were increased by a smaller COLA than provided under current law, average benefits would be smaller. CBO estimates that, in years after 2040, more than 25 percent of the benefit payments under current law will be the result of COLAs provided between now and then.

**Worsening System Finances.** CBO projects that, in 2010, for the first time since the Social Security reforms of the early 1980s, benefit payments from the trust funds will exceed trust fund receipts from the public. Receipts from the public consist mostly of revenues from payroll taxes and exclude interest on Treasury securities held by the trust funds. As the economy recovers from the recent recession, receipts will again exceed benefit payments, but only until 2016. If benefits are paid as specified under current law, outlays will exceed revenues by 0.3 percent of

GDP in 2020, CBO projects, and by 1.0 percent to 1.3 percent between 2040 and 2080 (see Table 1).

*Trust Fund Exhaustion.* CBO projects that the Disability Insurance Trust Fund will be exhausted in fiscal year 2018, with the sum of the balance in the fund at the beginning of the year and projected revenue in that year falling $15 billion below projected expenditures. Once the trust fund balance has fallen to zero and current revenues are insufficient to cover the benefits that are specified in current law, the DI program will be unable to meet its obligations fully without changes in law. CBO projects that the Old-Age and Survivors Insurance Trust Fund will be exhausted in 2042.

The DI trust fund has been close to exhaustion before. The 1994 *Annual Report* of the Social Security Board of Trustees projected that the DI trust fund would be exhausted in 1995.[10] That outcome was prevented by legislation that redirected revenue from the OASI trust fund to the DI trust fund. In part because of that experience, it is a common analytical convention to consider the DI and OASI trust funds as combined, and CBO projects that, if legislation to shift resources from the OASI trust fund to the DI trust fund was enacted, the combined OASDI trust funds would be exhausted in 2039.

*Scheduled and Payable Benefits.* Benefits as calculated under the Social Security Act, regardless of the balances in the trust funds, are known as *scheduled benefits.*[11] However, the Social Security Administration lacks authority to pay scheduled benefits if those payments would exceed the available balances. If the trust funds became exhausted, payments to beneficiaries would be reduced or otherwise modified as necessary to make outlays from the

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9. For details on CBO's methodology for projecting Social Security's revenues and outlays, see Congressional Budget Office, *CBO's Long-Term Projections for Social Security: 2009 Update* (August 2009), p. 4.

10. See Board of Trustees of the Federal Old-Age and Survivors Insurance and Disability Insurance Trust Funds, *1994 Annual Report,* 78-187 (April 11, 1994), www.ssa.gov/history/reports/trust/1994/1994.pdf.

11. CBO prepares cost estimates for legislation under the assumption that *scheduled payments* will be made, which is consistent with a long-standing statutory requirement that CBO, in its baseline projections, assume that laws are implemented as specified and that funding for entitlement programs is adequate to make all payments. See section 257 of the Balanced Budget and Emergency Deficit Control Act of 1985, Public Law 99-177, as amended; 2 U.S.C. 907.

**Table 1.**

## Social Security's Revenues and Outlays Under Current Law with Scheduled Benefits

(Percentage of GDP)

| | Actual | | | | | 75-Year Present Value as a Percentage of | |
| | 2009 | 2020 | 2040 | 2060 | 2080 | GDP | Taxable Payroll |
|---|---|---|---|---|---|---|---|
| Revenues | 4.9 | 4.9 | 4.9 | 4.9 | 5.0 | 5.2 | 14.4 |
| Outlays | 4.8 | 5.2 | 6.2 | 6.0 | 6.3 | 5.8 | 16.0 |
| Balance | 0.1 | -0.3 | -1.3 | -1.1 | -1.3 | -0.6 | -1.6 |

Source:    Congressional Budget Office.

Notes:  The 75-year period is 2010 through 2084. Revenues consist of payroll taxes and income taxes on benefits (but not interest credited to the trust funds) in the specified year. Outlays consist of Social Security benefits and administrative costs. The balance is the surplus or deficit, which is the difference between revenues and outlays. The 75-year present value of revenues includes the current Old-Age, Survivors, and Disability Insurance trust fund balance. The 75-year present value of outlays includes a year's worth of benefits as a reserve at the end of the period.

GDP = gross domestic product.

funds equal revenues to the funds.[12] Benefits reduced or modified in that way are known as *payable benefits.* Under those circumstances, all receipts to the trust funds would be used and the trust fund balance would remain essentially at zero.

In 2040, CBO projects, payroll tax revenues and revenues from the taxation of benefits will be 80 percent of scheduled benefits for OASI and DI. At that time, payable benefits will be 20 percent lower than scheduled benefits for all beneficiaries. By 2084, the gap between scheduled and payable benefits will be 24 percent, CBO estimates (see Figure 3).

Cutting scheduled benefits or raising Social Security taxes during the next few decades would extend the solvency of the OASDI trust funds. For example, under a policy option with a gradual reduction in benefits such as a reduction in cost-of-living adjustments by 0.5 percent annually starting in 2012, the trust fund exhaustion date would be extended by nine years to 2048—such that

12. See Kathleen Romig, *Social Security: What Would Happen If the Trust Funds Ran Out?* Report for Congress RL33514 (Congressional Research Service, Updated April 25, 2008). The report notes the entitlement created under the Social Security Act, cites other law that prohibits officials from making expenditures in excess of available funds, and acknowledges that the two create a potential conflict that must be resolved by the Congress or in the courts.

benefits from 2039 through 2048 would be higher than payable benefits under current law (see Figure 4).

*Actuarial Balance.* A commonly used measure of the sustainability of a program that has a trust fund and a dedicated revenue source is its actuarial balance, a single measure of the difference between the trust fund's resources and projected expenditures over a specified period. The actuarial balance is calculated as the present value of projected revenues, plus the trust fund balance at the beginning of the period, minus the present value of projected outlays and the cost of maintaining a reserve equal to a year's worth of benefits at the end of the period, expressed as a percentage of the present value of GDP or (in the case of Social Security) as a percentage of taxable payroll over the same period. CBO estimates that over the 75-year period from 2010 to 2084, dedicated revenues for Social Security will fall short of scheduled benefits by 0.6 percent of GDP, assuming a real interest rate of 3 percent (see Table 1). (As a percentage of taxable payroll—the amount of earnings subject to the Social Security payroll tax—the shortfall is 1.6 percent.)

Thus, to bring the program into actuarial balance over the 75-year period—that is, for the system's projected revenues to be sufficient to cover the benefits prescribed by current law—payroll taxes could be increased immediately by 0.6 percent of GDP and kept at that higher rate, or scheduled benefits could be reduced by an equivalent amount, to give two examples. (Such an increase in

**Figure 3.**

## Social Security's Revenues and Outlays with Scheduled and Payable Benefits

(Percentage of gross domestic product)
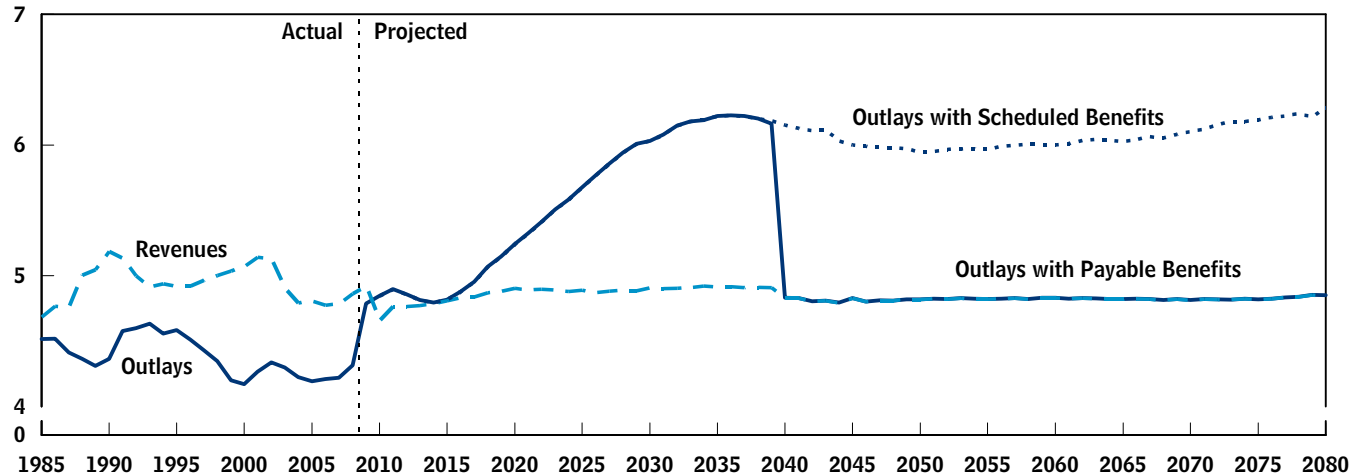


Source:    Congressional Budget Office.

Note:    Revenues consist of payroll taxes and income taxes on benefits (but not interest credited to the trust funds). Outlays consist of Social Security benefits and administrative costs. Benefits as calculated under the Social Security Act, regardless of the balances in the trust funds, are known as scheduled benefits. If the trust funds became exhausted, payments to beneficiaries would be reduced to make outlays from the funds equal revenues to the funds; such benefits are known as payable benefits. In that case, total revenues would decline slightly because revenues from taxation of benefits would decline.

payroll taxes would generate about 13 percent more revenue than the amount projected under current law.) More generally, a combination of tax and benefit changes that in combination improved the 75-year actuarial balance by 0.6 percent of GDP could be implemented over time.

*Trust Fund Ratio.* Another common measure of Social Security's finances is the ratio of the trust fund balance to the program's annual outlays. That calculation indicates how many years' worth of benefits could be financed by a given balance if outlays per year remained the same. The trust fund ratio for 2010—the balance in the Social Security trust funds at the beginning of the year divided by projected 2010 outlays for the program—was 3.6, CBO estimates. The ratio is projected to peak in 2010 and then to decline quickly until the trust funds are exhausted in 2039.

*Sustainable Solvency.* Some analysts suggest that changes to Social Security should have two financial objectives: balancing the system's finances over the 75-year projection period and putting the system on a sustainable path thereafter, a goal known as sustainable solvency.[13] The actuarial balance, as a single number, usefully summarizes the entire stream of revenues and outlays over the 75-year period (after adjusting for the starting balance in the trust

funds), but it does not convey any information about whether the pattern of annual finances is sustainable beyond 75 years. A proposal that would attain sustainable solvency would produce positive trust fund ratios throughout the 75-year projection period as well as stable or rising ratios at the end of the period.

## Assessing Options for Changing Social Security

In this study, CBO examines 30 options for altering various elements of Social Security that have been considered by various analysts and policymakers. The options mostly involve changes to the system's current structure that would have a marked influence on Social Security's finances. Several criteria can be applied to analyze the various options' effects. This study considers how the options would affect Social Security's finances over time and discusses distributional outcomes, such as the amount of taxes collected from or the amount of benefits

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13. See, for example, Social Security Administration, *Report of the 1994–1996 Advisory Council on Social Security, Volume I: Findings and Recommendations* (January 1997), www.ssa.gov/history/reports/adcouncil/report/toc.htm.

**Figure 4.**

## Projected Outlays for Social Security Under Current Law and with a Gradual Reduction in Benefits Starting in 2012

(Percentage of gross domestic product)
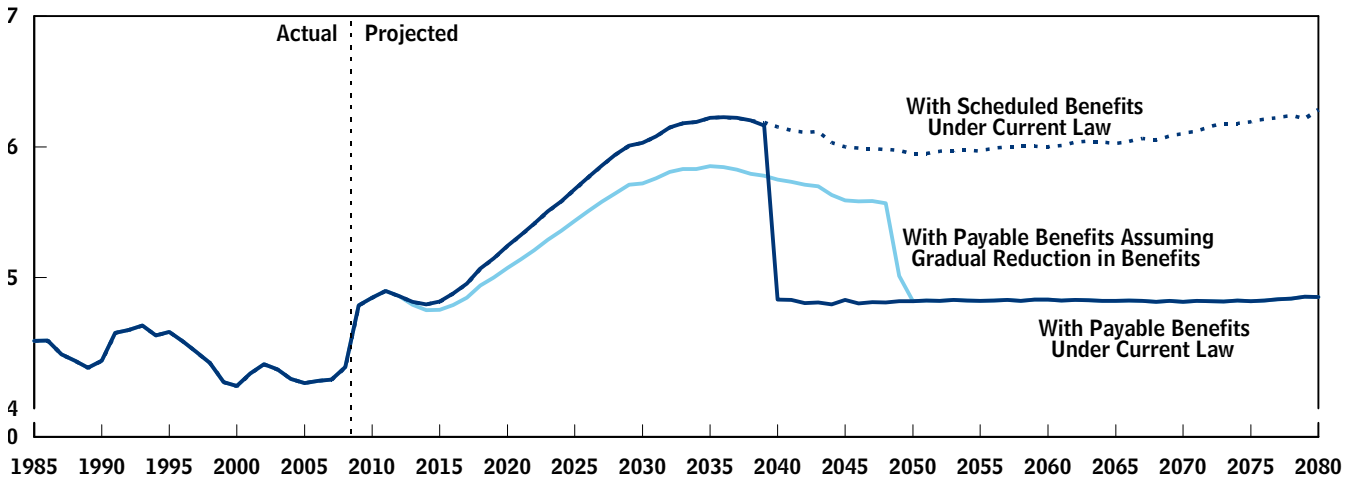


Source:   Congressional Budget Office.

Note:   Outlays consist of Social Security benefits and administrative costs. Benefits as calculated under the Social Security Act, regardless of the balances in the trust funds, are known as scheduled benefits. If the trust funds became exhausted, payments to beneficiaries would be reduced to make outlays from the funds equal revenues to the funds; such benefits are known as payable benefits. The gradual reduction in benefits would begin in 2012, reducing cost-of-living adjustments by 0.5 percent annually.

paid to people in different groups according to lifetime earnings or year of birth. Changes in economic incentives also are important; they are discussed below, although they are not analyzed in detail.

### Key Elements of Social Security

Each policy option would alter at least one significant element of Social Security that determines its revenues or outlays under current law. Descriptions of the key elements appear below.

**Payroll Taxes.** Several options would affect the amount of Social Security payroll taxes people would pay. The current system operates as follows:

■ *Tax Rate.* Employers and employees each pay half of the 12.4 percent payroll tax (self-employed people pay the entire amount).

■ *Taxable Maximum.* The payroll tax is imposed on earnings up to a maximum that increases as average earnings rise. In 2010, that taxable maximum is $106,800.

**Benefit Formula.** Social Security benefits are determined by a formula that constructs summary measures of lifetime earnings. That formula has several key elements:

■ *Average Indexed Monthly Earnings.* Social Security benefits are determined by earnings over a person's lifetime, expressed as average indexed monthly earnings (AIME). For anyone who reaches age 62 after 1990, the total earnings amount is calculated based on earnings that are subject to Social Security taxes, using the highest 35 years of those earnings. For retirees, earnings before age 60 are indexed to compensate both for inflation and for economywide real growth in earnings; earnings at age 60 and later enter the computations at their actual amounts. For disabled workers, earnings in the two years before initial benefit computation enter at their actual amounts, and earlier earnings are indexed. For retirees, dividing the resulting value for total earnings by 420 (35 years multiplied by 12 months) yields the AIME.

■ *Primary Insurance Amount.* The primary insurance amount (PIA) is the monthly amount payable to a worker who begins to receive Social Security retirement benefits at the age at which he or she is eligible

for full benefits or the amount payable to a disabled worker who has never received a retirement benefit. For workers who turn 62 or become disabled in 2010, for all of their dependents, and for dependents of workers who die in 2010, the PIA is calculated as 90 percent of the first $761 of the AIME, plus 32 percent of the AIME between $761 and $4,586, plus 15 percent of the AIME above $4,586. Actual monthly benefits paid to retired workers and their dependents differ from the PIA if an individual claims retirement benefits prior to or later than his or her full retirement age.

- *PIA Factors.* The rates by which the components of the AIME are multiplied—90 percent, 32 percent, and 15 percent—are the PIA factors. The PIA formula is progressive; it replaces a larger share of preretirement earnings for people with lower average earnings than it does for people with higher earnings.

- *Bend Point.* The threshold at which a PIA factor changes is called a bend point. Under current law, there are two: In 2010, they are $761 and $4,586. The bend points change every year with changes in the average annual earnings for the workforce as a whole. Consequently, bend points occur at approximately the same place in the distribution of the AIMEs each year (the 11th and 71st percentiles, respectively, of AIMEs for people who are age 62 and eligible for OASI benefits in 2010), and average initial benefits rise at a pace that matches the increase in average earnings over time.

**Special Minimum Benefits for Low Earners.** Beneficiaries receive the larger of the standard benefit or a special minimum benefit. For people who had very low earnings for more than 10 years, the special minimum benefit is sometimes larger than the standard benefit. The special minimum benefit increases over time, keeping pace with prices. Because the standard benefit formula increases with earnings, which tend to grow faster than prices, the special minimum benefit affects fewer people every year; it is projected to have no effect on beneficiaries who become eligible to collect benefits after 2010.

**Full Retirement Age.** Social Security's full retirement age, also called the "normal retirement age," is the age at which someone is eligible to receive full retirement benefits. For workers born before 1938, the FRA is 65. Under current law, the FRA is increasing gradually; it will be

67 for people born in 1960 or later. The age at which workers may start receiving reduced benefits—age 62—remains the same. For each year that a worker claims benefits before reaching the FRA, benefits are reduced by an amount that ranges from 5 percent to 6-2/3 percent. For most current new beneficiaries, benefits are increased by 8 percent for each year after the FRA that initial receipt of benefits is delayed, until age 70. (The increase is less than 8 percent for people born before 1943.)[14]

**Cost-of-Living Adjustments.** At the end of each year, the Social Security Administration adjusts each beneficiary's PIA by an amount that is equal to any increase in the consumer price index for urban wage earners and clerical workers (CPI-W). (When prices decline, the COLA is set at zero, as occurred in 2010.)

## Scope of the Options

This study focuses on options that would directly affect outlays for Social Security benefits or federal revenues dedicated to Social Security. Most would increase the trust fund balances, but a few would reduce balances because they would raise benefits for people with low lifetime earnings. Each option is considered in isolation even though any substantial proposal to change the Social Security program probably would include several provisions.

Options that would reduce initial benefits are assumed to take effect in 2017; other options are assumed to take effect in 2012. Although some would affect all beneficiaries, including those who receive disability insurance, CBO did not examine any options that are specific to DI. Options that are outside the current system's structure and those that would not have sizable effects on the system's finances are excluded from the study.

**Timing of Implementation.** The options that CBO has analyzed are not detailed legislative proposals and are generally presented in a simplified form. Several, for example, would involve abrupt reductions in benefits, so workers born a year apart would receive substantially different amounts. In practice, policymakers might choose to introduce major changes gradually, as they have done in the past. Introducing changes incrementally ensures that people of similar ages and circumstances will be subject to similar tax and benefit rules. (For all the options,

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14. See Social Security Administration, "Effect of Early or Delayed Retirement on Retirement Benefits" (November 12, 2009), www.ssa.gov/OACT/ProgData/ar_drc.html.

as under current law, benefit rules that are applicable to an individual are those in force in the year in which that person becomes entitled to benefits, not the year he or she chooses to begin receiving benefits.)

Proposals to change Social Security commonly would not reduce benefits for people older than 55 in the year a reform proposal is considered. Therefore, options in this study that would reduce initial benefits would not affect anyone older than 55 in 2010. Because retired workers become entitled to benefits at age 62, the changes in initial benefits would generally apply to people in birth cohorts that will become entitled to benefits in 2017 or later.

**Options That Would Affect Recipients of Disability Insurance.** Some of the options would affect all Social Security beneficiaries, including people who receive DI benefits (see, for example, Options 12, 13, 14, and 15). If policymakers wanted to offset some of the effects on DI benefits of an option that changed retirement and disability benefits alike, they could add an offsetting policy change that increased DI benefits.

Disability Insurance accounts for one-sixth of Social Security benefits, and DI expenditures have increased rapidly over the past 20 years.[15] Consequently, options specific to Disability Insurance could have substantial consequences for the system's finances by reducing or increasing DI outlays. However, this study does not include options (such as those that would affect eligibility for benefits, adjust initial DI benefits, or apply different cost-of-living adjustments to DI benefits) that would affect DI beneficiaries only.

**Options Not Encompassed by This Study.** This study focuses on changes to the current structure of Social Security that could have sizable effects on the program's finances. Thus, two main categories of options are excluded: options outside the context of the existing program and options within the program's existing structure that would not have sizable effects on the system's finances.

The creation of individual accounts is a frequently discussed possibility that would make changes outside the existing Social Security program. (The resources available to an account holder at retirement would depend on how much had been paid into such an account, most likely through a payroll tax, and the rate of return on the account's assets during the account holder's working life.) Most proposals that would introduce individual accounts also would involve changes to the current program, and the interactions between the accounts and the altered Social Security program are generally critical to such proposals. Although in the past CBO has analyzed comprehensive proposals that would combine the establishment of individual accounts with changes to various elements of the Social Security system, such analyses are beyond this study's scope.[16]

This study also includes no options that would draw on general government revenues for Social Security or that would change the form of investment for the trust funds. In addition, because this study does not consider revenue options that would directly affect taxes other than the Social Security payroll tax, it does not examine what might happen if income taxes on Social Security benefits were increased. Such changes could have sizable effects on the system's finances.

Many other changes could achieve various policy goals for Social Security, although they would not produce a substantial change in the system's long-run finances.[17] Several possibilities that have received attention elsewhere are not included in this study:

■ Changes could be aimed at reducing poverty by increasing benefits as Social Security beneficiaries get older. Poverty tends to be greater among the very old than among younger retirees, so directing benefit increases to the oldest beneficiaries could reduce poverty by more than if the same total amount of additional benefits were distributed more broadly. For example, benefits could be increased by fixed amounts or by percentages tied to beneficiaries' ages. Alternatively, the COLA could rise as people age so that the oldest beneficiaries would receive larger increases.

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15. The growth in spending for Disability Insurance has been driven largely by an increase in the number of people receiving benefits. In 1980, 4.7 million people received DI benefits; by 2009, there were 9.7 million beneficiaries. See Congressional Budget Office, *Social Security Disability Insurance: Participation Trends and Their Fiscal Implications,* Issue Brief (forthcoming).

16. For example, see Congressional Budget Office, letter to the Honorable Paul Ryan about an analysis of the Roadmap for America's Future Act of 2010 (January 27, 2010).

17. Some options of this type that CBO has presented elsewhere are not analyzed here. See Congressional Budget Office, *Budget Options, Volume 2,* pp. 141–155.

■ The treatment of spousal benefits could be changed to reduce the disparity between the benefits due to dual- and single-income couples with the same earnings. For example, spousal benefits for couples with similar earnings could be increased, decreased, or adjusted after the death of a spouse. (Under current law, an eligible spouse of a retired or disabled worker is entitled to a spousal benefit that is equal to 50 percent of the worker's benefit, but only if it is higher than the spouse's own earned benefit. Therefore, benefits generally replace a larger portion of lifetime earnings for couples with one earner than for couples with two earners.)

■ Benefit increases could be targeted toward parents who had low earnings during years when they were caring for children.

■ The earnings of those state and local government workers who now are exempt from the Social Security payroll tax could be taxed, and coverage could be made mandatory for all public-sector employees.

### Effects of the Options on the System's Finances

As a summary measure of the consequences of each option, CBO estimated the change in the actuarial balance as a percentage of GDP. That change is estimated using scheduled benefits because, by definition, the system is in financial balance with payable benefits, which would be automatically reduced to eliminate any shortfall. The calculations are based on the projections described in CBO's 2010 *The Long-Term Budget Outlook,* and the effects of various options were analyzed using CBO's long-term Social Security model.[18] Analysis of the effects of uncertainty in the projected values on the results for each option is outside the scope of this study.[19]

Some options would, by themselves, eliminate most or all of the actuarial imbalance of 0.6 percent of GDP (see

Table 2 on page 33). For example, Option 2 would increase the payroll tax by 2 percentage points over the next two decades, and Option 12 would cut benefits for all new recipients by 15 percent. Most individual options could be altered to have a smaller or larger effect on the actuarial balance by affecting the same key elements of the system, but with different tax rates, benefit calculation rates, or speed at which the policy would phase in. Depending on the timing of the changes encompassed by the option, eliminating the actuarial imbalance might or might not avert exhaustion of the trust fund balance.

Most of the options presented would not eliminate the 75-year imbalance on their own; to achieve that goal, it would be necessary to combine several. For simplicity, however, CBO evaluated each policy in isolation. Combining several options might introduce changes to the overall finances of the system that were larger or smaller than would be produced by summing the effects of those options, because they would interact with one another.

Some options would have their full effect immediately, and they would change annual revenues or outlays by roughly the same percentage each year (such as Options 6 to 9, which would increase payroll tax rates in 2012). Others would phase in slowly, resulting in increasingly larger changes in annual revenues or outlays (such as Option 3, which would increase taxes gradually, or Options 15 to 21, which would reduce benefits gradually). Although most options would improve the system's finances, three (Options 23 to 25) would focus on increasing benefits for people with low lifetime earnings. Those options would increase scheduled outlays and, taken alone, would worsen the system's finances.

**Effects of Delayed Implementation.** The effects of an option would be sensitive to the date of its implementation. In particular, changing the year in which scheduled benefits are reduced could interact with changes in demographics that will occur over the next 30 years. Delaying the start of such a reduction could help people to make informed decisions about preparing for retirement because they would have earlier warning about changes in Social Security's rules. With every year that goes by, however, larger changes would be needed to create a balance over the next 75 years between scheduled revenues and scheduled benefits. To demonstrate the effect of delaying

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18. The results presented in this study are based on a single simulation for each option, reflecting CBO's long-term demographic and economic assumptions. For a description of the model, see Congressional Budget Office, *CBO's Long-Term Model: An Overview,* Background Paper (June 2009).

19. For more information, see Congressional Budget Office, *Quantifying Uncertainty in the Analysis of Long-Term Social Security Projections,* Background Paper (November 2005).

**Figure 5.**

## Effect of Delaying a Payroll Tax Increase or Benefit Reduction on Social Security's Finances

(Trust fund ratio)

**Option 2: Increase the Payroll Tax Rate by 2 Percentage Points Over 20 Years**



**Option 12: Reduce All PIA Factors by 15 Percent**
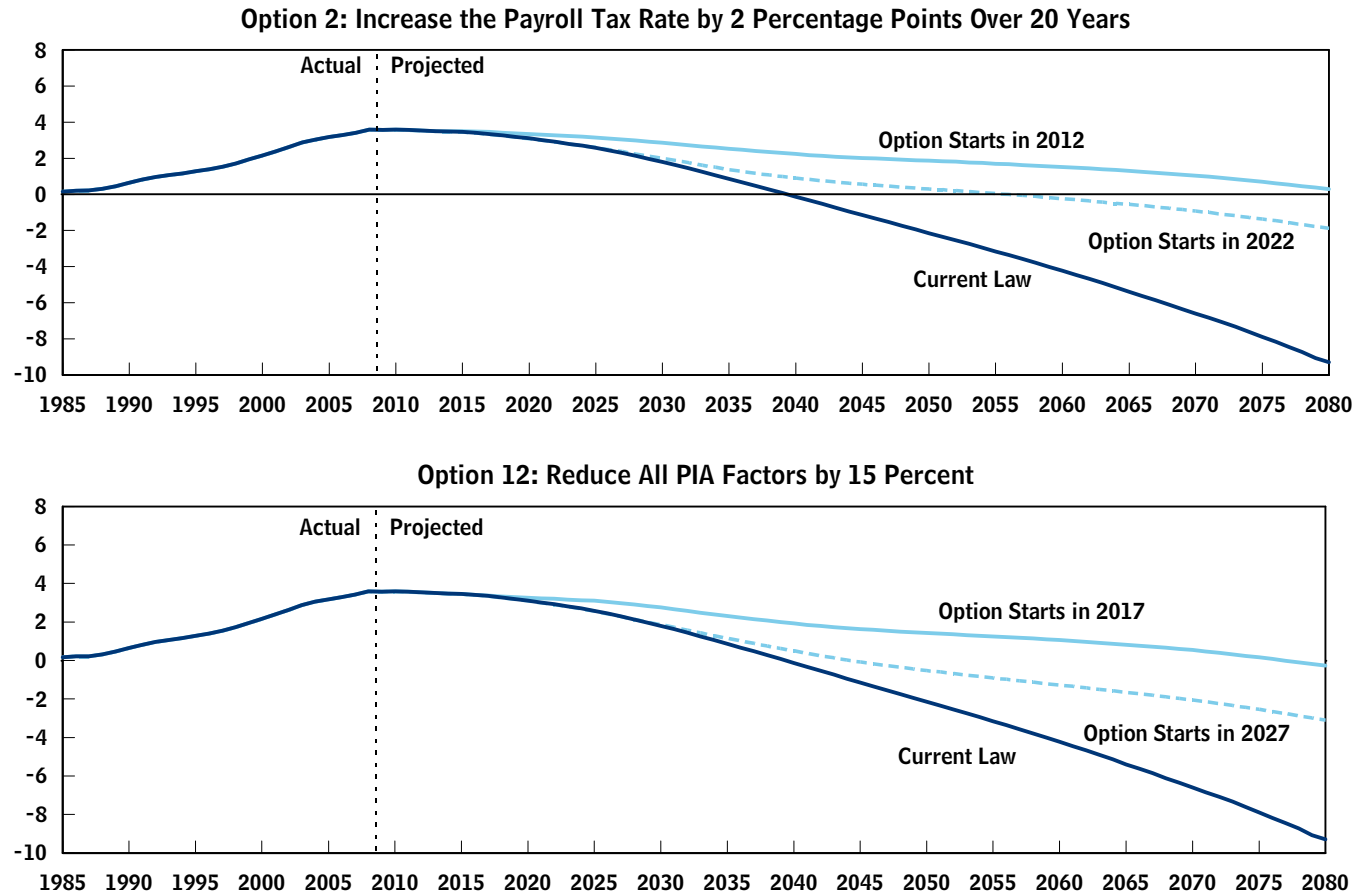


Source:   Congressional Budget Office.

Notes:   The trust fund ratio is the ratio of the trust fund balance (the amount in the OASDI trust funds at the beginning of a year) to one year's outlays (Social Security benefits and administrative costs). The trust funds are exhausted when the trust fund ratio reaches zero. Under current law, the trust funds cannot incur negative balances. A negative balance is a projected shortfall, reflecting the trust funds' inability to pay scheduled benefits out of current-law revenues.

OASDI = Old-Age, Survivors, and Disability Insurance; PIA = primary insurance amount.

the implementation of Social Security reforms, CBO analyzed the effects of varying the start dates for two options.

In the first case, CBO estimated the effect of boosting the payroll tax rate by 2.0 percentage points gradually over two decades (Option 2) but starting in 2022 instead of 2012. If the increase started in 2012, the Social Security trust funds would not be exhausted until 2083 (see the top panel of Figure 5). However, if the onset of payroll tax increases were delayed by 10 years, until 2022, the

result would be quite different: The Social Security trust funds would be exhausted by 2056. If policymakers wanted to delay implementation by 10 years and still achieve the same improvement in the 75-year actuarial balance, the increase in the tax rate would need to be more than a quarter larger: The tax rate would have to increase by 2.6 percentage points rather than by 2.0 percentage points.

In the second instance, CBO evaluated the effect of a flat 15 percent cut in benefits for new beneficiaries

(Option 12) but implemented in 2027 rather than in 2017. Beginning this cut in 2017 would be nearly sufficient to restore Social Security to solvency over 75 years, and the trust funds would be exhausted in 2076 (see the bottom panel of Figure 5). With a 10-year delay, however, the trust fund exhaustion date would be 2044, only five years later than CBO projects under current law. If policymakers wanted to implement a benefit reduction in 2027 and still achieve the same improvement in the 75-year actuarial balance as a 15 percent reduction in 2017, the benefit cut in 2027 would need to be one-third larger: 20 percent, rather than 15 percent.

**Sustainable Solvency.** Different policies can have similar effects on the actuarial balance but different effects on Social Security's finances at various points in time. For example, a policy that would implement large tax increases or benefit cuts in 30 years could eliminate the 75-year actuarial imbalance but not prevent trust fund exhaustion. And a policy that would immediately cut benefits or increase taxes by a flat percentage could eliminate the 75-year imbalance and delay exhaustion beyond the projection period but still allow large and growing imbalances to remain in the 76th year and beyond.

One way to sustain solvency is to have a trust fund ratio that is positive throughout the projection period and then stable or growing after 75 years. Neither increasing the payroll tax by 2.0 percentage points over two decades nor cutting benefits by 15 percent would result in sustainable solvency; the trust funds would be exhausted around the end of the projection period and the trust fund ratio would still be declining after 75 years (see Figure 5). Only one option CBO analyzed (Option 17) would, by itself, result in sustainable solvency.

### Effects of the Options on Payroll Taxes Paid and Benefits Received by Various Groups

Some options would affect people in all earnings groups similarly; others could have greater effects on people with higher or lower earnings or on members of other specific populations. In addition, some options would have greater effects on people born earlier or later. This section discusses the distributional effects of various options on initial benefits, lifetime benefits, and lifetime payroll taxes. It assumes that scheduled benefits are paid, consistent with the discussion of the Social Security system's finances (see Table 2 on page 33). (For an analysis of the distributional effects of the options on scheduled benefits, see Table 3 on page 39; for an analysis of the distributional effects of the options on payable benefits, see Table 4 on page 43.) Specifically, CBO examined three measures to identify distributional effects:

■ The percentage change in initial benefits for retirees (calculations were made under the assumption that all workers claim benefits at age 65);

■ The percentage change in the present value at age 62 of lifetime benefits; and

■ The percentage change in the present value at age 62 of lifetime payroll taxes.

Present values were computed using a real discount rate of 3 percent.

An option could have different effects on initial benefits and lifetime benefits. The initial benefits presented here are the initial retirement benefits that would be received by workers, assuming that all people claim retiree benefits at age 65.[20] Lifetime benefits, by contrast, include the present value of all payments to recipients over time, including cost-of-living adjustments, and they include payments to disabled workers and to dependents and survivors. Unlike the estimated initial benefits, the projected lifetime benefits take into account the age at which each person is actually expected to claim benefits.[21]

CBO examined the way changes resulting from the various policy options would affect beneficiaries in the low, middle, and high quintiles (the lowest, middle, and highest fifths) of households' lifetime earnings in three 10-year birth cohorts: people born in the 1960s, people born in the 1980s, and people born in the 2000s.[22]

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20. Values are based on earnings through age 61 and are net of the income taxes paid on benefits that are credited to the Social Security trust funds.

21. Values are net of the income taxes paid on benefits that are credited to the Social Security trust funds. The measure includes benefits received by old-age workers, disabled workers, old-age spouses, and old-age widows. Because there are insufficient data on benefits received by young widows and children for years before 1984, young widows, spouses of disabled workers, and child beneficiaries are excluded from this measure.

22. Each person who lives at least to age 45 is ranked by lifetime household earnings. For someone who is single in all years, lifetime earnings equals the sum of real earnings over a lifetime. In any year a person is married, the earnings measure is a function of his or her earnings plus those of his or her spouse (adjusted for economies of scale in household consumption). A person's lifetime earnings consist of the present value of those annual amounts.

In all, therefore, the effects are identified for nine groups of people, measured in terms of how the option would affect the median value of each outcome; in other words, CBO's analysis assesses the options' effects on the person at the middle of the distribution of outcomes in a group. Outcomes for half of the people in the group would be lower and outcomes for half would be higher. In this study, "benefits for low earners" refers to median benefits for people in the lowest quintile of lifetime household earnings. A "change in taxes (or benefits) for high earners" refers to the percentage change caused by a policy option, relative to current law, in the median of the present value of lifetime taxes (or benefits) at age 62 for people in the highest quintile of lifetime household earnings.

Outcomes shown in Table 3 and Table 4 are estimated percentage changes from the outcomes that would occur under current law. They are rounded to the nearest three percentage points to give a sense of likely effects on benefits and taxes without showing numerous small differences in outcomes that are not analytically meaningful. The estimates are based on samples of people from the relevant groups, and different characteristics of people sampled can lead to small differences in outcomes across groups that are not meaningful from a policy perspective. For example, if an unusually high number of sampled people in a group were to turn out to have a shorter-than-average lifespan, then an option that would reduce COLAs would result in smaller changes in median lifetime benefits for that group than in a more representative sample of the particular group, and the difference could lead to somewhat misleading comparisons with other groups.

To analyze distributional consequences of several policies that would produce the same effect on Social Security's finances, CBO also analyzed eight variants of the main options in this study, each of which would improve the actuarial balance by one quarter, or by 0.15 percentage points of GDP (see the Appendix).

**Options with Proportionate Effects on People in Different Earnings Categories.** Several options presented in this study would make a proportionate change in initial benefits for people of a particular age, regardless of their earnings:

■ *Change All PIA Factors.* Among the possibilities CBO examined are a one-time flat reduction (Option 12) and a gradual reduction over time (Option 15). Other

approaches that would phase in the reduction of scheduled benefits over time could link reductions in the PIA factors to the increasing longevity of the U.S. population (Option 16) or to real growth in earnings (Option 17).

■ *Increase the Full Retirement Age.* An increase by one year in the FRA would reduce monthly benefits by between 5 percent and 8 percent, depending on the age at which a person chose to begin receiving benefits. Changes could be phased in either at a constant rate (Options 26 and 27) or according to the increase in life expectancy (Option 28).

An option that reduced all benefits by a similar percentage would nevertheless have different consequences for different categories of beneficiaries. In dollar terms, the reduction would be larger for people who receive higher benefits. But measured as a percentage of total income, the reduction would be greatest for people who rely most heavily on Social Security. For example, someone who has no income other than Social Security would find a 10 percent cut in benefits more burdensome than someone for whom Social Security provides just one-quarter of retirement income. (In 2008, Social Security benefits accounted for 90 percent or more of income for 21 percent of retired married couples who were beneficiaries. Forty-three percent of beneficiaries who were not currently married received 90 percent or more of their income from Social Security.)[23]

For the most part, options that would have proportionate effects for people in all earnings categories would have greater effects on younger people. However, instituting a one-time reduction in the PIA factors would have similar effects on everyone born in 1955 or later.

**Options with Very Different Effects on High and Low Earners.** Some options would have much greater effects on the amount of payroll taxes levied on people or on the benefits they are scheduled to receive, depending on their lifetime earnings.

■ *Change the Maximum Amount of Earnings Subject to Payroll Taxes.* The method for setting the taxable maximum (which usually increases to keep pace with average nominal earnings) could be changed. The taxable maximum could be eliminated (Option 4) or

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23. See Social Security Administration, "Income Sources."

increased so a larger percentage of covered earnings would be subject to payroll taxes (Option 5). Changing the taxable maximum also would change benefits, because the amount of earnings included in the AIME would change.

■ *Impose Taxes on Earnings Above the Current Taxable Maximum.* Changing the taxable maximum would affect benefits, but an additional tax could be applied solely to raise revenue without affecting benefits. Such a policy could extend the existing tax rate to all earnings (Option 6) or to earnings up to a higher threshold (Option 7), or it could apply a different rate above the taxable maximum (Options 8 and 9) with no effect on benefits.

■ *Change the PIA Factors Applied to Higher Earnings.* The top two PIA factors (currently 32 percent and 15 percent) could be changed (Option 13), or the top factor alone could be changed (Option 14). The benefit formula could be changed so that it would have four different PIA factors rather than three (Options 18 and 19); that approach, commonly called progressive price indexing, would then reduce the top two PIA factors gradually until they reached zero.

■ *Increase Benefits for Low Earners.* Benefits for people with low lifetime earnings could be boosted by increasing the existing special minimum benefit or by creating a new minimum benefit with a different structure (Options 23 and 24). Alternatively, benefits for people who have many years of low earnings could be increased by raising their standard benefit (Option 25).

Most of those options would have greater effects on people born later. Effects of a one-time reduction in one or two of the top PIA factors would not vary much from one birth cohort to another.

## Effects of the Options on Work and Saving

Social Security affects people's decisions about how much to work, when to retire, and how much to save for retirement. Changing the rates and structure of Social Security taxes and benefits would influence those decisions. Because those behavioral responses are difficult to quantify, this study's analysis of the effects on Social Security's finances generally does not incorporate changes in behavior that might result from implementing the various

options, such as the potential for alterations in a worker's lifetime earnings.[24]

Like all taxes on earnings, Social Security taxes reduce the reward from work, which tends to decrease how much people work. At the same time, Social Security taxes and other taxes on earnings reduce take-home pay for any given amount of work, and the desire to earn a certain amount of take-home pay can lead people to work more. The net effect of taxes on work reflects the balance of those forces; most economists conclude that, on average, the negative effects of lower after-tax earnings for each additional hour worked slightly outweigh the positive effects of lower after-tax income from current working hours.[25] Thus, in CBO's estimation, increasing Social Security tax rates would tend to decrease modestly the hours of labor that workers supply. Increasing payroll tax rates also would encourage workers to shift some of their compensation to tax-exempt fringe benefits. High earners, who tend to have more flexibility about how to structure their compensation, are particularly likely to reduce their taxable earnings by electing to receive more of their compensation as tax-exempt fringe benefits.

Options that would result in increased tax rates only up to a particular amount would affect all earners regardless of whether their earnings were above or below that amount. For example, Option 1 would increase the tax rate but would not change the existing taxable maximum; Option 5 would raise the taxable maximum but would not change the tax rate. People whose earnings would be well above the range of earnings affected by changes in tax rates would not confront the same disincentives to work, but they would have less income after taxes, which might tend to slightly increase their work effort.

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24. The current analysis incorporates some small changes in work behavior in response to changes in expected lifetime benefits. See Congressional Budget Office, *Projecting Labor Force Participation and Earnings in CBO's Long-Term Microsimulation Model,* Background Paper (October 2006).

25. For discussion, see Congressional Budget Office, *The Effect of Tax Changes on Labor Supply in CBO's Microsimulation Tax Model*, Background Paper (April 2007), and *Labor Supply and Taxes*, CBO Memorandum (January 1996). The 1996 memorandum assumed that the spouse of a household's primary breadwinner would be more responsive to higher taxes on earnings than would the primary worker in a household. In recent years, CBO has revised downward its estimates of the responsiveness of such spouses because of evidence that their responsiveness has declined over time as their participation in the labor force has grown.

Workers would probably consider not only the Social Security taxes they pay but also the benefits they expect to receive. Therefore, Option 6, which would eliminate the taxable maximum but would not affect benefits, would probably have a larger effect on work incentives than would Option 4, which would eliminate the maximum but include the additional taxable earnings in the benefit computation.

Options that would modify the way benefits are determined also would influence how long people remain in the workforce and how much they work while they are in the workforce. If workers expected lower Social Security benefits, for example, they might stay in the workforce longer to claim benefits at a later age.[26] However, a reduction in benefits also could mean (depending on the formula through which benefits are reduced) that an extra year of work would increase future benefits by a smaller amount; that would amount to an increased tax on earnings, which would discourage work. On net, older workers would probably choose to work longer in response to a reduction in benefits, leading to an increase in the size of the labor force.[27]

The decision about how long someone would remain in the workforce would be influenced differently by options that would change benefits and by options that would raise the full retirement age. Because many workers claim benefits at the full retirement age, increasing that age would probably result in beneficiaries' claiming benefits later than they would if an effectively identical policy were implemented through adjustments in the benefit formula.

Increasing the full retirement age also would create a somewhat stronger incentive for some older workers— particularly those in poor health—to leave the labor force and apply for DI benefits rather than continue to work and then claim Old-Age benefits at age 62 in a

decreased amount.[28] (Changes in the full retirement age would not affect the benefits of workers who qualify for Disability Insurance.) Under current law, workers who claimed retirement benefits at age 62 in 2033 would receive 70 percent of their PIA (the benefit they would have received if they had claimed benefits at their full retirement age); if they qualified for DI benefits, however, they would receive 100 percent of that amount. Increasing the full retirement age would increase the difference between retirement and DI benefits if retirement benefits are claimed before a worker reaches the FRA.

Social Security also affects private saving. People who expect to receive Social Security benefits probably save less for their retirement than they would if there were no such program. In effect, Social Security substitutes to some extent for retirement saving: Some workers view the tax on their wages as a form of saving money each month for retirement; instead of accumulating assets to draw down when they retire, those workers are counting on receiving benefits from the government.[29] Therefore, benefit reductions would probably result in higher personal saving.

To the extent that changes in Social Security increase private saving without increasing government deficits, those changes also would increase national saving—the total amount of saving in the economy by the government and private sector. Over time, greater national saving would raise the stock of capital and result in greater total wealth and larger incomes.

## Options That Would Change the Taxation of Earnings

Payroll taxes for Social Security are proportional to earnings below the taxable maximum, and they are not collected on earnings above that amount. Currently, about 93 percent of workers have earnings below the taxable maximum, and they pay Social Security taxes on all of their earnings. The remaining 7 percent have some

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26. Before the recent recession, the increase in the full retirement age caused a benefit cut that led many workers to delay claiming Social Security benefits. See Jae Song and Joyce Manchester, *Have People Delayed Claiming Retirement Benefits? Responses to Changes in Social Security Rules*, Congressional Budget Office Working Paper 2008-04 (May 2008).

27. A reduction in scheduled benefits would extend the date of trust fund exhaustion and would result in higher payable benefits for several years (see Figure 5 on page 12), so a reduction in scheduled benefits might actually discourage work during that period.

28. Empirical evidence of the response in DI enrollment is discussed in Mark Duggan, Perry Singleton, and Jae Song, "Aching to Retire? The Rise in Full Retirement Age and Its Impact on the Social Security Disability Rolls," *Journal of Public Economics,* vol. 91 (2007), pp. 1327–1350.

29. See Congressional Budget Office, *Social Security and Private Saving: A Review of the Empirical Evidence,* CBO Memorandum (July 1998).

earnings that are not taxed and therefore have a lower average tax rate on their earnings.

The options in this section would increase Social Security revenues beginning in 2012 by making changes to payroll taxes. Options that increased the taxable maximum without making other changes to the system also would increase the amount of earnings used in the computation of benefits, so in those options, a portion of the increase in revenues would be offset by increased outlays. (See Table 2 on page 33 for the effects of the options on Social Security's finances, Table 3 on page 39 for effects on distributional outcomes assuming that scheduled benefits are paid, and Table 4 on page 43 for effects on distributional outcomes assuming that only payable benefits are paid.)

## Option 1: Increase the Payroll Tax Rate by 1 Percentage Point in 2012

This option would raise the payroll tax rate for employers and employees by 0.5 percentage points each, beginning in 2012. The overall rate would be 13.4 percent: 6.7 percent paid by employers and by employees. (As with the other options discussed in this section, the tax rate for self-employed workers would increase in line with the combined tax rate on employers and employees.)

Social Security's total revenues would increase by about 0.4 percentage points of GDP in 2040, or by about 7 percent, relative to current law. (Taxable earnings are only a portion of GDP, so a 1 percentage point increase in the payroll tax rate leads to significantly less than a 1 percentage point increase in revenues as a share of GDP.) This option would improve the 75-year actuarial balance by 0.3 percentage points of GDP and would extend the trust fund exhaustion date by 17 years, to 2056. As a result, payable benefits would be higher for people who receive benefits in 2039 or later (because, under current law, total payable benefits are determined by total revenue during that period). The percentage increase in lifetime payroll taxes paid would be similar for people in all categories of lifetime earnings within the same birth cohort.

## Option 2: Increase the Payroll Tax Rate by 2 Percentage Points Over 20 Years

Whereas Option 1 would increase taxes by a fixed amount in 2012 and later, this option would raise the combined payroll tax rate gradually, by 0.1 percentage

point (0.05 percentage points each for employers and employees) every year from 2012 to 2031. By the end of that period, the rate would stand at 14.4 percent—7.2 percent apiece for employers and employees—a total of 2 percentage points higher than the current rate of 12.4 percent.

The Social Security payroll tax rate would increase by 16 percent under this option relative to current law, but Social Security revenues would rise a bit less because the option would not affect income taxes on benefits. This option would improve the 75-year actuarial balance by 0.6 percentage points of GDP and would extend the trust fund exhaustion date to 2083. As a result, payable benefits would be higher for people who receive benefits in 2039 or later.

Lifetime payroll taxes would increase by a small amount for people born in the 1960s and by about 15 percent for those born in the 2000s. After the option is fully phased in, the percentage increase in lifetime payroll taxes paid would be similar for people in all categories of lifetime earnings.

## Option 3: Increase the Payroll Tax Rate by 3 Percentage Points Over 60 Years

Under this option, the combined payroll tax rate would increase gradually, by 0.05 percentage points (0.025 percentage points each for employers and employees) every year from 2012 to 2071. By that time, the rate would stand at 15.4 percent (3 percentage points higher than the current rate of 12.4 percent), with employers and employees each paying 7.7 percent. This option is similar to Option 2, except that the tax increase would be implemented more gradually and ultimately the tax rate would be higher. Under both options, the tax rate would be 14.4 percent in 2051. Before that, it would be higher under Option 2, and in later years, it would be higher under this option.

Social Security's total revenues would increase by about 10 percent under this option in 2040, or by 0.5 percentage points of GDP relative to current law. After the option was fully phased in (by 2071), revenues would increase by 20 percent. The option would improve the 75-year actuarial balance by 0.5 percentage points of GDP and would extend the trust fund exhaustion date by 19 years, to 2058. As a result, payable benefits would be higher starting in 2039.

Lifetime payroll taxes would increase by a small amount for people born in the 1960s and by about 15 percent for the 2000s cohort. The percentage increase in lifetime payroll taxes paid would be similar for people in all categories of lifetime earnings within the same birth cohort.

## Option 4: Eliminate the Taxable Maximum

In 1983, 91 percent of all earnings from jobs covered by the Social Security program were below the maximum taxable amount. That percentage declined as the earnings of workers in the highest income groups grew faster than average earnings did. Thus, in 2009, about 83 percent of earnings from employment covered by OASDI (corresponding to 93 percent of workers, as mentioned above) was below the maximum taxable amount, now set at $106,800. Under this option, all covered earnings would be taxed at the current rate of 12.4 percent (6.2 percent paid by the employer and 6.2 percent paid by the employee) in 2012 and later. The additional taxable earnings would be included in benefit computations, resulting in higher benefits for the higher-earning workers who would be subject to the additional tax.

Social Security's total revenues would increase by 0.9 percentage points of GDP in 2040, or by 19 percent relative to current law, and outlays would increase by 0.3 percentage points of GDP, with further increases in subsequent years. This option would improve the 75-year actuarial balance by 0.6 percentage points of GDP and extend the trust fund exhaustion date to 2083.

This option would primarily affect taxes paid by high earners. The increase in taxes for high earners would be 12 percent, 15 percent, and 18 percent for people born in the 1960s, 1980s, and 2000s, respectively. The increase would be greater for people with the very highest earnings. Among people born in the 1980s, lifetime taxes would rise by at least 40 percent for people in the top 5 percent of lifetime earnings. The increase in benefits for the highest earners would be slightly smaller than the increase in their payroll taxes in percentage terms.[30] In dollar terms, benefits would increase by much less than taxes because, under current law, over their lifetimes most high earners receive much less in benefits than they pay in taxes.

## Option 5: Raise the Taxable Maximum to Cover 90 Percent of Earnings

Because the earnings of workers in the highest income groups have grown faster than average earnings in recent decades, the share of all earnings from jobs covered by the Social Security program that were below the taxable maximum has fallen from about 91 percent in 1983 to about 83 percent in 2009. This option would raise the taxable maximum so that, beginning in 2012, 90 percent of earnings would be taxable; the additional amounts subject to the payroll tax would be used in benefit calculations. The taxable maximum in 2012 would be about $156,000 under this option, CBO estimates, an amount 38 percent higher than the maximum of $113,700 estimated under current law. (The current taxable maximum is $106,800.) After 2012, the taxable maximum would increase so that 90 percent of covered earnings would continue to be subject to payroll taxes.

Social Security's total revenues would increase by about 0.4 percentage points of GDP in 2040, or by about 8 percent, relative to current law. This option would improve the 75-year actuarial balance by 0.2 percentage points of GDP and would extend the trust fund exhaustion date by 11 years, to 2050. As a result, payable benefits would rise, especially for those who receive benefits in the 2040s.

This option would primarily affect high earners, whose taxes would increase by about 6 percent for the 1960s cohort and by approximately 15 percent for the 2000s cohort. Benefits would be affected in the same manner as under Option 4.

## Option 6: Tax Covered Earnings Above the Taxable Maximum; Do Not Increase Benefits

Under this option, starting in 2012, all covered earnings, including earnings above the taxable maximum, would be taxed at 12.4 percent (6.2 percent paid by the employer and 6.2 percent paid by the employee). This option would levy the same taxes as Option 4, but the taxable maximum under current law would still be used to

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30. The change in lifetime benefits is greater than that of initial benefits for two main reasons. First, lifetime benefits are based on the highest 35 years of earnings at any age. In contrast, initial benefits shown in this study are calculated on the basis of the highest 35 years of earnings through age 61 (and they omit earnings at older ages, including any earnings after age 61 above the taxable maximum). Second, lifetime benefits include spousal benefits on the basis of the earnings of the household's primary earner (including earnings above the taxable maximum), whereas initial benefits shown here are calculated based on the spouse's own earnings.

calculate benefits, and the option would therefore have no direct effect on scheduled benefits.

Under this option, Social Security's total revenues would increase by about 0.9 percentage points of GDP in 2040, or by about 18 percent relative to current law. This option would improve the 75-year actuarial balance by 0.9 percentage points of GDP and would extend the trust fund exhaustion date beyond the 75-year projection period. As a result, payable benefits would be higher from 2039 onward, especially for people born later.

This option would primarily affect taxes paid by high earners. The effects on payroll taxes would be the same as in Option 4, but there would be no effect on scheduled benefits.

### Option 7: Tax Covered Earnings Up to $250,000; Do Not Increase Benefits

Under this option, starting in 2012, all covered earnings between the taxable maximum and $250,000 would be taxed at 12.4 percent (6.2 percent paid by the employer and 6.2 percent paid by the employee). The $250,000 threshold would cover 93 percent of earnings in 2012 and, in future years, the threshold would be indexed to earnings. Because the taxable maximum under current law would continue to be used to calculate benefits, the option would have no direct effect on scheduled benefits. This option is similar to Option 6, although the increase in the payroll tax would be smaller, as would be the financial effects.

Social Security's total revenues would increase by about 0.5 percentage points of GDP in 2040, or by about 11 percent relative to current law. This option would improve the 75-year actuarial balance by 0.5 percentage points of GDP and would extend the trust fund exhaustion date by 38 years, to 2077. Payable benefits would be higher in 2039 and later. There would be no increase in scheduled benefits.

Like Option 6, this option would primarily affect taxes paid by high earners. Their taxes would increase by about 12 percent for the 1960s cohort and by approximately 18 percent for the 2000s cohort.

### Option 8: Tax All Earnings Above the Taxable Maximum at 4 Percent; Do Not Increase Benefits

Under this option, starting in 2012, all covered earnings above the taxable maximum would be taxed at 4 percent.

Because the current-law maximum would still be used for calculating benefits, this option would have no direct effect on scheduled benefits. This option is similar to Option 6, but the payroll tax rate above the taxable maximum would be substantially smaller, as would be the financial effects on the trust funds.

Social Security's total revenues would increase by about 0.3 percentage points of GDP in 2040, or by about 6 percent, relative to current law. The option would improve the 75-year actuarial balance by 0.3 percentage points of GDP and would extend the trust fund exhaustion date by 12 years, to 2051. Although there would be no increase in scheduled benefits, higher payroll taxes would result in higher payable benefits in 2039 and later.

This option would primarily affect taxes paid by high earners. For high earners born in the 1960s, lifetime taxes would increase by about 6 percent; high earners born in the 2000s would see their taxes increase by about 9 percent. The increase would be greater for people with the very highest earnings.

### Option 9: Tax All Earnings Above $250,000 at 4 Percent; Do Not Increase Benefits

Like Option 8, this option would institute a 4 percent tax on high earners, but the tax would apply only to covered earnings above $250,000. (The Social Security payroll tax would not apply to earnings between the taxable maximum and $250,000.) That threshold would apply to less than 1 percent of people with earnings in 2012. In future years, the threshold would rise at the rate of average wage growth. The current-law taxable maximum would still be used for calculating benefits, so this option would have no direct effect on scheduled benefits.

Social Security's total revenues would rise by approximately 0.1 percentage point of GDP in 2040, or by about 3 percent relative to current law. This option would improve the 75-year actuarial balance by 0.1 percentage point of GDP and would extend the trust fund exhaustion date by 4 years, to 2043. There would be no increase in scheduled benefits, but higher payroll taxes would result in higher payable benefits in 2039 and later.

This option would primarily affect high earners, whose taxes would typically increase by a small percentage. The increase would be greatest for people with the very highest earnings.

# Options That Would Change the Benefit Formula

The formulas for calculating earnings histories for Social Security and translating those amounts into initial monthly benefits could be changed in many ways. The options in this section either would make a single change that would affect all new beneficiaries or they would make gradual changes that would have larger effects for people born later rather than earlier. All options would be implemented beginning in 2017.

Some options would affect high earners more than low earners, for whom Social Security benefits generally constitute a larger percentage of lifetime earnings. CBO projects, for example, that under current law, scheduled lifetime benefits would be 15 percent of lifetime taxable earnings for low earners born in the 1960s and 8 percent of lifetime taxable earnings for high earners in the same birth cohort.

All of the options in this section would produce small effects on revenues, in addition to their main effects on outlays, because changes in benefits would change the amount collected in taxes on those benefits. (See Table 2 on page 33 for the effects of the options on Social Security finances, Table 3 on page 39 for effects on distributional outcomes assuming that scheduled benefits are paid, and Table 4 on page 43 for effects on distributional outcomes assuming that only payable benefits are paid.)

## Option 10: Raise from 35 to 38 the Years of Earnings Included in the AIME

For a person who reaches age 62 after 1990, the calculation of average indexed monthly earnings under current law incorporates the highest 35 years of indexed earnings in which that person paid Social Security taxes. This option would extend the period for the AIME calculation by 3 years, phased in between 2017 and 2019. Beginning in 2019, the calculation would take the average of the 38 highest years of indexed monthly earnings. The new average would apply only to newly eligible retired workers, so there would be no effect on DI benefits.[31]

This option would reduce Social Security's total outlays by about 0.1 percentage point of GDP in 2040, or by 2 percent, relative to currently scheduled outlays. As a

result, it would improve the 75-year actuarial balance by 0.1 percentage point of GDP; however, it would not significantly extend the trust fund exhaustion date. (That is, by CBO's estimate, the option would change the exhaustion date by two years or less.)

This option would reduce scheduled lifetime benefits by a similar amount for all birth cohorts. It would have the largest effect on people who worked for fewer than 38 years, because they would have additional years with no earnings included in the calculation of their benefits. However, the option would reduce benefits even for workers who worked 38 or more years, because those people would almost always have had lower average earnings in the additional computation years than they would have had in the 35 years of their highest earnings. The reduction would, on average, be larger for women than for men, because women tend to spend more years out of the workforce.

## Option 11: Index Earnings in the AIME Formula to Prices

Under current law, as part of the computation of a retired worker's average indexed monthly earnings, past earnings are indexed to total average earnings nationwide through the year that is two years prior to benefit eligibility, thus incorporating rising prices and growth in real earnings. Under this option, those earnings would be indexed to the growth in prices only.[32] As a result, initial benefits would be lower than those calculated under current law.

This option would reduce Social Security's outlays by 0.1 percentage point of GDP in 2040, or by 2 percent compared with currently scheduled outlays. It would improve the 75-year actuarial balance by 0.2 percentage points of GDP. The effects would be small initially, so the option would not significantly extend the trust fund exhaustion date.

The magnitude of the reduction in benefits would increase over time, and by 2040, the average AIME

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31. For a more detailed analysis of this option, see Congressional Budget Office, *Budget Options, Volume 2,* p. 146.

32. Specifically, in computing the AIME, all earnings from 2016 and earlier would be increased by the growth in the average wage index from the earnings year to the year that is two years before the AIME computation year. Earnings from 2017 and later would be increased by the growth in the CPI-W from the earnings year to the year that is two years before the AIME computation year. The bend points in the PIA formula would continue to be indexed to nominal wage growth. Beginning in 2017, this option would apply to newly eligible retired and disabled workers.

**Figure 6.**

## Calculating the PIA in 2010 Under the Current Social Security System

(PIA)
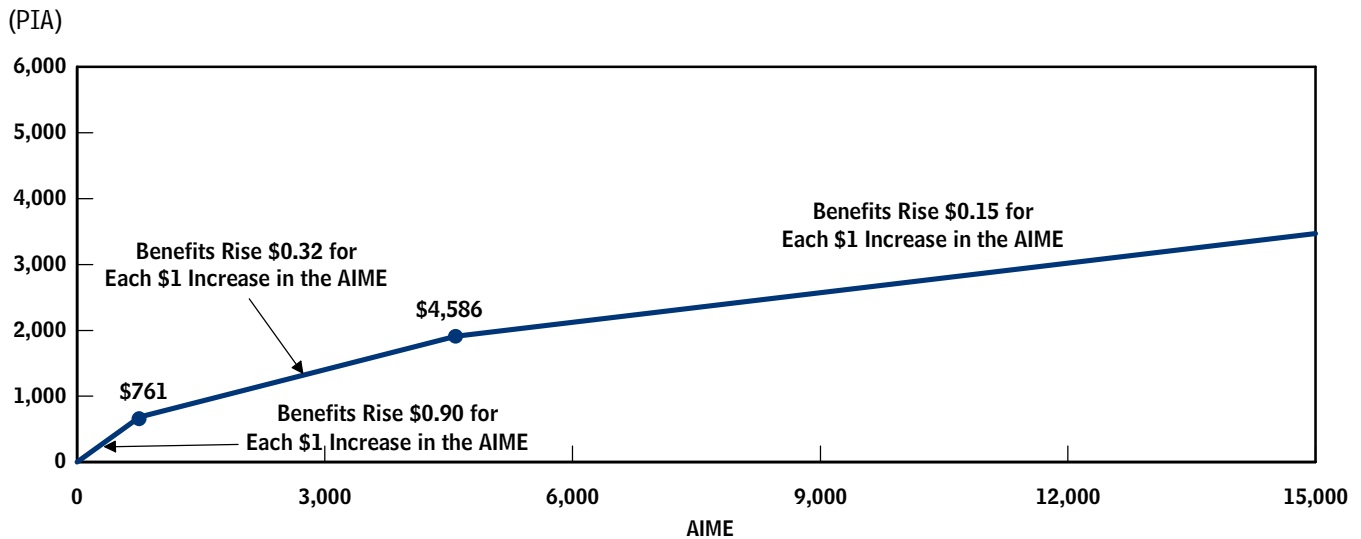


Source:   Congressional Budget Office.

Notes:  A bend point (represented by a dot on the line) is the threshold at which a PIA factor changes.

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

would be 7 percent lower than it would be under current law. After price indexing was in place for several decades, the scheduled lifetime benefits for people born in the 2000s would be reduced by about 12 percent for low earners and by around 6 percent for high earners. The reduction in benefits would be smaller for high earners because the reduction in the AIME would be multiplied by the 90 percent replacement rate for most low earners but multiplied by the 15 percent replacement rate for a large fraction of earnings among high earners. Payable lifetime benefits would not fall as much as scheduled benefits because benefits before the exhaustion of the trust funds (and the gap between outlays and revenues that would have to be closed by reducing scheduled benefits) would be lower.

### Option 12: Reduce All PIA Factors by 15 Percent

Under current law, the primary insurance amount factors used in calculating initial benefits are 90 percent (applied to the first $761 of the AIME in 2010), 32 percent (applied to the AIME between $761 and $4,586 in 2010), and 15 percent (applied to the AIME over $4,586 in 2010) (see Figure 6). This option would reduce the PIA factors for newly eligible beneficiaries, including disabled workers, by 15 percent in 2017 (to 77 percent, 27 percent, and 13 percent), thus reducing initial benefits

by 15 percent. For example, if the change was applied in 2010, a worker with an AIME of $5,000 would have a monthly benefit of $1,672 instead of the current system's benefit of $1,971.

Social Security's total outlays would decline by 0.7 percentage points of GDP in 2040, or by 12 percent relative to currently scheduled outlays. This option would improve the 75-year actuarial balance by 0.5 percentage points of GDP and would extend the trust fund exhaustion date by 37 years, to 2076.

Percentage reductions in scheduled lifetime benefits for people affected by the change would be similar. Payable lifetime benefits would be lower than under current law for people in older cohorts but higher for people who were born in the 1980s and 2000s.

### Option 13: Reduce the Top Two PIA Factors by Roughly One-Third

Starting in 2017, this option would reduce the top two primary insurance amount factors for newly eligible retired and disabled workers from 32 percent to 20 percent and from 15 percent to 10 percent. In contrast to Option 12, the benefit reduction under this option would be greater for people with higher earnings.

Social Security's total outlays would decline by 1.0 percentage point of GDP in 2040, or by 16 percent from currently scheduled outlays. This option would improve the 75-year actuarial balance by 0.7 percentage points of GDP and extend the trust fund exhaustion date beyond the 75-year projection period. As a result, payable lifetime benefits would generally be higher than under current law for people other than high earners who receive benefits in 2039 and several decades thereafter. However, this option is not sustainably solvent because outlays would increase more rapidly than revenues after implementation.

Scheduled lifetime benefits would fall by 24 percent for high earners and by about 3 percent for low earners. People with an AIME below the first bend point would not be affected.

### Option 14: Reduce the Top PIA Factor by One-Third

This option would implement one part of Option 13: It would reduce the top primary insurance amount factor for newly eligible retired and disabled workers from 15 percent to 10 percent in 2017. It would affect only those new beneficiaries whose AIMEs were above the second bend point (in 2010, $4,586; 29 percent of 62-year-olds). For example, under this option, in 2017 that bend point would be $5,114 in 2010 dollars, and a worker with an AIME of $6,000 would receive monthly benefits that were $44 lower than under current law.

Social Security's total outlays would decline by 0.1 percentage point of GDP in 2040, or by 2 percent from currently scheduled outlays. This option would improve the 75-year actuarial balance by 0.1 percentage point of GDP, and it would not significantly extend the trust fund exhaustion date.

This option would primarily affect high earners, whose scheduled lifetime benefits would be reduced by approximately 6 percent. Payable lifetime benefits would be slightly lower than under current law for high earners and slightly higher for others who receive benefits in 2039 or later.

### Option 15: Reduce All PIA Factors by 0.5 Percent Annually

Beginning in 2017, this option would reduce the primary insurance amount factors for newly eligible retired and disabled workers by 0.5 percent annually. Specifically, each year's PIA factors would equal the previous year's factors multiplied by 0.995. By 2080, the PIA factors

would be 65 percent, 23 percent, and 11 percent, equal to about three-quarters of what they are now. In 2048, this option would match the reduction in initial benefits provided by Option 12 (which would cut benefits by 15 percent in 2017), but it would provide for smaller cuts in earlier years and larger reductions in later years.

Social Security's total outlays would decline by about 0.3 percentage points of GDP in 2040, or by about 6 percent from currently scheduled outlays. This option would improve the 75-year actuarial balance by 0.4 percentage points of GDP and would extend the trust fund exhaustion date by 3 years, to 2042.

Scheduled lifetime benefits would be reduced by about 3 percent and 21 percent for people born in the 1960s and 2000s, respectively. This option would have little effect on lifetime payable benefits.

### Option 16: Index Initial Benefits to Changes in Longevity

Under this option, benefits for newly eligible retired workers would be reduced in proportion to the increase in life expectancy at age 62; reductions would begin in 2017. For example, life expectancy at age 62 in 2040 will be about 8 percent longer than in 2016, CBO projects, so initial benefits would be reduced by about 8 percent in 2040. The option would not affect DI beneficiaries, but benefits would decline for disabled beneficiaries when they converted to OASI (conversion occurs automatically when a beneficiary reaches the full retirement age).[33]

Under this option, increases in average life expectancy would not result in higher average retirement benefits paid over a lifetime.[34] However, the computation would be based on the average life expectancy of the entire

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33. Under this option, when a disabled beneficiary reached the full retirement age, DI benefits would be reduced by an amount proportional to the number of years between age 22 and age 62 that the beneficiary was not entitled to receive benefits. For example, someone who became entitled to benefits at 62 without receiving any DI benefits would experience the full reduction, whereas the reduction for someone who became disabled at age 42 would be half as large.

34. The reduction would not exactly equal the change in life expectancy after 2016 because it would be implemented by adjusting PIA factors by a ratio of the life expectancy at age 62 for the birth cohort reaching age 62 in 2013 to the life expectancy at age 62 for the birth cohort reaching age 62 three years before the birth cohort in question. (The computation depends on life expectancy from three years before the year in question because of the lag in collecting and processing mortality data.)

population. On average, low earners have shorter life expectancies than high earners do, and some evidence suggests that the gap is growing.[35] If that trend continues, the reduction in lifetime benefits per percentage point of additional life expectancy would be greater for low earners than for high earners (rather than equal, as it would be if low and high earners were to have the same increase in life expectancy).

Social Security's total outlays would decline by 0.2 percentage points of GDP in 2040, or by 3 percent from currently scheduled outlays. This option would improve the 75-year actuarial balance by 0.2 percentage points of GDP. The early effects of the option would be too small to significantly extend the trust fund exhaustion date.

The reduction in scheduled lifetime benefits would increase over time, reaching about 12 percent for people born in the 2000s. This option would have little effect on payable lifetime benefits.

### Option 17: Reduce PIA Factors to Index Initial Benefits to Prices Rather Than Earnings

Under this option, often called "price indexing," the bend points in the benefit formula would be indexed to earnings, as under current law, but the PIA factors would be reduced each year by measured growth in real earnings from two years earlier. Beginning in 2017, average initial benefits for newly eligible retirees would increase with prices rather than with prices and real earnings. Given CBO's long-term projections for growth in real earnings, initial benefits would be 1.3 percent lower in the first year than under current law, the next year they would be 2.6 percent lower, and they would decline in the same way in each succeeding year.[36] In reality, however, the incremental reduction would vary from year to year, depending on actual growth in real earnings. The reductions would be smaller during periods of slower earnings growth and larger when earnings grew more quickly. By 2060, scheduled initial benefits would be 48 percent below those projected under current law, CBO estimates. The percentage reductions in initial benefits for retired workers would be the same for all beneficiaries in a birth cohort.

This option is similar in structure to Option 15, but instead of reducing benefits at a fixed rate, the reduction relative to benefits scheduled under current law would vary each year with growth in real earnings. Under current law, average real scheduled benefits grow over time, and the ratio of initial scheduled benefits to average earnings (as measured by the AIME) remains roughly constant. Under this option, average real benefits would remain constant, and the ratio of initial scheduled benefits to the AIME would decline over time from an average of 0.44 for people retiring in 2010 to 0.29 for people who retire in 2060.[37] This option would not affect people who collect DI benefits, but, as under Option 16, the decline in benefits upon conversion to OASI would be smaller for people who had received DI benefits for a longer period.

Social Security's total outlays would decline by 0.9 percentage points of GDP in 2040, or by 14 percent from currently scheduled outlays. The savings would continue to grow. This option would improve the 75-year actuarial balance by 1.0 percentage point of GDP and would result in long-term sustainable solvency.

For people born in the 1980s, scheduled lifetime benefits would decline by about 30 percent; later cohorts would face bigger reductions. Payable lifetime benefits also would be lower than those under current law, but the cuts would not be as large as under scheduled benefits because payable benefits are lower to begin with.

### Option 18: Lower Initial Benefits for the Top 70 Percent of Earners

This option, often called "progressive price indexing," is similar to Option 17. However, scheduled benefits for people in the bottom 30 percent of lifetime average earnings would not change relative to current law, and the reductions for people at the high end of the earnings distribution would be greater than those for people closer to the low end. Under this option, the PIA factors applicable to the top 70 percent of earners would be gradually reduced so that initial benefits for such earners would decline over time relative to those scheduled under current law. Beginning in 2017, initial benefits for newly eligible Social Security beneficiaries who earned the taxable maximum for 35 years—"maximum earners"—would increase from year to year with prices (as in Option 17) rather than with prices and real earnings. For beneficiaries

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35. See Congressional Budget Office, *Growing Disparities in Life Expectancy*, Issue Brief (April 17, 2008).

36. CBO projects that growth in real wages will average 1.3 percent annually (see Congressional Budget Office, *CBO's Long-Term Projections for Social Security: 2009 Update*, p. 9).

37. See Congressional Budget Office, *Budget Options, Volume 2*, p. 143.

whose lifetime earnings were between those two groups—above the 30th percentile but below the taxable maximum—average initial benefits would increase more rapidly than prices but more slowly than earnings.[38] This option would not affect people who collect DI benefits, but, as under Option 16, the decline in benefits upon conversion to OASI would be smaller for people who had received DI benefits for a longer time.

This option would be implemented by adding a third bend point to the PIA formula in 2017, initially set at the 30th percentile (encompassing the lowest 30 percent) of earners. In 2040, the new bend point would be at about $2,560, between the first bend point at $1,130 and the highest bend point at $6,830 (see Figure 7). Between the first bend point and the new one, the PIA factor would remain at 32 percent. The PIA factors in the next two brackets initially would be 32 percent and 15 percent, but they would be reduced annually—at the rate needed to keep a maximum earner's initial benefits growing with prices.

The top two PIA factors would fall to zero by about 2080, CBO projects, when monthly benefits for a worker with earnings at the new bend point (which would have increased at the rate of earnings growth) would be about $2,560, roughly the same as the benefits paid to maximum earners (which would have increased at the rate of prices). Thereafter, scheduled initial benefits for all newly retired beneficiaries would increase with earnings, but benefits would effectively be capped at the amount received by workers with earnings at the new bend point.

Social Security's total outlays would decline by 0.4 percentage points of GDP in 2040, or by 7 percent from currently scheduled outlays. This option would improve the 75-year actuarial balance by 0.5 percentage points of GDP but would extend the trust fund exhaustion date only by five years, to 2044, because it would be phased in slowly.

Lifetime scheduled benefits for low earners would be essentially unchanged; those for high earners born in the 1980s would decline by approximately 30 percent; later cohorts would face bigger reductions. Lifetime payable benefits would be similar to those paid under current law

38. Ibid.

for people in the middle of the earnings distribution but reduced for high earners and increased for low earners.

## Option 19: Lower Initial Benefits for the Top 50 Percent of Earners

This option differs from Option 18 in that benefits would remain as scheduled under current law for beneficiaries in the bottom 50 percent of career average earnings, rather than for those in the bottom 30 percent. Under this option, the PIA factors applicable to the top 50 percent of earners would be gradually reduced so that initial benefits would decline over time relative to those scheduled under current law. The change would be achieved by adding a bend point to the PIA formula between the first and second bend points. In 2017, the new bend point would be set initially at the 50th percentile of the lifetime earnings distribution, which CBO estimates would be 74 percent of the way between the original first and second bend points.

The top two factors would fall to zero in 2057, CBO estimates. The top two factors reach zero earlier than in Option 18 because the new second bend point occurs at a higher level of earnings. At that time, benefits for a worker with earnings at the new bend point (which would have increased at the rate of earnings) would equal the benefits received by maximum earners (which would have increased at the rate of prices). Thereafter, scheduled initial benefits for retired beneficiaries would be indexed to earnings, but those benefits would effectively be capped at the new bend point. This option would not affect people collecting DI benefits, but their benefits would decline upon conversion to OASI. That reduction would be smaller for people who had received DI benefits for a longer period, as under Option 16.

Social Security's total outlays would decline by 0.4 percentage points of GDP in 2040, or by 6 percent from currently scheduled outlays. This option would improve the 75-year actuarial balance by 0.4 percentage points of GDP and would extend the trust fund exhaustion date by four years, to 2043. By 2060, the reduction in outlays would be about 40 percent of what it would be with indexing to prices (as in Option 17) and about 80 percent of the amount it would be with progressive price indexing for the top 70 percent of earners (as in Option 18).

**Figure 7.**

# Calculating Initial Benefits with Progressive Price Indexing

(PIA in 2010 dollars)



**2040**

Current Social Security System

$6,830

$1,130

$1,130

$2,560

Progressive Price Indexing

$6,830

AIME in 2010 Dollars



**2080**

$11,380

Current Social Security System

$1,890

$11,380

$1,890

$4,270

Progressive Price Indexing

AIME in 2010 Dollars

Source:    Congressional Budget Office.

Notes:  Progressive price indexing is the subject of Option 18: Lower Initial Benefits for the Top 70 Percent of Earners. In 2010, the bend points (represented by the dots on the lines) under current law are $761 and $4,586. In 2040, the bend points (in 2010 dollars) are $1,130 and $6,830 under current law and $1,130, $2,560, and $6,830 with progressive price indexing. In 2080, the bend points (in 2010 dollars) are $1,890 and $11,380 under current law and $1,890, $4,270, and $11,380 with progressive price indexing. A bend point is the threshold at which a PIA factor changes.

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

Scheduled lifetime benefits for middle earners born in the 2000s would decrease by about 9 percent; those for high earners would decline by around 36 percent. Payable benefits would be reduced for high earners but increased somewhat for low earners who receive benefits in 2039 or later.

### Option 20: Index the Bend Points in the PIA Formula to Prices

Under this option, beginning in 2017, the bend points in the formula that determines the primary insurance amount would be indexed to prices rather than to average earnings, as they are under current law. (Because this option would change the bend points, it differs significantly from Options 17, 18, and 19, which would modify the PIA factors.) This option would apply to newly eligible retired and disabled workers. (As under current law, workers' earnings would still be indexed to nominal earnings in the computation of the AIME.)

CBO projects that annual growth in real earnings will average 1.3 percent, so the bend points would increase 1.3 percent more slowly under this option than under current law. By 2040, the bend points would be almost 30 percent lower than they would be under current law (see Figure 8). By 2080, they would be almost 60 percent lower. The bend points would have remained the same in real terms (about $820 and $4,960 in 2010 dollars) from 2017 to 2080, whereas the bend points under current law would have increased markedly, to about $1,890 and about $11,380 (in 2010 dollars). In 2080, the PIA under current law would be about $1,700 for a worker with an AIME of $2,000; under this option, the PIA would be $1,100, or 35 percent less.

Social Security's total outlays would decline by 0.4 percentage points of GDP in 2040, or by 7 percent from currently scheduled outlays. This option would improve the 75-year actuarial balance by 0.5 percentage points of GDP, but it would extend the trust fund exhaustion date only by five years, to 2044, because it would be phased in slowly.

Lifetime scheduled benefits for low earners born in the 2000s would decrease by about 18 percent; for high earners they would decrease by approximately 24 percent. Payable lifetime benefits would be about the same as under current law.

### Option 21: Index Earnings in the AIME and Bend Points in the PIA Formula to Prices

This option would combine Options 11 and 20 by switching from wage indexing to price indexing for computing average indexed monthly earnings and for calculating the bend points in the formula for the primary insurance amount. Beginning in 2017, the option would apply to newly eligible retired and disabled workers.
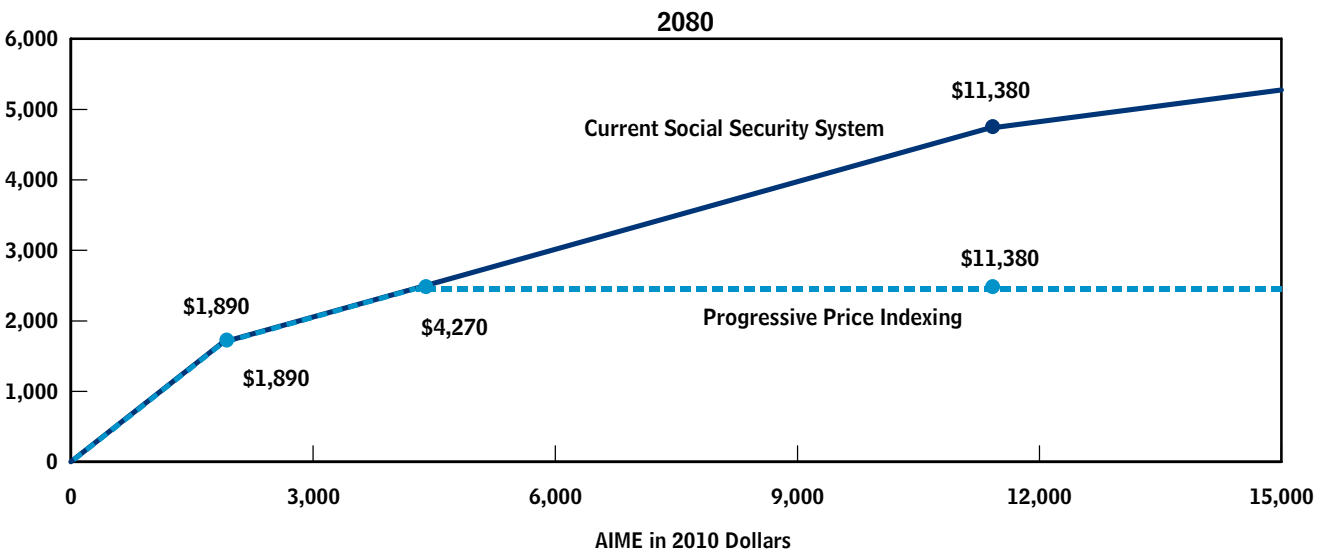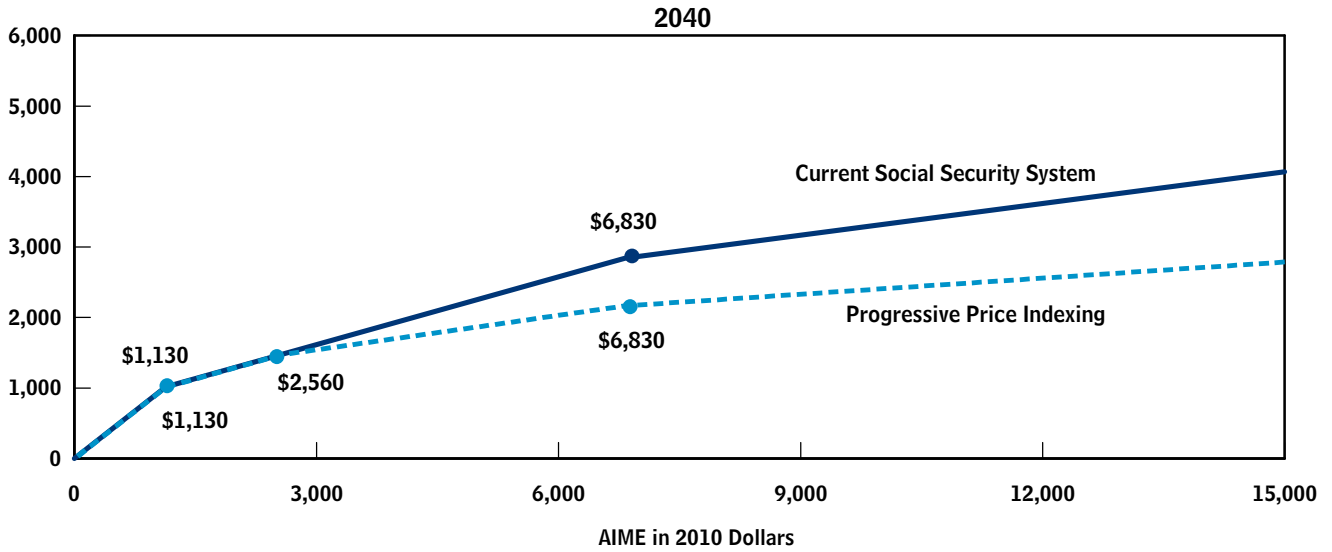
Social Security's total outlays would decline by 0.5 percentage points of GDP in 2040, or by 8 percent, from currently scheduled outlays. This option would improve the 75-year actuarial balance by 0.6 percentage points of GDP. Even though it would result in a positive 75-year actuarial balance, the benefit reductions would be relatively small in the first few decades. This option therefore would extend the trust fund exhaustion date only by seven years, to 2046.

Lifetime scheduled benefits for low earners born in the 2000s would be reduced by around 27 percent; for high earners, those benefits would decline by about 30 percent. Lifetime scheduled benefits for people born earlier also would decline but by a smaller proportion. Payable benefits generally would be lower than those under current law.

### Option 22: Replace the Current PIA Formula with a New Two-Part Formula

Beginning in 2017, this option would introduce a new formula for calculating the primary insurance amount for newly eligible retired workers. The PIA would equal the sum of two amounts: The first would provide each worker with a benefit based on the number of years of work, and the second would provide each worker with additional benefits proportional to the worker's average indexed monthly earnings.

The first part of the new formula would provide a fixed amount of benefits for every quarter of coverage accumulated by a worker, regardless of earnings. As under current law, a retired worker would need at least 40 quarters of coverage to receive benefits. A newly eligible retired worker in 2017 would receive a monthly benefit of $6 for each quarter up to 160 quarters of coverage accumulated. The amount would increase over time at the rate of average wage growth. The second part of the formula would provide additional benefits proportional to earnings, calculated as 15 percent of the AIME.

**Figure 8.**

# Calculating Initial Benefits with Indexing of Bend Points to Prices

(PIA in 2010 dollars)

**2040**



Current Social Security System

$6,830

Bend Points Indexed to Prices

$1,130
$4,960
$820

AIME in 2010 Dollars

**2080**



$11,380

Current Social Security System

$1,890

Bend Points Indexed to Prices

$4,960

$820

AIME in 2010 Dollars
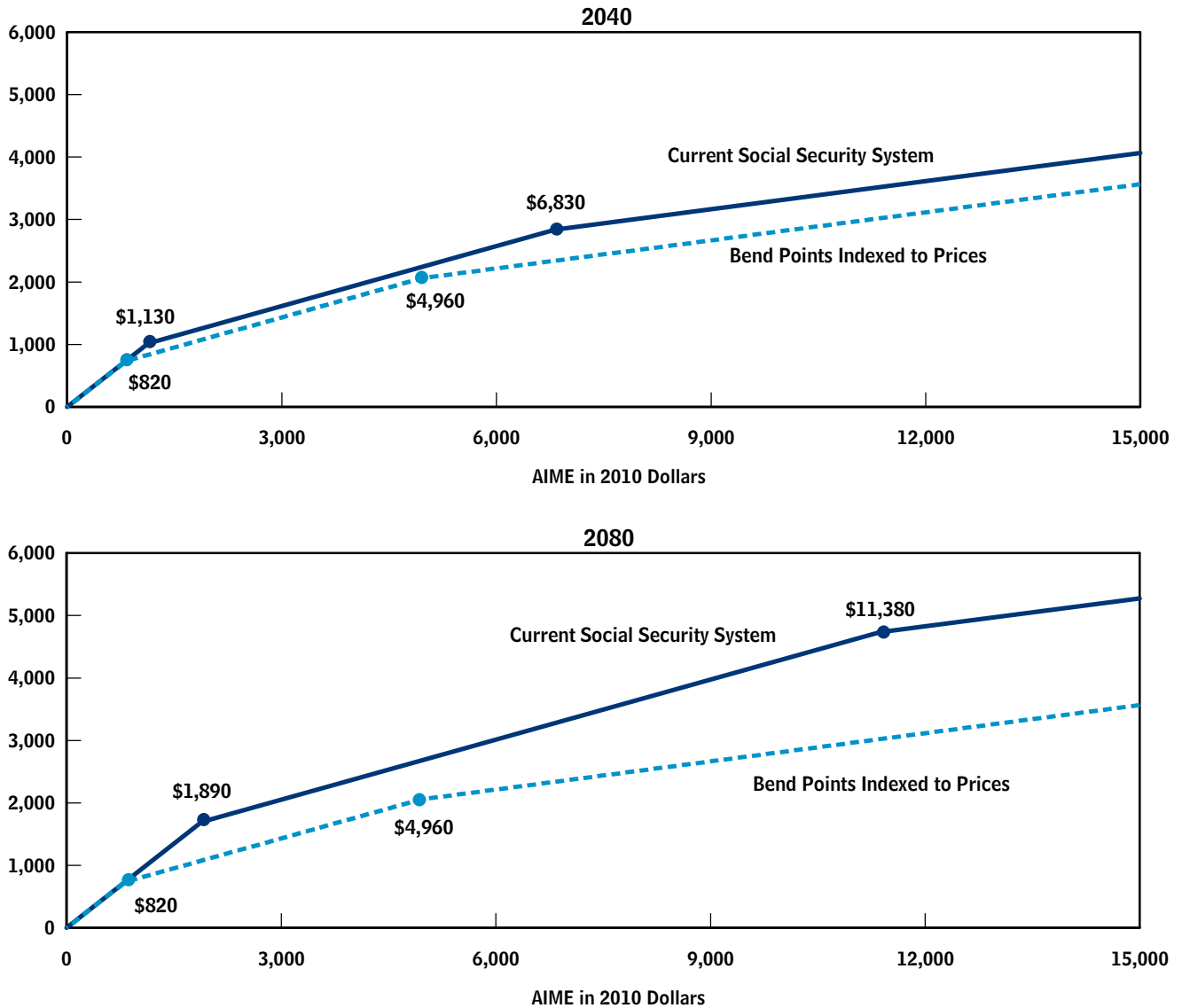
Source:   Congressional Budget Office.

Notes:   Price indexing of the bend points (represented by the dots on the lines) is the subject of two options, Option 20: Index the Bend Points in the PIA Formula to Prices and Option 21: Index Earnings in the AIME and Bend Points in the PIA Formula to Prices. In 2010, the bend points under current law are $761 and $4,586. In 2040, the bend points (in 2010 dollars) are $1,130 and $6,830 under current law and $820 and $4,960 with price indexing. In 2080, the bend points (in 2010 dollars) are $1,900 and $11,380 under current law and $820 and $4,960 with price indexing. A bend point is the threshold at which a PIA factor changes.

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

Under this option, in 2017, a worker with 160 quarters of coverage and an AIME of $5,000 would have a PIA of $1,710. Of that amount, $960 would be attributable to the 160 quarters of coverage and $750 would be 15 percent of the AIME. Under current law, in 2017, that worker would have a PIA of $2,150 (in 2017 dollars).

Social Security's total outlays would decline by 5 percent in 2040 under this option, or by 0.3 percentage points of GDP relative to current law. The option would improve the 75-year actuarial balance by 0.2 percentage points of GDP and would extend the trust fund exhaustion date by six years, to 2045.

Scheduled lifetime benefits would decrease by roughly 9 percent for high earners. Scheduled lifetime benefits for low earners would decrease for people born in the 1960s but increase somewhat for people born later (because earlier cohorts of low earners have fewer years of work). Payable lifetime benefits would be slightly higher for low earners in later birth cohorts.

# Options That Would Increase Benefits for Low Earners

One goal of Social Security is to ensure an adequate income for beneficiaries. In 2008, 8 percent of all Social Security beneficiaries over the age of 65 were considered poor. Only 3 percent of married beneficiaries over 65 were poor, but 14 percent of beneficiaries who were not currently married and 16 percent of never-married beneficiaries in the same age group were poor. One reason for the higher poverty rates among those groups is that beneficiaries who never married (or, if divorced, who had been married for less than 10 years) are not eligible to receive auxiliary benefits for widows, widowers, or divorcees. A minimum benefit for workers could help provide a larger income for those beneficiaries and others. The options in this section would increase worker benefits for some people who worked and contributed to Social Security for many years yet had low average annual earnings and thus would receive low Social Security benefits under current law. (The options would not affect the benefits received by married people with low earnings if their own worker benefits remained less than half of their spouse's benefits.)

Because the options in this group are based on earnings during a working lifetime, they would not necessarily benefit people who have low income during retirement. In addition, the options would not distinguish between workers who had low annual earnings because they earned low hourly wages and workers who had higher hourly wages but worked for only part of the year. (See Table 2 on page 33 for the effects of the options on Social Security's finances, Table 3 on page 39 for effects on distributional outcomes assuming that scheduled benefits are paid, and Table 4 on page 43 for effects on distributional outcomes assuming that only payable benefits are paid.)

**Option 23: Modify the Special Minimum Benefit and Index It to Growth in Earnings**
Current law includes a special minimum benefit, which currently can be as much as $763 a month, about 85 percent of the federal poverty guideline for an individual.[39] Beneficiaries receive the larger of the standard benefit or the special minimum benefit. The special minimum benefit was created to increase payments to people who had low earnings over a long working lifetime. However, the benefit is indexed to prices, whereas regular Social Security benefits are indexed to earnings—and because earnings have grown faster than prices, regular Social Security benefits have increased in real terms, and few beneficiaries now qualify for the special minimum benefit. After 2010, benefits computed under the standard formula are projected to be greater than the special minimum benefit for all new beneficiaries.

This option would restructure the primary insurance amount used in calculating the special minimum benefit, basing it on the number of years of qualifying work but not varying it otherwise with earnings. The effect would be to increase the benefit as the number of years of work (above the 10 needed to qualify for Social Security benefits) increased, up to 30 years. For example, in 2012, the monthly benefit for a single person age 65 or older in that year who has worked for 30 years or more would be about $1,170, which CBO projects would equal 125 percent of the poverty guideline. For someone with fewer than 30 years of work, the special minimum benefit would be reduced proportionately, down to zero for

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39. See Kelly A. Olsen and Don Hoffmeyer, "Social Security's Special Minimum Benefit," *Social Security Bulletin,* vol. 64, no. 2 (2001/2002).

people with 10 or fewer years of work.[40] In 2013 and later, the dollar thresholds would increase at the same rate as average earnings.

Social Security's total outlays under this option would increase by 0.2 percentage points of GDP in 2040, or by 4 percent above currently scheduled outlays. This option would worsen the 75-year actuarial balance by 0.2 percentage points of GDP, and the trust funds would be exhausted two years earlier, in 2037. Payable benefits would generally be higher for the affected low earners, but high earners would be affected by the earlier trust fund exhaustion date and by the larger gap between outlays and revenues thereafter.

Under this option, scheduled lifetime benefits for low earners born in the 2000s would increase by about 30 percent. In 2040, about 50 percent of new OASI beneficiaries and about 35 percent of new DI beneficiaries would have higher initial benefits; about 45 percent of the group would be women.

## Option 24: Introduce a New Poverty-Related Minimum Benefit

This option would introduce a new benefit for workers who have relatively low earnings over a long period. For someone with 20 years of earnings, the minimum PIA would typically be 80 percent of the poverty guideline for a single person age 65 or older in 2016. (In most of the country, the 2009 poverty guideline for a single person was $10,830.) With 40 years of earnings, the amount would be 120 percent of the poverty guideline.[41] Those PIAs would amount to $720 and $1,080, respectively, in 2016 (in 2010 dollars). Beneficiaries would receive the higher of the regular benefit or the new minimum benefit. This option's minimum benefits would be higher than those under Option 23 for workers with

11 to 24 years of earnings and lower for those with 25 or more years of earnings; neither option would provide a minimum benefit to workers with 10 or fewer years of earnings.

Social Security's total outlays would increase by less than 0.05 percentage points of GDP in 2040, or by less than 1 percent from currently scheduled outlays. This option would worsen the 75-year actuarial balance by less than 0.05 percentage points of GDP and would not significantly change the trust fund exhaustion date.

Scheduled and payable lifetime benefits for low earners would be roughly 6 percent higher than under current law. In 2040, about 13 percent of new OASI beneficiaries and about 18 percent of new DI beneficiaries would receive higher initial benefits than under current law; about 55 percent of those beneficiaries would be women.

## Option 25: Enhance Low-Earners' Benefits on the Basis of Years Worked

Under this option, beginning in 2012, benefits would increase for workers who have both low lifetime average earnings and at least 20 years of covered earnings. This option would raise the standard benefit for qualified workers by a specified percentage that would depend on the number of years worked and a worker's AIME. The largest benefit increase would be 40 percent for someone with 35 or more years in the workforce and an AIME at or below the AIME of someone who had worked full time and earned the minimum wage for 30 years. The benefit increase would be smaller for people with fewer years of work or higher AIMEs, and there would be no increase for people whose AIME was above that of a worker who had worked for 35 years or who always earned an amount equal to or greater than the average

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40. Under this option, a year of coverage for the special minimum benefit is defined as a year in which a worker earns four quarters of coverage. Years of coverage would accumulate after 10 years of coverage but not increase beyond 30 years. That is, someone who worked 30 or more years would be credited with benefits based on 20 years of coverage. The additional PIA per year of coverage above 10 years would be 1/20 of the benefit for a 30-year worker, or $58.50 in 2012. So, for example, the minimum monthly benefit for a worker with 15 years of coverage would be about $293 (5 × $58.50).

41. To qualify for the new benefit, a beneficiary would need to have worked at least 10 years. Specifically, the minimum PIA would be 2 percent of the poverty guideline for each quarter of coverage above 40 (10 years of earnings) and up to 80 quarters of coverage, and 0.5 percent of the poverty guideline for quarters of coverage above 80 and up to 160. (For disabled workers, fewer quarters would be required because of their shortened careers.) This new minimum benefit would be phased in from 2012 to 2016. Beginning in 2016, the effective poverty guidelines would increase with average wages.

wage index (AWI, the average amount of total earnings in the United States in a year).[42]

Social Security's total outlays in 2040 would increase by 0.4 percentage points of GDP, or by 7 percent from currently scheduled outlays. This option would worsen the 75-year actuarial balance by 0.3 percentage points of GDP, and the trust funds would be exhausted in 2034, five years earlier than CBO anticipates otherwise. Payable benefits for high earners would be somewhat lower than under current law because of the earlier exhaustion of the trust funds and the larger gap between outlays and revenues thereafter.

Under this policy, scheduled lifetime benefits for low earners born in the 2000s would increase by about 24 percent. For people in the same cohort and in the middle of the household earnings distribution, scheduled lifetime benefits would increase by 12 percent; they would receive larger benefits because many of them would have an AIME that was less than that of a worker who worked for 35 years and always earned an amount equal to the AWI. Under this option, about 57 percent of new OASI beneficiaries and about 65 percent of DI beneficiaries would receive an increase in their initial benefits in 2040; about 53 percent of those beneficiaries would be women.

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42. The standard benefit would be multiplied by 1 + (40 percent × AIME factor × coverage factor). The two factors range from 0 to 1, so this option would increase benefits by as much as 40 percent. The AIME factor would be 1 for workers with an AIME equal to or less than the AIME of a full-time worker who earned the minimum wage for 30 years. It would be zero for workers with an AIME greater than the AIME of a worker who worked for 35 years, always earning an amount equal to the AWI. For workers with earnings between those amounts the factor would be set proportionately: AIME factor for a given worker = (AIME of 35-year AWI worker – AIME of given worker)/(AIME of 35-year AWI worker – AIME of minimum wage worker). The coverage factor would give a larger increase to workers with more quarters of coverage. For most retired workers the factor would be 1 if the worker had at least 35 years in covered employment. It would be zero if the worker had 20 years or less in covered employment. For workers whose employment was between 20 and 35 years, the formula would be as follows: Coverage factor = the minimum of 1 or 1 – {[(3.5 × elapsed years) – quarters of coverage]/(1.5 × elapsed years)}. "Elapsed years" would be set to 40 for retired workers or equal to the number of years from age 22 to the age of entitlement for disabled workers (see Congressional Budget Office, *Budget Options, Volume 2,* p. 154).

## Options That Would Raise the Full Retirement Age

People who turn 65 today will, on average, collect Social Security benefits for significantly longer than retirees did in the past because the average life span in the United States has lengthened considerably. In 1940, life expectancy at age 65 was 11.9 years for men and 13.4 years for women. The Social Security trustees project that life expectancy has increased by more than 5 years for 65-year-olds today, to 17.0 years for men and 19.4 years for women, and that those figures will increase to 18.7 years and 20.8 years by 2035. Therefore, a commitment to provide people with a specific monthly benefit for the rest of their lives would be more costly if made to those who will be 65 in 2035 than to 65-year-olds today.

Increasing the full retirement age is, in most ways, equivalent to cutting initial benefits. In particular, for people who claim benefits at any given age, a higher FRA results in lower benefits. (The options presented here would not change the early eligibility age, which under current law is fixed at 62 for retired workers.) Depending on the age at which the worker claims his or her benefits, a one-year increase in the FRA is equivalent to a reduction in a retired worker's monthly benefit of between 5 percent and 8 percent.[43] For example, under current law, benefits would be reduced by 30 percent for someone with a FRA of 67 (that is, someone born in 1960 or later) who claimed benefits at age 62. The reduction would be 35 percent for the same worker if the FRA was set at 68.

The options in this section would increase the full retirement age to different ages at different speeds. (See Table 2 on page 33 for the effects of the options on Social Security's finances, Table 3 on page 39 for effects on distributional outcomes assuming that scheduled benefits are paid, and Table 4 on page 43 for effects on distributional outcomes assuming that only payable benefits are paid.)

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43. When a worker claims benefits before the full retirement age, benefits are reduced by 5/9 of 1 percent for each month, or 6-2/3 percent per year, before full retirement age, up to 36 months. If the number of months exceeds 36, then the benefit is further reduced by 5/12 of 1 percent per month, or 5 percent per year. People who claim benefits after reaching their FRA generally receive a delayed-retirement credit, which is 8 percent for those born in 1943 and later. No additional credit is given after a person turns 70.

## Option 26: Raise the FRA to 68

This option would continue to increase the full retirement age after it reaches 67 in 2022 under current law. Specifically, the FRA would rise by an additional two months per birth year for another six years, reaching 68 for workers born in 1966, who will turn 62 in 2028.

Social Security's total outlays would decline by 0.2 percentage points of GDP in 2040, or by 3 percent from currently scheduled outlays. This option would improve the 75-year actuarial balance by 0.1 percentage point of GDP and would not significantly extend the trust fund exhaustion date.

After this option was fully phased in, scheduled lifetime benefits for people born in the 1980s and 2000s would be reduced by about 6 percent relative to current law. Payable benefits would not change significantly.

## Option 27: Raise the FRA to 70

Like Option 26, this option would continue to increase the full retirement age after it reaches 67 in 2022 under current law, but this option would ultimately make the age of full retirement later than would Option 26. Under this option, the FRA would rise by an additional two months per birth year for another 18 years, reaching age 70 for workers who were born in 1978 and who will turn 62 in 2040.[44] That change, relative to Social Security's original FRA of 65, would roughly match the increase in life expectancy that has occurred since 1940.

Under this option, Social Security's total outlays would decline by 0.4 percentage points of GDP in 2040, or by 6 percent from currently scheduled outlays. This option would improve the 75-year actuarial balance by 0.3 percentage points of GDP and would not significantly extend the trust fund exhaustion date.

After this option was fully phased in, scheduled lifetime benefits for people born in the 1980s and 2000s would be reduced by about 15 percent relative to current law. Payable benefits would decline by smaller percentages.

## Option 28: Index the FRA to Changes in Longevity

This option would maintain a constant ratio of projected years of benefit receipt to years of work—that is, the ratio of life expectancy at the full retirement age to the number of years from age 21 to the full retirement age would be held constant.[45] Under current law, the FRA will be 67 starting in 2022. Under Options 26 and 27, the FRA would increase at a rate of two months per birth year. Under this option, the increase would be more gradual: The FRA would rise by approximately half a month per birth year, and the rate of increase would vary depending on the actual rate of mortality improvement. Under this approach, CBO estimates, the FRA for people born in 1979 would be 68, and the FRA for people born in 2003 would be 69. The FRA would reach 70 for people born in 2026; that group would become eligible for retirement benefits in 2088, which is beyond the 75-year projection period for this study.

Social Security's total outlays in 2040 would decline by 0.1 percentage point of GDP, or by just over 2 percent, relative to currently scheduled outlays. This option would improve the 75-year actuarial balance by 0.2 percentage points of GDP and would not significantly extend the trust fund exhaustion date.

Under this policy, scheduled lifetime benefits for people born in the 2000s would be reduced by roughly 12 percent. Payable benefits would be reduced by a smaller amount.

# Options That Would Reduce Cost-of-Living Adjustments

Current law requires that the benefits paid to existing beneficiaries generally rise each year with the application of a cost-of-living adjustment. At the end of each year, the Social Security Administration adjusts each beneficiary's PIA by an amount that is equal to any increase in the consumer price index for urban wage earners and clerical workers from the third calendar quarter of the prior year to the third calendar quarter of the current year. (When prices decline, the COLA is set at zero, as occurred in 2010.)

Many analysts believe that the CPI-W overstates increases in the cost of living because it does not fully account for the fact that consumers generally adjust their spending patterns as some prices change relative to others. Another

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44. CBO has examined the effects of increasing the FRA to 70 for people born in 1971 and then by 1 month every second year. See Congressional Budget Office, *Budget Options, Volume 2*, p. 145.

45. Because of the delay in the availability of mortality data, this option would be linked to life expectancy data from three years before the affected year.

consideration, however, is that the cost of living could grow faster for elderly people than for the rest of the population. Inflation as measured by the CPI-E, an experimental version of the CPI that reflects the purchasing patterns of older people, has been 0.3 percentage points higher than the CPI-W over the past three decades.

Because most proposals to reduce the size of COLAs would result in an annually compounding reduction during the course of a beneficiary's receipt of benefits, the reduction in scheduled annual benefits would grow larger over time relative to current law. The difference in annual benefits would be most pronounced for beneficiaries who would receive benefits under a modified COLA option for long periods, such as very old retirees (who are more likely than younger retirees to be poor) and people who begin receiving DI benefits at an early age.

A change in COLAs also would affect initial benefits claimed after the early eligibility age (currently set at 62), because COLAs are applied to the age 62 benefit every year, even for people who wait until after age 62 to claim benefits. Thus, a change in COLAs has a small effect on initial benefits at age 65. (See Table 2 on page 33 for the effects of the options on Social Security's finances, Table 3 on page 39 for effects on distributional outcomes assuming that scheduled benefits are paid, and Table 4 on page 43 for effects on distributional outcomes assuming that only payable benefits are paid.)

### Option 29: Reduce COLAs by 0.5 Percentage Points
This option would reduce the annual cost-of-living adjustment by 0.5 percentage points. The reduction would begin in 2012.

Social Security's total outlays would decline by 0.4 percentage points of GDP in 2040, or by 7 percent from currently scheduled outlays. This option would improve the 75-year actuarial balance by 0.3 percentage points of

GDP and would extend the trust fund exhaustion date by nine years, to 2048.

Scheduled lifetime benefits would be reduced by about 6 percent for people born in the 1950s or later and would be smaller for older birth cohorts. For example, lifetime benefits would be reduced only slightly for people who turn 90 in 2012. Payable benefits would be slightly higher for people who will collect larger portions of their benefits in 2039 and later.

### Option 30: Base COLAs on the Chained CPI-U
Beginning in 2012, this option would link Social Security cost-of-living adjustments to another measure of inflation—the chained CPI-U (consumer price index for all urban consumers)—which takes into account that consumers generally adjust their spending patterns as some prices change relative to others. CBO projects that the chained CPI-U will increase, on average, by 0.3 percentage points more slowly per year than will the CPI-W.[46]

Social Security's total outlays would decline by 0.2 percentage points of GDP in 2040, or by 4 percent, from currently scheduled outlays. This option would improve the 75-year actuarial balance by 0.2 percentage points of GDP and would extend the trust fund exhaustion date by four years, to 2043.
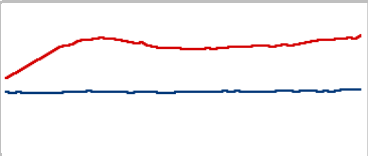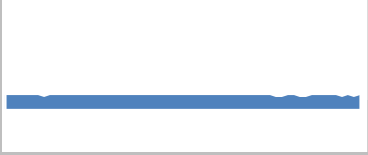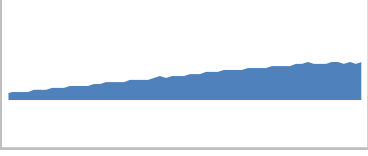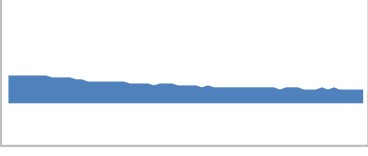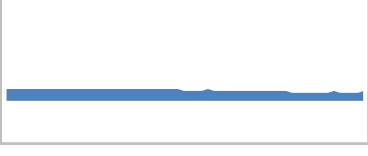
Compared with those scheduled under current law, lifetime benefits for people in all earnings categories would be reduced by about 3 percent. Payable lifetime benefits would not change significantly.

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46. The estimate of the effect of this option is based on CBO's projection of the difference between growth in the CPI-W and the chained CPI-U, but the actual difference (and thus the effect of the option) would vary from year to year and could average more or less than 0.3 percent. For additional information, see Congressional Budget Office, *Using a Different Measure of Inflation for Indexing Federal Programs and the Tax Code,* Issue Brief (February 24, 2010), and *Budget Options, Volume 2,* p. 147.

**Table 2.**

# Changes to Social Security's Finances Under Various Options with Scheduled Benefits

(Percentage of GDP)

| | | 2020 | 2040 | 2060 | 2080 | Annual Finances | 75-Year Present Value as a Percentage of GDP | 75-Year Present Value as a Percentage of Taxable Payroll |
|---|---|---|---|---|---|---|---|---|
| | | | | | | **Current Law[a]** | | |
| | | | | | | **Revenues and Outlays[b]** | | |
| | Revenues | 4.9 | 4.9 | 4.9 | 5.0 | | 5.2 | 14.4 |
| | Outlays | 5.2 | 6.2 | 6.0 | 6.3 | | 5.8 | 16.0 |
| | Balance | -0.3 | -1.3 | -1.1 | -1.3 | | -0.6 | -1.6 |
| | | | | | | **Percentage-Point Change from Current Law[a]** | | |
| **Change the Taxation of Earnings** | | | | | | **Change in Annual Balance[c]** | | |
| **1** | Revenues | 0.4 | 0.4 | 0.3 | 0.3 | | 0.3 | 1.0 |
| Increase the Payroll Tax Rate by 1 Percentage Point in 2012 | Outlays[d] | * | * | * | * | | * | * |
| | Balance | 0.4 | 0.4 | 0.4 | 0.4 | | 0.3 | 1.0 |
| **2** | Revenues | 0.3 | 0.7 | 0.7 | 0.7 | | 0.5 | 1.6 |
| Increase the Payroll Tax Rate by 2 Percentage Points Over 20 Years | Outlays[d] | * | * | * | * | | * | * |
| | Balance | 0.3 | 0.7 | 0.7 | 0.8 | | 0.6 | 1.6 |
| **3** | Revenues | 0.2 | 0.5 | 0.8 | 1.0 | | 0.5 | 1.5 |
| Increase the Payroll Tax Rate by 3 Percentage Points Over 60 years | Outlays[d] | * | * | * | * | | * | * |
| | Balance | 0.2 | 0.5 | 0.9 | 1.1 | | 0.5 | 1.4 |
| **4** | Revenues | 0.8 | 0.9 | 0.9 | 0.9 | | 0.9 | n.a. |
| Eliminate the Taxable Maximum[e] | Outlays | * | 0.3 | 0.5 | 0.5 | | 0.3 | n.a. |
| | Balance | 0.8 | 0.6 | 0.4 | 0.4 | | 0.6 | n.a. |
| **5** | Revenues | 0.3 | 0.4 | 0.4 | 0.4 | | 0.4 | n.a. |
| Raise the Taxable Maximum to Cover 90% of Earnings[e] | Outlays | * | 0.1 | 0.2 | 0.2 | | 0.1 | n.a. |
| | Balance | 0.3 | 0.3 | 0.2 | 0.2 | | 0.2 | n.a. |

**Table 2.**

## Changes to Social Security's Finances Under Various Options with Scheduled Benefits

(Percentage of GDP)

| | | 2020 | 2040 | 2060 | 2080 | Annual Finances | Present Value as a Percentage of GDP | Present Value as a Percentage of Taxable Payroll |
|---|---|---|---|---|---|---|---|---|
| | | | | | | **Percentage-Point Change from Current Law[a] (Continued)** | | |
| **Change the Taxation of Earnings (Continued)** | | | | | | **Change in Annual Balance[c]** | | |
| **6** Tax Covered Earnings Above the Taxable Maximum; Do Not Increase Benefits[e] | Revenues | 0.8 | 0.9 | 0.9 | 0.9 | | 0.8 | n.a. |
| | Outlays[d] | * | * | * | * | | * | n.a. |
| | Balance | 0.9 | 0.9 | 0.9 | 0.9 | | 0.9 | n.a. |
| **7** Tax Covered Earnings Up to $250,000; Do Not Increase Benefits[e] | Revenues | 0.5 | 0.5 | 0.5 | 0.5 | | 0.5 | n.a. |
| | Outlays[d] | * | * | * | * | | * | n.a. |
| | Balance | 0.5 | 0.6 | 0.6 | 0.6 | | 0.5 | n.a. |
| **8** Tax All Earnings Above the Taxable Maximum at 4%; Do Not Increase Benefits[e] | Revenues | 0.3 | 0.3 | 0.3 | 0.3 | | 0.3 | n.a. |
| | Outlays[d] | * | * | * | * | | * | n.a. |
| | Balance | 0.3 | 0.3 | 0.3 | 0.3 | | 0.3 | n.a. |
| **9** Tax All Earnings Above $250,000 at 4%; Do Not Increase Benefits[e] | Revenues | 0.1 | 0.1 | 0.1 | 0.1 | | 0.1 | n.a. |
| | Outlays[d] | * | * | * | * | | * | n.a. |
| | Balance | 0.1 | 0.1 | 0.1 | 0.1 | | 0.1 | n.a. |
| **Change the Benefit Formula** | | | | | | | | |
| **10** Raise from 35 to 38 the Years of Earnings Included in the AIME | Revenues | * | * | * | * | | * | * |
| | Outlays | * | -0.1 | -0.1 | -0.1 | | -0.1 | -0.2 |
| | Balance | * | 0.1 | 0.1 | 0.1 | | 0.1 | 0.2 |
| **11** Index Earnings in the AIME Formula to Prices | Revenues | * | * | * | * | | * | * |
| | Outlays | * | -0.1 | -0.4 | -0.6 | | -0.2 | -0.5 |
| | Balance | * | 0.1 | 0.4 | 0.5 | | 0.2 | 0.5 |

**Continued**

**Table 2.**                                                                                                                   **Continued**

## Changes to Social Security's Finances Under Various Options with Scheduled Benefits

(Percentage of GDP)

| | | 2020 | 2040 | 2060 | 2080 | Annual Finances | 75-Year Present Value as a Percentage of GDP | 75-Year Present Value as a Percentage of Taxable Payroll |
|---|---|---|---|---|---|---|---|---|
| | | | | | | Percentage-Point Change from Current Law[a] (Continued) | | |
| **Change the Benefit Formula (Continued)** | | | | | | Change in Annual Balance[c] | | |
| **12** Reduce All PIA Factors by 15% | Revenues | * | -0.1 | -0.1 | -0.1 | | * | -0.1 |
| | Outlays | -0.2 | -0.7 | -0.9 | -0.9 | | -0.6 | -1.6 |
| | Balance | 0.2 | 0.7 | 0.8 | 0.8 | | 0.5 | 1.5 |
| **13** Reduce the Top Two PIA Factors by Roughly One-Third | Revenues | * | -0.1 | -0.1 | -0.1 | | -0.1 | -0.2 |
| | Outlays | -0.2 | -1.0 | -1.1 | -1.2 | | -0.8 | -2.1 |
| | Balance | 0.2 | 0.9 | 1.0 | 1.1 | | 0.7 | 2.0 |
| **14** Reduce the Top PIA Factor by One-Third | Revenues | * | * | * | * | | * | * |
| | Outlays | * | -0.1 | -0.1 | -0.1 | | -0.1 | -0.2 |
| | Balance | * | 0.1 | 0.1 | 0.1 | | 0.1 | 0.2 |
| **15** Reduce All PIA Factors by 0.5% Annually | Revenues | * | * | -0.1 | -0.1 | | * | -0.1 |
| | Outlays | * | -0.3 | -0.8 | -1.3 | | -0.5 | -1.3 |
| | Balance | * | 0.3 | 0.8 | 1.2 | | 0.4 | 1.2 |
| **16** Index Initial Benefits to Changes in Longevity | Revenues | * | * | * | -0.1 | | * | -0.1 |
| | Outlays | * | -0.2 | -0.4 | -0.7 | | -0.2 | -0.6 |
| | Balance | * | 0.2 | 0.4 | 0.6 | | 0.2 | 0.6 |
| **17** Reduce PIA Factors to Index Initial Benefits to Prices Rather Than Earnings | Revenues | * | -0.1 | -0.2 | -0.3 | | -0.1 | -0.2 |
| | Outlays | * | -0.9 | -1.9 | -2.9 | | -1.1 | -2.9 |
| | Balance | * | 0.8 | 1.7 | 2.6 | | 1.0 | 2.7 |

**Continued**

**Table 2.**                                                                                                    **Continued**

## Changes to Social Security's Finances Under Various Options with Scheduled Benefits
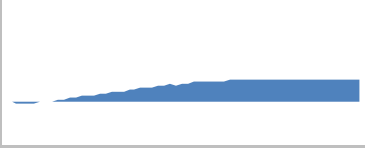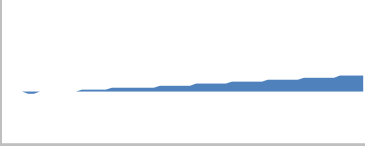
(Percentage of GDP)

| | | 2020 | 2040 | 2060 | 2080 | Annual Finances | 75-Year Present Value as a Percentage of | |
| | | | | | | | GDP | Taxable Payroll |
|---|---|---|---|---|---|---|---|---|
| | | | | Percentage-Point Change from Current Law[a] (Continued) | | | | |
| **Change the Benefit Formula (Continued)** | | | | | | **Change in Annual Balance[c]** | | |
| **18** | Revenues | * | * | -0.1 | -0.1 | | -0.1 | -0.1 |
| Lower Initial Benefits for the Top 70% of Earners | Outlays | * | -0.4 | -1.0 | -1.5 | | -0.5 | -1.5 |
| | Balance | * | 0.4 | 0.9 | 1.4 | | 0.5 | 1.4 |
| **19** | Revenues | * | * | -0.1 | -0.1 | | 0 | -0.1 |
| Lower Initial Benefits for the Top 50% of Earners | Outlays | * | -0.4 | -0.8 | -1.1 | | -0.4 | -1.2 |
| | Balance | * | 0.3 | 0.7 | 1.0 | | 0.4 | 1.1 |
| **20** | Revenues | * | * | -0.1 | -0.1 | | * | -0.1 |
| Index the Bend Points in the PIA Formula to Prices | Outlays | * | -0.4 | -0.9 | -1.5 | | -0.5 | -1.5 |
| | Balance | * | 0.4 | 0.9 | 1.4 | | 0.5 | 1.3 |
| **21** | Revenues | * | * | -0.1 | -0.2 | | -0.1 | -0.1 |
| Index Earnings in the AIME and Bend Points in the PIA Formula to Prices | Outlays | * | -0.5 | -1.2 | -1.9 | | -0.7 | -1.9 |
| | Balance | * | 0.5 | 1.1 | 1.7 | | 0.6 | 1.7 |
| **22** | Revenues | * | * | * | * | | * | * |
| Replace the Current PIA Formula with a New Two-Part Formula | Outlays | -0.1 | -0.3 | -0.2 | -0.3 | | -0.2 | -0.6 |
| | Balance | 0.1 | 0.3 | 0.2 | 0.2 | | 0.2 | 0.5 |
| **Increase Benefits for Low Earners** | | | | | | | | |
| **23** | Revenues | * | * | * | 0.1 | | * | 0.1 |
| Modify the Special Minimum Benefit and Index It to Growth in Earnings | Outlays | 0.1 | 0.2 | 0.5 | 0.5 | | 0.3 | 0.7 |
| | Balance | -0.1 | -0.2 | -0.4 | -0.5 | | -0.2 | -0.7 |

**Continued**

**Table 2.**                                                                                                          **Continued**

## Changes to Social Security's Finances Under Various Options with Scheduled Benefits

(Percentage of GDP)

| | | 2020 | 2040 | 2060 | 2080 | Annual Finances | 75-Year Present Value as a Percentage of GDP | 75-Year Present Value as a Percentage of Taxable Payroll |
|---|---|---|---|---|---|---|---|---|
| | | | | | | Percentage-Point Change from Current Law[a] (Continued) | | |
| **Increase Benefits for Low Earners (Continued)** | | | | | | **Change in Annual Balance[c]** | | |
| **24** Introduce a New Poverty-Related Minimum Benefit | Revenues | * | * | * | * | | * | * |
| | Outlays | * | * | 0.1 | * | | * | 0.1 |
| | Balance | * | * | * | * | | * | -0.1 |
| **25** Enhance Low-Earners' Benefits on the Basis of Years Worked | Revenues | * | * | * | * | | * | 0.1 |
| | Outlays | 0.2 | 0.4 | 0.5 | 0.5 | | 0.4 | 1.0 |
| | Balance | -0.2 | -0.4 | -0.4 | -0.4 | | -0.3 | -0.9 |
| **Raise the Full Retirement Age** | | | | | | | | |
| **26** Raise the FRA to 68[f] | Revenues | 0 | * | * | * | | * | * |
| | Outlays | 0 | -0.2 | -0.3 | -0.3 | | -0.2 | -0.4 |
| | Balance | 0 | 0.2 | 0.2 | 0.2 | | 0.1 | 0.4 |
| **27** Raise the FRA to 70[f] | Revenues | 0 | * | -0.1 | -0.1 | | * | -0.1 |
| | Outlays | 0 | -0.4 | -0.7 | -0.7 | | -0.4 | -1.0 |
| | Balance | 0 | 0.3 | 0.6 | 0.6 | | 0.3 | 0.9 |
| **28** Index the FRA to Changes in Longevity[f] | Revenues | 0 | * | * | -0.1 | | * | -0.1 |
| | Outlays | 0 | -0.1 | -0.4 | -0.6 | | -0.2 | -0.5 |
| | Balance | 0 | 0.1 | 0.3 | 0.5 | | 0.2 | 0.5 |

**Continued**

**Table 2.**                                                                                                        **Continued**

## Changes to Social Security's Finances Under Various Options with Scheduled Benefits

(Percentage of GDP)

| | | 2020 | 2040 | 2060 | 2080 | Annual Finances | 75-Year Present Value as a Percentage of | |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | GDP | Taxable Payroll |
| | | | Percentage-Point Change from Current Law[a] (Continued) | | | | | |
| **Reduce Cost-of-Living Adjustments** | | | | | | Change in Annual Balance[c] | | |
| **29** | Revenues | * | * | * | -0.1 | | * | -0.1 |
| Reduce COLAs by 0.5 Percentage Points | Outlays | -0.2 | -0.4 | -0.4 | -0.4 | | -0.3 | -0.8 |
| | Balance | 0.2 | 0.4 | 0.4 | 0.4 | | 0.3 | 0.8 |
| **30** | Revenues | * | * | * | * | | * | * |
| Base COLAs on the Chained CPI-U | Outlays | -0.1 | -0.2 | -0.2 | -0.3 | | -0.2 | -0.5 |
| | Balance | 0.1 | 0.2 | 0.2 | 0.2 | | 0.2 | 0.5 |

Source:    Congressional Budget Office.

Notes:  Scheduled benefits are full benefits as calculated under current law, regardless of the amounts available in the Social Security trust funds.

The 75-year period is 2010 through 2084. Revenues consist of payroll taxes and income taxes on benefits (but not interest credited to the trust funds) in the specified year. Outlays consist of Social Security benefits and administrative costs. The balance is the surplus or deficit, which is the difference between revenues and outlays. Details of specific options are contained in the text.

GDP = gross domestic product; AIME = average indexed monthly earnings; PIA = primary insurance amount; FRA = full retirement age; COLA = cost-of-living adjustment; CPI-U = consumer price index for all urban consumers; * = between -0.05 and 0.05 percentage points, but not exactly zero; 0 = exactly zero, with no rounding; n.a. = not applicable.

a.  ''Current law'' refers to current Social Security provisions for calculating benefits and payroll taxes. See Congressional Budget Office, *The Long-Term Budget Outlook* (June 2010).

b.  The line graph shows projected revenues (lower line) and outlays (upper line) as a percentage of GDP over the period from 2020 to 2080. The range is from 3.5 percent to 7.0 percent of GDP.

c.  The area graphs depict the change in the annual trust fund balance over the period from 2020 to 2080. The range is from -1.0 percent to 3.0 percent of GDP.

d.  For options that would increase payroll taxes but not benefits, the ratio of outlays to GDP would be slightly reduced because GDP would increase slightly. Although CBO's model generally keeps GDP growth steady, adjustments in response to reduced budget deficits occur with a lag, allowing small variations.

e.  Under this option, the size of the tax base would change, so the changes in the 75-year present values of revenues, outlays, and the actuarial balance are more clearly represented as a percentage of GDP.

f.  Because this option would take effect after the FRA reaches age 67 under current law in 2022, no system finance changes are reported for 2020.

**Table 3.**

# Changes to Social Security's Scheduled Benefits and Payroll Taxes for Different Groups Under Various Options

| | Lifetime Household Earnings Quintile[a] | Median Initial Benefits for Retired Workers by 10-Year Birth Cohort[b] | | | Median Lifetime Benefits by 10-Year Birth Cohort[c] | | | Median Lifetime Payroll Taxes by 10-Year Birth Cohort[c] | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | 1960 | 1980 | 2000 | 1960 | 1980 | 2000 | 1960 | 1980 | 2000 |
| | | Current Law[d] (Thousands of 2010 dollars) | | | | | | | | |
| | Low | 11 | 14 | 18 | 110 | 130 | 180 | 90 | 110 | 140 |
| | Middle | 20 | 24 | 32 | 250 | 300 | 420 | 320 | 370 | 490 |
| | High | 31 | 38 | 50 | 400 | 500 | 680 | 670 | 780 | 1,070 |
| | | Percentage Change from Current Law[d] | | | | | | | | |
| **Change the Taxation of Earnings** | | | | | | | | | | |
| **1** | Low | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 6 | 6 |
| Increase the Payroll Tax Rate by | Middle | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 6 | 9 |
| 1 Percentage Point in 2012 | High | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 6 | 6 |
| **2** | Low | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 6 | 15 |
| Increase the Payroll Tax Rate by | Middle | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 9 | 15 |
| 2 Percentage Points Over 20 Years | High | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 12 | 15 |
| **3** | Low | 0 | 0 | 0 | 0 | 0 | 0 | * | 3 | 12 |
| Increase the Payroll Tax Rate by | Middle | 0 | 0 | 0 | 0 | 0 | 0 | * | 6 | 15 |
| 3 Percentage Points Over 60 Years | High | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 6 | 15 |
| **4** | Low | * | * | * | * | * | * | * | * | * |
| Eliminate the Taxable Maximum | Middle | * | * | * | * | * | * | * | * | * |
| | High | 3 | 6 | 9 | 9 | 15 | 15 | 12 | 15 | 18 |
| **5** | Low | * | * | * | * | * | * | * | * | * |
| Raise the Taxable Maximum to | Middle | * | * | * | * | * | * | * | * | * |
| Cover 90% of Earnings | High | 3 | 6 | 6 | 3 | 9 | 9 | 6 | 12 | 15 |
| **6** | Low | 0 | 0 | 0 | 0 | 0 | 0 | * | * | * |
| Tax Covered Earnings Above the | Middle | 0 | 0 | 0 | 0 | 0 | 0 | * | * | * |
| Taxable Maximum; Do Not Increase | High | 0 | 0 | 0 | 0 | 0 | 0 | 12 | 15 | 18 |
| Benefits | | | | | | | | | | |
| **7** | Low | 0 | 0 | 0 | 0 | 0 | 0 | * | * | * |
| Tax Covered Earnings Up to | Middle | 0 | 0 | 0 | 0 | 0 | 0 | * | * | 3 |
| $250,000; Do Not Increase Benefits | High | 0 | 0 | 0 | 0 | 0 | 0 | 12 | 15 | 18 |
| **8** | Low | 0 | 0 | 0 | 0 | 0 | 0 | * | * | * |
| Tax All Earnings Above the Taxable | Middle | 0 | 0 | 0 | 0 | 0 | 0 | * | * | * |
| Maximum at 4%; Do Not Increase | High | 0 | 0 | 0 | 0 | 0 | 0 | 6 | 6 | 9 |
| Benefits | | | | | | | | | | |

**Continued**

**Table 3.**

## Changes to Social Security's Scheduled Benefits and Payroll Taxes for Different Groups Under Various Options

| | Lifetime Household Earnings Quintile[a] | Median Initial Benefits for Retired Workers by 10-Year Birth Cohort[b] | | | Median Lifetime Benefits by 10-Year Birth Cohort[c] | | | Median Lifetime Payroll Taxes by 10-Year Birth Cohort[c] | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | 1960 | 1980 | 2000 | 1960 | 1980 | 2000 | 1960 | 1980 | 2000 |
| | | Percentage Change from Current Law[d] (Continued) | | | | | | | | |
| **Change the Taxation of Earnings (Continued)** | | | | | | | | | | |
| **9** | Low | 0 | 0 | 0 | 0 | 0 | 0 | * | * | * |
| Tax All Earnings Above $250,000 at | Middle | 0 | 0 | 0 | 0 | 0 | 0 | * | * | * |
| 4%; Do Not Increase Benefits | High | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 3 | 3 |
| **Change the Benefit Formula** | | | | | | | | | | |
| **10** | Low | -3 | -3 | -3 | -3 | -3 | -3 | 0 | 0 | 0 |
| Raise from 35 to 38 the Years of | Middle | -3 | -3 | -3 | -3 | -3 | -3 | 0 | 0 | 0 |
| Earnings Included in the AIME | High | -3 | -3 | -3 | -3 | -3 | -3 | 0 | 0 | 0 |
| **11** | Low | * | -6 | -12 | * | -6 | -12 | 0 | 0 | 0 |
| Index Earnings in the AIME | Middle | * | -9 | -12 | * | -9 | -12 | 0 | 0 | 0 |
| Formula to Prices | High | * | -6 | -6 | * | -3 | -6 | 0 | 0 | 0 |
| **12** | Low | -15 | -15 | -15 | -12 | -12 | -12 | 0 | 0 | 0 |
| Reduce All PIA Factors by 15% | Middle | -15 | -15 | -15 | -12 | -15 | -15 | 0 | 0 | 0 |
| | High | -15 | -15 | -15 | -15 | -12 | -15 | 0 | 0 | 0 |
| **13** | Low | -3 | -3 | -3 | -6 | -3 | -3 | 0 | 0 | 0 |
| Reduce the Top Two PIA Factors by | Middle | -18 | -18 | -18 | -18 | -18 | -18 | 0 | 0 | 0 |
| Roughly One-Third | High | -24 | -24 | -24 | -24 | -24 | -24 | 0 | 0 | 0 |
| **14** | Low | * | * | * | * | * | * | 0 | 0 | 0 |
| Reduce the Top PIA Factor by | Middle | * | * | * | * | * | * | 0 | 0 | 0 |
| One-Third | High | -3 | -3 | -3 | -6 | -6 | -6 | 0 | 0 | 0 |
| **15** | Low | -6 | -15 | -21 | -3 | -12 | -18 | 0 | 0 | 0 |
| Reduce All PIA Factors by 0.5% | Middle | -6 | -15 | -21 | -3 | -15 | -21 | 0 | 0 | 0 |
| Annually | High | -6 | -15 | -21 | -6 | -12 | -21 | 0 | 0 | 0 |
| **16** | Low | -3 | -9 | -12 | -3 | -6 | -12 | 0 | 0 | 0 |
| Index Initial Benefits to Changes in | Middle | -3 | -9 | -12 | -3 | -9 | -12 | 0 | 0 | 0 |
| Longevity | High | -3 | -9 | -12 | -3 | -9 | -12 | 0 | 0 | 0 |
| **17** | Low | -15 | -33 | -48 | -12 | -27 | -39 | 0 | 0 | 0 |
| Reduce PIA Factors to Index Initial | Middle | -15 | -33 | -48 | -12 | -30 | -45 | 0 | 0 | 0 |
| Benefits to Prices Rather Than | High | -15 | -33 | -48 | -12 | -33 | -48 | 0 | 0 | 0 |
| Earnings | | | | | | | | | | |

**Table 3.**                                                                                                    **Continued**

## Changes to Social Security's Scheduled Benefits and Payroll Taxes for Different Groups Under Various Options

| | Lifetime Household Earnings Quintile[a] | Median Initial Benefits for Retired Workers by 10-Year Birth Cohort[b] | | | Median Lifetime Benefits by 10-Year Birth Cohort[c] | | | Median Lifetime Payroll Taxes by 10-Year Birth Cohort[c] | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | 1960 | 1980 | 2000 | 1960 | 1980 | 2000 | 1960 | 1980 | 2000 |
| | | Percentage Change from Current Law[d] (Continued) | | | | | | | | |
| **Change the Benefit Formula (Continued)** | | | | | | | | | | |
| **18** | Low | * | * | * | * | * | * | 0 | 0 | 0 |
| Lower Initial Benefits for the | Middle | -6 | -15 | -21 | -6 | -15 | -21 | 0 | 0 | 0 |
| Top 70% of Earners | High | -12 | -30 | -45 | -12 | -30 | -45 | 0 | 0 | 0 |
| **19** | Low | * | * | * | * | * | * | 0 | 0 | 0 |
| Lower Initial Benefits for the | Middle | * | * | -3 | -3 | -6 | -9 | 0 | 0 | 0 |
| Top 50% of Earners | High | -12 | -27 | -36 | -12 | -30 | -36 | 0 | 0 | 0 |
| **20** | Low | -9 | -21 | -27 | -6 | -12 | -18 | 0 | 0 | 0 |
| Index the Bend Points in the PIA | Middle | -6 | -12 | -21 | -3 | -12 | -21 | 0 | 0 | 0 |
| Formula to Prices | High | -9 | -18 | -27 | -6 | -15 | -24 | 0 | 0 | 0 |
| **21** | Low | -9 | -24 | -36 | -6 | -18 | -27 | 0 | 0 | 0 |
| Index Earnings in the AIME and | Middle | -6 | -21 | -30 | -6 | -18 | -30 | 0 | 0 | 0 |
| Bend Points in the PIA Formula to | High | -9 | -24 | -36 | -9 | -21 | -30 | 0 | 0 | 0 |
| Prices | | | | | | | | | | |
| **22** | Low | -15 | -6 | -6 | -6 | 3 | 3 | 0 | 0 | 0 |
| Replace the Current PIA Formula | Middle | -15 | -15 | -15 | -9 | -6 | -9 | 0 | 0 | 0 |
| with a New Two-Part Formula | High | -21 | -21 | -21 | -9 | -9 | -12 | 0 | 0 | 0 |
| **Increase Benefits for Low Earners** | | | | | | | | | | |
| **23** | Low | * | 15 | 24 | 6 | 24 | 30 | 0 | 0 | 0 |
| Modify the Special Minimum | Middle | * | * | * | 6 | 9 | 9 | 0 | 0 | 0 |
| Benefit and Index It to Growth in | High | * | * | * | * | * | * | 0 | 0 | 0 |
| **24** | Low | 3 | 6 | 6 | 3 | 6 | 6 | 0 | 0 | 0 |
| Introduce a New Poverty-Related | Middle | * | * | * | * | * | * | 0 | 0 | 0 |
| Minimum Benefit | High | * | * | * | * | * | * | 0 | 0 | 0 |
| **25** | Low | 15 | 21 | 24 | 18 | 21 | 24 | 0 | 0 | 0 |
| Enhance Low-Earners' Benefits on | Middle | 9 | 15 | 15 | 9 | 12 | 12 | 0 | 0 | 0 |
| the Basis of Years Worked | High | * | * | * | * | * | * | 0 | 0 | 0 |
| **Raise the Full Retirement Age** | | | | | | | | | | |
| **26** | Low | -6 | -9 | -9 | -3 | -6 | -6 | 0 | 0 | 0 |
| Raise the FRA to 68 | Middle | -6 | -9 | -9 | -3 | -6 | -6 | 0 | 0 | 0 |
| | High | -6 | -9 | -9 | -3 | -6 | -6 | 0 | 0 | 0 |

**Continued**

**Table 3.**                                                                                           **Continued**

## Changes to Social Security's Scheduled Benefits and Payroll Taxes for Different Groups Under Various Options

| | Lifetime Household Earnings Quintile[a] | Median Initial Benefits for Retired Workers by 10-Year Birth Cohort[b] | | | Median Lifetime Benefits by 10-Year Birth Cohort[c] | | | Median Lifetime Payroll Taxes by 10-Year Birth Cohort[c] | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | 1960 | 1980 | 2000 | 1960 | 1980 | 2000 | 1960 | 1980 | 2000 |
| | | | | | Percentage Change from Current Law[d] (Continued) | | | | | |
| **Raise the Full Retirement Age (Continued)** | | | | | | | | | | |
| **27** | Low | -6 | -18 | -18 | -3 | -15 | -15 | 0 | 0 | 0 |
| Raise the FRA to 70 | Middle | -6 | -18 | -18 | -3 | -15 | -15 | 0 | 0 | 0 |
| | High | -6 | -18 | -18 | -6 | -15 | -15 | 0 | 0 | 0 |
| **28** | Low | -3 | -9 | -15 | * | -6 | -9 | 0 | 0 | 0 |
| Index the FRA to Changes in | Middle | -3 | -9 | -15 | -3 | -9 | -12 | 0 | 0 | 0 |
| Longevity | High | -3 | -9 | -15 | -3 | -6 | -12 | 0 | 0 | 0 |
| **Reduce Cost-of-Living Adjustments** | | | | | | | | | | |
| **29** | Low | * | * | * | -6 | -6 | -6 | 0 | 0 | 0 |
| Reduce COLAs by 0.5 Percentage | Middle | * | * | * | -6 | -6 | -6 | 0 | 0 | 0 |
| Points | High | * | * | * | -6 | -6 | -6 | 0 | 0 | 0 |
| **30** | Low | * | * | * | -3 | -3 | -3 | 0 | 0 | 0 |
| Base COLAs on the Chained CPI-U | Middle | * | * | * | -3 | -3 | -3 | 0 | 0 | 0 |
| | High | * | * | * | -3 | -3 | -3 | 0 | 0 | 0 |

Source:    Congressional Budget Office.

Notes:  Scheduled benefits are full benefits as calculated under current law, regardless of the amounts available in the Social Security trust funds. Percentage changes are rounded to 3 percentage points to give a sense of the likely effects on benefits and payroll taxes without showing numerous small differences in outcomes that are not analytically meaningful. Median values are within a group; half of the people in each group (defined by lifetime household earnings category and birth cohort) would have a lower value and half would have a higher value. Details of specific options are contained in the text.

AIME = average indexed monthly earnings; PIA = primary insurance amount; FRA = full retirement age; COLA = cost-of-living adjustment; CPI-U = consumer price index for all urban consumers; * = between -1.5 percent and 1.5 percent, but not exactly zero; 0 = exactly zero, with no rounding.

a.  The lowest fifth, middle fifth, and highest fifth of people ranked by lifetime household earnings, within a 10-year birth cohort.

b.  Assumes that all workers claim benefits at age 65.

c.  Lifetime benefits and lifetime taxes are present values discounted to age 62.

d.  "Current law" refers to current Social Security provisions for calculating benefits and payroll taxes. See Congressional Budget Office, *The Long-Term Budget Outlook* (June 2010).

**Table 4.**

# Changes to Social Security's Payable Benefits and Payroll Taxes for Different Groups Under Various Options

| | Lifetime Household Earnings Quintile[a] | Median Initial Benefits for Retired Workers by 10-Year Birth Cohort[b] | | | Median Lifetime Benefits by 10-Year Birth Cohort[c] | | | Median Lifetime Payroll Taxes by 10-Year Birth Cohort[c] | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | 1960 | 1980 | 2000 | 1960 | 1980 | 2000 | 1960 | 1980 | 2000 |
| | | **Current Law[d] (Thousands of 2010 dollars)** | | | | | | | | |
| | Low | 11 | 11 | 14 | 100 | 110 | 150 | 90 | 110 | 140 |
| | Middle | 20 | 20 | 25 | 230 | 250 | 320 | 320 | 370 | 490 |
| | High | 30 | 31 | 40 | 370 | 410 | 530 | 660 | 790 | 1,070 |
| | | **Percentage Change from Current Law[d]** | | | | | | | | |
| **Change the Taxation of Earnings** | | | | | | | | | | |
| **1** | Low | * | 21 | 9 | 3 | 12 | 9 | 3 | 6 | 9 |
| Increase the Payroll Tax Rate by | Middle | * | 21 | 12 | 9 | 15 | 9 | 3 | 6 | 9 |
| 1 Percentage Point in 2012 | High | * | 21 | 9 | 9 | 12 | 9 | 3 | 6 | 6 |
| **2** | Low | * | 21 | 27 | 3 | 15 | 21 | 3 | 6 | 15 |
| Increase the Payroll Tax Rate by | Middle | * | 21 | 27 | 6 | 21 | 24 | 3 | 9 | 15 |
| 2 Percentage Points Over 20 Years | High | * | 21 | 24 | 9 | 21 | 21 | 3 | 12 | 15 |
| **3** | Low | * | 21 | 21 | 6 | 15 | 21 | * | 3 | 12 |
| Increase the Payroll Tax Rate by | Middle | * | 21 | 24 | 9 | 21 | 24 | * | 6 | 15 |
| 3 Percentage Points Over 60 Years | High | * | 21 | 21 | 9 | 18 | 21 | 3 | 6 | 15 |
| **4** | Low | * | 21 | 27 | 3 | 15 | 18 | * | * | * |
| Eliminate the Taxable Maximum | Middle | * | 21 | 27 | 6 | 18 | 21 | * | * | * |
| | High | 3 | 30 | 36 | 21 | 39 | 42 | 12 | 15 | 18 |
| **5** | Low | * | 15 | 6 | 3 | 6 | 6 | * | * | * |
| Raise the Taxable Maximum to Cover | Middle | * | 15 | 9 | 9 | 9 | 9 | * | * | * |
| 90% of Earnings | High | 3 | 21 | 12 | 12 | 15 | 15 | 6 | 12 | 15 |
| **6** | Low | * | 21 | 27 | 3 | 18 | 24 | * | * | * |
| Tax Covered Earnings Above the | Middle | * | 21 | 27 | 6 | 21 | 27 | * | * | * |
| Taxable Maximum; Do Not Increase | High | * | 21 | 24 | 9 | 21 | 27 | 12 | 15 | 18 |
| Benefits | | | | | | | | | | |
| **7** | Low | * | 21 | 27 | 3 | 18 | 18 | * | * | * |
| Tax Covered Earnings Up to | Middle | * | 21 | 27 | 9 | 21 | 21 | * | * | 3 |
| $250,000; Do Not Increase Benefits | High | * | 21 | 27 | 9 | 21 | 18 | 12 | 15 | 18 |
| **8** | Low | * | 18 | 9 | 6 | 9 | 9 | * | * | * |
| Tax All Earnings Above the Taxable | Middle | * | 18 | 9 | 9 | 9 | 9 | * | * | * |
| Maximum at 4%; Do Not Increase | High | * | 18 | 9 | 9 | 9 | 6 | 6 | 6 | 9 |
| Benefits | | | | | | | | | | |

**Table 4.**                                                                          **Continued**

## Changes to Social Security's Payable Benefits and Payroll Taxes for Different Groups Under Various Options

| | Lifetime Household Earnings Quintile[a] | Median Initial Benefits for Retired Workers by 10-Year Birth Cohort[b] | | | Median Lifetime Benefits by 10-Year Birth Cohort[c] | | | Median Lifetime Payroll Taxes by 10-Year Birth Cohort[c] | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | 1960 | 1980 | 2000 | 1960 | 1980 | 2000 | 1960 | 1980 | 2000 |
| | | | | | Percentage Change from Current Law[d] (Continued) | | | | | |
| **Change the Taxation of Earnings (Continued)** | | | | | | | | | | |
| **9** | Low | * | 3 | 3 | 3 | 3 | 3 | * | * | * |
| Tax All Earnings Above $250,000 at | Middle | * | 3 | 3 | 3 | 3 | 3 | * | * | * |
| 4%; Do Not Increase Benefits | High | * | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| **Change the Benefit Formula** | | | | | | | | | | |
| **10** | Low | -3 | -3 | * | -3 | -3 | * | 0 | 0 | 0 |
| Raise from 35 to 38 the Years of | Middle | -3 | -3 | -3 | * | * | * | 0 | 0 | 0 |
| Earnings Included in the AIME | High | -3 | * | * | * | * | * | 0 | 0 | 0 |
| **11** | Low | * | -3 | -6 | * | -3 | -3 | 0 | 0 | 0 |
| Index Earnings in the AIME Formula | Middle | * | -6 | -6 | * | -3 | -3 | 0 | 0 | 0 |
| to Prices | High | * | -3 | * | * | * | 3 | 0 | 0 | 0 |
| **12** | Low | -15 | 3 | 9 | -9 | 3 | 6 | 0 | 0 | 0 |
| Reduce All PIA Factors by 15% | Middle | -15 | 3 | 9 | -6 | 6 | 6 | 0 | 0 | 0 |
| | High | -15 | 3 | 9 | -6 | 6 | 3 | 0 | 0 | 0 |
| **13** | Low | -3 | 18 | 24 | * | 15 | 21 | 0 | 0 | 0 |
| Reduce the Top Two PIA Factors by | Middle | -18 | * | 3 | -12 | 3 | 6 | 0 | 0 | 0 |
| Roughly One-Third | High | -24 | -9 | -6 | -18 | -6 | -3 | 0 | 0 | 0 |
| **14** | Low | * | * | 3 | * | 3 | 3 | 0 | 0 | 0 |
| Reduce the Top PIA Factor by | Middle | * | 3 | 3 | 3 | 3 | 3 | 0 | 0 | 0 |
| One-Third | High | -3 | -3 | -3 | -3 | -3 | -3 | 0 | 0 | 0 |
| **15** | Low | -6 | -6 | -6 | * | * | * | 0 | 0 | 0 |
| Reduce All PIA Factors by 0.5% | Middle | -6 | -6 | -6 | * | * | * | 0 | 0 | 0 |
| Annually | High | -6 | -6 | -6 | * | * | * | 0 | 0 | 0 |
| **16** | Low | -3 | -6 | -6 | * | -3 | -3 | 0 | 0 | 0 |
| Index Initial Benefits to Changes in | Middle | -3 | -6 | -6 | * | -3 | * | 0 | 0 | 0 |
| Longevity | High | -3 | -6 | -6 | * | -3 | -3 | 0 | 0 | 0 |
| **17** | Low | -15 | -18 | -33 | -9 | -15 | -27 | 0 | 0 | 0 |
| Reduce PIA Factors to Index Initial | Middle | -15 | -18 | -33 | -6 | -15 | -30 | 0 | 0 | 0 |
| Benefits to Prices Rather Than | High | -15 | -18 | -33 | -6 | -18 | -33 | 0 | 0 | 0 |
| Earnings | | | | | | | | | | |

**Table 4.**                                                                                    **Continued**

## Changes to Social Security's Payable Benefits and Payroll Taxes for Different Groups Under Various Options

| | Lifetime Household Earnings Quintile[a] | Median Initial Benefits for Retired Workers by 10-Year Birth Cohort[b] | | | Median Lifetime Benefits by 10-Year Birth Cohort[c] | | | Median Lifetime Payroll Taxes by 10-Year Birth Cohort[c] | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | 1960 | 1980 | 2000 | 1960 | 1980 | 2000 | 1960 | 1980 | 2000 |
| | | | | Percentage Change from Current Law[d] (Continued) | | | | | | |
| **Change the Benefit Formula (Continued)** | | | | | | | | | | |
| **18** | Low | * | 12 | 24 | 3 | 12 | 27 | 0 | 0 | 0 |
| Lower Initial Benefits for the | Middle | -6 | -3 | -3 | * | * | * | 0 | 0 | 0 |
| Top 70% of Earners | High | -12 | -24 | -33 | -6 | -18 | -30 | 0 | 0 | 0 |
| **19** | Low | * | 9 | 18 | 3 | 12 | 18 | 0 | 0 | 0 |
| Lower Initial Benefits for the | Middle | * | 6 | 15 | 3 | 6 | 9 | 0 | 0 | 0 |
| Top 50% of Earners | High | -12 | -24 | -24 | -9 | -21 | -24 | 0 | 0 | 0 |
| **20** | Low | -9 | -12 | -12 | * | -3 | * | 0 | 0 | 0 |
| Index the Bend Points in the PIA | Middle | -3 | * | * | * | * | * | 0 | 0 | 0 |
| Formula to Prices | High | -9 | -12 | -12 | * | -3 | -3 | 0 | 0 | 0 |
| **21** | Low | -9 | -12 | -21 | -3 | -3 | -9 | 0 | 0 | 0 |
| Index Earnings in the AIME and | Middle | -6 | -6 | -9 | 3 | -3 | -9 | 0 | 0 | 0 |
| Bend Points in the PIA Formula to | High | -9 | -12 | -18 | * | -6 | -9 | 0 | 0 | 0 |
| Prices | | | | | | | | | | |
| **22** | Low | -15 | * | -3 | -3 | 6 | 9 | 0 | 0 | 0 |
| Replace the Current PIA Formula | Middle | -15 | -9 | -12 | -3 | -3 | -3 | 0 | 0 | 0 |
| with a New Two-Part Formula | High | -21 | -18 | -21 | -6 | -9 | -9 | 0 | 0 | 0 |
| **Increase Benefits for Low Earners** | | | | | | | | | | |
| **23** | Low | * | 9 | 12 | 3 | 15 | 21 | 0 | 0 | 0 |
| Modify the Special Minimum Benefit | Middle | * | -6 | -6 | * | 3 | 3 | 0 | 0 | 0 |
| and Index It to Growth in Earnings | High | * | -6 | -9 | -3 | -6 | -9 | 0 | 0 | 0 |
| **24** | Low | 3 | 6 | 6 | 3 | 6 | 6 | 0 | 0 | 0 |
| Introduce a New Poverty-Related | Middle | * | * | * | * | * | * | 0 | 0 | 0 |
| Minimum Benefit | High | * | * | * | * | * | * | 0 | 0 | 0 |
| **25** | Low | 15 | 12 | 12 | 9 | 12 | 12 | 0 | 0 | 0 |
| Enhance Low-Earners' Benefits on | Middle | 9 | 6 | 6 | * | 6 | 3 | 0 | 0 | 0 |
| the Basis of Years Worked | High | * | -6 | -9 | -9 | -6 | -9 | 0 | 0 | 0 |
| **Raise the Full Retirement Age** | | | | | | | | | | |
| **26** | Low | -6 | -6 | -3 | * | -3 | * | 0 | 0 | 0 |
| Raise the FRA to 68 | Middle | -6 | -6 | -3 | -3 | * | * | 0 | 0 | 0 |
| | High | -6 | -6 | -3 | * | -3 | -3 | 0 | 0 | 0 |

**Continued**

**Table 4.**

## Changes to Social Security's Payable Benefits and Payroll Taxes for Different Groups Under Various Options

| | Lifetime Household Earnings Quintile[a] | Median Initial Benefits for Retired Workers by 10-Year Birth Cohort[b] | | | Median Lifetime Benefits by 10-Year Birth Cohort[c] | | | Median Lifetime Payroll Taxes by 10-Year Birth Cohort[c] | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | 1960 | 1980 | 2000 | 1960 | 1980 | 2000 | 1960 | 1980 | 2000 |
| | | | | Percentage Change from Current Law[d] (Continued) | | | | | | |
| **Raise the Full Retirement Age (Continued)** | | | | | | | | | | |
| **27** | Low | -6 | -12 | -9 | * | -6 | -3 | 0 | 0 | 0 |
| Raise the FRA to 70 | Middle | -6 | -12 | -9 | * | -6 | -6 | 0 | 0 | 0 |
| | High | -6 | -12 | -9 | * | -9 | -6 | 0 | 0 | 0 |
| **28** | Low | -3 | -6 | -9 | * | -3 | -3 | 0 | 0 | 0 |
| Index the FRA to Changes in | Middle | -3 | -6 | -9 | * | -3 | -3 | 0 | 0 | 0 |
| Longevity | High | -3 | -6 | -9 | * | -3 | -6 | 0 | 0 | 0 |
| **Reduce Cost-of-Living Adjustments** | | | | | | | | | | |
| **29** | Low | -3 | 12 | 6 | * | 3 | 3 | 0 | 0 | 0 |
| Reduce COLAs by 0.5 Percentage | Middle | * | 12 | 6 | * | 3 | * | 0 | 0 | 0 |
| Points | High | * | 12 | 6 | 3 | * | * | 0 | 0 | 0 |
| **30** | Low | * | 3 | 3 | * | * | 3 | 0 | 0 | 0 |
| Base COLAs on the Chained CPI-U | Middle | * | 3 | 6 | * | * | * | 0 | 0 | 0 |
| | High | * | 3 | 3 | * | * | * | 0 | 0 | 0 |

Source: Congressional Budget Office.

Notes: Payable benefits are benefits as calculated under current law, reduced as necessary to make outlays equal the Social Security system's revenues. Percentage changes are rounded to 3 percentage points to give a sense of the likely effects on benefits and payroll taxes without showing numerous small differences in outcomes that are not analytically meaningful. Median values are within a group; half of the people in each group (defined by lifetime household earnings category and birth cohort) would have a lower value and half would have a higher value. Details of specific options are contained in the text.

AIME = average indexed monthly earnings; PIA = primary insurance amount; FRA = full retirement age; COLA = cost-of-living adjustment; CPI-U = consumer price index for all urban consumers; * = between -1.5 percent and 1.5 percent, but not exactly zero; 0 = exactly zero, with no rounding.

a. The lowest fifth, middle fifth, and highest fifth of people ranked by lifetime household earnings, within a 10-year birth cohort.

b. Assumes that all workers claim benefits at age 65.

c. Lifetime benefits and lifetime taxes are present values discounted to age 62.

d. "Current law" refers to current Social Security provisions for calculating benefits and payroll taxes. See Congressional Budget Office, *The Long-Term Budget Outlook* (June 2010).

# Appendix:
# Distributional Effects of Options with
# Similar Effects on the System's Finances

The 30 policy options discussed in the main portion of this study would have a variety of effects on the Social Security system's finances. The distributional trade-offs become clearer, however, if the options are compared while their overall effects on the system's finances are held constant. Therefore, in another exercise, the Congressional Budget Office compared the distributional effects of 8 additional policy options it derived from the original 30 with the objective of producing a single effect on the actuarial balance—each would reduce the 75-year actuarial deficit, relative to current law, by about one-quarter, or by 0.15 percent of gross domestic product (see Table A-1 on page 49).

■ Option 1a: Increase the payroll tax rate by 0.42 per-centage points in 2012 (Option 1 calls for an increase of 1 percentage point in the payroll tax).

■ Option 5a: Raise the taxable maximum to cover 87 percent of earnings (Option 5 would raise the taxable maximum to cover 90 percent of earnings).

■ Option 7a: Apply the payroll tax to covered earnings between the taxable maximum and $136,000 with no additional benefits (Option 7 would cap earnings subject to tax at $250,000).

■ Option 8a: Apply a 1.9 percent tax to all covered earnings above the taxable maximum with no additional benefits (Option 8 would apply a 4.0 percent tax).

■ Option 12a: Reduce all of the primary insurance amount (PIA) factors by 4 percent (Option 12 would reduce them by 15 percent).

■ Option 14a: Reduce the top PIA factor from 15 percent to 4 percent (Option 14 would reduce the top factor from 15 percent to 10 percent).

■ Option 26a: Increase the full retirement age to 68 years and 1 month (Option 26 would increase the age to 68 years).

■ Option 29a: Reduce cost-of-living adjustments (COLAs) by 0.25 percentage points (Option 29 would reduce them by 0.5 percentage points).

The first four options listed here (Options 1a, 5a, 7a, and 8a) would primarily affect payroll taxes. (The increase in the taxable maximum also results in higher benefits.) In general, increasing taxes in 2012 would have less of an effect on workers born before the 1980s than on workers born in the 1980s and later because most of the younger groups' earnings would be subject to higher taxes. Raising the payroll tax rate (Option 1a) would increase lifetime taxes by a similar proportion for all workers with earnings below the taxable maximum (in 2010, $106,800). The other three payroll options, by contrast, would raise life-time taxes mainly for high earners, and the effects of the tax on all earnings above the taxable maximum would be more concentrated among the very highest earners.

The remaining four options (Options 12a, 14a, 26a, and 29a) would affect benefits but not tax rates. Reducing all of the PIA factors in various ways or reducing COLAs would have proportionately similar effects on lifetime benefits, regardless of when people were born or how much they earned. The lower PIA factors would reduce initial benefits; lower COLAs would diminish benefits over time and therefore cause greater reductions in

benefits for people who receive benefits for long periods. In addition, changes in COLAs would reduce benefits for existing beneficiaries; changes to the benefit formula would affect future beneficiaries only. An increase in the full retirement age, phased in over time, would lead to

a greater reduction in benefits for people born later. By contrast, reducing just the top PIA factor would reduce benefits only for high earners and would result in similar reductions for everyone who was born after 1954 and has sufficiently high earnings.

**Table A-1.**

# Changes to Social Security's Scheduled Benefits and Payroll Taxes for Different Groups Under Various Options That Have Similar Effects on the System's Finances

| | Lifetime Household Earnings Quintile[a] | Median Lifetime Benefits by 10-Year Birth Cohort[b] | | | Median Lifetime Payroll Taxes by 10-Year Birth Cohort[b] | | |
|---|---|---|---|---|---|---|---|
| | | 1960 | 1980 | 2000 | 1960 | 1980 | 2000 |
| | | **Current Law[c] (Thousands of 2010 dollars)** | | | | | |
| | Low | 110 | 130 | 180 | 90 | 110 | 140 |
| | Middle | 250 | 300 | 420 | 320 | 370 | 490 |
| | High | 400 | 500 | 680 | 670 | 780 | 1,070 |
| | | **Percentage Change from Current Law[c]** | | | | | |
| **Change Taxation of Earnings** | | | | | | | |
| **1a** | Low | 0 | 0 | 0 | * | 3 | 3 |
| Increase the Payroll Tax Rate by 0.42 | Middle | 0 | 0 | 0 | * | 3 | 3 |
| Percentage Points in 2012 | High | 0 | 0 | 0 | * | 3 | 3 |
| **5a** | Low | * | * | * | * | * | * |
| Raise the Taxable Maximum to Cover | Middle | * | * | * | * | * | * |
| 87% of Earnings | High | 3 | 3 | 6 | 3 | 9 | 9 |
| **7a** | Low | 0 | 0 | 0 | * | * | * |
| Tax Covered Earnings Up to $136,000; | Middle | 0 | 0 | 0 | * | * | * |
| Do Not Increase Benefits | High | 0 | 0 | 0 | 3 | 6 | 6 |
| **8a** | Low | 0 | 0 | 0 | * | * | * |
| Tax All Earnings Above the Taxable | Middle | 0 | 0 | 0 | * | * | * |
| Maximum at 1.9%; Do Not Increase | High | 0 | 0 | 0 | 3 | 3 | 3 |
| Benefits | | | | | | | |

**Continued**

**Table A-1.** **Continued**

## Changes to Social Security's Scheduled Benefits and Payroll Taxes for Different Groups Under Various Options That Have Similar Effects on the System's Finances

| | Lifetime Household Earnings Quintile[a] | Median Lifetime Benefits by 10-Year Birth Cohort[b] | | | Median Lifetime Payroll Taxes by 10-Year Birth Cohort[b] | | |
|---|---|---|---|---|---|---|---|
| | | 1960 | 1980 | 2000 | 1960 | 1980 | 2000 |
| | | Percentage Change from Current Law[c] (Continued) | | | | | |
| **Change the Benefit Formula** | | | | | | | |
| **12a** | Low | -3 | -3 | -3 | 0 | 0 | 0 |
| Reduce All PIA Factors by 4.0% | Middle | -3 | -3 | -3 | 0 | 0 | 0 |
| | High | -3 | -3 | -3 | 0 | 0 | 0 |
| **14a** | Low | * | * | * | 0 | 0 | 0 |
| Reduce the Top PIA Factor from 15% | Middle | * | * | * | 0 | 0 | 0 |
| to 4% | High | -12 | -9 | -12 | 0 | 0 | 0 |
| **26a** | Low | -3 | -6 | -6 | 0 | 0 | 0 |
| Raise the FRA to 68 and 1 month | Middle | -3 | -6 | -6 | 0 | 0 | 0 |
| | High | -3 | -6 | -6 | 0 | 0 | 0 |
| **29a** | Low | -3 | -3 | -3 | 0 | 0 | 0 |
| Reduce COLAs by 0.25 Percentage | Middle | -3 | -3 | -3 | 0 | 0 | 0 |
| Points | High | -3 | -3 | -3 | 0 | 0 | 0 |

Source:    Congressional Budget Office.

Notes: Scheduled benefits are full benefits as calculated under current law, regardless of the amounts available in the Social Security trust funds. Percentage changes are rounded to 3 percentage points to give a sense of the likely effects on benefits and payroll taxes without showing numerous small differences in outcomes that are not analytically meaningful. Median values are within a group; half of the people in each group (defined by lifetime household earnings category and birth cohort) would have a lower value and half would have a higher value. Details of specific options are contained in the text.

PIA = primary insurance amount; FRA = full retirement age; COLA = cost-of-living adjustment; * = between -1.5 percent and 1.5 percent, but not exactly zero; 0 = exactly zero, with no rounding.

a.   The lowest fifth, middle fifth, and highest fifth of people ranked by lifetime household earnings, within a 10-year birth cohort.

b.   Lifetime benefits and lifetime taxes are present values discounted to age 62.

c.   "Current law" refers to current Social Security provisions for calculating benefits and payroll taxes. See Congressional Budget Office, *The Long-Term Budget Outlook* (June 2010).

# Glossary

**actuarial balance:** The present value over a specified period of the stream of projected trust fund revenues plus the trust funds' initial balance minus the stream of projected outlays minus the value of a year's worth of benefits as a reserve at the end of the period, expressed as a percentage of the present value of gross domestic product or taxable payroll over the same period.

**average indexed monthly earnings (AIME):** For retired workers who attain age 62 after 1990, the AIME is calculated on the basis of the highest 35 years of earnings on which someone paid Social Security taxes (up to the taxable maximum, which is $106,800 in 2010). Earnings before age 60 are indexed to compensate both for inflation and for real (inflation-adjusted) growth in earnings; earnings after age 59 enter the computations at actual amounts. (For disabled workers, earnings in the two years before the initial benefit computation enter at their actual amounts, and earlier earnings are indexed.) Dividing the total earnings (after indexing) by 420 (35 years multiplied by 12 months) yields the AIME for retired workers. For disabled workers, total earnings are divided by a number of months that is linked to the age at which benefits begin.

**average wage index (AWI):** The average amount of total wages in the United States in a year, including earnings in employment not covered by Social Security. Several automatic adjustments in Social Security are based on the AWI.

**baby-boom generation:** People born between 1946 and 1964.

**bend point:** An element in the formula for calculating initial benefits—namely, the threshold at which a PIA (primary insurance amount) factor changes. Under current law, there are two: in 2010, $761 and $4,568.

Bend points change each year to keep pace with changes in the average earnings of the workforce as a whole. Therefore, bend points occur at approximately the same place in the distribution of average indexed monthly earnings each year and average initial benefits rise at a pace that matches the increase in average earnings over time.

**birth cohort:** A group of people born during a given period. This analysis places people into 10-year birth cohorts: The 1960s birth cohort consists of people born between 1960 and 1969, the 1980s cohort includes those born between 1980 and 1989, and so on.

**cost-of-living adjustment (COLA):** An annual increase in benefits tied to the increase in the cost of living. Under current law, the COLA for Social Security benefits is equal to the percentage increase in the consumer price index for urban wage earners and clerical workers from the third calendar quarter of the prior year to the third calendar quarter of the current year, provided that there is an increase.

**covered earnings:** Total earnings (from wages and self-employment income) for employment covered by Social Security.

**Disability Insurance Trust Fund:** One of two Social Security trust funds, it is used to finance the activities of the Disability Insurance (DI) program. See **trust funds.**

**full retirement age (FRA):** Also called the normal retirement age. The age at which a person becomes entitled to unreduced retirement benefits (benefits that are equal to the primary insurance amount). Currently age 66, the FRA is being increased gradually so it will be 67 for people born in 1960 or later.

**gross domestic product (GDP):** The total market value of goods and services produced domestically in a given period.

**initial benefits for retired workers:** Benefits that would be received by workers eligible to claim Old-Age Insurance benefits at age 62 who have not yet claimed any other benefit. In this study, benefits are computed assuming that all workers claim benefits at age 65 and are based only on earnings through age 61. Values are net of income taxes paid on benefits and credited to the Social Security trust funds.

**initial replacement rate:** The initial benefit as a percentage of average career annual earnings.

**lifetime benefits:** In this study, the present value at age 62 of benefits received by a person over a lifetime, net of income taxes paid on those benefits and credited to the Social Security trust funds. Lifetime benefits include payments received by people in the following beneficiary classes: old-age workers, disabled workers, old-age spouses, and old-age widows. Because there are insufficient historical data on benefits for young widows and children for years before 1984, young widows, spouses of disabled workers, and child beneficiaries are not considered in this study.

**lifetime household earnings:** For someone who is single in all years, the sum of real (inflation-adjusted) earnings over a lifetime. In any year a person is married, the earnings measure is a function of his or her earnings plus those of his or her spouse (adjusted for economies of scale in household consumption). A person's lifetime earnings consist of the present value of those annual amounts. In this study, for the initial benefits for retired workers and for the present value of lifetime benefits and payroll taxes, the values shown are changes in benefits or taxes for people in the lowest, middle, and highest one-fifth (quintile) of lifetime household earnings.

**lifetime payroll taxes:** The present value at age 62 of Old-Age, Survivors, and Disability Insurance taxes paid by the employer and the employee over a lifetime; under current law, the tax is 12.4 percent of taxable earnings. This measure includes taxes paid by people who receive benefits from the Old-Age and Survivors Insurance program (except young widows, spouses of disabled workers, and child beneficiaries).

**Old-Age and Survivors Insurance Trust Fund:** One of two Social Security trust funds, it is used to finance the activities of the Old-Age and Survivors Insurance (OASI) program. See **trust funds**.

**payable benefits:** Benefits as calculated under current law, reduced as necessary to make outlays equal the Social Security system's revenues. Upon exhaustion of the Social Security trust funds, the Social Security Administration would reduce all scheduled benefits—those paid to existing beneficiaries and to new beneficiaries—by the percentage necessary to make the program's total annual outlays equal its total available revenues. That percentage would vary each year.

**present value:** A single amount that expresses a flow of current and future revenues or outlays in terms of an equivalent lump sum received or spent at one time, calculated by discounting future cash flows using a given interest rate. (The Congressional Budget Office projects a long-term interest rate of 3 percent above price growth, which is used as the discount rate.)

**primary insurance amount (PIA):** The monthly amount payable to a worker who begins receiving Social Security retirement benefits at the age at which he or she is eligible for full benefits, or the amount payable to a disabled worker who has never received a retirement benefit reduced for age. For workers who turn 62 or become disabled in 2010, for all of their dependents, and for dependents of workers who die in 2010, the PIA formula is 90 percent of the first $761 of the average indexed monthly earnings (AIME), plus 32 percent of the AIME between $761 and $4,586, plus 15 percent of the AIME above $4,586.

**primary insurance amount (PIA) factor:** The percentage of the average indexed monthly earnings replaced in the PIA formula. Under current law, the PIA factors are 90 percent below the first bend point, 32 percent between the two bend points, and 15 percent above the second bend point.

**quarter of coverage:** The basic unit of measurement for determining insured status. In 2010, a worker receives

one quarter of coverage (up to a total of four quarters in the year) for each $1,120 of annual covered earnings. The basic amount of earnings required for a quarter of coverage is increased annually at the same rate as the increase in the average wage index.

**replacement rate:** The percentage of a worker's past average earnings that his or her benefits represent.

**scheduled benefits:** Full benefits as calculated under current law, regardless of the amounts available in the Social Security trust funds.

**sustainable solvency:** A condition under which positive trust fund ratios are maintained throughout the 75-year projection period and ratios are stable or rising at the end of the period.

**taxable maximum:** The maximum covered earnings upon which the Social Security payroll tax is levied each year. In 2010, that amount is $106,800. The taxable maximum amount is increased annually at the same rate as the increase in the average wage index.

**taxable payroll:** The total earnings (from wages and self-employment income) for employment covered by Social Security that is below the applicable annual taxable maximum.

**trust funds:** Accounts to which Social Security taxes are credited. Interest on the balances in the funds also is credited to the trust funds, and Social Security benefits and administrative expenses are drawn from the funds. Social Security has two trust funds: the Old-Age and Survivors Insurance (OASI) Trust Fund and the Disability Insurance (DI) Trust Fund. They are often treated collectively as the OASDI trust funds.

**trust fund balance:** The amount credited to the Social Security trust funds; the balance determines the program's current spending authority. The balance is held in the form of special Treasury securities, and the cash that generates the balance is used by the Treasury for other operations and activities of the government.

**trust fund exhaustion:** The combined OASDI trust funds are exhausted if outlays in any given year are greater than the balance (including interest credited to the trust funds) at the beginning of the year.

**trust fund ratio:** The balance in the Social Security trust funds at the beginning of the year, divided by projected outlays in that year.

**trust fund solvency:** The combined OASDI trust funds are said to be solvent if the actuarial balance, calculated over 75 years, is greater than zero.