Analytical Perspectives

Budget of the U.S. Government

Fiscal Year 2023

Office of Management and Budget

The White House
Washington

Analytical Perspectives

Budget of the U.S. Government

Fiscal Year 2023

Office of Management and Budget

The White House
Washington

THE BUDGET DOCUMENTS

Budget of the United States Government, Fiscal Year 2023 contains the Budget Message of the President, information on the President's priorities, and summary tables.

Analytical Perspectives, Budget of the United States Government, Fiscal Year 2023 contains analyses that are designed to highlight specified subject areas or provide other significant presentations of budget data that place the budget in perspective. This volume includes economic and accounting analyses, information on Federal receipts and collections, analyses of Federal spending, information on Federal borrowing and debt, baseline or current services estimates, and other technical presentations.

Supplemental tables and other materials that are part of the *Analytical Perspectives* volume are available at https://whitehouse.gov/omb/analytical-perspectives/.

Appendix, Budget of the United States Government, Fiscal Year 2023 contains detailed information on the various appropriations and funds that constitute the budget and is designed primarily for the use of the Appropriations Committees. The *Appendix* contains more detailed financial information on individual programs and appropriation accounts than any of the other budget documents. It includes for each agency: the proposed text of appropriations language; budget schedules for each account; legislative proposals; narrative explanations of each budget account; and proposed general provisions applicable to the appropriations of entire agencies or group of agencies. Information is also provided on certain activities whose transactions are not part of the budget totals.

BUDGET INFORMATION AVAILABLE ONLINE

The President's Budget and supporting materials are available online at https://whitehouse.gov/omb/budget/. This link includes electronic versions of all the budget volumes, supplemental materials that are part of the *Analytical Perspectives* volume, spreadsheets of many of the budget tables, and a public use budget database. This link also includes *Historical Tables* that provide data on budget receipts, outlays, surpluses or deficits, Federal debt, and Federal employment over an extended time period, generally from 1940 or earlier to 2027. Also available are links to documents and materials from budgets of prior years.

For more information on access to electronic versions of the budget documents, call (202) 512-1530 in the D.C. area or toll-free (888) 293-6498. To purchase the printed documents call (202) 512-1800.

GENERAL NOTES

1. All years referenced for budget data are fiscal years unless otherwise noted. All years referenced for economic data are calendar years unless otherwise noted.
2. At the time the Budget was prepared, none of the full-year appropriations bills for 2022 have been enacted, therefore, the programs and activities normally provided for in the full-year appropriations bills were operating under a continuing resolution (Public Law 117-43, division A, as amended by Public Law 117-70, division A; Public Law 117-86, division A; and Public Law 117-95). References to 2022 spending in the text and tables reflect the levels provided by the continuing resolution and, if applicable, the following Public Laws which provided additional appropriations to certain accounts in 2022—
   - The Disaster Relief Supplemental Appropriations Act, 2022 (Public Law 117-43, division B);
   - The Afghanistan Supplemental Appropriations Act, 2022 (Public Law 117-43, division C);
   - The Infrastructure Investment and Jobs Appropriations Act (Public Law 117-58, division J); and
   - The Additional Afghanistan Supplemental Appropriations Act, 2022 (Public Law 117-70, division B).
3. The estimates in the 2023 Budget do not reflect the effects of the Ukraine Supplemental Appropriations Act, 2022 (included in Public Law 117-103) due to the late date of enactment.
4. Detail in this document may not add to the totals due to rounding.

U.S. GOVERNMENT PUBLISHING OFFICE, WASHINGTON 2022

For sale by the Superintendent of Documents, U.S. Government Publishing Office
Internet: bookstore.gpo.gov Phone: toll free (866) 512-1800; DC area (202) 512-1800
Fax: (202) 512-2104 Mail: Stop IDCC, Washington, DC 20402-0001

ISBN 978-0-16-095224-1

TABLE OF CONTENTS

* Available on the internet at *http://www.whitehouse.gov/omb/analytical-perspectives/*

LIST OF CHARTS AND TABLES

LIST OF CHARTS AND TABLES

LIST OF CHARTS

Page

LIST OF TABLES

*Available on the internet at *http://www.whitehouse.gov/omb/analytical-perspectives/*

*Available on the internet at *http://www.whitehouse.gov/omb/analytical-perspectives/*

*Available on the internet at *http://www.whitehouse.gov/omb/analytical-perspectives/*

INTRODUCTION

1. INTRODUCTION

The *Analytical Perspectives* volume presents analyses that highlight specific subject areas or provide other significant data that place the President's 2023 Budget in context and assist the public, policymakers, the media, and researchers in better understanding the Budget. This volume complements the main *Budget* volume, which presents the President's Budget policies and priorities, and the Budget *Appendix* volume, which provides appropriations language, schedules for budget expenditure accounts, and schedules for selected receipt accounts.

Presidential Budgets have included separate analytical presentations of this kind for many years. The 1947 Budget and subsequent budgets included a separate section entitled *Special Analyses and Tables* that covered four, and later more, topics. For the 1952 Budget, the section was expanded to 10 analyses, including many subjects still covered today, such as receipts, investment, credit programs, and aid to State and local governments. With the 1967 Budget this material became a separate volume entitled *Special Analyses*, and included 13 chapters. The material has remained a separate volume since then, with the exception of the Budgets for 1991–1994, when all of the budget material was included in one volume. Beginning with the 1995 Budget, the volume has been named *Analytical Perspectives*. Since the 2022 Budget was released following a presidential transition, OMB published an abbreviated *Analytical Perspectives* volume. The 2023 Budget includes a more comprehensive *Analytical Perspectives* volume.

In addition to the information included in this volume, supplemental tables and other materials that are part of the *Analytical Perspectives* volume are available at http://www.whitehouse.gov/omb/analytical-perspectives. Tables included at this link are shown in the List of Tables in the front of this volume with an asterisk instead of a page number.

Overview of the Chapters

Economic and Budget Analyses

Economic Assumptions and Overview. This chapter reviews recent economic developments; presents the Administration's assessment of the economic situation and outlook; compares the economic assumptions on which the 2023 Budget is based with the assumptions for last year's Budget and those of other forecasters; provides sensitivity estimates for the effects on the Budget of changes in specified economic assumptions; and reviews past errors in economic projections.

Long-Term Budget Outlook. This chapter assesses the long-term budget outlook under current policies and under the Budget's proposals. It focuses on 25-year projections of Federal deficits and debt to illustrate the long-term impact of the Administration's proposed policies. It also discusses the uncertainties of the long-term budget projections and discusses the actuarial status of the Social Security and Medicare programs.

Federal Borrowing and Debt. This chapter analyzes Federal borrowing and debt and explains the budget estimates. It includes sections on special topics such as trends in debt, debt held by the public net of financial assets and liabilities, investment by Government accounts, and the statutory debt limit.

Management

Delivering a High-Performance Government. This chapter describes the Administration's Performance Framework approach to performance management and its application by the Biden-Harris Administration to improve outcomes that make a difference in the lives of the American people. It discusses the Federal Government's use of strategic planning and priority goal-setting to define success, regular data-driven performance reviews to remain on-track, and communicating transparently about results to build trust with the American public.

Building and Using Evidence to Improve Government Effectiveness. This chapter discusses the Administration's commitment to evidence-based policymaking through its efforts to build and promote a culture of evidence and evaluation in the Federal Government, including implementing Title I of the Evidence Act and new initiatives to accelerate progress. It highlights examples of new evidence-building investments at agencies, including evaluation capacity and priority cross-cutting evaluations that span agencies and functions. It also includes examples of programmatic agency investments that are supported by evidence of effectiveness.

Strengthening the Federal Workforce. This chapter presents summary data on Federal employment and compensation, and discusses the approach the Administration is taking with Federal human capital management.

Budget Concepts and Budget Process

Budget Concepts. This chapter includes a basic description of the budget process, concepts, laws, and terminology, and includes a glossary of budget terms.

Coverage of the Budget. This chapter describes activities that are included in budget receipts and outlays (and are therefore classified as "budgetary") as well as those activities that are not included in the Budget (and are therefore classified as "non-budgetary"). The chapter also defines the terms "on-budget" and "off-budget" and includes illustrative examples.

Budget Process. This chapter describes the Administration's approach and proposals related to budget enforcement, such as sequestration and Pay-As-You-Go procedures, and budget presentation, such as adjustments to the baseline to improve comparisons of the cost of policy. Suggested reforms in budgeting for large Federal capital projects and pandemic preparedness are discussed.

Federal Receipts

Governmental Receipts. This chapter presents information on estimates of governmental receipts, which consist of taxes and other compulsory collections. It includes descriptions of tax-related legislation enacted in the last year and describes proposals affecting receipts in the 2023 Budget.

Offsetting Collections and Offsetting Receipts. This chapter presents information on collections that offset outlays, including collections from transactions with the public and intragovernmental transactions. In addition, this chapter presents information on "user fees," charges associated with market-oriented activities and regulatory fees. Detailed tables of offsetting receipts and offsetting collections in the Budget are available at the internet address cited above.

Tax Expenditures. This chapter describes and presents estimates of tax expenditures, which are defined as revenue losses from special exemptions, credits, or other preferences in the tax code.

Special Topics

Aid to State and Local Governments. This chapter presents crosscutting information on Federal grants to State and local governments. The chapter also includes a table showing historical grant spending, and a table with budget authority and outlays for grants in the Budget. Tables showing State-by-State spending for major grant programs are available at the internet address cited above.

Leveraging Federal Statistics to Strengthen Evidence-Based Decision-Making. This chapter discusses the vital role of the trusted Federal statistical system in generating data that the public, businesses, and governments need to make informed decisions. The chapter describes how a strong statistical infrastructure and operation as a seamless Federal statistical system will improve its ability to meet growing demands, while addressing new and emerging challenges. The chapter presents examples of innovative developments and applications throughout the Federal statistical community and highlights 2023 Budget proposals for the Government's principal statistical agencies and units.

Information Technology and Cybersecurity Funding. This chapter addresses Federal information technology (IT) and cybersecurity, highlighting initiatives and proposed funding levels to deliver critical citizen services, keep sensitive data and systems secure, and further the vision of modern Government. The Administration will invest in modern, secure technologies and services to drive enhanced efficiency and effectiveness. This will include undertaking complex Government-wide modernization efforts, driving improved delivery of citizen-facing services, and improving the overall management of the Federal IT portfolio. The Administration will also continue its efforts to further build the Federal IT workforce and seek to reduce the Federal Government's cybersecurity risk in order to better serve and protect the American public.

Federal Investment. This chapter discusses federally financed spending that yields long-term benefits. It presents information on annual spending on physical capital, research and development, and education and training.

Research and Development. This chapter presents a crosscutting review of research and development funding in the Budget.

Credit and Insurance. This chapter provides crosscutting analyses of the roles, risks, and performance of Federal credit and insurance programs and Government-sponsored enterprises (GSEs). The chapter covers the major categories of Federal credit (housing, education, small business and farming, energy and infrastructure, and international) and insurance programs (deposit insurance, pension guarantees, disaster insurance, and insurance against terrorism-related risks). Five additional tables address transactions including direct loans, guaranteed loans, and GSEs. These tables are available at the internet address cited above.

Federal Drug Control Funding. This chapter displays enacted and proposed drug control funding for Federal Departments and Agencies.

Federal Budget Exposure to Climate Risk. This chapter discusses the financial risks that the Federal government faces from broad exposure to threats caused by global climate change. It summarizes recent OMB analyses of individual programmatic climate impacts that are informed by distinct climate scenarios, as well as potential impacts on revenues.

Technical Budget Analyses

Current Services Estimates. This chapter discusses the conceptual basis of the Budget's current services, or "baseline," estimates, which are generally consistent with the baseline rules in the Balanced Budget and Emergency Deficit Control Act of 1985 (BBEDCA). The chapter presents estimates of receipts, outlays, and the deficit under this baseline. Two detailed tables addressing factors that affect the baseline and providing details of baseline budget authority and outlays are available at the internet address cited above.

Trust Funds and Federal Funds. This chapter provides summary information about the two fund groups in the Budget—Federal funds and trust funds. In addition, for the major trust funds and certain Federal fund programs, the chapter provides detailed information about income, outgo, and balances.

Comparison of Actual to Estimated Totals. This chapter compares the actual receipts, outlays, and deficit for 2021 with the estimates for that year published in the 2021 Budget.

The following materials are available at the internet address cited above.

Detailed Functional Table

Detailed Functional Table. Table 25–1, "Budget Authority and Outlays by Function, Category, and Program," displays budget authority and outlays for major Federal program categories, organized by budget function (such as healthcare, transportation, or national defense), category, and program.

Federal Budget by Agency and Account

Federal Budget by Agency and Account. Table 26–1, "Federal Budget by Agency and Account," displays budget authority and outlays for each account, organized by agency, bureau, fund type, and account.

Calfed Bay-Delta Program Federal Budget Crosscut

Calfed Bay-Delta Program Crosscut. The Calfed Bay-Delta Program interagency budget crosscut report provides an estimate of Federal funding by each of the participating Federal Agencies with authority and programmatic responsibility for implementing this program, fulfilling the reporting requirements of section 106(c) of Public Law 108–361.

Columbia River Basin Federal Budget Crosscut

Columbia River Basin Federal Budget Crosscut. The Columbia River interagency budget crosscut report includes an estimate of Federal funding by each of the participating Federal agencies to carry out restoration activities within the Columbia River Basin, fulfilling the reporting requirements of section 123 of the Clean Water Act (33 U.S.C. 1275).

Lead Pipe Federal Budget Crosscut

Lead Pipe Federal Budget Crosscut. The lead pipe interagency budget crosscut report provides an estimate of Federal funding by agency that can be used for investments in lead pipe replacement and related activities, fulfilling the commitment made in the Biden-Harris Lead Pipe and Paint Action Plan.

ECONOMIC AND BUDGET ANALYSES

2. ECONOMIC ASSUMPTIONS

This chapter presents the economic assumptions that underlie the Administration's 2023 Budget.[1] It provides an overview of the recent performance of the American economy, presents the Administration's projections for key macroeconomic variables, compares them with forecasts prepared by other prominent institutions, and discusses the unavoidable uncertainty inherent in providing an eleven-year forecast.

This chapter proceeds as follows:

The first section provides an overview of the recent functioning of the U.S. economy, examining the performance of a broad array of key economic indicators.

The second section presents a detailed exposition of the Administration's economic assumptions underlying the 2023 Budget, discussing how key macroeconomic variables are expected to evolve over the years 2022 to 2032.

The third section compares the forecast of the Administration with those of the Congressional Budget Office (CBO), the Federal Open Market Committee of the Federal Reserve, and the Blue Chip panel of professional forecasters.

The fourth section discusses the sensitivity of the Administration's projections of Federal receipts and outlays to alternative paths of macroeconomic variables.

The fifth section considers the errors in past Administrations' forecasts, comparing them with the errors in forecasts produced by the CBO and the Blue Chip panel of professional forecasters.

The sixth section uses information on past accuracy of Administration forecasts to provide understanding and insight into the uncertainty associated with the Administration's current forecast of the budget balance.

Recent Economic Performance

The President took office in the midst of the COVID-19 pandemic. Even as COVID-19 variants posed health and economic challenges throughout 2021, the President's policies helped power a historic economic and jobs recovery. Thanks in part to the American Rescue Plan and the Administration's vaccination program, more than 70 percent of Americans are fully vaccinated, our economy is growing, and Americans are continuing to get back to work.

Economic growth in 2021 far exceeded expectations. When the President took office, the Blue Chip panel of professional forecasters projected that real GDP growth in 2021 (fourth-quarter-over-fourth-quarter) would be 3.9 percent. Instead, 2021 growth was 5.6 percent. More than 6.5 million jobs were created in 2021, a record for any first year President. The unemployment rate dropped from 6.4 percent in January 2021 to 3.8 percent as of February 2022—lower than the Congressional Budget Office, in its pre-American Rescue Plan baseline, projected we would reach any time this decade and years earlier than they projected the economy would begin to approach that rate. The pandemic and a surge in consumer spending that was concentrated in certain goods sectors—in combination with supply chains and labor supply that were also impacted by the pandemic and unable to keep up—led to elevated prices. However, as discussed below, inflation is expected to gradually moderate over the course of 2022 and beyond as supply chain issues continue to improve and the composition of demand adjusts, although the further Russian invasion of Ukraine has put additional upward pressure on prices in the near term.

Labor Markets—The labor market improved dramatically in 2021. After entering the year at 6.7 percent, the unemployment rate declined throughout 2021 and ended the year at 3.9 percent, falling to 3.8 percent as of February 2022. Likewise, both the median duration of unemployment and the long-term unemployment rate (U1), which measures the percent of the labor force unemployed for 15 weeks or longer, declined dramatically over the course of the year. Other metrics of labor market health, such as the number of workers who identify as marginally attached to the labor force, the number of discouraged workers, and the number of workers working part-time for economic reasons, all exhibited marked improvement during 2021. By December, the number of Americans filing for unemployment reached its lowest level since 1969 – before moving higher during the height of Omicron and then falling again when cases, hospitalizations, and deaths fell.

Despite the large gains in employment, as of February 2022 there remain 2.1 million fewer people employed relative to before the pandemic. The labor force participation rate remains depressed compared to pre-pandemic levels, likely due to a combination of factors. However, the labor force participation rate rose by 0.4 percentage points in 2021, and the prime-age labor force participation rate rose by 0.9 percentage points. Looking ahead, the pace at which Americans rejoin the labor force is currently, and will remain, an important factor in the economic recovery.

Consumption—Consumption by private households is the largest component of the country's economy, accounting for over two-thirds of total output. Because of its large share of GDP, consumer spending growth is essential to economic growth in the United States. Real personal consumption expenditures (PCE), which adjusts for inflation, increased throughout 2021.

A prominent feature of the pandemic has been the extent of the economic damage in specific sectors, par-

[1] Economic performance, unless otherwise specified, is discussed in terms of calendar years (January-December). Budget figures are discussed in terms of fiscal years (October-September).

Table 2–1. ECONOMIC ASSUMPTIONS [1]

(Calendar Years, Dollar Amounts in Billions)

	Actual 2020	Projections 2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Gross Domestic Product (GDP)													
Levels, Dollar Amounts in Billions:													
Current Dollars	20,894	22,899	24,631	25,853	26,966	28,064	29,200	30,379	31,626	32,957	34,382	35,877	37,437
Real, Chained (2012) Dollars	18,385	19,402	20,213	20,786	21,254	21,687	22,120	22,563	23,028	23,526	24,059	24,612	25,178
Chained Price Index (2012=100), Annual Average	114	118	122	125	127	130	132	135	138	140	143	146	149
Percent Change, Fourth-Quarter-over-Fourth-Quarter:													
Current Dollars	–1.0	10.1	6.3	4.6	4.1	4.0	4.0	4.0	4.1	4.3	4.4	4.3	4.3
Real, Chained (2012) Dollars	–2.3	5.1	3.8	2.5	2.1	2.0	2.0	2.0	2.1	2.2	2.3	2.3	2.3
Chained Price Index (2012=100)	1.5	4.8	2.4	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Percent Change, Year-over-Year:													
Current Dollars	–2.2	9.6	7.6	5.0	4.3	4.1	4.0	4.0	4.1	4.2	4.3	4.3	4.3
Real, Chained (2012) Dollars	–3.4	5.5	4.2	2.8	2.2	2.0	2.0	2.0	2.1	2.2	2.3	2.3	2.3
Chained Price Index (2012=100)	1.3	3.9	3.3	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Incomes, Billions of Current Dollars													
Domestic Corporate Profits	1,789	2,195	2,314	2,415	2,383	2,311	2,278	2,247	2,256	2,274	2,299	2,312	2,297
Employee Compensation	11,572	12,442	13,314	14,034	14,657	15,284	15,943	16,634	17,356	18,141	18,993	19,890	20,829
Wages and Salaries	9,444	10,195	10,918	11,493	12,004	12,516	13,055	13,619	14,205	14,848	15,543	16,278	17,054
Nonwage Personal Income	5,274	5,498	5,794	6,124	6,512	6,847	7,184	7,530	7,854	8,202	8,575	8,932	9,236
Consumer Price Index (All Urban) [2]**:**													
Level (1982–1984 = 100), Annual Average	258.8	270.9	283.7	290.3	296.9	303.6	310.5	317.5	324.7	332.0	339.6	347.3	355.2
Percent Change, Fourth-Quarter-over-Fourth-Quarter	1.2	6.6	2.9	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
Percent Change, Year-over-Year	1.2	4.6	4.7	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
Unemployment Rate, Civilian, Percent													
Annual Average	8.1	5.4	3.9	3.6	3.7	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8
Fourth Quarter Level	6.7	4.5	3.7	3.6	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8
Interest Rates, Percent													
91-Day Treasury Bills	0.4	0.0	0.2	0.9	1.6	1.9	2.1	2.2	2.3	2.3	2.3	2.3	2.3
10-Year Treasury Notes	0.9	1.5	2.1	2.5	2.7	2.8	3.0	3.1	3.1	3.2	3.2	3.2	3.3

[1] Based on information available as of mid-October 2021

[2] Seasonally Adjusted

ticularly services. Notably, while total real consumer spending remains roughly at pre-pandemic trend, consumer spending on services in December 2021 was still below its pre-pandemic level and trend, though up significantly relative to December 2020. While overall real PCE approximately recovered during 2021 to its pre-pandemic trend, the pandemic-driven decline in services spending, and corresponding increase in goods spending, is one of several factors behind the elevated levels of inflation experienced during 2021. A rebalancing of spending away from goods and towards services could help alleviate inflationary pressure in the goods economy, particularly for durable goods.

Nonresidential Fixed Investment—After declining at an annual rate of 5.3 percent in 2020 (year-over-year), real nonresidential fixed investment increased 7.4 percent for 2021. Equipment and intellectual property investment increased 13.0 and 10.2 percent, respectively. Business structures investment declined for the second consecutive year in 2021, although to a lesser extent than in 2020.

The Government Sector—Topline real government expenditures on consumption and investment increased 0.5 percent in 2021 (year-over-year), which includes a 0.9 percent decline in Federal spending offset by a 0.9 percent increase in State and Local spending. Within the Federal spending category, nondefense spending rose 2.8 percent while defense spending decreased 3.7 percent.

Economic Projections

The Administration's forecast was finalized on November 10, 2021, with the parameters of that forecast close to the consensus prevailing at that date. The forecast informs the 2023 Budget and assumes implementation of the Administration's policy proposals. The

Administration's projections are reported in Table 2-1 and summarized below. Note that, for 2021, the table reflects the projections finalized in November. However, estimates for 2021 values have since been released and are referenced in-text.

Real GDP—The Administration forecast projects a continued economic recovery during 2022. After finishing 2021 with real GDP growth of 5.6 percent (on a fourth-quarter-over-fourth-quarter basis), real GDP is projected to increase 3.8 percent in 2022 and 2.5 percent in 2023. Real GDP growth is then expected to average 2.0 percent between 2024-2028, and 2.3 percent during 2029-2032.

Unemployment—The unemployment rate declined to 3.8 percent during February of 2022, a marked improvement from the 6.4 percent rate at the beginning of 2021. Going forward, the unemployment rate is expected to decline further in 2022 and 2023, falling to an annual average of 3.6 percent during 2023. Over the long-run, the unemployment rate is expected to average 3.8 percent per year.

Interest Rates—Interest rates are expected to rise over the near-term as the economy continues its post-recession expansion. The 91-day Treasury bill rate is expected to steadily rise from an average of 0.04 percent in 2021 to 0.9 percent through 2023, and then gradually increase to a terminal rate of 2.3 percent. The 10-year rate follows a similar path as it increases from 1.5 percent in 2021 to 2.5 percent by 2023, reaching 3.3 percent at the end of the budget window, which reflects both the increase in short-term rates and an increase in the term premium for investors committing to holding long-term securities.

General Inflation—The Administration's forecast reflects elevated inflation during 2021, which is expected to decline through 2022 before returning to its long-run trend. Specifically, after peaking at 6.7 percent on a fourth quarter-over-fourth quarter basis in 2021, the Consumer Price Index for all Urban Consumers (CPI-U) is projected to grow 2.9 percent in 2022 and 2.3 percent in 2023. Note that 2.3 percent is the rate of CPI-U inflation that is consistent with the Federal Open Market Committee's Personal Consumption Expenditures (PCE) inflation target of 2.0 percent.

As with any forecast, there is considerable uncertainty. For instance, after November 10, 2021 when Administration forecasts were finalized, the economy experienced significantly stronger GDP growth in the fourth quarter of 2021 than had been expected. Also, since November 2021, consensus estimates of inflation for 2022 have increased in part due to upward pressures on global energy and food prices resulting from the Russian invasion of Ukraine, though moderation is still expected across the year. Uncertainty and the previous forecasting record are discussed later in this chapter.

Table 2–2. COMPARISON OF ECONOMIC ASSUMPTIONS IN THE 2022 AND 2023 BUDGETS

	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
(fourth-quarter-over-fourth-quarter percent change)											
Real GDP:											
2022 Budget Assumptions	5.2	3.2	2.0	1.8	1.8	1.8	1.8	1.9	1.9	2.0	2.0
2022 MSR Assumptions	7.1	3.3	2.2	1.8	1.8	1.9	1.9	2.1	2.2	2.3	2.3
2023 Budget Assumptions	5.1	3.8	2.5	2.1	2.0	2.0	2.0	2.1	2.2	2.3	2.3
GDP Price Index:											
2022 Budget Assumptions	1.8	1.9	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
2022 MSR Assumptions	4.0	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
2023 Budget Assumptions	4.8	2.4	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Consumer Price Index (All-Urban):											
2022 Budget Assumptions	2.0	2.1	2.2	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
2022 MSR Assumptions	4.8	2.5	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
2023 Budget Assumptions	6.6	2.9	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
(calendar year average)											
Civilian Unemployment Rate:											
2022 Budget Assumptions	5.5	4.1	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8
2022 MSR Assumptions	5.5	4.2	3.9	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8
2023 Budget Assumptions	5.4	3.9	3.6	3.7	3.8	3.8	3.8	3.8	3.8	3.8	3.8
91-Day Treasury Bill Rate:											
2022 Budget Assumptions	0.1	0.2	0.4	0.8	1.2	1.4	1.6	1.7	1.8	2.0	2.2
2022 MSR Assumptions	0.0	0.1	0.5	1.3	2.1	2.3	2.4	2.4	2.4	2.4	2.4
2023 Budget Assumptions	0.0	0.2	0.9	1.6	1.9	2.1	2.2	2.3	2.3	2.3	2.3
10-Year Treasury Note Rate:											
2022 Budget Assumptions	1.2	1.4	1.7	2.1	2.4	2.6	2.7	2.8	2.8	2.8	2.8
2022 MSR Assumptions	1.6	2.0	2.4	2.6	2.7	2.9	3.0	3.0	3.1	3.2	3.3
2023 Budget Assumptions	1.5	2.1	2.5	2.7	2.8	3.0	3.1	3.1	3.2	3.2	3.2

Comparison with Other Forecasts

This section compares the Administration's forecast with the contemporaneous forecasts from CBO, the Federal Open Market Committee of the Federal Reserve (FOMC), and the Blue Chip panel of professional forecasters. There are important differences that should inform such comparisons.

The most important difference between these forecasts is that they make different assumptions about the implementation of the Administration's proposed policies. As already noted, the Administration's forecast assumes impacts of Administration policies. In contrast, the CBO forecast assumes no changes to current law. It is not clear to what extent FOMC participants and Blue Chip panelists incorporate policy implementation expectations in their respective outlooks. The Blue Chip panel, in particular, comprises a large number of private-sector forecasters, who have different expectations about the enactment of the Administration's proposed policies and different views about the contribution of those policies to economic growth.

A second difference is that the different forecasts were published on different dates. For example, while the forecast published by the Administration is based on data available as of November 10th, the Blue Chip forecasts are drawn from a survey administered in early October. These were the latest Blue Chip forecasts available at the time the Administration finalized its forecast. In addition, the FOMC projections were released in mid-September and the CBO forecast was published in July.

Real GDP—The Administration forecasts average real GDP growth of 2.4 percent (year-over-year) between 2022-2032, similar to the 2.2 percent average for Blue

Table 2–3. COMPARISON OF ECONOMIC ASSUMPTIONS [1]

	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Real GDP (Fourth-Quarter-over-Fourth-Quarter):												
2023 Budget (November 2021)	5.1	3.8	2.5	2.1	2.0	2.0	2.0	2.1	2.2	2.3	2.3	2.3
Federal Reserve [3] (September 2021)	5.9	3.8	2.5	2.0	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8
Real GDP (Year-over-Year):												
2023 Budget (November 2021)	5.5	4.2	2.8	2.2	2.0	2.0	2.0	2.1	2.2	2.3	2.3	2.3
Blue Chip [2] (October 2021)	5.7	4.1	2.5	2.1	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9
CBO (July 2021)	6.7	5.0	1.5	1.1	1.3	1.4	1.6	1.6	1.5	1.6	1.7	--
Consumer Price Index (CPI-U) (Fourth-Quarter-over-Fourth-Quarter):												
2023 Budget (November 2021)	6.6	2.9	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
CBO (July 2021)	3.4	2.3	2.3	2.4	2.4	2.5	2.5	2.4	2.4	2.3	2.3	--
Federal Reserve [3, 4] - September 2021	4.2	2.2	2.2	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Consumer Price Index (CPI-U) (Year-over-Year):												
2023 Budget (November 2021)	4.6	4.7	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
Blue Chip [2] (October 2021)	4.3	3.2	2.4	2.3	2.3	2.3	2.2	2.2	2.2	2.2	2.2	2.2
CBO (July 2021)	3.3	2.5	2.3	2.4	2.4	2.4	2.5	2.4	2.4	2.3	2.3	--
Unemployment Rate: (annual averages):												
2023 Budget (November 2021)	5.4	3.9	3.6	3.7	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8
Blue Chip [2] (October 2021)	5.6	4.3	3.9	3.9	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
CBO (July 2021)	5.5	3.8	3.7	4.0	4.2	4.3	4.3	4.3	4.4	4.5	4.5	--
Federal Reserve [3, 5] (September 2021)	4.8	3.8	3.5	3.5	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Interest Rates:												
91-Day Treasury Bills (discount basis):												
2023 Budget (November 2021)	0.0	0.2	0.9	1.6	1.9	2.1	2.2	2.3	2.3	2.3	2.3	2.3
Blue Chip [2] (October 2021)	0.1	0.1	0.6	1.1	1.6	1.9	2.0	2.1	2.1	2.1	2.1	2.1
CBO (July 2021)	0.0	0.1	0.2	0.5	0.9	1.3	1.6	1.8	2.1	2.3	2.4	--
10-Year Treasury Notes:												
2023 Budget (November 2021)	1.5	2.1	2.5	2.7	2.8	3.0	3.1	3.1	3.2	3.2	3.2	3.3
Blue Chip [2] (October 2021)	1.4	1.9	2.3	2.5	2.7	2.9	3.0	3.0	3.0	3.0	3.0	3.0
CBO (July 2021)	1.6	1.9	2.0	2.3	2.6	2.8	3.0	3.2	3.3	3.4	3.5	--

Sources: Administration; CBO, The Budget and Economic Outlook: 2021 to 2031, July 2021; October 2021 Blue Chip Economic Indicators, Aspen Publishers, Inc.; Federal Reserve Open Market Committee, September 21, 2021

[1] Calendar Year

[2] 2028–2032 are 5 year averages

[3] Median Projection

[4] PCE Inflation

[5] Average rate during 4th quarter

Chip and higher than the 1.8 percent average for CBO. Recall that the Administration's forecast reflects full effects of the Administration's proposed policies, while the CBO is required to assume a continuation of current law in its forecast. The Administration's forecast also projects higher average growth over the budget window (2.2 percent on a fourth-quarter-to-fourth-quarter basis) than the median FOMC forecast (1.9 percent). However, the Administration's forecast equals the FOMC forecast over the near term in 2022 and 2023.

Unemployment—The Administration, CBO, Blue Chip, and FOMC all forecast that 2022 unemployment will be lower than 2021 unemployment. During the 2022-2024 period, the Administration forecasts that the unemployment rate will average 3.7 percent, compared with CBO, Blue Chip, and FOMC averages of 3.9, 4.0, and 3.6 percent during that window, respectively. Over the long run, the Administration projects an unemployment rate of 3.8 percent, compared with 4.5 percent for CBO, and 4.0 percent for Blue Chip and the FOMC.

Interest Rates—The Administration's 91-day interest rate forecast is broadly consistent with the Blue Chip forecast and, in most years, is moderately higher than the CBO's forecast. The Administration, CBO, and Blue Chip all expect short-term rates to rise meaningfully over the 2022-2027 period, with the Administration forecasting a faster rise over the coming few years than CBO and Blue Chip. For 10-year rates, the Administration forecasts a steady rise to a 3.3 percent terminal rate, compared to CBO and Blue Chip rates of 3.5 and 3.0 percent, respectively.

General Inflation—The Administration's forecast for CPI-U inflation (on a fourth-quarter-over-fourth-quarter basis) is broadly consistent with outside forecasters throughout the budget window. The Administration's forecast for 2021 inflation was close to the actual (6.6 percent versus 6.7 percent). The Administration, CBO, Blue Chip, and the FOMC all project that inflation will moderate over the course of 2022 and into 2023. The Administration's projected long-term CPI inflation rate of 2.3 percent equals CBO's long-term projection, is 0.1 percentage point higher than Blue Chip's long-term projection, and is consistent with the FOMC's 2.0 percent target for PCE inflation.

Sensitivity of the Budget to Economic Assumptions

Federal spending and tax collections are heavily influenced by developments in the economy. Income tax receipts are a function of growth in incomes for households and firms. Spending on social assistance programs may rise when the economy enters a downturn, while increases in nominal spending on Social Security and other programs are dependent on consumer price inflation. A robust set of projections for macroeconomic variables assists in budget planning, but unexpected developments in the economy have ripple effects for Federal spending and receipts. This section seeks to provide an understanding of the magnitude of the effects that unforeseen changes in the economy can have on the budget.

To make these assessments, the Administration relies on a set of heuristics that can predict how certain spending and receipt categories will react to a change in a given subset of macroeconomic variables, holding almost everything else constant. These sensitivity analyses provide a sense of the broad changes one would expect after a given development, but they cannot anticipate how policy makers would react and potentially change course in such an event. For example, if the economy were to suffer an unexpected recession, tax receipts would decline and spending on programs such as unemployment insurance would rise. In such a situation, however, policy makers might enact policies that stimulate the economy, leading to secondary and tertiary changes that are difficult to predict. Another caveat is that it is often unrealistic to suppose that one macroeconomic variable might change while others would remain constant. Most macroeconomic variables interact with each other in complex and subtle ways. These are important considerations to bear in mind when examining Table 2-4.

For real GDP growth and employment:

- The first panel in the table illustrates the effect on the deficit resulting from a one percentage point reduction in real GDP growth, relative to the Administration's forecast, in 2022 that is followed by a subsequent recovery in 2023 and 2024. The unemployment rate is assumed to be half a percentage point higher in 2022 before returning to the baseline level in 2023 and 2024.

- The next panel in the table reports the effect of a reduction of one percentage point in real GDP growth in 2022 that is not subsequently made up by faster growth in 2023 and 2024. Consistent with this output path, the rate of unemployment is assumed to rise by half a percentage point relative to that assumed in the Administration's forecasts.

- The third panel in the table shows the impact of a GDP growth rate that is permanently reduced by one percentage point, while the unemployment rate is not affected. This is the sort of situation that would arise if, for example, the economy was to experience a permanent decline in productivity growth.

For inflation and interest rates:

- The fourth panel in Table 2-4 shows the effect on the budget in the case of a one percentage point higher rate of inflation and a one percentage point higher nominal interest rate in 2022. Both inflation and interest rates return to their assumed levels in 2023. This would result in a permanently higher price level and nominal GDP level over the course of the forecast horizon.

- The fifth panel in the table illustrates the effects on the budget deficit of a one percentage point higher inflation rate and interest rate than projected in every year of the forecast.

- The sixth panel reports the effect on the deficit resulting from an increase in interest rates in every

Table 2–4. SENSITIVITY OF THE BUDGET TO ECONOMIC ASSUMPTIONS

(Fiscal Years; In Billions Of Dollars)

Budget Effect	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	Total of Budget Effects: 2022–2032
Real Growth and Employment:												
Budgetary effects of 1 percentage point lower real GDP growth:												
(1) For calendar year 2022 only, with real GDP recovery in 2023–2032:[1]												
Receipts	–17.1	–27.1	–13.8	–2.3	–0.0	–0.0	–0.0	–0.0	–0.1	–0.1	–0.1	–60.7
Outlays	14.3	28.3	12.8	2.3	2.3	2.4	2.5	2.5	2.6	2.6	2.7	75.3
Increase in deficit (+)	31.4	55.4	26.6	4.6	2.3	2.5	2.5	2.5	2.6	2.7	2.7	136.0
(2) For calendar year 2022 only, with no subsequent recovery:[1]												
Receipts	–17.1	–35.9	–41.8	–43.6	–45.7	–47.7	–49.5	–51.4	–53.5	–55.7	–57.9	–499.8
Outlays	14.3	34.5	36.3	38.8	41.7	45.3	49.3	53.6	58.0	62.3	67.0	501.0
Increase in deficit (+)	31.4	70.4	78.1	82.4	87.3	93.0	98.8	105.0	111.5	117.9	124.9	1,000.8
(3) Sustained during 2022–2032, with no change in unemployment:												
Receipts	–17.2	–53.9	–98.4	–146.3	–198.8	–254.8	–313.1	–375.6	–442.8	–514.6	–590.6	–3,006.0
Outlays	–0.3	–0.2	0.8	2.7	5.9	9.8	14.0	18.7	24.2	30.6	37.9	144.2
Increase in deficit (+)	16.9	53.7	99.3	149.0	204.7	264.6	327.1	394.3	467.0	545.2	628.4	3,150.2
Inflation and Interest Rates:												
Budgetary effects of 1 percentage point higher rate of:												
(4) Inflation and interest rates during calendar year 2022 only:												
Receipts	18.5	36.3	38.1	38.2	40.0	41.7	43.2	44.9	46.7	48.6	50.5	446.7
Outlays	47.9	75.1	63.1	63.4	62.8	63.9	64.0	63.7	64.1	66.8	68.9	703.6
Increase in deficit (+)	29.4	38.8	24.9	25.1	22.8	22.2	20.8	18.8	17.4	18.2	18.4	256.9
(5) Inflation and interest rates, sustained during 2022–2032:												
Receipts	18.5	55.9	97.5	141.5	190.2	242.8	298.2	358.4	424.0	495.1	571.2	2,893.2
Outlays	47.2	134.3	207.3	286.3	367.1	453.1	549.9	635.9	742.8	851.1	976.7	5,251.6
Increase in deficit (+)	28.8	78.4	109.7	144.8	176.9	210.3	251.7	277.4	318.9	356.0	405.5	2,358.4
(6) Interest rates only, sustained during 2022–2032:												
Receipts	1.3	3.0	3.8	4.2	4.6	5.0	5.3	5.6	5.9	6.2	6.4	51.3
Outlays	31.0	89.3	130.8	169.7	206.3	243.2	278.7	315.4	348.0	383.3	420.2	2,615.9
Increase in deficit (+)	29.6	86.2	127.0	165.6	201.7	238.2	273.4	309.7	342.1	377.2	413.9	2,564.5
(7) Inflation only, sustained during 2022–2032:												
Receipts	17.1	52.8	93.7	137.1	185.4	237.5	292.6	352.4	417.6	488.3	564.2	2,838.6
Outlays	16.2	45.0	76.4	116.7	161.2	210.9	272.6	322.5	397.4	470.9	560.0	2,649.8
Decrease in deficit (–)	–0.9	–7.8	–17.2	–20.4	–24.2	–26.7	–19.9	–29.9	–20.2	–17.5	–4.1	–188.8
Interest Cost of Higher Federal Borrowing:												
(8) Outlay effect of $100 billion increase in borrowing in 2022	0.1	0.7	1.5	2.0	2.3	2.5	2.7	2.8	2.9	3.0	3.1	23.4

[1] The unemployment rate is assumed to be 0.5 percentage point higher per 1 percent shortfall in the level of real GDP.

year of the forecast, with no accompanying increase in inflation.

- The seventh panel in the table reports the effect on the budget deficit of a one percentage point higher inflation rate than projected in every year of the forecast window, while the interest rate remains as forecast.
- Finally, the table shows the effect on the budget deficit if the Federal Government were to borrow an additional $100 billion in 2022, while all of the other projections remain constant.
- These simple approximations that inform the sensitivity analysis are symmetric. This means that the effect of, for example, a one percentage point higher rate of growth over the forecast horizon would be of the same magnitude as a one percentage point reduction in growth, though with the opposite sign.

Forecast Errors for Growth, Inflation, and Interest Rates

As with any forecast, the Administration's projections are projections and are subject to error because they are based on a set of assumptions about the underlying milieu comprising social, political, and global conditions. It is impossible to foresee every eventuality over a one-year horizon, much less over ten or more years. This section evaluates the historical accuracy of the past Administrations' forecasts for real GDP growth, inflation, and short-term interest rates from 2002 to the present day, especially relative to the accuracy of forecasts produced by the CBO and Blue Chip panel. For this exercise, forecasts produced by all three entities are compared with realized values of these variables.

The results of this exercise are reported in Table 2-5 and contain three different measures of accuracy. The first is the average forecast error. When a forecaster has an average forecast error of zero, it may be said that the forecast has historically been unbiased, in the sense that realized values of the variables have not been systematically above or below the forecasted value. The second is the average absolute value of the forecast error, which offers a sense of the magnitude of errors. Even if the past forecast errors average to zero, the errors may have been of a very large magnitude, with both positive and negative values. Finally, the table reports the square root of the mean of squared forecast error (RMSE). This metric applies a harsher penalty to forecasts exhibiting large er-

Table 2–5. FORECAST ERRORS, 2002-PRESENT

REAL GDP ERRORS	Administration	CBO	Blue Chip
2-Year Average Annual Real GDP Growth			
Mean Error	1.1	0.5	0.7
Mean Absolute Error	1.2	0.8	0.8
Root Mean Square Error	1.5	1.1	1.2
6-Year Average Annual Real GDP Growth			
Mean Error	1.6	1.3	1.1
Mean Absolute Error	1.6	1.3	1.1
Root Mean Square Error	1.6	1.4	1.3
INFLATION ERRORS			
2-Year Average Annual Change in the Consumer Price Index	Administration	CBO	Blue Chip
Mean Error	–0.2	–0.2	0.0
Mean Absolute Error	0.6	0.6	0.6
Root Mean Square Error	0.7	0.7	0.7
6-Year Average Annual Change in the Consumer Price Index			
Mean Error	0.1	0.0	0.3
Mean Absolute Error	0.4	0.3	0.4
Root Mean Square Error	0.5	0.4	0.5
INTEREST RATE ERRORS			
2-Year Average 91-Day Treasury Bill Rate	Administration	CBO	Blue Chip
Mean Error	0.5	0.5	0.7
Mean Absolute Error	0.7	0.6	0.8
Root Mean Square Error	1.0	1.0	1.2
6-Year Average 91-Day Treasury Bill Rate			
Mean Error	2.0	2.1	2.2
Mean Absolute Error	2.0	2.1	2.2
Root Mean Square Error	2.4	2.3	2.5

Table 2–6. DIFFERENCES BETWEEN ESTIMATED AND ACTUAL SURPLUSES OR DEFICITS FOR FIVE-YEAR BUDGET ESTIMATES SINCE 1985

	Current Year Estimate	Budget Year Estimate	Estimate for Budget Year Plus: One Year (BY + 1)	Two Years (BY + 2)	Three Years (BY + 3)	Four Years (BY + 4)
Mean Error	-0.5	0.8	1.6	2.2	2.6	2.9
Mean Absolute Error	1.5	1.9	2.6	3.2	3.6	3.9
Root Mean Squared Error	2.4	3.0	3.7	4.4	4.7	4.8

rors. The table reports these measures of accuracy at both the 2-year and the 6-year horizons, thus evaluating the relative success of different forecasts in the short run and in the medium run.

Past Administrations have forecast 2-year real GDP growth and interest rates that were higher than actually realized, on average, by 1.1 percentage points and 0.5 percentage points, respectively. This is partly due to the assumption that Administration policy proposals contained in the Budget will be enacted, which has not always come to pass. The 2-year average forecast error for inflation is smaller, -0.2 percentage points, and similar to other forecasts.

Uncertainty and the Deficit Projections

This section assesses the accuracy of past budget forecasts for the deficit or surplus, measured at different time horizons. The results of this exercise are reported in Table 2-6, where the average error, the average absolute error, and the RMSE are reported.

In Table 2-6, a negative number means that the Federal Government ran a larger surplus or a smaller deficit than was expected, while a positive number in the table indicates a smaller surplus or a larger deficit. In the current year in which the budget is published, the Administration has tended to understate the surplus (or, equivalently, overstate the deficit) by an average of 0.5 percent of GDP. For the budget year, however, the historical pattern has been for the budget to understate the deficit by an average of 0.8 percent of GDP.[2] One possible reason for this is that past Administrations' policy proposals have not all been implemented. The forecast errors tend to grow with the time horizon, which is not surprising given that there is much greater uncertainty in the medium run about both the macroeconomic situation and the specific details of policy enactments.

A probabilistic range of outcomes for the deficit over the budget window can be calculated by building off of the historical forecast errors summarized in Table 2-6. This is accomplished by taking the RMSE of previous forecast errors and assuming that these errors are drawn from a normal distribution. This exercise is undertaken at every forecast horizon from the current year through fours year after the budget year. Chart 2-1 displays the projected range of possible deficits. In the chart, the middle line represents the Administration's expected fiscal balance and the 50th percentile outcome. The rest of the lines in the chart may be read in the following fashion. The top line reports the 95th percentile of the distribution of outcomes over 2021 to 2026, meaning that there is a 95 percent probability that the actual balance in those years will be more negative than expressed by the line. Similarly, there is a 95 percent probability that the balance will be more positive than suggested by the bottom line in the chart.

[2] Additionally, the CBO has historically forecasted smaller deficits, on average, than actually materialized.

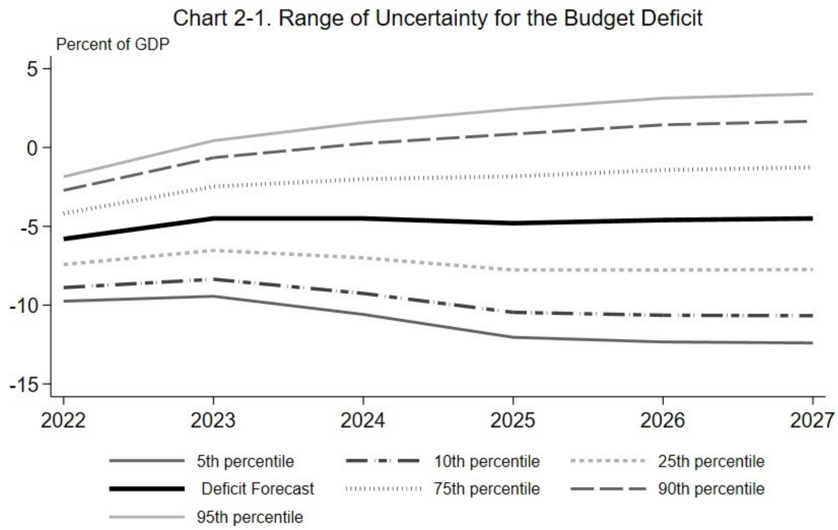


Chart 2-1. Range of Uncertainty for the Budget Deficit
Percent of GDP
5
0
-5
-10
-15
2022
2023
2024
2025
2026
2027
5th percentile
10th percentile
25th percentile
Deficit Forecast
75th percentile
90th percentile
95th percentile

3. LONG-TERM BUDGET OUTLOOK

The horizon for most numbers in this budget is 10 years. This 10-year horizon reflects a balance between the importance of considering both the current and future implications of budget decisions made today, and a practical limit on the construction of detailed budget projections for years in the future.

Nonetheless, it can be informative to look further into the future, despite the uncertainty surrounding the assumptions needed for such estimates. This chapter begins by discussing the fiscal outlook under current law over the next 25 years. The second section discusses the fiscal impact of the Administration's policies, finding they will cut deficits and debt, compared to the baseline. In the third section, alternative assumptions about the evolution of key variables and uncertainties in the projections are discussed, including the macroeconomic risks of climate change. The fourth section discusses the actuarial projections for Social Security and Medicare. The *appendix* to this chapter provides further detail on data sources, assumptions, and other methods for estimation.

Long-Run Projections under Continuation of Current Policies

The baseline long-term projections assume that current policy continues for Social Security, Medicare, Medicaid, other mandatory programs, and revenues.[1] Projections for all mandatory programs and revenues maintain consistency with other Federal agency projections. From 2033-2047, total mandatory spending grows by 0.4 percentage points as a share of GDP (Gross Domestic Product), while revenues increase by 0.4 percentage points. The Budget provides a specific path for discretionary spending over the next 10 years. Thereafter, the baseline long-run projections assume that real per-person discretionary funding remains constant, implying an average growth rate of 2.8 percent per year. The appendix provides additional detail on the methodology behind these projections.

The COVID-19 public health and economic crisis and measures taken to address them significantly increased deficits and debt for 2020 and 2021. The deficit was 15.0 percent of GDP in 2020, falling to 12.4 percent of GDP in 2021. The deficit is projected to fall sharply in 2022 and 2023 and then remain between 4.7 percent of GDP and 5.4 percent of GDP through the end of the 10-year window, assuming current policies. Debt fell to 99.7 percent of GDP in 2021 and is projected to rise to 102.4 percent of GDP in 2022 before falling to 101.9 percent of GDP in 2023. Assuming current policies, debt rises to 109.6 percent of GDP in 2032.

Over the past several decades, interest rates have fallen even as debt has risen. This has been a widespread, persistent, and global phenomenon, and it has meant that the burden associated with debt has gone down. Under the baseline projections, despite interest rates being projected to rise, real net interest payments will remain at or below 0.9 percent of GDP over the 10-year window, below the approximately one percent average over the last four decades and well below the approximately two percent average level in the 1990s.

Beyond the 10-year horizon, Chart 3-1 shows that deficits continue to rise under the baseline projections, reaching 5.5 percent of GDP in 2035, before falling back to 4.9 percent of GDP by the end of the 25-year window. Chart 3-2 shows that debt under the baseline projections continues to rise as a share of GDP, with increases slowing in the 2040s. From 2032 to 2039, debt is projected to increase from 109.6 to 117.0 percent of GDP under the baseline projections, an increase of 1.1 percentage points per year. In contrast, from 2039 to 2047, debt is projected to increase from 117.0 to 121.7 percent of GDP under the baseline projections, an increase of 0.6 percentage points per year. By the end of the 25-year window, debt as a share of GDP in the baseline projections plateaus. Similarly, real net interest rises from 0.9 to 1.0 percent of GDP between 2032 and 2039 under the baseline projections, and then to 1.1 percent of GDP in 2047.

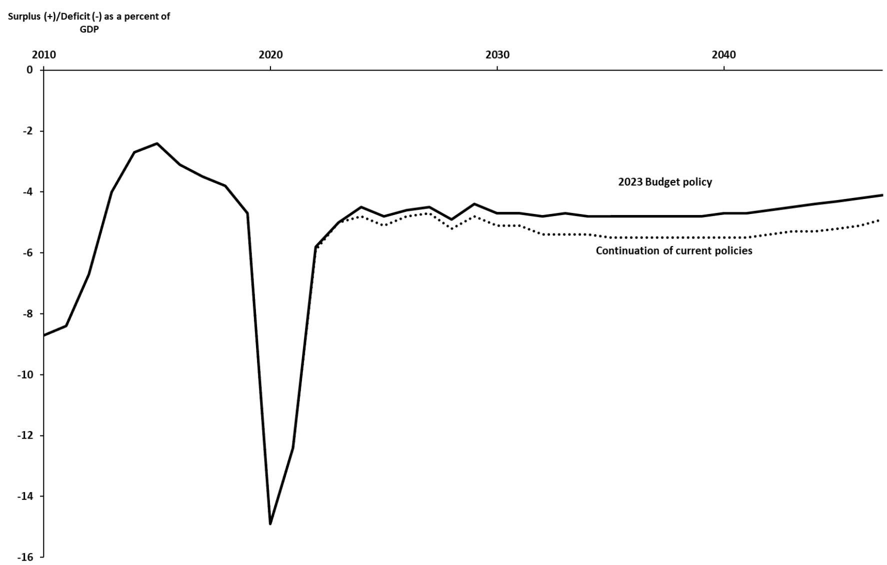
Impact of 2023 Budget Policies on the Long-Term Fiscal Outlook

The Budget proposes major investments in education, public health preparedness, infrastructure, and other areas, coupled with major reforms to both corporate and individual taxation. Because the Budget proposes extensive reforms to the tax system, the Budget improves the long-term fiscal outlook. Moreover, the Budget includes a reserve fund for legislation to reduce costs for families, expand the productive capacity of the economy, and reform the tax system. While the President has said that this legislation should reduce the deficit, the Budget estimates treat it as deficit neutral—a conservative assumption reflected in both the 10-year and long-term budget projections.

The Budget's policies lower annual deficits compared to the baseline projections in every year, beginning immediately. To assess long-run impact, this chapter develops more detailed 25-year projections for the impact of the Administration's policies on the budget, as described in

[1] The long-run baseline projections are consistent with the Budget's baseline concept, which is explained in more detail in Chapter 22, "Current Services Estimates," in this volume. The projections assume full payment of scheduled Social Security and Medicare benefits without regard to the projected depletion of the trust funds for these programs. Additional baseline assumptions beyond the 10-year window are detailed in the appendix to this chapter.

Chart 3-1. Comparison of Annual Surplus/Deficit



the appendix. The resulting projections show that the revenue increases in the President's Budget more than offset spending increases in every year while generating additional savings over the long run. In total, all Budget proposals are projected to reduce deficits by more than $3 trillion in the second decade and improve the fiscal outlook over the long run.

Charts 3-1 and 3-2 illustrate the improvement in deficits and debt. The plans improve the fiscal outlook over the short and long term, with lower deficits throughout the 25-year window. Similarly, the Budget's policies significantly flatten the projected debt increase compared to the baseline, with debt as a percent of GDP rising by less than 0.3 percentage points per year between 2032 and 2047. Budget proposals would result in further improvement in the fiscal outlook after 25 years.

Debt as a share of GDP grows more slowly over time in part because of the projected slowdown in population aging on a given population path from 2022 forward. Consistent with the demographic assumptions in the 2021 Social Security Trustees' report (see chart 3-3 below), the elderly share of the U.S. population is projected to rise from 16.8 percent in 2020 to 21.2 percent in 2036 as baby boomers retire. This aging of the baby-boom cohorts into retirement reduces the rate of labor force growth and therefore the rate of economic growth. However, by the late 2030s, the elderly share of the U.S. population is projected to plateau. As a result, the demographic drag on economic growth of the working-age share of the population for a given population path is projected to subside from 2030 forward, which all-else-equal reduces debt as a share of GDP.

Chart 3-2. Comparison of Publicly Held Debt

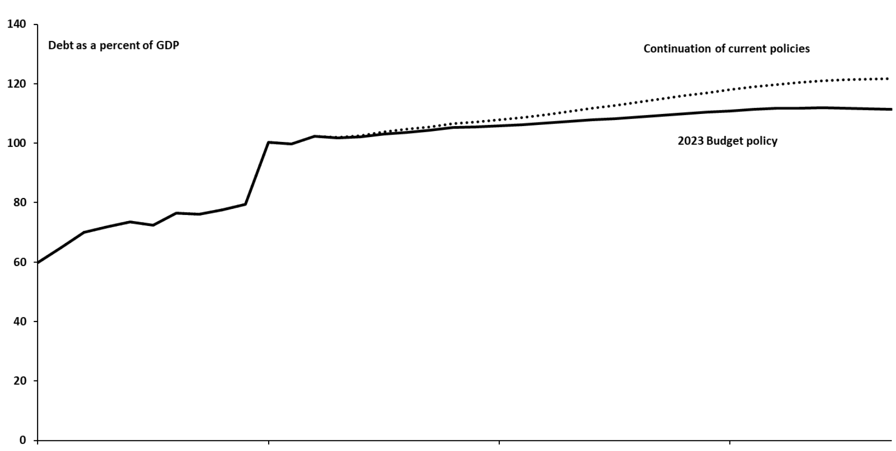
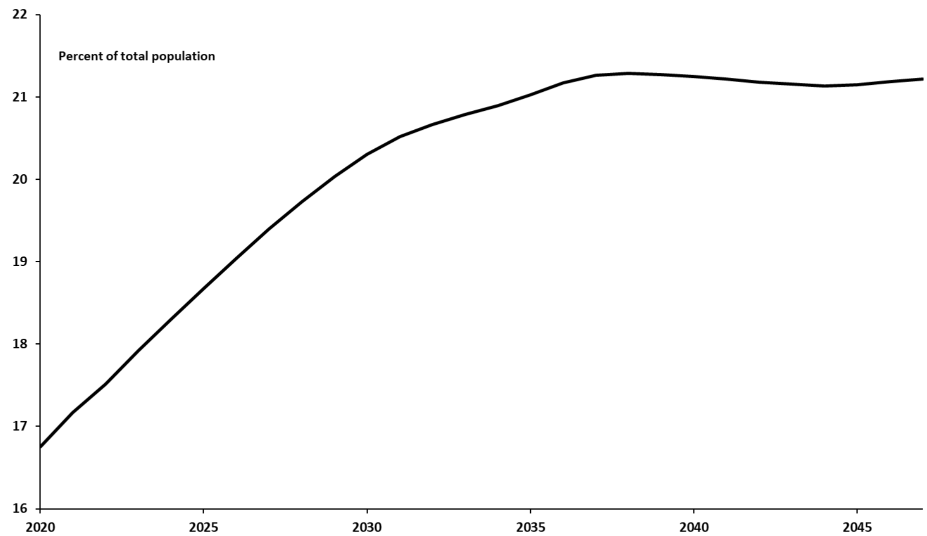


Chart 3-3. Elderly (Age 65+) Share of the U.S. Population



Uncertainty and Alternative Assumptions

Future budget outcomes depend on a host of unknowns: changing economic conditions, unforeseen international developments, unexpected demographic shifts, and unpredictable technological advances. The longer budget projections are extended, the more the uncertainties increase. These uncertainties make even accurate short-run budget forecasting quite difficult. For example, the Budget's projection of the deficit in five years is 4.5 percent of GDP, but a distribution of probable outcomes ranges from a deficit of 10.7 percent of GDP to a surplus of 1.7 percent of GDP, at the 10th and 90th percentiles, respectively.[2]

This section considers some specific sources of uncertainty in the projections above which are summarized in Table 3-1.

Table 3–1. 25–YEAR DEBT PROJECTIONS UNDER ALTERNATIVE BUDGET SCENARIOS
(Percent of GDP)

2023 Budget Policy	111.3
Real Economic Growth:	
Climate reduces real GDP level by 4.5% in 2047	129.4
Health:	
Excess cost growth averages 0.5%	91.1
Excess cost growth averages 1.5%	114.2
Discretionary Spending:	
Grow with GDP	118.1
Grow with inflation only	108.8

Real economic growth is highly uncertain. Going forward, real GDP growth is projected to be below its longer-run historical average of 2.5 percent per year as the slowdown in population growth and the increase in the population over age 65 reduce labor supply growth. In these projections, real GDP growth averages 2.1 percent per year for the period following the end of the 10-year budget window.

Over the long run, the path of real GDP is subject to significant downside risk from climate change. Absent further action to slow the rate of greenhouse gas emissions, the world remains on pace to increase over 2°C above pre-industrial average temperatures by the end of this century. Warming on this scale may have profound impacts on the American economy.

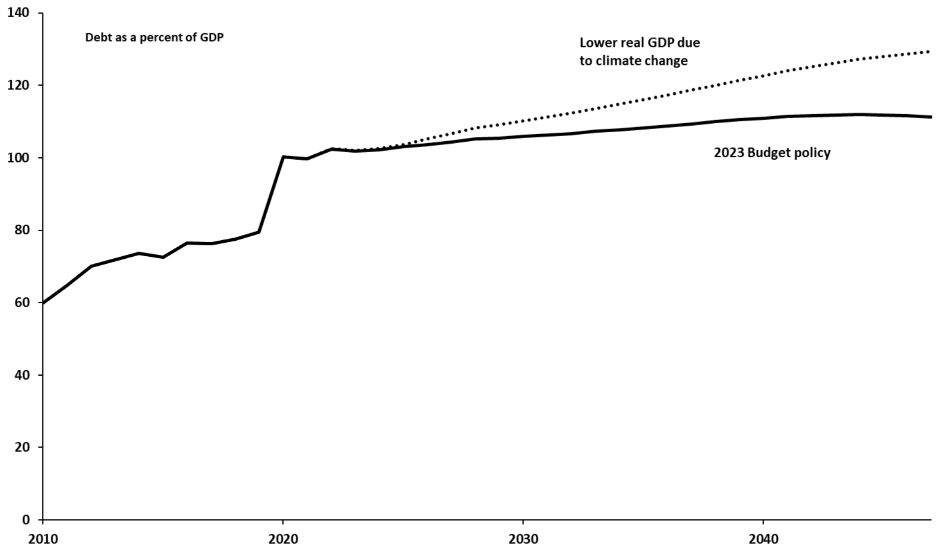
Climate change can create physical changes that impact the economy through a variety of pathways. Acute physical risks from an increased rate and severity of natural disasters can harm the productivity of American farms, factories, offices and infrastructure. Chronic risks like sea level rise have the potential to do the same. Combined with increased global temperatures, the overall effect has been estimated to be lower output.

An analysis by the Network for Greening the Financial System (NGFS) suggests that U.S. GDP will be nearly 2.5 percent lower by the middle of the century under current policies relative to a no-further-warming counterfactual, with losses accelerating in the second half of the century. Like the budget projections themselves, this projected path of real GDP impacts is highly uncertain. The 90 percent confidence interval ranges from a level of GDP that is 1.3 lower than the counterfactual at the 5th percentile likelihood to 4.5 percent lower at the 95th percentile. Further evidence and analysis can reduce that uncertainty.

To illustrate the potential risk, we examine federal budget impacts under the NGFS 95th percentile scenario for outcomes under current policy. Chart 3-4 shows an alternative scenario for the debt-to-GDP path based on

[2] These estimates are derived in Chart 2-1 of Chapter 2, "Economic Assumptions and Overview," in this volume.

Chart 3-4. Climate Risk Alternative



the NGFS 95th percentile projection of the level of real GDP being 4.5 percent lower by the end of the 25-year window and assuming GDP impacts begin immediately. Compared to the base case policy projection of debt being 111.3 percent of GDP at the end of the 25-year window, the risk scenario's negative shock from climate change could result in a debt ratio of 129.4 percent of GDP. GDP and fiscal impacts would be smaller under the NGFS 50th percentile scenario, but would also be expected to grow over time. These impacts are one of many reasons why there is an urgent need for action on climate change and why the 2023 President's Budget proposes significant investments to reduce the Federal Government's long-term fiscal exposure to climate-related financial risks and reduce future risks for all Americans.[3]

A future pandemic could also have a large impact on both the economy and the U.S. balance sheet. While these impacts are not quantified here, during the current pandemic, the U.S. Government has supported the American taxpayer with over $5 trillion in expanded unemployment benefits, small business cash infusions, payments to families to cover child related expenses, and checks to over 170 million Americans. In spite of these well-targeted investments, the lost economic output due to the pandemic could be as high at $1.5 trillion as of the end of 2021. Globally, the estimated direct effect of a pandemic-induced economic slowdowns range from between 0.5 to 2.0 percent of global GDP. While harder to calculate, we also saw increased indirect costs due to increased mortality and lost human capital.

To address this risk, the Budget includes transformative investments in pandemic preparedness. These investments are intended to reduce harm to lives and livelihoods. But they also could lead to better long-term economic and fiscal outcomes than what we would expect if these investments were not made.

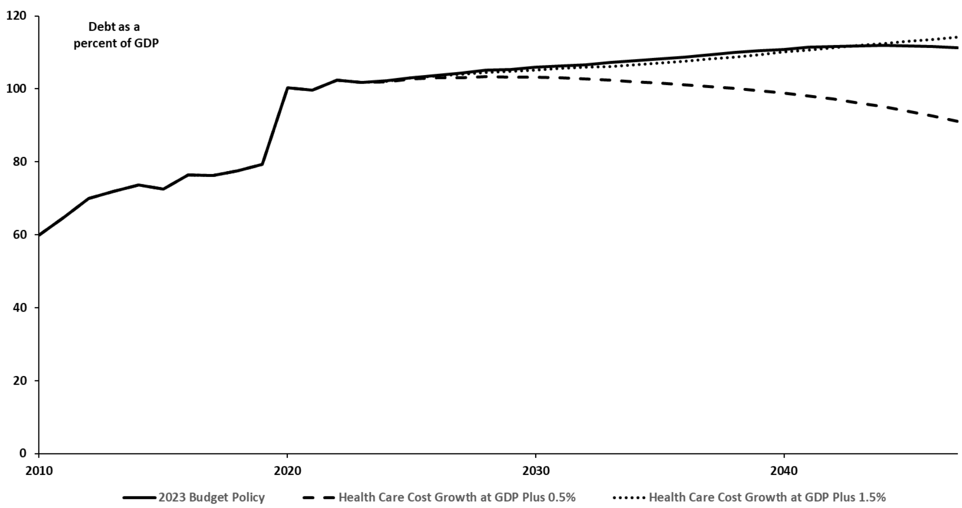
Another significant source of uncertainty is healthcare cost growth. As noted above, the baseline projections follow the Medicare Trustees in assuming that Medicare per-beneficiary costs grow an average of about 1.0 percentage points faster than GDP per capita ("excess cost growth") over the next 25 years, starting at high excess growth rates that steadily approach zero. A primary input to these projections is overall national health expenditures, the sum of all private and government health expenditures. In the past, especially prior to 1990, national health expenditures grew even more rapidly. For example, throughout the 1980s, national health per-beneficiary costs grew 3.2 percentage points faster than GDP per capita. However, on average since 2010, per-enrollee healthcare costs have grown roughly in line with GDP, with particularly slow growth in federal health expenditures for Medicare and Medicaid.

Chart 3-5 shows the debt ratio in 25 years if healthcare cost growth were to average a different growth rate, reflecting the variability of recent trends in healthcare cost growth. If healthcare cost growth equals 1.5 percentage points faster than real GDP per capita growth in every year, which is in line with the period from 2005-10, (versus starting at a higher level but then falling) the debt ratio in 25 years would increase from 111.3 percent of GDP under the base case Budget policy to 114.2 percent of GDP, with larger deviations every year thereafter. In contrast, if healthcare cost growth in every year was similar to that observed from 2010-15, 0.5 percentage points faster than real GDP per capita growth, the debt-to-GDP ratio would peak in 2028 and debt would fall to 91.1 percent of GDP by the end of the 25-year period.

Policy choices will also have a large impact on long-term budget deficits and debt, as evident from the discussion of the 2023 Budget proposals. Small permanent changes can

[3] For more information, please see Chapter 21, "Federal Budget Exposure to Climate Risk," in this volume.

Chart 3-5. Alternative Healthcare Costs

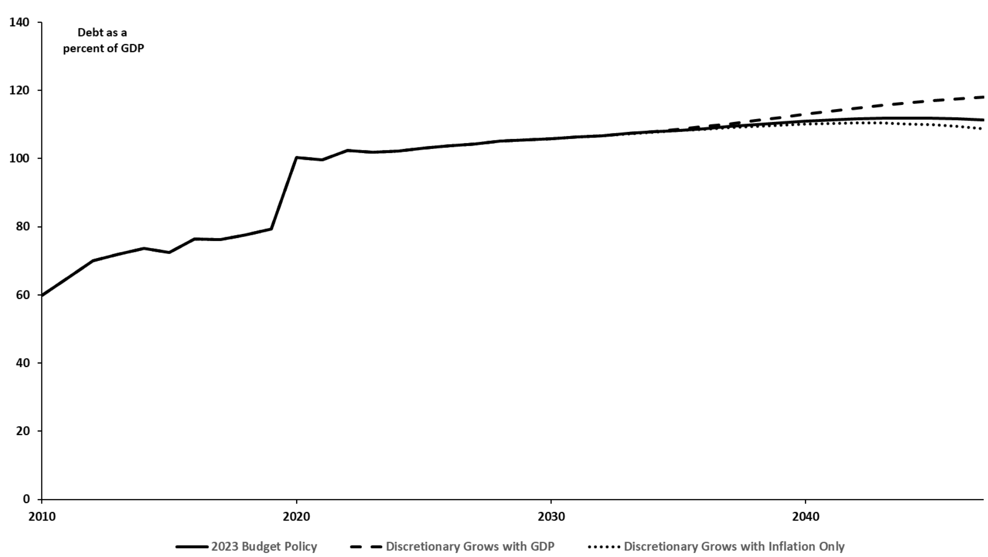


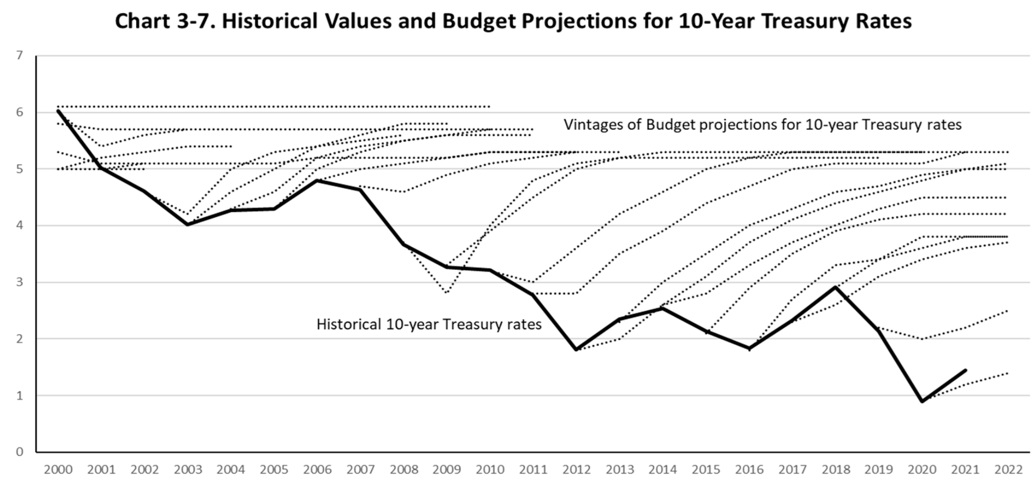
have significant long-term impacts. In the base case policy projections, revenues gradually increase with rising real income, as real bracket creep--the change in average tax rates as taxpayers' incomes rise faster than tax bracket thresholds--increases individual income taxes as a share of GDP. If receipts remain a constant percent of GDP after the budget window, the debt ratio would be expected to increase compared to the base case.

The base case policy projections for discretionary spending assumes that after 2032, discretionary outlays grow with inflation and population (see Chart 3-6). Alternative assumptions are to grow discretionary spending with GDP or with inflation only. At the end of the 25-year horizon, the debt ratio ranges from 108.8 percent of GDP in the inflation-only case to 118.1 percent of GDP in the GDP case, with the base case falling in the middle.

A final major source of uncertainty is interest rates. A rise in real interest rates would increase the burden of debt, forcing the Federal Government to raise additional revenue, reduce spending, or increase borrowing in order to pay off old debt. Over the last two decades, interest rate projections have been, on average, too high. Chart 3-7 shows the path of actual 10-year Treasury rates from 2000 to 2021 along with previous Administration forecasts for the 10-year Treasury rate. Chart 3-8 shows the equivalent chart for CBO forecasts. Table 2-5 of Chapter 2, "Economic and Budget Analyses," shows the average forecast errors in economic projections from past Federal

Chart 3-6. Alternative Discretionary Assumptions





budgets, CBO, and the Blue Chip panel of professional forecasters. On average, all three groups of forecasters have been 0.5 percentage points too high in projecting the 3-month Treasury rate two years into the future and 2.1 percentage points projecting the same rate six years out.

The Administration's forecast for interest rates over the next decade show the 10-year Treasury note rate rising to 3.3 percent in 2032. Beyond 2032, this chapter's projections assume interest rates stay constant at the 2032 level. If the actual interest rate path were lower, this would result in a lower debt-to-GDP ratio over the long run. Alternatively, as CBO projects, interest rates could continue to rise after the 10-year budget window, which would result in a higher debt-to-GDP ratio over the long run. While rates have risen recently, the Blue Chip panel of professional forecasters, as of March 2022, continues to forecast a 2032 10-year Treasury note rate of 3.0 percent, lower than the Administration forecast.

Actuarial Projections for Social Security and Medicare

While the Administration's long-run projections focus on the unified budget outlook, Social Security Old-Age and Survivors Insurance and Disability Insurance and Medicare Hospital Insurance benefits are paid out of trust funds financed by dedicated payroll tax revenues. Projected trust fund revenues fall short of the levels necessary to finance projected benefits over the next 75 years.

The Social Security and Medicare Trustees' reports feature the actuarial balance of the trust funds as a summary measure of their financial status. For each trust fund, the actuarial balance is calculated as the magnitude of change in receipts or program benefits (expressed as a percentage of taxable payroll) that would be needed to preserve a small positive balance in the trust fund at the end of a specified time period. The estimates cover periods ranging in length from 25 to 75 years.

Table 3-2 shows the projected income rate, cost rate, and annual balance for the Medicare HI and combined OASDI trust funds at selected dates under the Trustees' intermediate assumptions in the 2021 reports. There is a continued imbalance in the long-run projections of the HI program due to revenues that do not match costs over time. According to the 2021 Trustees' report, the HI trust fund reserves are projected to become depleted in 2026; in that year, dedicated revenues would be expected to be able to cover 91 percent of scheduled payments.

The 2021 Social Security Trustees' report projects that under current law, there is a long-term mismatch between

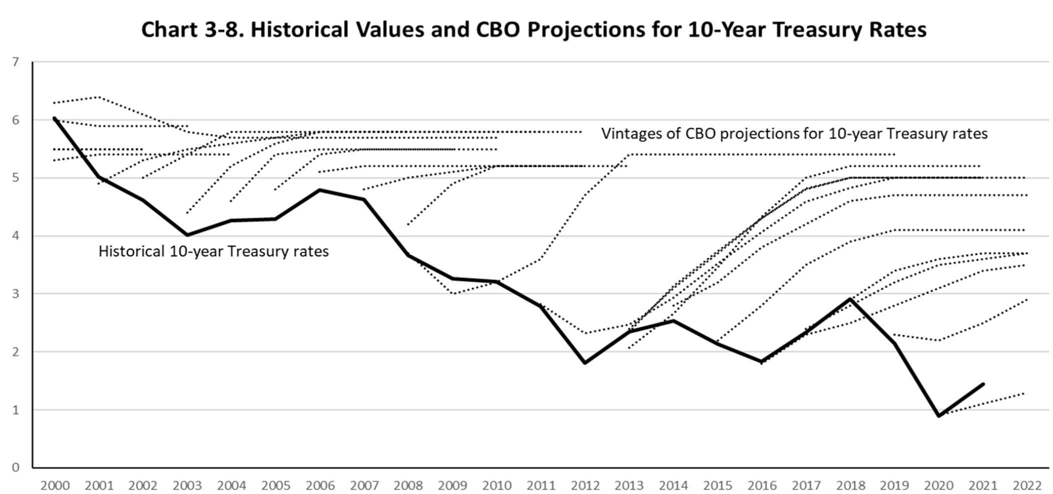


Table 3–2. INTERMEDIATE ACTUARIAL PROJECTIONS FOR OASDI AND HI, 2021 TRUSTEES' REPORTS

	2020	2021	2030	2040	2090
	Percent of Payroll				
Medicare Hospital Insurance (HI):					
Income Rate	3.4	3.4	3.6	3.8	4.4
Cost Rate	3.5	3.6	4.2	4.8	4.8
Annual Balance	–0.2	–0.3	–0.6	–1.0	–0.4
Projection Interval:			25 years	50 years	75 years
Actuarial Balance			–0.8	–0.8	–0.8
	Percent of Payroll				
Old Age Survivors and Disability Insurance (OASDI):					
Income Rate	13.5	12.3	13.2	13.3	13.4
Cost Rate	14.4	14.1	16.1	17.0	17.8
Annual Balance	–0.8	–1.8	–2.9	–3.7	–4.4
Projection Interval:			25 years	50 years	75 years
Actuarial Balance			–2.4	–3.1	–3.5

program revenue and costs. Social Security is currently drawing on its trust fund balances to cover current expenditures. Over time, as the ratio of workers to retirees falls, costs are projected to rise further while revenues excluding interest are projected to rise less rapidly. In the process, the Social Security trust fund reserves, which were built up since 1983, would be drawn down and eventually become depleted in 2034, based on the projections in the 2021 report. At that point, the dedicated revenues could pay for 78 percent of program expenditures for the rest of 2034, declining to 74 percent for 2095.

The long-term budget projections in this chapter assume that benefits would continue to be paid in full despite the projected depletion of the trust fund reserves to show the long-run cost of maintaining current benefit formulas.

TECHNICAL NOTE: SOURCES OF DATA AND METHODS OF ESTIMATING

The long-run budget projections are based on actuarial projections for Social Security and Medicare as well as demographic and economic assumptions. A simplified model of the Federal budget, developed at OMB, is used to compute the budgetary implications of these assumptions after the 10-year budget window.

Demographic and Economic Assumptions.— For the years 2022-2032, the assumptions are drawn from the Administration's economic projections used for the 2023 Budget. The economic assumptions are extended beyond this interval by holding the inflation rate, interest rates, and the unemployment rate constant at the levels assumed in the final year (2032) of the budget forecast. Population growth and labor force growth are extended using the intermediate assumptions from the 2021 Social Security Trustees' report. The projected rate of growth for real GDP is built up from the labor force assumptions and an assumed rate of productivity growth. Productivity growth, measured as real GDP per hour, is assumed to equal its terminal annual rate of growth in the Budget's economic assumptions: 1.8 percent per year.

The CPI inflation rate is held constant at 2.3 percent per year, the unemployment rate is held constant at 3.8 percent, the yield to maturity on 10-year Treasury notes is held constant at 3.2 percent, and the 91-day Treasury bill rate is held constant at 2.3 percent. Consistent with the demographic assumptions in the Trustees' reports, U.S. population growth slows from an average of just under 0.6 percent per year during the budget window to about three-quarters of that rate by the end of the 25-year projection period. Real GDP growth is projected to be less than its historical average of around 2.5 percent per year because the slowdown in population growth and the increase in the population over age 65 reduce labor supply growth. In these projections, real GDP growth averages 2.1 percent per year for the period following the end of the 10-year budget window. The economic and demographic projections described above are set exogenously and do not change in response to changes in the budget outlook.

Baseline Projections.— For the period through 2032, receipts and outlays in the baseline and policy projections follow the 2023 Budget's baseline and policy estimates respectively. Outside the budget window, discretionary spending grows at the rate of inflation and population growth. Long-run Social Security spending is projected by the Social Security actuaries using this chapter's long-run economic and demographic assumptions. Medicare benefits are projected based on a projection of beneficiary growth and excess healthcare cost growth from the 2021 Medicare Trustees' report current law baseline. Excess cost growth for private health insurance is assumed to grow at a rate that averages the excess cost growth assumed in the Medicare actuarial assumptions and provided in their Illustrative Alternative. In these projections, private health insurance excess cost growth averages 1.0 percent after 2032. Medicaid outlays are based on the economic and demographic projections in the model, which assume average excess cost growth of approximately 0.8 percentage points above growth in GDP per capita after 2032. Other entitlement programs are projected based on rules of thumb linking program spending to elements of the economic and demographic projections such as the poverty rate. Individual income tax revenues are projected using a microsimulation model that incorporates real bracket creep. Corporate tax and other receipts are projected to grow with GDP.

4. FEDERAL BORROWING AND DEBT

Debt is the largest legally and contractually binding obligation of the Federal Government. At the end of 2021, the Government owed $22,284 billion of principal to the individuals and institutions who had loaned it the money to fund past deficits. During that year, the Government paid the public approximately $413 billion of interest on this debt.[1] At the same time, the Government also held financial assets, net of financial liabilities other than debt, of $1,611 billion. Therefore, debt held by the public net of financial assets was $20,673 billion.

The $22,284 billion debt held by the public at the end of 2021 represents an increase of $1,267 billion over the level at the end of 2020. This increase is the result of the $2,775 billion deficit in 2021, partly offset by other financing transactions that reduced the need to borrow by $1,508 billion. The $1,508 billion reduction due to other financing transactions reflects a $1,567 billion decrease in Treasury's operating cash balance (discussed in more detail below), partly offset by other factors. Although debt held by the public grew in dollar terms in 2021, debt held by the public as a percent of Gross Domestic Product (GDP) fell from 100.3 percent of at the end of 2020 to 99.7 percent of GDP at the end of 2021 due to the economy growing at a significantly faster rate than the debt. The deficit is estimated to fall to $1,415 billion in 2022 and to $1,154 billion in 2023, and then to remain relatively stable as a share of GDP. Due in part to increases in Treasury's operating cash balance and other financing transactions, debt held by the public is projected to grow to $24,836 billion (102.4 percent of GDP) at the end of 2022. In 2023, debt held by the public is projected to grow in dollar terms, to $26,033 billion, but to fall as a percent of GDP, to 101.8 percent. After 2023, debt held by the public as a percent of GDP is projected to gradually increase, reaching 106.7 percent in 2032. Due to the growing cash balance and other net financial assets, in 2022 debt held by the public net of financial assets is expected to grow in dollar terms to $22,085 billion, but to fall as a percent of GDP, to 91.0 percent. In 2023, debt net of financial assets is similarly projected to grow in dollar terms, to $23,238 billion, but to fall slightly to 90.9 percent of GDP. After 2023, debt net of financial assets is projected to grow gradually in both dollar terms and as a percent of GDP, to 98.6 percent at the end of 2032.

Trends in Debt Since World War II

Table 4–1 depicts trends in Federal debt held by the public from World War II to the present and estimates from the present through 2032. (It is supplemented for earlier years by Tables 7.1–7.3 in the Budget's *Historical Tables*, available as supplemental budget material.[2]) Federal debt peaked at 106.1 percent of GDP in 1946, just after the end of the war. From that point until the 1970s, Federal debt as a percentage of GDP decreased almost every year because of relatively small deficits, an expanding economy, and unanticipated inflation. With households borrowing large amounts to buy homes and consumer durables, and with businesses borrowing large amounts to buy plant and equipment, Federal debt also decreased almost every year as a percentage of total credit market debt outstanding. The cumulative effect was impressive. From 1950 to 1975, debt held by the public declined from 78.6 percent of GDP to 24.6 percent, and from 53.3 percent of credit market debt to 17.9 percent. Despite rising interest rates during this period, interest outlays became a smaller share of the budget and were roughly stable as a percentage of GDP.

Federal debt relative to GDP is a function of the Nation's fiscal policy as well as overall economic conditions. During the 1970s, large budget deficits emerged as spending grew faster than receipts and as the economy was disrupted by oil shocks and rising inflation. Federal debt relative to GDP and credit market debt stopped declining for several years in the middle of the decade. Federal debt started growing again at the beginning of the 1980s, and increased to almost 48 percent of GDP by 1993. The ratio of Federal debt to credit market debt also rose during this period, though to a lesser extent. Interest outlays on debt held by the public, calculated as a percentage of either total Federal outlays or GDP, increased as well.

The growth of Federal debt held by the public was slowing by the mid-1990s. In addition to a growing economy, two major budget agreements were enacted in the 1990s, implementing revenue increases and spending reductions and significantly reducing deficits. The debt declined markedly relative to both GDP and total credit market debt, with the decline accelerating as budget surpluses emerged from 1998 to 2001. Debt fell from 47.9 percent of GDP in 1993 to 31.5 percent of GDP in 2001. Over that same period, debt fell from 26.2 percent of total credit market debt to 17.3 percent. Interest as a share of outlays peaked at 16.5 percent in 1989 and then fell to 8.9 percent by 2002; interest as a percentage of GDP fell by a similar proportion.

The progress in reducing the debt burden stopped and then reversed course beginning in 2002. The attacks of September 11, 2001, a recession, two major wars, and tax cuts all contributed to increasing deficits, causing debt to rise, both in nominal terms and as a percentage of GDP. Following the recession that began in December

[1] This is 2021 nominal interest on debt held by the public. For a discussion of real net interest, see Chapter 3, "Long-Term Budget Outlook."

[2] The *Historical Tables* are available at *https://www.whitehouse.gov/omb/historical-tables/*.

Table 4–1. TRENDS IN FEDERAL DEBT HELD BY THE PUBLIC AND INTEREST ON THE DEBT HELD BY THE PUBLIC

(Dollar amounts in billions)

Fiscal Year	Debt held by the public		Debt held by the public as a percent of		Interest on the debt held by the public [3]		Interest on the debt held by the public as a percent of [3]	
	Current dollars	FY 2021 dollars [1]	GDP	Credit market debt [2]	Current dollars	FY 2021 dollars [1]	Total outlays	GDP
1946	241.9	2,718.9	106.1	N/A	4.2	47.0	7.6	1.8
1950	219.0	1,989.1	78.6	53.3	4.8	44.0	11.4	1.7
1955	226.6	1,809.0	55.8	42.1	5.2	41.4	7.6	1.3
1960	236.8	1,675.4	44.3	33.1	7.8	55.3	8.5	1.5
1965	260.8	1,728.8	36.8	26.4	9.6	63.5	8.1	1.4
1970	283.2	1,564.6	27.1	20.3	15.4	84.9	7.9	1.5
1975	394.7	1,606.4	24.6	17.9	25.0	101.7	7.5	1.6
1980	711.9	2,014.4	25.5	18.4	62.8	177.6	10.6	2.2
1985	1,507.3	3,250.7	35.3	22.2	152.9	329.8	16.2	3.6
1990	2,411.6	4,468.4	40.9	22.4	202.4	375.0	16.2	3.4
1995	3,604.4	5,890.5	47.7	26.2	239.2	390.9	15.8	3.2
2000	3,409.8	5,135.7	33.7	18.7	232.8	350.7	13.0	2.3
2005	4,592.2	6,180.0	35.8	17.0	191.4	257.5	7.7	1.5
2010	9,018.9	10,999.0	60.6	24.9	228.2	278.3	6.6	1.5
2015	13,116.7	14,666.1	72.5	30.2	260.6	291.4	7.1	1.4
2016	14,167.6	15,711.2	76.4	31.2	283.8	314.8	7.4	1.5
2017	14,665.4	15,978.6	76.2	31.2	309.9	337.6	7.8	1.6
2018	15,749.6	16,769.0	77.6	31.7	371.4	395.4	9.0	1.8
2019	16,800.7	17,544.8	79.4	32.3	423.3	442.0	9.5	2.0
2020	21,016.7	21,660.0	100.3	36.0	387.4	399.3	5.9	1.8
2021	22,284.0	22,284.0	99.7	36.3	412.8	412.8	6.1	1.8
2022 estimate	24,836.2	23,901.8	102.4	N/A	415.7	400.0	7.1	1.7
2023 estimate	26,033.3	24,518.8	101.8	N/A	445.2	419.3	7.7	1.7
2024 estimate	27,270.7	25,177.3	102.2	N/A	535.1	494.0	8.8	2.0
2025 estimate	28,643.7	25,928.1	103.1	N/A	620.8	561.9	9.7	2.2
2026 estimate	29,988.1	26,611.2	103.7	N/A	707.6	627.9	10.5	2.4
2027 estimate	31,367.7	27,289.4	104.3	N/A	790.0	687.3	11.2	2.6
2028 estimate	32,923.1	28,081.1	105.2	N/A	870.1	742.1	11.6	2.8
2029 estimate	34,388.1	28,756.2	105.4	N/A	941.7	787.4	12.3	2.9
2030 estimate	36,022.1	29,527.1	105.9	N/A	1,012.6	830.0	12.5	3.0
2031 estimate	37,726.9	30,317.0	106.3	N/A	1,086.1	872.8	12.8	3.1
2032 estimate	39,541.5	31,151.5	106.7	N/A	1,150.8	906.6	13.0	3.1

N/A = Not available.

[1] Amounts in current dollars deflated by the GDP chain-type price index with fiscal year 2021 equal to 100.

[2] Total credit market debt owed by domestic nonfinancial sectors. Financial sectors are omitted to avoid double counting, since financial intermediaries borrow in the credit market primarily in order to finance lending in the credit market. Source: Federal Reserve Board flow of funds accounts. Projections are not available.

[3] Interest on debt held by the public is estimated as the interest on Treasury debt securities less the “interest received by trust funds” (subfunction 901 less subfunctions 902 and 903). The estimate of interest on debt held by the public does not include the comparatively small amount of interest paid on agency debt or the offsets for interest on Treasury debt received by other Government accounts (revolving funds and special funds).

2007, the deficit increased rapidly in 2008 and 2009, as the Government intervened in the potential collapse of several major corporations and financial institutions as well as enacting a major stimulus bill. Additional tax cuts enacted in 2017 also contributed to higher deficits. Debt as a percent of GDP grew from 35.2 percent at the end of 2007 to 79.4 percent in 2019. However, due to a decline in interest rates, despite the rising debt, net interest as a share of GDP dropped from 1.8 percent of GDP in 2007 to as low as 1.4 percent of GDP in 2015, before rising again to 2.0 percent by 2019.

As a result of the COVID-19 pandemic and the Government's actions to address the pandemic and support the economy, debt held by the public increased sharply in 2020, growing from 79.4 percent of GDP at the end of 2019 to 100.3 percent at the end of 2020. In 2021, a $1,567 billion decrease in the Treasury operating cash balance offset a significant portion of the $2,775 billion deficit. Although debt held by the public grew by $1,267 billion in 2021, it fell as a percent of GDP, to 99.7 percent, due to economic growth that outpaced the growth of the debt.

In 2022, the deficit is projected to fall to $1,415 billion. As a result of the $1,415 billion deficit and $1,137 billion in borrowing due to other financing transactions (discussed in more detail below), debt held by the public is projected to grow to $24,836 billion, or 102.4 percent of GDP. The deficit is projected to fall to $1,154 billion billion in 2023, and debt held by the public is projected to grow to $26,033 billion, but fall as a percent of GDP, to 101.8 percent. After 2023, the deficit is projected to roughly stabilize at around 5 percent as a percent of GDP. As a result, debt held by the public will gradually increase, reaching 106.7 percent of GDP by 2032. Due largely to a $1,141 billion expected increase in net financial assets, debt net of financial assets is estimated to fall to 91.0 percent of GDP. Debt net of financial assets is expected to fall to 90.9 percent of GDP at the end of 2023, and then to grow gradually in subsequent years, to 98.6 percent of GDP by the end of 2032.

Debt Held by the Public and Gross Federal Debt

The Federal Government issues debt securities for two main purposes. First, it borrows from the public to provide for the Federal Government's financing needs, including both the deficit and the other transactions requiring financing, most notably disbursements for direct student loans and other Federal credit programs.[3] Second, it issues debt to Federal Government accounts, primarily trust funds, that accumulate surpluses. By law, trust fund surpluses must generally be invested in Federal securities. The gross Federal debt is defined to consist of both the debt held by the public and the debt held by Government accounts. Nearly all the Federal debt has been issued by the Treasury and is sometimes called "public debt," but a small portion has been issued by other Government agencies and is called "agency debt."[4]

Borrowing from the public, whether by the Treasury or by some other Federal agency, is important because it represents the Federal demand on credit markets. Regardless of whether the proceeds are used for tangible or intangible investments or to finance current consumption, the Federal demand on credit markets has to be financed out of the saving of households and businesses, the State and local sector, or the rest of the world. Borrowing from the public can thus affect the size and composition of assets held by the private sector and the amount of saving imported from abroad and increase the amount of future resources required to pay interest to the public on Federal debt. Borrowing from the public is therefore an important consideration in Federal fiscal policy. Borrowing from the public, however, is an incomplete measure of the Federal impact on credit markets. Different types of Federal activities can affect the credit markets in different ways. For example, under its direct loan programs, the Government uses borrowed funds to acquire financial assets that might otherwise require financing in the credit markets directly. (For more information on other ways in which Federal activities impact the credit market, see the discussion at the end of this chapter.) By incorporating the change in direct loan and other financial assets, debt held by the public net of financial assets adds useful insight into the Government's financial condition.

Issuing debt securities to Government accounts performs an essential function in accounting for the operation of these funds. The balances of debt represent the cumulative surpluses of these funds due to the excess of their tax receipts, interest receipts, and other collections over their spending. The interest on the debt that is credited to these funds accounts for the fact that some earmarked taxes and user fees will be spent at a later time than when the funds receive the monies. The debt securities are assets of those funds but are a liability of the general fund to the funds that hold the securities, and are a mechanism for crediting interest to those funds on their recorded balances. These balances generally provide the fund with authority to draw upon the U.S. Treasury in later years to make future payments on its behalf to the public. Public policy may result in the Government's running surpluses and accumulating debt in trust funds and other Government accounts in anticipation of future spending.

However, issuing debt to Government accounts does not have any of the current credit market effects of borrowing from the public. It is an internal transaction of the Government, made between two accounts that are both within the Government itself. Issuing debt to a Government account is not a current transaction of the Government with the public; it is not financed by private

[3] For the purposes of the Budget, "debt held by the public" is defined as debt held by investors outside of the Federal Government, both domestic and foreign, including U.S. State and local governments and foreign governments. It also includes debt held by the Federal Reserve.

[4] The term "agency debt" is defined more narrowly in the budget than customarily in the securities market, where it includes not only the debt of the Federal agencies listed in Table 4–4, but also certain Government-guaranteed securities and the debt of the Government-sponsored enterprises listed in Table 19–7 in the supplemental materials to the "Credit and Insurance" chapter. (Table 19–7 is available at: *https://www.whitehouse.gov/omb/analytical-perspectives/*.)

Table 4–2. FEDERAL GOVERNMENT FINANCING AND DEBT

(In billions of dollars)

	Actual 2021	Estimate 2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Financing:												
Unified budget deficit	2,775.3	1,415.0	1,153.9	1,200.8	1,329.7	1,328.2	1,351.7	1,532.8	1,443.2	1,614.4	1,682.0	1,784.4
Other transactions affecting borrowing from the public:												
Changes in financial assets and liabilities:[1]												
Change in Treasury operating cash balance	–1,566.5	534.8	....	....	....	....	....	....	....	....	....	....
Net disbursements of credit financing accounts:												
Direct loan and Troubled Asset Relief Program (TARP) equity purchase accounts	–18.2	146.8	42.5	32.0	37.7	11.3	23.8	18.8	18.5	16.7	19.6	27.4
Guaranteed loan accounts	310.3	219.4	2.8	6.7	7.7	7.0	6.2	5.9	5.3	5.1	5.2	4.9
Subtotal, net disbursements	292.1	366.2	45.3	38.7	45.4	18.3	29.9	24.7	23.8	21.8	24.8	32.3
Net purchases of non-Federal securities by the National Railroad Retirement Investment Trust	3.6	–1.1	–1.5	–1.6	–1.5	–1.6	–1.5	–1.5	–1.5	–1.5	–1.4	–1.4
Net change in other financial assets and liabilities[2]	–237.0	237.8	....	....	....	....	....	....	....	....	....	....
Subtotal, changes in financial assets and liabilities	–1,507.9	1,137.7	43.7	37.1	43.9	16.8	28.4	23.2	22.3	20.2	23.4	30.9
Seigniorage on coins	–0.1	–0.4	–0.5	–0.5	–0.5	–0.5	–0.5	–0.6	–0.6	–0.6	–0.6	–0.6
Total, other transactions affecting borrowing from the public	–1,508.0	1,137.2	43.2	36.6	43.3	16.2	27.9	22.7	21.7	19.6	22.8	30.3
Total, requirement to borrow from the public (equals change in debt held by the public)	1,267.4	2,552.2	1,197.1	1,237.4	1,373.0	1,344.4	1,379.6	1,555.4	1,464.9	1,634.0	1,704.8	1,814.7
Changes in Debt Subject to Statutory Limitation:												
Change in debt held by the public	1,267.4	2,552.2	1,197.1	1,237.4	1,373.0	1,344.4	1,379.6	1,555.4	1,464.9	1,634.0	1,704.8	1,814.7
Change in debt held by Government accounts	215.8	354.2	104.2	135.5	29.2	13.3	–145.9	–251.7	–148.2	–281.5	–281.2	–373.7
Less: change in debt not subject to limit and other adjustments	–2.0	0.8	0.8	0.9	–0.3	0.1	0.9	0.7	0.3	–0.9	–1.1	–1.2
Total, change in debt subject to statutory limitation	1,481.1	2,907.2	1,302.1	1,373.8	1,402.0	1,357.8	1,234.6	1,304.4	1,317.1	1,351.6	1,422.5	1,439.8
Debt Subject to Statutory Limitation, End of Year:												
Debt issued by Treasury	28,365.0	31,270.9	32,571.8	33,944.6	35,346.6	36,704.0	37,937.8	39,241.4	40,557.8	41,909.4	43,331.9	44,771.7
Less: Treasury debt not subject to limitation (–)[3]	–6.5	–5.3	–4.1	–3.2	–3.2	–2.8	–2.0	–1.1	–0.5	–0.5	–0.5	–0.5
Agency debt subject to limitation	*	*	*	*	*	*	*	*	*	*	*	*
Adjustment for discount and premium[4]	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0
Total, debt subject to statutory limitation[5]	28,401.4	31,308.6	32,610.7	33,984.5	35,386.4	36,744.2	37,978.9	39,283.3	40,600.3	41,951.9	43,374.4	44,814.2
Debt Outstanding, End of Year:												
Gross Federal debt:[6]												
Debt issued by Treasury	28,365.0	31,270.9	32,571.8	33,944.6	35,346.6	36,704.0	37,937.8	39,241.4	40,557.8	41,909.4	43,331.9	44,771.7
Debt issued by other agencies	20.6	21.0	21.4	21.4	21.7	21.9	21.9	22.0	22.3	23.2	24.2	25.4
Total, gross Federal debt	28,385.6	31,291.9	32,593.2	33,966.1	35,368.3	36,726.0	37,959.7	39,263.4	40,580.1	41,932.6	43,356.2	44,797.1
As a percent of GDP	127.0%	129.0%	127.5%	127.2%	127.3%	127.0%	126.2%	125.4%	124.4%	123.3%	122.1%	120.9%

Table 4–2. FEDERAL GOVERNMENT FINANCING AND DEBT—Continued
(In billions of dollars)

	Actual 2021	Estimate										
		2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Held by:												
Debt held by Government accounts	6,101.5	6,455.7	6,559.9	6,695.4	6,724.6	6,737.9	6,592.0	6,340.2	6,192.0	5,910.5	5,629.3	5,255.6
Debt held by the public[7]	22,284.0	24,836.2	26,033.3	27,270.7	28,643.7	29,988.1	31,367.7	32,923.1	34,388.1	36,022.1	37,726.9	39,541.5
As a percent of GDP	99.7%	102.4%	101.8%	102.2%	103.1%	103.7%	104.3%	105.2%	105.4%	105.9%	106.3%	106.7%

*$50 million or less.

[1] A decrease in the Treasury operating cash balance (which is an asset) is a means of financing a deficit and therefore has a negative sign. An increase in checks outstanding (which is a liability) is also a means of financing a deficit and therefore also has a negative sign.

[2] Includes checks outstanding, accrued interest payable on Treasury debt, uninvested deposit fund balances, allocations of special drawing rights, and other liability accounts; and, as an offset, cash and monetary assets (other than the Treasury operating cash balance), other asset accounts, and profit on sale of gold.

[3] Consists primarily of debt issued by the Federal Financing Bank.

[4] Consists mainly of unamortized discount (less premium) on public issues of Treasury notes and bonds (other than zero-coupon bonds) and unrealized discount on Government account series securities.

[5] The statutory debt limit is $31,381 billion, as enacted on December 16, 2021.

[6] Treasury securities held by the public and zero-coupon bonds held by Government accounts are almost all measured at sales price plus amortized discount or less amortized premium. Agency debt securities are almost all measured at face value. Treasury securities in the Government account series are otherwise measured at face value less unrealized discount (if any).

[7] At the end of 2021, the Federal Reserve Banks held $5,433.2 billion of Federal securities and the rest of the public held $16,850.9 billion. Debt held by the Federal Reserve Banks is not estimated for future years.

savings and does not compete with the private sector for available funds in the credit market. While such issuance provides the account with assets—a binding claim against the Treasury— those assets are fully offset by the increased liability of the Treasury to pay the claims, which will ultimately be covered by the collection of revenues or by borrowing. Similarly, the current interest earned by the Government account on its Treasury securities does not need to be financed by other resources.

The debt held by Government accounts may differ from the estimated amount of the account's obligations or responsibilities to make future payments to the public. For example, if the account records the transactions of a social insurance program, the debt that it holds does not necessarily represent the actuarial present value of estimated future benefits (or future benefits less taxes) for the current participants in the program; nor does it necessarily represent the actuarial present value of estimated future benefits (or future benefits less taxes) for the current participants plus the estimated future participants over some stated time period. The future transactions of Federal social insurance and employee retirement programs, which own 89 percent of the debt held by Government accounts, are important in their own right and need to be analyzed separately. This can be done through information published in the actuarial and financial reports for these programs.[5]

This Budget uses a variety of information sources to analyze the condition of Social Security and Medicare, the Government's two largest social insurance programs. The excess of future Social Security and Medicare benefits relative to their dedicated income is very different in concept and much larger in size than the amount of Treasury securities that these programs hold.

For all of these reasons, debt held by the public and debt held by the public net of financial assets are both better gauges of the effect of the budget on the credit markets than gross Federal debt.

Government Deficits or Surpluses and the Change in Debt

Table 4–2 summarizes Federal borrowing and debt from 2021 through 2032.[6] In 2021, the Government borrowed $1,267 billion, increasing the debt held by the public from $21,017 billion at the end of 2020 to $22,284 billion at the end of 2021. The debt held by Government accounts grew by $216 billion, and gross Federal debt increased by $1,483 billion to $28,386 billion.

Debt held by the public.—The Federal Government primarily finances deficits by borrowing from the public, and it primarily uses surpluses to repay debt held by the public.[7] Table 4–2 shows the relationship between the Federal deficit or surplus and the change in debt held by the public. The borrowing or debt repayment depends on

[5] Extensive actuarial analyses of the Social Security and Medicare programs are published in the annual reports of the boards of trustees of these funds. The actuarial estimates for Social Security, Medicare, and the major Federal employee retirement programs are summarized in the *Financial Report of the United States Government*, prepared annually by the Department of the Treasury in coordination with the Office of Management and Budget, and presented in more detail in the financial statements of the agencies administering those programs.

[6] For projections of the debt beyond 2032, see Chapter 3, "Long-Term Budget Outlook."

[7] Treasury debt held by the public is measured as the sales price plus the amortized discount (or less the amortized premium). At the time of sale, the book value equals the sales price. Subsequently, it equals the sales price plus the amount of the discount that has been amortized up to that time. In equivalent terms, the book value of the debt equals the principal amount due at maturity (par or face value) less the unamortized discount. (For a security sold at a premium, the definition is symmetrical.) For inflation-protected notes and bonds, the book value includes a periodic adjustment for inflation. Agency debt is generally recorded at par.

the Government's expenditure programs and tax laws, on the economic conditions that influence tax receipts and outlays, and on debt management policy. The sensitivity of the budget to economic conditions is analyzed in Chapter 2, "Economic Assumptions and Overview," in this volume.

The total or unified budget consists of two parts: the on-budget portion; and the off-budget Federal entities, which have been excluded from the budget by law. Under present law, the off-budget Federal entities are the two Social Security trust funds (Old-Age and Survivors Insurance and Disability Insurance) and the Postal Service Fund.[8] The on-budget and off-budget surpluses or deficits are added together to determine the Government's financing needs.

Over the long run, it is a good approximation to say that "the deficit is financed by borrowing from the public" or "the surplus is used to repay debt held by the public." However, the Government's need to borrow in any given year has always depended on several other factors besides the unified budget surplus or deficit, such as the change in the Treasury operating cash balance. These other factors—"other transactions affecting borrowing from the public"—can either increase or decrease the Government's need to borrow and can vary considerably in size from year to year. The other transactions affecting borrowing from the public are presented in Table 4–2 (where an increase in the need to borrow is represented by a positive sign, like the deficit).

In 2021 the deficit was $2,775 billion while these other factors reduced the need to borrow by $1,508 billion, or -119 percent of total borrowing from the public. As a result, the Government borrowed $1,267 billion from the public. The other factors are estimated to increase borrowing by $1,137 billion (45 percent of total borrowing from the public) in 2022, and by $43 billion (4 percent) in 2023. In 2024–2032, these other factors are expected to increase borrowing by annual amounts ranging from $16 billion to $43 billion.

Three specific factors, presented in Table 4–2 and discussed below, have historically been especially important.

Change in Treasury operating cash balance.—The cash balance increased by $1,399 billion in 2020, to $1,782 billion, and decreased by $1,567 billion in 2021, to $215 billion. These are significantly larger changes than in previous years; over the 10 years prior to 2020, annual increases and decreases in the cash balance ranged from $2 billion to $252 billion. The higher 2020 cash balance was needed to manage the changes to outlays and receipts associated with the COVID-19 impacts and the Federal response. The large 2021 reduction in the cash balance is largely due to two factors. First, throughout 2021, the cash balance was gradually decreasing from its elevated end-of-2020 level to more typical levels. Second, due to the July 31 end of the debt limit suspension, the cash balance was reduced as a result of Treasury's actions to continue to finance Federal Government operations while not exceeding the debt ceiling. (The debt limit is discussed in further detail elsewhere in this chapter.) For prudent risk management purposes, Treasury seeks to maintain a cash balance at least equal to projected Government outflows, including maturing securities, over the following week, subject to a $150 billion floor. The operating cash balance is projected to increase by $535 billion, to $750 billion, at the end of 2022. Changes in the operating cash balance, while occasionally large, are inherently limited over time. Decreases in cash—a means of financing the Government—are limited by the amount of past accumulations, which themselves required financing when they were built up. Increases are limited because it is generally more efficient to repay debt.

Net financing disbursements of the direct loan and guaranteed loan financing accounts.—Under the Federal Credit Reform Act of 1990 (FCRA),[9] the budgetary program account for each credit program records the estimated subsidy costs—the present value of estimated net losses—at the time when the direct or guaranteed loans are disbursed. The individual cash flows to and from the public associated with the loans or guarantees, such as the disbursement and repayment of loans, the default payments on loan guarantees, the collection of interest and fees, and so forth, are recorded in the credit program's non-budgetary financing account. Although the non-budgetary financing account's cash flows to and from the public are not included in the deficit (except for their impact on subsidy costs), they affect Treasury's net borrowing requirements.[10]

In addition to the transactions with the public, the financing accounts include several types of intragovernmental transactions. They receive payment from the credit program accounts for the subsidy costs of new direct loans and loan guarantees and for any upward reestimate of the costs of outstanding direct and guaranteed loans. They also receive interest from Treasury on balances of uninvested funds. The financing accounts pay any negative subsidy collections or downward reestimate of costs to budgetary receipt accounts and pay interest on borrowings from Treasury. The total net collections and gross disbursements of the financing accounts, consisting of transactions with both the public and the budgetary accounts, are called "net financing disbursements." They occur in the same way as the "outlays" of a budgetary account, even though they do not represent budgetary costs, and therefore affect the requirement for borrowing from the public in the same way as the deficit.

The intragovernmental transactions of the credit program, financing, and downward reestimate receipt accounts do not affect Federal borrowing from the public. Although the deficit changes because of the budgetary account's outlay to, or receipt from, a financing account, the net financing disbursement changes in an equal amount with the opposite sign, so the effects are cancelled out. On the other hand, financing account disbursements to

[8] For further explanation of the off-budget Federal entities, see Chapter 9, "Coverage of the Budget."

[9] Title V of Public Law 93-344.

[10] The FCRA (sec. 505(b)) requires that the financing accounts be non-budgetary. They are non-budgetary in concept because they do not measure cost. For additional discussion of credit programs, see Chapter 19, "Credit and Insurance," and Chapter 8, "Budget Concepts."

the public increase the requirement for borrowing from the public in the same way as an increase in budget outlays that are disbursed to the public in cash. Likewise, receipts from the public collected by the financing account can be used to finance the payment of the Government's obligations, and therefore they reduce the requirement for Federal borrowing from the public in the same way as an increase in budgetary receipts.

Credit net financing disbursements increased borrowing by $292 billion in 2021. Credit financing accounts are projected to increase borrowing by $366 billion in 2022 and by $45 billion in 2023. From 2024 to 2032, the credit financing accounts are expected to increase borrowing by amounts ranging from $18 billion to $45 billion.

In some years, large net upward or downward reestimates in the cost of outstanding direct and guaranteed loans may cause large swings in the net financing disbursements. In 2022, upward reestimates for student loans and Small Business Administration Paycheck Protection Program loans are partly offset by downward reestimates for Federal Housing Administration (FHA) guarantees, resulting in a net downward reestimate of $9 billion. In 2021, there was a net upward reestimate of $4 billion.

Net purchases of non-Federal securities by the National Railroad Retirement Investment Trust (NRRIT).— This trust fund, which was established by the Railroad Retirement and Survivors' Improvement Act of 2001,[11] invests its assets primarily in private stocks and bonds. The Act required special treatment of the purchase or sale of non-Federal assets by the NRRIT trust fund, treating such purchases as a means of financing rather than as outlays. Therefore, the increased need to borrow from the public to finance NRRIT's purchases of non-Federal assets is part of the "other transactions affecting borrowing from the public" rather than included as an increase in the deficit. While net purchases and redemptions affect borrowing from the public, unrealized gains and losses on NRRIT's portfolio are included in both the "other transactions" and, with the opposite sign, in NRRIT's net outlays in the deficit, for no net impact on borrowing from the public. In 2021, net increases, including purchases and gains, were $3.6 billion. A $1.1 billion net decrease is projected for 2022 and net annual decreases ranging from $1.4 billion to $1.6 billion are projected for 2023 and subsequent years.[12]

Net change in other financial assets and liabilities.—In addition to the three factors discussed above, in 2021, the net change in other financial assets and liabilities was also particularly significant. Generally, the amounts in this category have relatively small impacts on total borrowing from the public. For example, this category decreased the need to borrow by $11 billion in 2020 and increased the need to borrow by $1 billion in 2019. However, in 2021, this "other" category reduced the need to borrow by a net $237 billion.

Of the net $237 billion reduction to borrowing in 2021, $157 billion was due to the temporary suspension of the daily reinvestment of the Thrift Savings Plan (TSP) Government Securities Investment Fund (G-Fund).[13] The Department of the Treasury is authorized to suspend the issuance of obligations to the TSP G-Fund as an "extraordinary measure" if issuances could not be made without causing the public debt of the United States to exceed the debt limit. The suspension of the daily reinvestment of the TSP G-Fund resulted in the amounts being moved from debt held by the public to deposit fund balances, an "other" financial liability. Once Treasury is able to do so without exceeding the debt limit, Treasury is required to fully reinvest the TSP G-Fund and restore any foregone interest. Accordingly, the TSP G-Fund was fully reinvested in December 2021, returning the amount from deposit fund balances to debt held by the public. The debt ceiling and the use of the TSP G-Fund are discussed in further detail below.

In addition, in March 2021, the Federal Communications Commission (FCC) received $81 billion in spectrum auction proceeds, which were initially recorded in a deposit fund. In 2022, FCC moved the auction proceeds from the deposit fund to an on-budget offsetting receipt account. The transfer out of the deposit fund is exactly offset by the collection in the receipt account, for no net impact on 2022 borrowing from the public.

Due primarily to the $157 billion net TSP G-Fund investment and the $81 billion transfer to the FCC receipt account, the net change in other financial assets and liabilities is projected to be $238 billion in 2022.

Debt held by Government accounts.—The amount of Federal debt issued to Government accounts depends largely on the surpluses of the trust funds, both on-budget and off-budget, which owned 88 percent of the total Federal debt held by Government accounts at the end of 2021. Net investment may differ from the surplus due to changes in the amount of cash assets not currently invested. In 2021, there was a total trust fund surplus of $161 billion,[14] while trust fund investment in Federal securities grew by $130 billion. The remainder of debt issued to Government accounts is owned by a number of special funds and revolving funds. The debt held in major accounts and the annual investments are shown in Table 4–5.

Debt Held by the Public Net of Financial Assets and Liabilities

While debt held by the public is a key measure for examining the role and impact of the Federal Government in the U.S. and international credit markets and for other purposes, it provides incomplete information on the Government's financial condition. The U.S. Government holds significant financial assets, which can be offset against debt held by the public and other financial liabilities to achieve a more complete understanding of

[11] Title I of Public Law 107-90.

[12] The budget treatment of this fund is further discussed in Chapter 8, "Budget Concepts."

[13] The TSP is a defined contribution pension plan for Federal employees. The G-Fund is one of several components of the TSP.

[14] For further discussion of trust funds, see Chapter 23, "Trust Funds and Federal Funds."

the Government's financial condition. The acquisition of those financial assets represents a transaction with the credit markets, broadening those markets in a way that is analogous to the demand on credit markets that borrowing entails. For this reason, debt held by the public is also an incomplete measure of the impact of the Federal Government in the United States and international credit markets.

One transaction that can increase both borrowing and assets is an increase to the Treasury operating cash balance. When the Government borrows to increase the Treasury operating cash balance, that cash balance also represents an asset that is available to the Federal Government. Looking at both sides of this transaction—the borrowing to obtain the cash and the asset of the cash holdings—provides much more complete information about the Government's financial condition than looking at only the borrowing from the public. Another example of a transaction that simultaneously increases borrowing from the public and Federal assets is Government borrowing to issue direct loans to the public. When the direct loan is made, the Government is also acquiring an asset in the form of future payments of principal and interest, net of the Government's expected losses on the loan. Similarly, when NRRIT increases its holdings of non-Federal securities, the borrowing to purchase those securities is offset by the value of the asset holdings.

The acquisition or disposition of Federal financial assets very largely explains the difference between the deficit for a particular year and that year's increase in debt held by the public. Debt held by the public net of financial assets is a measure that is conceptually closer to the measurement of Federal deficits or surpluses; cumulative deficits and surpluses over time more closely equal the debt held by the public net of financial assets than they do the debt held by the public.

Table 4–3 presents debt held by the public net of the Government's financial assets and liabilities. Treasury debt is presented in the Budget at book value, with no adjustments for the change in economic value that results from fluctuations in interest rates. The balances of credit financing accounts are based on projections of future cash flows. For direct loan financing accounts, the balance generally represents the net present value of anticipated future inflows such as principal and interest payments from borrowers. For guaranteed loan financing accounts, the balance generally represents the net present value of anticipated future outflows, such as default claim payments net of recoveries, and other collections, such as program fees. NRRIT's holdings of non-Federal securities are marked to market on a monthly basis. Government-sponsored enterprise stock, Air carrier worker support warrants and notes, and Emergency capital investment fund securities are measured at market value.

Due largely to the $1,567 billion decrease in the Treasury operating cash balance, partly offset by other transactions, net financial assets fell by $1,382 billion, to $1,611 billion, in 2021. This $1,611 billion in net financial assets included a cash balance of $215 billion, net credit financing account balances of $1,439 billion, and other assets and liabilities that aggregated to a net liability of $43 billion. At the end of 2021, debt held by the public was $22,284 billion, or 99.7 percent of GDP. Therefore, debt held by the public net of financial assets was $20,673 billion, or 92.5 percent of GDP. As shown in Table 4–3, the value of the Government's net financial assets is projected to increase to $2,751 billion in 2022. The projected 2022 increase is principally due to the anticipated $535 billion increase in the Treasury operating cash balance, $366 billion increase in the value of the credit financing accounts, and $157 billion net TSP G-Fund investment. While debt held by the public is expected to increase from 99.7 percent to 102.4 percent of GDP during 2022, debt net of financial assets is expected to fall from 92.5 percent to 91.0 percent of GDP, as a result of the projected increase in net financial assets.

Debt securities and other financial assets and liabilities do not encompass all the assets and liabilities of the Federal Government. For example, accounts payable occur in the normal course of buying goods and services; Social Security benefits are due and payable as of the end of the month but, according to statute, are paid during the next month; and Federal employee salaries are paid after they have been earned. Like debt securities sold in the credit market, these liabilities have their own distinctive effects on the economy. The Federal Government also has significant holdings of non-financial assets, such as land, mineral deposits, buildings, and equipment. The different types of assets and liabilities are reported annually in the financial statements of Federal agencies and in the *Financial Report of the United States Government*, prepared by the Treasury in coordination with OMB.

Treasury Debt

Nearly all Federal debt is issued by the Department of the Treasury. Treasury meets most of the Federal Government's financing needs by issuing marketable securities to the public. These financing needs include both the change in debt held by the public and the refinancing—or rollover—of any outstanding debt that matures during the year. Treasury marketable debt is sold at public auctions on a regular schedule and, because it is very liquid, can be bought and sold on the secondary market at narrow bid-offer spreads. Treasury also sells to the public a relatively small amount of nonmarketable securities, such as savings bonds and State and Local Government Series (SLGS) securities.[15] Treasury nonmarketable debt cannot be bought or sold on the secondary market.

Treasury issues marketable securities in a wide range of maturities, and issues both nominal (non-inflation-protected) and inflation-protected securities. Treasury's marketable securities include:

Treasury Bills—Treasury bills have maturities of one year or less from their issue date. In addition to the regular auction calendar of bill issuance, Treasury issues cash management bills on an as-needed basis for various reasons such as to offset the seasonal patterns of the

[15] Under the SLGS program, the Treasury offers special low-yield securities to State and local governments and other entities for temporary investment of proceeds of tax-exempt bonds.

Government's receipts and outlays. In 2020, Treasury began issuing four different maturities of cash management bills on a weekly basis in relation to the financing needed due to the impacts of the COVID-19 pandemic and the Government's response. Treasury phased out three of the four maturities of these weekly cash management bills in 2021.

Treasury Notes—Treasury notes have maturities of more than one year and up to 10 years.

Treasury Bonds—Treasury bonds have maturities of more than 10 years. The longest-maturity securities issued by Treasury are 30-year bonds. In 2020, Treasury began issuing a monthly 20-year bond.

Treasury Inflation-Protected Securities (TIPS)—Treasury inflation-protected—or inflation-indexed—securities are coupon issues for which the par value of the security rises with inflation. The principal value is adjusted daily to reflect inflation as measured by changes in the Consumer Price Index (CPI-U-NSA, with a two-month lag). Although the principal value may be adjusted downward if inflation is negative, at maturity, the securities will be redeemed at the greater of their inflation-adjusted principal or par amount at original issue.

Floating Rate Securities—Floating rate securities have a fixed par value but bear interest rates that fluctuate based on movements in a specified benchmark market interest rate. Treasury's floating rate notes are benchmarked to the Treasury 13-week bill. Currently, Treasury is issuing floating rate securities with a maturity of two years.

Historically, the average maturity of outstanding debt issued by Treasury has been about five years. The average maturity of outstanding debt was 72 months at the end of 2021.

In addition to quarterly announcements about the overall auction calendar, Treasury publicly announces in advance the auction of each security. Individuals can participate directly in Treasury auctions or can purchase securities through brokers, dealers, and other financial institutions. Treasury accepts two types of auction bids: competitive and noncompetitive. In a competitive bid, the bidder specifies the yield. A significant portion of competitive bids are submitted by primary dealers, which are banks and securities brokerages that have been designated to trade in Treasury securities with the Federal Reserve System. In a noncompetitive bid, the bidder agrees to accept the yield determined by the auction.[16] At the close of the auction, Treasury accepts all eligible noncompetitive bids and then accepts competitive bids in ascending order beginning with the lowest yield bid until

[16] Noncompetitive bids cannot exceed $5 million per bidder.

Table 4–3. DEBT HELD BY THE PUBLIC NET OF FINANCIAL ASSETS AND LIABILITIES
(Dollar amounts in billions)

	Actual	Estimate										
	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Debt Held by the Public:												
Debt held by the public	22,284.0	24,836.2	26,033.3	27,270.7	28,643.7	29,988.1	31,367.7	32,923.1	34,388.1	36,022.1	37,726.9	39,541.5
As a percent of GDP	99.7%	102.4%	101.8%	102.2%	103.1%	103.7%	104.3%	105.2%	105.4%	105.9%	106.3%	106.7%
Financial Assets Net of Liabilities:												
Treasury operating cash balance	215.2	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0
Credit financing account balances:												
Direct loan and TARP equity purchase accounts	1,595.1	1,741.8	1,784.3	1,816.3	1,854.0	1,865.3	1,889.1	1,907.9	1,926.4	1,943.1	1,962.7	1,990.1
Guaranteed loan accounts	–156.4	63.0	65.8	72.5	80.2	87.1	93.3	99.2	104.5	109.6	114.8	119.7
Subtotal, credit financing account balances	1,438.6	1,804.8	1,850.1	1,888.7	1,934.1	1,952.4	1,982.4	2,007.1	2,030.9	2,052.7	2,077.5	2,109.8
Government-sponsored enterprise stock [1]	220.9	220.9	220.9	220.9	220.9	220.9	220.9	220.9	220.9	220.9	220.9	220.9
Air carrier worker support warrants and notes [2]	15.2	15.1	14.9	14.8	14.0	13.3	12.8	12.2	11.7	5.7	....	....
Emergency capital investment fund securities	....	3.2	3.2	3.2	3.2	3.0	2.8	2.7	2.7	2.6	2.5	2.4
Non-Federal securities held by NRRIT	27.5	26.4	24.9	23.3	21.8	20.2	18.7	17.2	15.7	14.2	12.7	11.3
Other assets net of liabilities	–306.8	–69.1	–69.1	–69.1	–69.1	–69.1	–69.1	–69.1	–69.1	–69.1	–69.1	–69.1
Total, financial assets net of liabilities	1,610.6	2,751.3	2,794.8	2,831.8	2,874.9	2,890.8	2,918.6	2,941.1	2,962.8	2,976.9	2,994.5	3,025.3
Debt Held by the Public Net of Financial Assets and Liabilities:												
Debt held by the public net of financial assets	20,673.5	22,084.9	23,238.4	24,438.8	25,768.8	27,097.3	28,449.1	29,982.0	31,425.3	33,045.2	34,732.4	36,516.2
As a percent of GDP	92.5%	91.0%	90.9%	91.6%	92.7%	93.7%	94.6%	95.8%	96.4%	97.1%	97.8%	98.6%

[1] Treasury's warrants to purchase 79.9 percent of the common stock of the enterprises expire after September 7, 2028. The warrants were valued at $5 billion at the end of 2021.

[2] Portions of the notes and warrants issued under the Air carrier worker support program (Payroll support program) are scheduled to expire in 2025, 2026, 2030, and 2031.

the offering amount is reached. All winning bidders receive the highest accepted yield bid.

Treasury marketable securities are highly liquid and actively traded on the secondary market, which enhances the demand for Treasuries at initial auction. The demand for Treasury securities is reflected in the ratio of bids received to bids accepted in Treasury auctions; the demand for the securities is substantially greater than the level of issuance. Because they are backed by the full faith and credit of the United States Government, Treasury marketable securities are considered to be credit "risk-free." Therefore, the Treasury yield curve is commonly used as a benchmark for a wide variety of purposes in the financial markets.

Whereas Treasury issuance of marketable debt is based on the Government's financing needs, Treasury's issuance of nonmarketable debt is based on the public's demand for the specific types of investments. Increases in outstanding balances of nonmarketable debt, such as occurred in 2021, reduce the need for marketable borrowing.[17]

Agency Debt

A few Federal agencies other than Treasury, shown in Table 4–4, sell or have sold debt securities to the public and, at times, to other Government accounts. Currently, new debt is issued only by the Tennessee Valley Authority (TVA) and the Federal Housing Administration; the remaining agencies are repaying past borrowing. Agency debt was $20.6 billion at the end of 2021. Agency debt is less than one-tenth of one percent of Federal debt held by the public. Primarily as a result of TVA activity, agency debt is estimated to grow to $21.0 billion at the end of 2022 and $21.4 billion at the end of 2023.

The predominant agency borrower is TVA, which had borrowings of $20.5 billion from the public as of the end of 2021, or over 99 percent of the total debt of all agencies other than Treasury. TVA issues debt primarily to finance capital projects.

TVA has traditionally financed its capital construction by selling bonds and notes to the public. Since 2000, it has also had available two types of alternative financing methods, lease financing obligations and prepayment obligations. Under the lease financing obligations method, TVA signs long-term contracts to lease some facilities and equipment. The lease payments under these contracts ultimately secure the repayment of third-party capital used to finance construction of the facility. TVA retains substantially all of the economic benefits and risks related to ownership of the assets.[18] As of the end of 2019, there are no outstanding obligations for prepayments.[19]

OMB determined that each of the two alternative financing methods is a means of financing the acquisition of assets owned and used by the Government, or of refinancing debt previously incurred to finance such assets. They are equivalent in concept to other forms of borrowing from the public, although under different terms and conditions. The budget therefore records the upfront cash proceeds from these methods as borrowing from the public, not offsetting collections.[20] The budget presentation is consistent with the reporting of these obligations as liabilities on TVA's balance sheet under generally accepted accounting principles. At the end of 2021, lease financing obligations were $1.1 billion. Table 4–4 presents lease financing obligations separately from TVA bonds and notes to distinguish between the types of borrowing.

Although the FHA generally makes direct disbursements to the public for default claims on FHA-insured mortgages, it may also pay claims by issuing debentures. Issuing debentures to pay the Government's bills is equivalent to selling securities to the public and then paying the bills by disbursing the cash borrowed, so the transaction is recorded as being simultaneously an outlay and borrowing. The debentures are therefore classified as agency debt.

A number of years ago, the Federal Government guaranteed the debt used to finance the construction of a building for the Architect of the Capitol and subsequently exercised full control over the design, construction, and operation of the building. This arrangement is equivalent to direct Federal construction financed by Federal borrowing. The construction expenditures and interest were therefore classified as Federal outlays, and the borrowing was classified as Federal agency borrowing from the public.

Several Federal agencies borrow from the Bureau of the Fiscal Service (Fiscal Service) or the Federal Financing Bank (FFB), both within the Department of the Treasury. Agency borrowing from the FFB or the Fiscal Service is not included in gross Federal debt. It would be double counting to add together: (a) the agency borrowing from the Fiscal Service or FFB; and (b) the Treasury borrowing from the public that is needed to provide the Fiscal Service or FFB with the funds to lend to the agencies.

Debt Held by Government Accounts

Trust funds, and some special funds and public enterprise revolving funds, accumulate cash in excess of current

[17] Detail on the marketable and nonmarketable securities issued by Treasury is found in the *Monthly Statement of the Public Debt,* published on a monthly basis by the Department of the Treasury.

[18] This arrangement is at least as governmental as a "lease-purchase without substantial private risk." For further detail on the current budgetary treatment of lease-purchase without substantial private risk, see OMB Circular No. A–11, Appendix B.

[19] Under the prepayment obligations method, TVA's power distributors prepay a portion of the price of the power they plan to purchase in the future. In return, they obtain a discount on a specific quantity of the future power they buy from TVA. The quantity varies, depending on TVA's estimated cost of borrowing.

[20] This budgetary treatment differs from the treatment in the *Monthly Treasury Statement of Receipts and Outlays of the United States Government* (Monthly Treasury Statement) Table 6 Schedule C, and the *Combined Statement of Receipts, Outlays, and Balances of the United States Government* Schedule 3, both published by the Treasury. These two schedules, which present debt issued by agencies other than Treasury, exclude the TVA alternative financing arrangements. This difference in treatment is one factor causing minor differences between debt figures reported in the Budget and debt figures reported by Treasury. The other factors are adjustments for the timing of the reporting of Federal debt held by NRRIT and treatment of the Federal debt held by the Securities Investor Protection Corporation and the Public Company Accounting Oversight Board.

Table 4–4. AGENCY DEBT
(In millions of dollars)

	2021 Actual		2022 Estimate		2023 Estimate	
	Borrowing/ Repayment(–)	Debt, End-of-Year	Borrowing/ Repayment(–)	Debt, End-of-Year	Borrowing/ Repayment(–)	Debt, End-of-Year
Borrowing from the public:						
Housing and Urban Development:						
Federal Housing Administration	....	19	....	19	....	19
Architect of the Capitol	–13	45	–14	31	–15	16
Tennessee Valley Authority:						
Bonds and notes	–637	19,437	474	19,911	466	20,377
Lease financing obligations	–242	1,104	–71	1,033	–41	992
Total, borrowing from the public	–891	20,605	389	20,994	410	21,404
Borrowing from other funds:						
Tennessee Valley Authority [1]	*	1	....	1	....	1
Total, borrowing from other funds	*	1	....	1	....	1
Total, agency borrowing	**–891**	**20,606**	**389**	**20,995**	**410**	**21,405**
Memorandum:						
Tennessee Valley Authority bonds and notes, total	–637	19,438	474	19,912	466	20,378

* $500,000 or less.
[1] Represents open market purchases by the National Railroad Retirement Investment Trust.

needs in order to meet future obligations. These cash surpluses are generally invested in Treasury securities.

The total investment holdings of trust funds and other Government accounts increased by $216 billion in 2021. Net investment by Government accounts is estimated to be $354 billion in 2022 and $104 billion in 2023, as shown in Table 4–5. The holdings of Federal securities by Government accounts are estimated to grow to $6,560 billion by the end of 2023, or 20 percent of the gross Federal debt. The percentage is estimated to decrease gradually over the next 10 years.

The Government account holdings of Federal securities are concentrated among a few funds: the Social Security Old-Age and Survivors Insurance and Disability Insurance trust funds; the Medicare Hospital Insurance and Supplementary Medical Insurance trust funds; and four Federal employee retirement funds. These Federal employee retirement funds include two trust funds, the Military Retirement Fund and the Civil Service Retirement and Disability Fund (CSRDF), and two special funds, the Department of Defense Medicare-Eligible Retiree Health Care Fund (MERHCF) and the Postal Service Retiree Health Benefits Fund (PSRHBF). At the end of 2023, these Social Security, Medicare, and Federal employee retirement funds are estimated to own 87 percent of the total debt held by Government accounts. During 2021–2023, the Military Retirement Fund has a large surplus and is estimated to invest a total of $362 billion, 54 percent of total net investment by Government accounts. Some Government accounts are projected to have net disinvestment in Federal securities during 2021–2023.

Technical note on measurement.—The Treasury securities held by Government accounts consist almost entirely of the Government account series. Most were issued at par value (face value), and the securities issued at a discount or premium are traditionally recorded at par in the OMB and Treasury reports on Federal debt. However, there are two kinds of exceptions.

First, Treasury issues zero-coupon bonds to a very few Government accounts. Because the purchase price is a small fraction of par value and the amounts are large, the holdings are recorded in Table 4–5 at par value less unamortized discount. The only Government accounts that held zero-coupon bonds during 2021 are the Nuclear Waste Disposal Fund in the Department of Energy, the Military Retirement Fund, and the MERHCF. The unamortized discount on zero-coupon bonds held by these three funds was $22.5 billion at the end of 2021.

Second, Treasury subtracts the unrealized discount on other Government account series securities in calculating "net Federal securities held as investments of Government accounts." Unlike the discount recorded for zero-coupon bonds and debt held by the public, the unrealized discount is the discount at the time of issue and is not amortized over the term of the security. In Table 4–5 it is shown as a separate item at the end of the table and not distributed by account. The amount was $3.1 billion at the end of 2021.

Debt Held by the Federal Reserve

The Federal Reserve acquires marketable Treasury securities as part of its exercise of monetary policy. For purposes of the Budget and reporting by the Department of the Treasury, the transactions of the Federal Reserve are considered to be non-budgetary, and accordingly the Federal Reserve's holdings of Treasury securities are included as part of debt held by the public.[21] Federal

[21] For further detail on the monetary policy activities of the Federal Reserve and the treatment of the Federal Reserve in the Budget, see

Reserve holdings were $5,433 billion (24 percent of debt held by the public) at the end of 2021. Over the last 10 years, the Federal Reserve holdings have averaged 18 percent of debt held by the public. The historical holdings of the Federal Reserve are presented in Table 7.1 in the Budget's *Historical Tables*. The Budget does not project Federal Reserve holdings for future years.

Limitations on Federal Debt

Definition of debt subject to limit.—Statutory limitations have usually been placed on Federal debt. Until World War I, the Congress ordinarily authorized a specific amount of debt for each separate issue. Beginning with the Second Liberty Bond Act of 1917, however, the nature of the limitation was modified in several steps until it developed into a ceiling on the total amount of most Federal debt outstanding. This last type of limitation has been in effect since 1941. The limit currently applies to most debt issued by the Treasury since September 1917, whether held by the public or by Government accounts; and other debt issued by Federal agencies that, according to explicit statute, is guaranteed as to principal and interest by the U.S. Government.

The third part of Table 4–2 compares total Treasury debt with the amount of Federal debt that is subject to the limit. Nearly all Treasury debt is subject to the debt limit.

A large portion of the Treasury debt not subject to the general statutory limit was issued by the Federal Financing Bank. The FFB is authorized to have outstanding up to $15 billion of publicly issued debt. The FFB has on occasion issued this debt to CSRDF in exchange for equal amounts of regular Treasury securities. The FFB securities have the same interest rates and maturities as the Treasury securities for which they were exchanged. Most recently, the FFB issued: $9 billion to the CSRDF on October 1, 2013, with maturity dates from June 30, 2015, through June 30, 2024; and $3 billion of securities to the CSRDF on October 15, 2015, with maturity dates from June 30, 2026, through June 30, 2029. The outstanding balance of FFB debt held by CSRDF was $6 billion at the end of 2021 and is projected to be $5 billion at the end of 2022.

The other Treasury debt not subject to the general limit consists almost entirely of silver certificates and other currencies no longer being issued. It was $478 million at the end of 2021 and is projected to gradually decline over time.

The sole agency debt currently subject to the general limit, $209 thousand at the end of 2021, is certain debentures issued by the Federal Housing Administration.[22]

Some of the other agency debt, however, is subject to its own statutory limit. For example, the Tennessee Valley Authority is limited to $30 billion of bonds and notes outstanding.

The comparison between Treasury debt and debt subject to limit also includes an adjustment for measurement differences in the treatment of discounts and premiums. As explained earlier in this chapter, debt securities may be sold at a discount or premium, and the measurement of debt may take this into account rather than recording the face value of the securities. However, the measurement differs between gross Federal debt (and its components) and the statutory definition of debt subject to limit. An adjustment is needed to derive debt subject to limit (as defined by law) from Treasury debt. The amount of the adjustment was $43 billion at the end of 2021 compared with the total unamortized discount (less premium) of $64 billion on all Treasury securities.

Changes in the debt limit.—The statutory debt limit has been changed many times. Since 1960, the Congress has passed 87 separate acts to raise the limit, revise the definition, extend the duration of a temporary increase, or temporarily suspend the limit.[23]

Prior to October 2021, the seven most recent laws addressing the debt limit had each provided for a temporary suspension followed by an increase in an amount equivalent to the debt that was issued during that suspension period in order to fund commitments requiring payment through the specified end date. Most recently, the Bipartisan Budget Act of 2019[24] suspended the $21,988 billion debt ceiling from August 2, 2019, through July 31, 2021, and then raised the debt limit on August 1, 2021, by $6,414 billion to $28,401 billion. On October 14, 2021, enacted legislation[25] increased the dollar debt ceiling by $480 billion, to $28,881 billion. On December 16, 2021, enacted legislation[26] further increased the dollar debt ceiling by $2,500 billion, to $31,381 billion.

At many times in the past several decades, including 2018, 2019, and 2021, the Government has reached the statutory debt limit before an increase has been enacted. When this has occurred, it has been necessary for the Treasury to take "extraordinary measures" to meet the Government's obligation to pay its bills and invest its trust funds while remaining below the statutory limit.

One such extraordinary measure is the partial or full suspension of the daily reinvestment of the TSP G-Fund. The Treasury Secretary has statutory authority to suspend investment of the G-Fund in Treasury securities as needed to prevent the debt from exceeding the debt limit. Treasury determines each day the amount of investments that would allow the fund to be invested as fully as possible without exceeding the debt limit. The TSP G-Fund had an outstanding balance of $307 billion at the end of February 2022. The Treasury Secretary is also authorized to suspend investments in the CSRDF and to declare a debt issuance suspension period, which allows the redemption of a limited amount of securities held by the CSRDF. The Postal Accountability and Enhancement Act[27] provides that investments in the Postal Service Retiree Health Benefits Fund shall be made in the same

Chapter 9, "Coverage of the Budget."

[22] At the end of 2021, there were also $18 million of FHA debentures not subject to limit.

[23] The Acts and the statutory limits since 1940 are listed in Table 7.3 of the Budget's *Historical Tables*, available at *https://www.whitehouse.gov/omb/historical-tables/*.

[24] Title III of Public Law 116–37.

[25] Public Law 117–50.

[26] Public Law 117-73.

[27] Title VIII of Public Law 109-435.

Table 4–5. DEBT HELD BY GOVERNMENT ACCOUNTS[1]

(In millions of dollars)

Description	Investment or Disinvestment (–)			Holdings, End of 2023 Estimate
	2021 Actual	2022 Estimate	2023 Estimate	
Investment in Treasury debt:				
Judicial Branch:				
Judicial Officers' Retirement Fund	137	127	111	1,229
Commerce:				
Public Safety Trust Fund	4,493	50	50	12,259
Defense--Military:				
Host Nation Support Fund for Relocation	10	–661	54	1,190
Energy:				
Nuclear Waste Disposal Fund[1]	1,729	3,021	3,020	50,109
Health and Human Services:				
Federal Hospital Insurance Trust Fund	2,433	25,766	–11,386	150,548
Federal Supplementary Medical Insurance Trust Fund	83,200	–13,950	22,324	179,051
Vaccine Injury Compensation Fund	87	180	187	4,421
Homeland Security:				
Aquatic Resources Trust Fund	141	–36	152	2,340
Oil Spill Liability Trust Fund	518	831	730	9,394
National Flood Insurance Reserve Fund	–304	1,713	626	3,681
Housing and Urban Development:				
Federal Housing Administration Mutual Mortgage Insurance Capital Reserve	26,195	28,362	8,860	131,354
Guarantees of Mortgage-Backed Securities Capital Reserve	5,770	6,943	2,312	23,426
Interior:				
Bureau of Land Management Permanent Operating Funds	47	151	4,780	6,020
Abandoned Mine Reclamation Fund	–61	10,394	–825	12,141
Federal Aid in Wildlife Restoration Fund	480	62	–14	2,588
Environmental Improvement and Restoration Fund	18	9	12	1,581
Natural Resource Damage Assessment Fund	129	225	150	2,400
National Parks and Public Land Legacy Restoration Fund	1,660	241	390	2,291
Justice:				
Assets Forfeiture Fund	–1,885	1	1	1,341
Labor:				
Unemployment Trust Fund	2,621	5,728	9,778	68,641
Pension Benefit Guaranty Corporation	4,770	4,909	5,797	61,029
State:				
Foreign Service Retirement and Disability Trust Fund	367	373	373	21,093
Transportation:				
Airport and Airway Trust Fund	8,002	–2,882	–2,128	10,892
Highway Trust Fund	–37	94,400	–23,600	82,843
Aviation Insurance Revolving Fund	–85	96	17	2,330
Treasury:				
Exchange Stabilization Fund	11,667	43	346	23,226
Treasury Forfeiture Fund	607	183	21	2,029
Gulf Coast Restoration Trust Fund	162	122	78	2,043
Comptroller of the Currency Assessment Fund	106	24	25	2,139
Veterans Affairs:				
Servicemembers' Group Life Insurance Fund	1,261	642	546	3,711
National Service Life Insurance Trust Fund	–470	–423	–335	718
Veterans Special Life Insurance Fund	–158	–147	–123	794
Corps of Engineers:				
Harbor Maintenance Trust Fund	64	126	156	9,406
Other Defense-Civil:				
Military Retirement Fund[1]	116,322	116,042	129,778	1,269,170
Medicare-Eligible Retiree Health Care Fund[1]	21,020	15,970	17,234	320,347

Table 4–5. DEBT HELD BY GOVERNMENT ACCOUNTS[1]—Continued

(In millions of dollars)

Description	Investment or Disinvestment (–)			Holdings, End of 2023 Estimate
	2021 Actual	2022 Estimate	2023 Estimate	
Education Benefits Fund	–41	–28	–97	884
Environmental Protection Agency:				
Hazardous Substance Superfund	115	2,198	–3,440	3,806
Leaking Underground Storage Tank Trust Fund	142	153	150	1,340
International Assistance Programs:				
Development Finance Corporation Corporate Capital Account	–37	144	54	6,326
Office of Personnel Management:				
Civil Service Retirement and Disability Trust Fund	–36,237	81,484	16,302	1,023,632
Postal Service Retiree Health Benefits Fund	–3,019	–3,059	–3,617	32,173
Employees Life Insurance Fund	1,023	1,003	1,023	52,177
Employees and Retired Employees Health Benefits Fund	–352	3,518	979	32,475
Social Security Administration:				
Federal Old-Age and Survivors Insurance Trust Fund[2]	–55,429	–52,052	–100,470	2,603,263
Federal Disability Insurance Trust Fund[2]	823	16,298	16,624	130,954
Corporation for National and Community Service:				
National Service Trust	826	–827	50	235
District of Columbia:				
Federal Pension Fund	45	18	34	3,913
Farm Credit System Insurance Corporation:				
Farm Credit System Insurance Fund	212	490	450	6,305
Federal Deposit Insurance Corporation:				
Deposit Insurance Fund	6,578	7,071	8,703	131,301
National Credit Union Administration:				
Share Insurance Fund	1,918	4,249	605	23,382
Central Liquidity Facility	115	21	–373	796
Postal Service:				
Postal Service Fund[2]	9,664	–4,861	–1,963	17,831
Railroad Retirement Board:				
Railroad Retirement Board trust funds	849	88	–138	2,501
Securities Investor Protection Corporation[3]	363	347	325	4,702
United States Enrichment Corporation Fund	–287	–822	–528	81
Other Federal funds	–900	63	–34	5,021
Other trust funds	215	166	156	3,347
Unrealized discount[1]	–1,713	....	....	–3,105
Total, investment in Treasury debt[1]	**215,750**	**354,169**	**104,181**	**6,559,885**
Investment in agency debt:				
Railroad Retirement Board:				
National Railroad Retirement Investment Trust	*	....	....	1
Total, investment in agency debt	*****	**........**	**........**	**1**
Total, investment in Federal debt[1]	**215,750**	**354,169**	**104,181**	**6,559,886**
Memorandum:				
Investment by Federal funds (on-budget)	78,007	81,487	48,892	863,604
Investment by Federal funds (off-budget)	9,664	–4,861	–1,963	17,831
Investment by trust funds (on-budget)	184,398	313,297	141,098	2,947,340
Investment by trust funds (off-budget)	–54,606	–35,754	–83,846	2,734,217
Unrealized discount[1]	–1,713	....	....	–3,105

* $500 thousand or less.

[1] Debt held by Government accounts is measured at face value except for Treasury zero-coupon bonds, which are recorded at market or redemption price; and the unrealized discount on Government account series, which is not distributed by account. If recorded at face value, at the end of 2021 the debt figure would be $11.3 billion higher for the Nuclear Waste Disposal Fund, $8.7 billion higher for the Military Retirement Fund, and $2.6 billion higher for the Medicare-Eligible Retiree Health Care Fund than recorded in this table. Changes are not estimated in the unrealized discount.

[2] Off-budget Federal entity.

[3] Amounts on calendar-year basis.

manner as investments in the CSRDF.[28] Therefore, Treasury is able to take similar administrative actions with the PSRHBF. The law requires that when any such actions are taken with the G-Fund, the CSRDF, or the PSRHBF, the Treasury Secretary is required to make the fund whole after the debt limit has been raised by restoring the forgone interest and investing the fund fully. Another measure for staying below the debt limit is disinvestment of the Exchange Stabilization Fund. The outstanding balance in the Exchange Stabilization Fund was $21 billion at the end of February.

As the debt has neared the limit, including in 2019 and 2021, Treasury has also suspended the issuance of SLGS to reduce unanticipated fluctuations in the level of the debt. At times, Treasury has also adjusted the schedule for auctions of marketable securities.

In addition to these steps, Treasury has previously exchanged Treasury securities held by the CSRDF with borrowing by the FFB, which, as explained above, is not subject to the debt limit. This measure was most recently taken in October 2015.

The debt limit has always been increased prior to the exhaustion of Treasury's limited available administrative actions to continue to finance Government operations when the statutory ceiling has been reached. Failure to enact a debt limit increase before these actions were exhausted would have significant and long-term negative consequences. The Federal Government could be forced to delay or discontinue payments on its broad range of obligations, including Social Security and other payments to individuals, Medicaid and other grant payments to States, individual and corporate tax refunds, Federal employee salaries, payments to vendors and contractors, principal and interest payments on Treasury securities, and other obligations. If Treasury were unable to make timely interest payments or redeem securities, investors would cease to view U.S. Treasury securities as free of credit risk and Treasury's interest costs would increase. Because interest rates throughout the economy are benchmarked to the Treasury rates, interest rates for State and local governments, businesses, and individuals would also rise. Foreign investors would likely shift out of dollar-denominated assets, driving down the value of the dollar and further increasing interest rates on non-Federal, as well as Treasury, debt.

The debt subject to limit is estimated to increase to $31,309 billion by the end of 2022 and to $32,611 billion by the end of 2023. The Budget anticipates timely congressional action to address the statutory limit as necessary before exhaustion of Treasury's extraordinary measures.

Federal funds financing and the change in debt subject to limit.—The change in debt held by the public, as shown in Table 4–2, and the change in debt held by the public net of financial assets are determined primarily by the total Government deficit or surplus. The debt subject to limit, however, includes not only debt held by the public but also debt held by Government accounts. The change in debt subject to limit is therefore determined both by the factors that determine the total Government deficit or surplus and by the factors that determine the change in debt held by Government accounts. The effect of debt held by Government accounts on the total debt subject to limit can be seen in the second part of Table 4–2. The change in debt held by Government accounts is equal to 12 percent of the estimated total 2022 increase in debt subject to limit.

The Budget is composed of two groups of funds, Federal funds and trust funds. The Federal funds, in the main, are derived from tax receipts and borrowing and are used for the general purposes of the Government. The trust funds, on the other hand, are financed by taxes or other receipts dedicated by law for specified purposes, such as for paying Social Security benefits or making grants to State governments for highway construction.[29]

A Federal funds deficit must generally be financed by borrowing, which can be done either by selling securities to the public or by issuing securities to Government accounts that are not within the Federal funds group. Federal funds borrowing consists almost entirely of Treasury securities that are subject to the statutory debt limit. Very little debt subject to statutory limit has been issued for reasons except to finance the Federal funds deficit. The change in debt subject to limit is therefore determined primarily by the Federal funds deficit, which is equal to the difference between the total Government deficit or surplus and the trust fund surplus. Trust fund surpluses are almost entirely invested in securities subject to the debt limit, and trust funds hold most of the debt held by Government accounts. The trust fund surplus reduces the total budget deficit or increases the total budget surplus, decreasing the need to borrow from the public or increasing the ability to repay borrowing from the public. When the trust fund surplus is invested in Federal securities, the debt held by Government accounts increases, offsetting the decrease in debt held by the public by an equal amount. Thus, there is no net effect on gross Federal debt.

Table 4–6 derives the change in debt subject to limit. In 2021 the Federal funds deficit was $2,936 billion, and other factors reduced financing requirements by $1,512 billion. The change in the Treasury operating cash balance decreased financing requirements by $1,567 billion, net financing disbursements of credit financing accounts increased financing requirements by a net $292 billion, and other factors decreased financing requirements by $237 billion. As discussed earlier in this chapter, this net $237 billion in other factors was mainly due to the disinvestment of the TSP G-Fund and the collection of FCC auction proceeds. In addition, special funds and revolving funds, which are part of the Federal funds group, invested a net of $88 billion in Treasury securities. Adjustments are also made for the difference between the trust fund surplus or deficit and the trust funds' investment or disinvestment in Federal securities (including the changes in NRRIT's investments in non-Federal securities) and for the change in unrealized discount on Federal debt held

[28] Both the CSRDF and the PSRHBF are administered by the Office of Personnel Management.

[29] For further discussion of the trust funds and Federal funds groups, see Chapter 23, "Trust Funds and Federal Funds."

Table 4–6. FEDERAL FUNDS FINANCING AND CHANGE IN DEBT SUBJECT TO STATUTORY LIMIT
(In billions of dollars)

Description	Actual 2021	Estimate										
		2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Change in Gross Federal Debt:												
Federal funds deficit	2,936.2	1,675.4	1,212.9	1,294.9	1,319.0	1,297.3	1,151.1	1,223.8	1,235.2	1,266.7	1,328.3	1,344.7
Other transactions affecting borrowing from the public -- Federal funds [1]	–1,511.6	1,138.3	44.8	38.2	44.9	17.8	29.4	24.2	23.2	21.2	24.2	31.7
Increase (+) or decrease (–) in Federal debt held by Federal funds	87.7	76.6	46.9	41.0	39.4	43.7	54.4	56.8	59.4	65.9	72.2	65.7
Adjustments for trust fund surplus/deficit not invested/disinvested in Federal securities [2]	–27.5	16.0	–3.3	–1.1	–1.1	–1.1	–1.1	–1.1	–1.2	–1.2	–1.1	–1.1
Change in unrealized discount on Federal debt held by Government accounts	–1.7	....	....	....	....	....	....	....	....	....	....	....
Total financing requirements	1,483.1	2,906.3	1,301.3	1,372.9	1,402.2	1,357.7	1,233.7	1,303.7	1,316.7	1,352.5	1,423.6	1,440.9
Change in Debt Subject to Limit:												
Change in gross Federal debt	1,483.1	2,906.3	1,301.3	1,372.9	1,402.2	1,357.7	1,233.7	1,303.7	1,316.7	1,352.5	1,423.6	1,440.9
Less: increase (+) or decrease (–) in Federal debt not subject to limit	–2.1	–0.8	–0.8	–0.9	0.3	–0.1	–0.9	–0.7	–0.3	0.9	1.1	1.2
Less: change in adjustment for discount and premium [3]	4.1	....	....	....	....	....	....	....	....	....	....	....
Total, change in debt subject to limit	1,481.1	2,907.2	1,302.1	1,373.8	1,402.0	1,357.8	1,234.6	1,304.4	1,317.1	1,351.6	1,422.5	1,439.8
Memorandum:												
Debt subject to statutory limit [4]	28,401.4	31,308.6	32,610.7	33,984.5	35,386.4	36,744.2	37,978.9	39,283.3	40,600.3	41,951.9	43,374.4	44,814.2

[1] Includes Federal fund transactions that correspond to those presented in Table 4-–2, but that are for Federal funds alone with respect to the public and trust funds.
[2] Includes trust fund holdings in other cash assets and changes in the investments of the National Railroad Retirement Investment Trust in non-Federal securities.
[3] Consists of unamortized discount (less premium) on public issues of Treasury notes and bonds (other than zero-coupon bonds).
[4] The statutory debt limit is $31,381 billion, as enacted on December 16, 2021.

by Government accounts. As a net result of all these factors, $1,483 billion in financing was required, increasing gross Federal debt by that amount. Since Federal debt not subject to limit fell by $2 billion and the adjustment for discount and premium changed by $4 billion, the debt subject to limit increased by $1,481 billion, while debt held by the public increased by $1,267 billion.

Debt subject to limit is estimated to increase by $2,907 billion in 2022 and by $1,302 billion in 2023. The projected increases in the debt subject to limit are caused by the continued Federal funds deficit, supplemented by the other factors shown in Table 4–6. While debt held by the public increases by $17,258 billion from the end of 2021 through 2032, debt subject to limit increases by $16,413 billion, due to projected outyear net disinvestment by Government accounts.

Foreign Holdings of Federal Debt

Foreign holdings of Federal debt are presented in Table 4–7. During most of American history, the Federal debt was held almost entirely by individuals and institutions within the United States. In the late 1960s, foreign holdings were just over $10 billion, less than 5 percent of the total Federal debt held by the public. Foreign holdings began to grow significantly in the early 1970s, and then remained about 15–20 percent of total Federal debt until the mid-1990s. During 1995–97, growth in foreign holdings accelerated, reaching 33 percent by the end of 1997. From 2004 to 2019, foreign holdings of Federal debt generally represented around 40 percent or more of outstanding debt. Foreign holdings increased to 48 percent by the end of 2008 and then remained relatively stable through 2015. After 2015, foreign holdings began to decline as a percent of total Federal debt held by the public, falling from 47 percent at the end of 2015 to 40 percent at the end of 2018. In 2019, foreign holdings increased slightly, to 41 percent.

Although foreign holdings of Treasury debt continued to grow in dollars, by the end of 2020, foreign holdings had fallen to 34 percent of the total debt held by the public. At the end of 2021, foreign holdings totaled $7,571 billion, remaining at 34 percent of total debt held by the public.[30] The dollar increase in foreign holdings was about 40 percent of total Federal borrowing from the public in 2021 and 17 percent over the last five years. Increases in foreign holdings have been almost entirely due to decisions by foreign central banks, corporations, and individuals, rather than the direct marketing of these securities to foreign investors. All of the foreign holdings of Federal debt are denominated in dollars.

[30] The debt calculated by the Bureau of Economic Analysis is different, though similar in size, because of a different method of valuing securities.

In 2021, foreign central banks and other foreign official institutions owned 56 percent of the foreign holdings of Federal debt; private investors owned the rest. At the end of 2021, the nations holding the largest shares of U.S. Federal debt were Japan, which held 17 percent of all foreign holdings, and China, which held 14 percent.

Foreign holdings of Federal debt are around 20-25 percent of the foreign-owned assets in the United States, depending on the method of measuring total assets. The foreign purchases of Federal debt securities do not measure the full impact of the capital inflow from abroad on the market for Federal debt securities. The capital inflow supplies additional funds to the credit market generally, and thus affects the market for Federal debt. For example, the capital inflow includes deposits in U.S. financial intermediaries that themselves buy Federal debt.

Federal, Federally Guaranteed, and Other Federally Assisted Borrowing

The Government's effects on the credit markets arise not only from its own borrowing but also from the direct loans that it makes to the public and the provision of assistance to certain borrowing by the public. The Government guarantees various types of borrowing by individuals, businesses, and other non-Federal entities, thereby providing assistance to private credit markets. The Government is also assisting borrowing by States through the Build America Bonds program, which subsidizes the interest that States pay on such borrowing. In addition, the Government has established private corporations—Government-sponsored enterprises—to provide financial intermediation for specified public purposes; it exempts the interest on most State and local government debt from income tax; it permits mortgage interest to be deducted in calculating taxable income; and it insures the deposits of banks and thrift institutions, which themselves make loans.

Federal credit programs and other forms of assistance are discussed in Chapter 19, "Credit and Insurance," in this volume. Detailed data are presented in tables accompanying that chapter.

Table 4–7. FOREIGN HOLDINGS OF FEDERAL DEBT
(Dollar amounts in billions)

Fiscal Year	Debt held by the public			Change in debt held by the public[2]	
	Total	Foreign[1]	Percentage foreign	Total	Foreign
1965	260.8	12.2	4.7	3.9	0.3
1970	283.2	14.0	4.9	5.1	3.7
1975	394.7	66.0	16.7	51.0	9.1
1980	711.9	126.4	17.8	71.6	1.3
1985	1,507.3	222.9	14.8	200.3	47.3
1990	2,411.6	463.8	19.2	220.8	72.0
1995	3,604.4	820.4	22.8	171.3	138.4
2000	3,409.8	1,038.8	30.5	–222.6	–242.6
2005	4,592.2	1,929.6	42.0	296.7	135.1
2010	9,018.9	4,324.2	47.9	1,474.2	753.6
2011	10,128.2	4,912.1	48.5	1,109.3	587.9
2012	11,281.1	5,476.1	48.5	1,152.9	564.0
2013	11,982.7	5,652.8	47.2	701.6	176.7
2014	12,779.9	6,069.2	47.5	797.2	416.4
2015	13,116.7	6,105.9	46.6	336.8	36.7
2016	14,167.6	6,155.9	43.5	1,050.9	50.0
2017	14,665.4	6,301.9	43.0	497.8	146.0
2018	15,749.6	6,225.9	39.5	1,084.1	–76.0
2019	16,800.7	6,923.5	41.2	1,051.1	697.6
2020	21,016.7	7,069.2	33.6	4,216.0	145.7
2021	22,284.0	7,570.9	34.0	1,267.4	501.7

[1] Estimated by Treasury Department. These estimates exclude agency debt, the holdings of which are believed to be small. The data on foreign holdings are recorded by methods that are not fully comparable with the data on debt held by the public. Projections of foreign holdings are not available.

[2] Change in debt held by the public is defined as equal to the change in debt held by the public from the beginning of the year to the end of the year.

MANAGEMENT

5. DELIVERING A HIGH-PERFORMANCE GOVERNMENT

The work of the Federal Government has a tangible effect on people's lives, and the American people deserve a high-performing, effective Government—one that sets and meets ambitious goals for protecting individuals and communities, modernizes infrastructure, invests in children, and takes care of the most vulnerable.

High-performing organizations have developed a set of routines that drive a results-oriented culture. Whether these routines are explicit or implicit, every organization has a performance framework—a set of routines that defines success for the organization and a way of assessing progress. Grounded in proven management practices of high-performing organizations both private and public, the Federal Performance Framework focuses on defining mission success, engaging senior leaders to review progress using data-driven reviews, and reporting results transparently to the public.

An area of particular emphasis under the Biden-Harris Administration is the centrality of on-the-ground results and citizens' experiences with their Government, as outlined by Executive Order 14058, *Transforming Federal Customer Experience and Service Delivery to Rebuild Trust in Government* (December 13, 2021).

This chapter reviews the Federal Government's Performance Framework approach to performance management and its application by the Administration to improve outcomes in delivering a high-performance Government. It discusses the Federal Government's use of strategic planning and priority goal-setting to define success and regular data-driven performance reviews to remain on-track while highlighting the importance of improving service delivery and customer experience as a key element of this approach.

RECOMMITING TO GOOD GOVERNMENT

The Administration is committed to using the Federal Performance Framework—originally authorized by Congress in 1993 with the Government Performance and Results (GPRA) Act and updated in 2010 with the GPRA Modernization Act (GPRAMA)—to make a difference in the lives of the American people. Federal agencies will use these practices and routines to shift the Government's focus from programs to people; from the means of Government to its ends; and from rules to values. This systems-focused approach allows the Federal Government's budget and performance frameworks to operate concurrently, helping to ensure that objectives are resourced efficiently, effectively, and with accountability.

At the beginning of each new administration term, in tandem with the preparation of the President's Budget, each Federal agency produces a revised four-year Strategic Plan, which sets out the long-term objectives the agency hopes to accomplish. By defining from the start of an administration what strategic priorities and objectives the agency aims to achieve, what actions the agency will take to realize those priorities, and how the agency will deal with challenges and risks that may hinder progress, a new administration can ensure the deliberateness of sound planning and resourcing that will be needed to drive effectiveness of multi-year execution efforts to follow.

This commitment to good Government—using the increasing array of management tools incorporated within the Federal Performance Framework to strive toward an equitable, effective, and accountable Government that delivers results for all—is evident in the Administration's efforts over the last year, including its development and launch of the President's Management Agenda (PMA),[1] informed by values of equity, dignity, accountability, and results and supported by a commitment to evidence through a first-ever PMA Learning Agenda.[2] For example, in March 2021, OMB reestablished the Federal Performance Framework and its associated OMB guidance,[3] including guidance on strategic planning, performance management and measurement, risk management, evidence-building, program management, and other related management disciplines that are common tools of any high-performing organization. These management approaches were also emphasized in OMB's March 2021 guidance for implementing the American Rescue Plan.[4] In addition, in June 2021, pursuant to the President's memorandum on scientific integrity and evidence-based policymaking, OMB issued guidance to agencies emphasizing the importance of a culture of evidence that expanded and reaffirmed previous OMB guidance on Learning Agendas and Annual Evaluation Plans.[5] For more information on the Budget's related

---

[1] U.S. Office of Management and Budget (OMB). (2021, November 18). *The Biden-Harris Management Agenda Vision: Toward an Equitable, Effective, and Accountable that Delivers Results for All*.

[2] The PMA Learning Agenda, available at *https://www.performance.gov/pma/learning-agenda*.

[3] U.S. Office of Management and Budget (OMB). (2021, March 24). Update to Implementation of Performance Management Statutes. Memorandum for the Heads of Executive Departments and Agencies, *M-21-22*.

[4] U.S. Office of Management and Budget (OMB). (2021, March 19). Promoting Public Trust in the Federal Government through Effective Implementation of the American Rescue Plan Act and Stewardship of the Taxpayer Resources. Memorandums for the Heads of Executive Departments and Agencies, *M-21-20*.

[5] U.S. Office of Management and Budget (OMB). (2021, June 30). Evidence-Based Policymaking: Learning Agendas and Annual Evalu-

investments in evidence-building capacity and program evaluation, see Chapter 6, "Building and Using Evidence to Improve Government Effectiveness." OMB also has resumed tri-lateral meetings with the Comptroller General of the U.S. Government Accountability Office (GAO), OMB's Deputy Director for Management, and agency leadership on high-risk issues identified by GAO. In December, the President signed Executive Order 14058, *Transforming Federal Customer Experience and Service Delivery to Rebuild Trust in Government*.[6]

The Administration's actions in 2021 reflect a concerted, coordinated management approach to achieving the ends of Government. By using the Federal Performance Framework to communicate its goals, showing the public its plans to get there, and then being transparent about its results, the Administration seeks to build trust with the American public.

ation Plans. Memorandums for the Heads of Executive Departments and Agencies, *M-21-27*.

[6] President Joseph R. Biden, Jr. *Executive Order 14058*, Transforming Federal Customer Experience and Service Delivery To Rebuild Trust in Government. December 13, 2021.

DEFINING SUCCESS THROUGH STRATEGIC PLANNING AND PRIORITY GOAL SETTING

2022-2026 Agency Strategic Plans

Over the course of the past year, agencies have been developing new Agency Strategic Plans covering 2022-2026, which are being released with the Budget. Agencies have identified strategic goals, strategic objectives, and Agency Priority Goals (APGs) that reflect the bottom line of Government advancing outcomes across key Administration priorities, including improving customer experience, advancing equity, combatting climate change, improving the Nation's infrastructure, and meeting the health, welfare, and economic challenges of the COVID-19 pandemic.

Strategic planning and priority goal setting are common tools designed to set the direction of an organization. Research exploring the relationship of this planning to organizational performance has shown it has a positive impact on organizational performance in both public and private sectors across international settings, and is most powerful as a predictor of organizational effectiveness.[7] The Agency Strategic Plan defines the agency mission, long-term goals and objectives to achieve those goals, strategies planned, and the approaches it will use to monitor its progress in addressing specific national problems, needs, challenges, and opportunities related to its mission.

Examples of **2022-2026 Agency Strategic Objectives** being established to prioritize and coordinate operational efforts, activities, and resources to advance some of the Administration's pressing policy priorities include:

- ***Department of the Treasury, 1.3.*** Economically Resilient Communities: Promote equitable financial recovery and growth through support and flow of capital to small businesses, households, and underserved communities.
- ***Department of Justice, 2.4.*** Enhance Cybersecurity and Fight Cybercrime.
- ***Department of Transportation, 2.4.*** Resilient Supply Chains: Modernize infrastructure for safer and more efficient movement of goods to support the U.S. economy while maintaining community and regional livability, as well as supply chain resiliency.
- ***Department of Energy, 1.2.*** Drive deployment of clean technologies at scale and pace.
- ***Department of Health and Human Services, 1.3.*** Expand equitable access to comprehensive, community-based, innovative, and culturally-competent healthcare services while addressing social determinants of health.
- ***Small Business Administration, 1.4.*** Build back an inclusive and proficient small business contracting base ready to compete for all Federal procurement opportunities.
- ***Department of Agriculture, 4.1.*** Increase food security through assistance and access to nutritious and affordable food.

Innovations Highlighted in Agencies' 2022-2026 Strategic Plans

Through collaboration and knowledge-sharing facilitated by the Strategic Planning Working Group, agencies continued to innovate in both the process coordinated internally for producing their Strategic Plans, as well as the design, structure, and visualization of content contained within the plans.

Visuals to Crosswalk Themes and Goals

One example illustrated in the figure below is the use of tables that crosswalk themes of Administration and agency priorities – notably, equity, climate change, and customer experience – to agency strategic goals and objectives, and the components to lead implementation efforts. These graphical depictions offered simple yet powerful visuals for coherently communicating planning and goal frameworks.

[7] George, Bert, Walker, Richard, and Monster, Joost. (2019). "Does Strategic Planning Improve Organizational Performance? A Meta-Analysis." Public Administration Review, 79(6): 810-819.

Chart 5-1. Department of Treasury FY 2022-2026 Strategic Plan Crosswalk

Department of the Treasury > Strategic Plan 2022–2026

Strategic Plan Crosswalk

Goal	Objective	Treasury leads	Treasury supports	Re-engaging Allies	Climate Change	Equity	Customer Experience
Goal 1 Promote Equitable Economic Growth and Recovery	**Tax Administration and Policy** Enhance tax compliance and service; improve tax policy design.	IRS, TP	TTB, EP	◎	◎	◎	◎
	Global Economic Leadership Generate sustainable and inclusive global economic growth.	IA	EP, TP, TTB	◎	◎	◎	
	Economically Resilient Communities Promote equitable financial recovery and growth through support and flow of capital to small businesses, households, and underserved communities.	DF, ORP	TTB, OSDBU, ASM, Fiscal, EP		◎	◎	◎
	Resilient Housing Market Together with HUD and other federal agencies, promote a stable and resilient housing market that expands fair and equitable access to homeownership and affordable rental opportunities and protects taxpayers.	DF	EP, TP, ORP			◎	◎
Goal 2 Enhance National Security	**Cyber Resiliency of Financial Systems and Institutions** Harden assets and systems of Treasury and the broader financial system to promote financial system resiliency.	ASM, DF	All Bureaus/ Offices	◎			◎
	Economic Measures to Advance National Security Enhance and protect national security through the application of targeted financial measures and review of certain foreign investments.	TFI, IA	FinCEN	◎			◎
	Modernize Sanctions Regime Modernize the development, implementation, enforcement, and maintenance of U.S. sanctions to ensure that sanctions remain a streamlined and effective foreign policy and national security tool.	TFI	IA	◎			◎
	Transparency in the Financial System Increase transparency in the domestic and international financial system.	TFI/ FinCEN	IA, IRS	◎	◎		◎
Goal 3 Protect Financial Stability and Resiliency	**Financial System Vulnerabilities** Identify and address current and emerging vulnerabilities to the stability of the U.S. and global financial systems to support more sustainable and equitable growth.	DF	IA, EP, OCC	◎	◎	◎	
	Resilient Treasury and Municipal Securities Markets Improve the resilience of critical government securities markets to minimize borrowing costs over time and to support the critical roles that these safe assets play in the global financial system.	DF	EP		◎	◎	◎
	Financial Innovation Encourage responsible financial sector innovation.	DF	IA, TFI, FinCEN, Fiscal, Mint, BEP, IRS, TP, OCC	◎	◎	◎	◎
Goal 4 Combat Climate Change	**Global Climate Commitment and Leadership** Use U.S leadership and commitment to significantly enhance global action and mobilize and align financial flows to combat climate change and enhance resilience within the new climate environment.	IA	EP, DF, TP	◎	◎	◎	
	Climate Incentives and Investment Create and promote incentives and policies for the private sector to invest in climate-friendly and resilient projects and activities.	EP	DF, TP, IA, OCC	◎	◎	◎	
	Climate-Related Financial Risks Identify and mitigate key sources of climate-related financial risks to macroeconomy, financial system, investors, governments including federal and subnational exposures, and households, understanding that risks may have disparate impacts on disadvantaged communities.	DF	EP, ASM, TP, IA, OCC	◎	◎	◎	
	Sustainable Treasury Operations Improve Treasury's overall environmental and energy sustainability and invest in Treasury Bureaus' adaptation and resiliency efforts to address climate change impacts on operations and services.	ASM	All Bureaus/ Offices		◎	◎	◎
Goal 5 Modernize Treasury Operations	**Recruit and Retain a Diverse and Inclusive Workforce** Recruit and retain a diverse workforce that represents communities that Treasury serves.	ASM	All Bureaus/ Offices			◎	◎
	Future Work Routines Transform the Department's work routines to support changing mission and workforce needs.	ASM	All Bureaus/ Offices		◎	◎	◎
	Better Use of Data Increase timely access to and use of quality data and other types of evidence to inform decision-making.	ASM	All Bureaus/ Offices		◎	◎	◎
	Customer Experience Practices Mature and embed strong customer experience practices across the Department, establishing Treasury's reputation for consistently positive experiences.	ASM	All Bureaus/ Offices			◎	◎

Source: The Department of Treasury

Stronger Connections across Strategic Planning and Evidence-Building Activities

For example, in August 2021 OMB introduced new guidance to assist agencies in applying logic models as tools for connecting activities across strategic planning, implementation strategies, and evidence. More promising was the integration and coherence of planning evidenced by the discussion of these complementary activities in the plan's narrative. Throughout the strategic planning processes, agencies considered knowledge gaps that would need to be filled in order to achieve success, identifying these gaps in their Strategic Plan and explaining its connection to the Agency Learning Agenda.

Connecting Strategic Planning and Learning Agendas: Department of Housing and Urban Development (HUD)

Strategic Objective: Advance Housing Justice: Fortify support for vulnerable populations, underserved communities, and Fair Housing enforcement.

HUD's Learning Agenda included several research questions related to this Strategic Objective that, when answered overtime, would strengthen the Department's evidence-base in measuring progress against the outcome to be achieved.

Example Learning Agenda questions include:

- What do early findings show about the experiences of voucher holders in jurisdictions with local source of income discrimination ordinances?
- Do home seekers with communication-related disabilities experience substantial barriers to information in seeking rental units?
- What are the barriers to applying for federal housing assistance, especially for individuals who are members of protected class groups or underserved communities, and would tools that facilitate applying for housing assistance address them?

Integrating Risk in Strategy Development

Agency strategic planning processes and 4-year plans analyzed risks and considered how those risks would impact their strategic goals and objectives. For example, the Department of the Treasury's plan defined the Agency's Risk Appetite and how it would be used towards accomplishing its mission, while the example below from the Department of Labor's 2022-2026 Strategic Plan illustrates how risk analysis was considered in the context of its impact to achieving specific objectives at the Strategic Goal level.

Integrating Risk in Strategy Development: Department of Labor 2022-2026 Strategic Plan

Strategic Goal 2: Ensure Safe Jobs, Essential Protections, and Fair Workplaces

Risk Analysis: Leading implementation efforts of Strategic Goal 2 are the Department's Occupational Safety and Health Administration (OSHA) and Mine Safety and Health Administration (MSHA). OSHA and MSHA have consistently faced short and long-term challenges in securing safe and healthful workplaces due to significant loss of staff over the last several years. To address this risk to public safety, both agencies will be undertaking significant recruitment, hiring, and onboarding of new staff over the next two years. This will include attracting a more diverse and inclusive talent pool, providing training and mentoring for them to assume their responsibilities, and then focusing on retaining talent for the long term. Ultimately, an increased cadre of skilled staff will result in improved safety and health outcomes for workers.

Stakeholder Engagement to Build Trust

Agencies are encouraged to conduct stakeholder engagement and consult with the public, State, local, Tribal, and territorial governments, and representatives of non-governmental researchers as they develop their Strategic Plan and Learning Agenda. Effective stakeholder engagement builds healthy, trusted relationships that benefit the public.

Stakeholder Engagement to Build Trust: Department of the Treasury (Treasury)

To advance stakeholder engagement, Treasury initiated, for the first time ever, a government-to-government consultation with Tribal Leaders that led to a watershed moment for how Tribes are represented in the Department's Strategic Plan. Also for the first time ever, Treasury solicited input on its priorities from the public through bilingual channels, translating the Department's call for comment into Spanish and targeting outreach to key advocacy groups.

Stakeholder Engagement to Build Trust: Small Business Administration (SBA)

To better collaborate across the Federal Government, the SBA partnered with the U.S. General Services Administration (GSA) to solicit input from Federal employees who work with the SBA. The feedback provided perspectives and insights on how the SBA can better collaborate with other agencies, improve equity, increase small business resilience, and further create efficiency of services. The responses were shared with SBA leadership, and where appropriate, incorporated into SBA's strategic planning process.

The SBA also conducted outreach with communities across the Nation to better understand how the Agency can best help small businesses locally. The Agency conducted listening sessions with representatives from Los Angeles, California; Detroit, Michigan; New York, New York; Portland, Maine; Portland, Oregon; Helena, Montana; Oklahoma City, Oklahoma; and Jackson, Mississippi. These sessions helped to ensure that the Agency received input from a variety of perspectives that face entrepreneurs of different races, ethnicity, gender, sexuality, disability status, and veteran status, as well as place-based and sector-specific issues.

Embedding Equity with Mission Achievement in the Strategic Plan

On the first day of the Administration, President Biden signed Executive Order 13985, *Advancing Racial Equity and Support for Underserved Communities Through the Federal Government*.[8] As agencies began conducting eq-

[8] President Joseph R. Biden, Jr. *Executive Order 13985*, Advancing Racial Equity and Support for Underserved Communities Through the Federal Government. January 20, 2021.

uity assessments and assembling equity action plans in accordance with this Executive Order, they also ensured their strategic plans had a strong alignment with the Administration's equity priority. Nearly every agency's strategic plan reflects this alignment by expressing equity as a cross-cutting theme, setting a goal or objective involving equity, or describing specific strategies that the agency will pursue to advance equity.

Embedding Equity with Mission Achievement: Department of Justice (DOJ)

Strategic Objective: Expand Equal Access to Justice

Strategy: Accelerate Justice System Innovation

The Department will reinvigorate the Office for Access to Justice (ATJ), positioning it to advance statutory, policy, and practice changes that improve access to justice, with racial equity and economic justice at the forefront. ATJ will work across the Department and across the Executive Branch—including through the Legal Aid Interagency Roundtable—to leverage Federal resources to improve equal access to justice. In particular, ATJ will focus on reducing structural barriers that hold back courts and legal service providers from successful transformation and will work to accelerate innovation in the administrative proceedings that the Department manages. ATJ will also facilitate partnerships to achieve equal access to justice objectives, establishing strategic partnerships not only with State, local, Tribal, and territorial governmental actors, as well associal service providers, public defenders, civil legal aid providers, courts, community members, and legal technology experts.

The Department also recognizes that access-to-justice policies must extend beyond the judicial process. We will expand research and innovative strategies to promote less lawyer-intensive and court-intensive solutions to legal problems. We will promote fair and efficient systems that produce resolutions based on the facts and applicable law and ensure that participants are heard, treated fairly, and understand outcomes. In addition, we will ensure that the Department's grants, and the services and programs funded by those grants, further access to justice.

2022-2023 Agency Priority Goals (APGs)

Agency Priority Goals are used to achieve an agency's near-term, implementation-focused priorities. Agencies establish Priority Goals every two years and use clearly identified Goal Leaders and Deputy Goal Leaders and quarterly metrics and milestones to manage progress. Agency Chief Operating Officers (generally, Deputy Secretaries or Deputy Administrators) lead quarterly data-driven performance reviews to overcome barriers and accelerate performance results. Progress on APGs is updated publicly on a quarterly basis with data and progress reported on *Performance.gov*.

OMB provided guidance[9] to agencies on priority goal-setting efforts, encouraging specific alignment of both strategic objectives and APGs with the Administration's policy priorities, including, in particular, continued work to meet the health, welfare, and economic challenges of the COVID-19 pandemic, advance equity, and address climate change.

Many of the most pressing challenges facing Government do not fit neatly within the boundaries of a single agency. OMB's guidance encouraged agencies during this round of goal setting to set joint Agency Priority Goals representing proactive interagency partnerships in areas where programs from multiple agencies must work together to achieve a common outcome.

Major agencies, working in collaboration with OMB, announced their 2022-2023 APGs on Performance.gov concurrent with the Budget. Examples of 2022-2023 Agency Priority Goals include:

- **Department of Transportation / Department of Energy**. *Joint Goal* on deploying Electric Vehicle (EV) charging stations under the Infrastructure Investment and Jobs Act (also known as the Bipartisan Infrastructure Law, BIL).
- **Department of State / U.S. Agency for International Development**. *Joint Goals* to:
- Combat global climate change by advancing climate-resilient, net zero emissions development around the world.
- Achieve control of the HIV epidemic in PEPFAR-supported countries. To achieve and sustain control of the HIV/AIDS epidemic, PEPFAR will continue to deliver equitable, people-centered HIV prevention and treatment services for millions of men, women, and children.
- Expand inclusive and equitable recruitment, hiring, and retention practices that contribute to diverse workforces across demographic groups. Expand Diversity Equity, Inclusion, and Accessibility of their workforce.
- **Department of Commerce / Department of Agriculture**. *Joint Goal* to expand access to affordable, reliable, high-speed broadband internet, with a focus on communities in greatest need.
- **Department of Housing and Urban Development.** By September 30, 2023, protect families from lead-based paint and other health hazards by mak-

[9] U.S. Office of Management and Budget (OMB). (2021, March 24). Update to Implementation of Performance Management Statutes. Memorandum for the Heads of Executive Departments and Agencies, *M-21-22*.

ing an additional 20,000 units of at-risk housing units healthy and lead-safe residents.

- **Department of the Interior**. By September 30, 2023, the Department of the Interior will complete plan reviews and environmental analyses for projects capable of cumulatively generating 14.8 gigawatts (GW) of commercial offshore wind energy capacity and hold 5 renewable energy lease sales to support the national goal of deploying 30 GWs of offshore wind capacity by 2030.
- **Department of Justice**. Ransomware attacks cause financial losses and other harms to targeted governments, critical infrastructure, and industry. By September 30, 2023, the Department will enhance its efforts to combat ransomware attacks by: 1) increasing the percentage of reported ransomware incidents from which cases are opened, added to existing cases, or resolved within 72 hours to 65%; and 2) increasing the number of ransomware matters in which seizures or forfeitures are occurring by 10%.
- **Department of Veterans Affairs**. By September 30, 2023, Veterans Experience trust scores among underserved populations will increase by 3% over an FY 2022 baseline with an aspirational goal of 90%.
- **National Aeronautics and Space Administration (NASA)**. By September 30, 2023, NASA will complete commissioning of the James Webb Space Telescope, the most powerful and complex space telescope ever built, and begin Webb's Cycle 2 observations.
- **Office of Personnel Management (OPM)**. By September 30, 2023, help Infrastructure Investment and Jobs Act (IIJA) agencies fill 75 percent of surge hiring positions identified in the first quarter of FY 2022.
- **Small Business Administration (SBA)**. By September 30, 2023, the SBA will increase Federal contracting awards to small disadvantaged businesses (SDBs) to 12%, promoting diversity, equity, inclusion, and accessibility to help more Americans realize their entrepreneurial dreams while growing the U.S. industrial base.

Federal agencies continue to build upon the successes and performance outcomes achieved over previous two-year cycles while charting new and even more ambitious priority performance goals. Marking the eighth cohort of APGs since their initial establishment, [10] these APGs reflect the Administration's commitments in near-term performance improvement outcomes that at the same time advance progress towards longer-term, outcome-focused strategic goals and objectives within each agency's four-year strategic plan.

[10] Agency High Priority Performance Goals were the predecessor to the Agency Priority Goal, first established in "*Delivering a High Performance Government*." In the President's Budget for Fiscal Year 2011: *Analytical Perspectives* (pp. 73-90). The conceptual framework and requirements for High Priority Performance Goals were subsequently codified into statute through enactment of the GPRA Modernization Act of 2010, and expanded through OMB guidance via the Federal Performance Framework in OMB Circular A-11, Part 6, *Section 250*.

IMPROVING GOVERNMENT THROUGH DELIVERY OF SECURE FEDERAL SERVICES AND EXCELLENT CUSTOMER EXERPIENCE

People are at the center of everything the Government does. In their daily lives as well as in critical moments of need, people rely on Federal services to help support them through disasters, advance their businesses, provide opportunities for their families, safeguard their rights, and aid them in rebuilding their communities. That is why the Federal Government must center its services on those who use them—delivering simple, secure, effective, equitable, and responsive solutions for all whom the Government serves.

Whether seeking a loan, Social Security benefits, veterans benefits, or other services provided by the Federal Government, individuals and businesses expect Government customer services to be efficient and intuitive, just like services from leading private-sector organizations. Yet on Forrester's 2020 Customer Experience (CX) Index, the Federal sector's average score is 10.7 points behind the private sector average and lower than any other industry or sector studied. Nearly half of the bottom 5% of the U.S. CX Index Rankings are Federal agencies.

The PMA prioritizes efforts to improve the experience of those the Government serves—all of the people, families, businesses, organizations, and communities across America, especially those communities that are underserved by Government—when they use Government services. This focus on customer experience will not only improve the delivery, efficiency, security, and effectiveness of Government programs, it will advance equity and enhance everyday interactions with public services and uplift the lives of those who need them the most.

OMB Circular A-11 Section 280 establishes Government-wide standards for mature customer experience organizations and high-performance service delivery in Government. Specifically, the Government has designated 35 High-Impact Service Providers (HISPs) in Federal agencies as key service providers due to the volume and types of benefits, services, and programs they deliver to the public. These HISPs commit to putting their customers at the center of everything they do and to actions that demonstrate this commitment, including modernizing programs, reducing administrative burdens, and piloting new online tools and technologies that can provide a simple, seamless, and secure customer experience.

Since the most important moments in people's lives sometimes do not fall under the purview of a single agency, the PMA and Section 280 charge the President's Management Council with the routine designation of cross-agency "life experiences" for improvement (e.g., surviving a natural disaster) that do not fit neatly within one agency's mission area.

In December 2021, President Biden acted to improve Government service delivery by signing the Executive Order on Trans-forming Federal Customer Experience and Service Delivery to Rebuild Trust in Government. This Executive Order directs Fed-eral agencies to put people at the center of everything the Government does. Specifically, the Executive Order includes 36 customer experience improvement commitments across 17 Federal agencies, all of which aim to improve people's lives and the delivery of Government services. The Executive Order also creates a sustained, cross-Government service delivery process that aligns to the moments that matter most in people's lives – like turning 65, having a child, or applying for a small business loan. As part of this framework, the Administration will work to identify and define critical services that meet customers' needs and expectations, assess performance delivery and report it publicly, incorporate customer feedback during each interaction, and ultimately ensure services deliver a better experience to the public. Every interaction between the Government and the public, whether it involves filing taxes or renewing a passport, is an opportunity to deliver the value, service, and efficiency that the public expects and deserves.

CONDUCTING DATA-DRIVEN PERFORMANCE REVIEWS

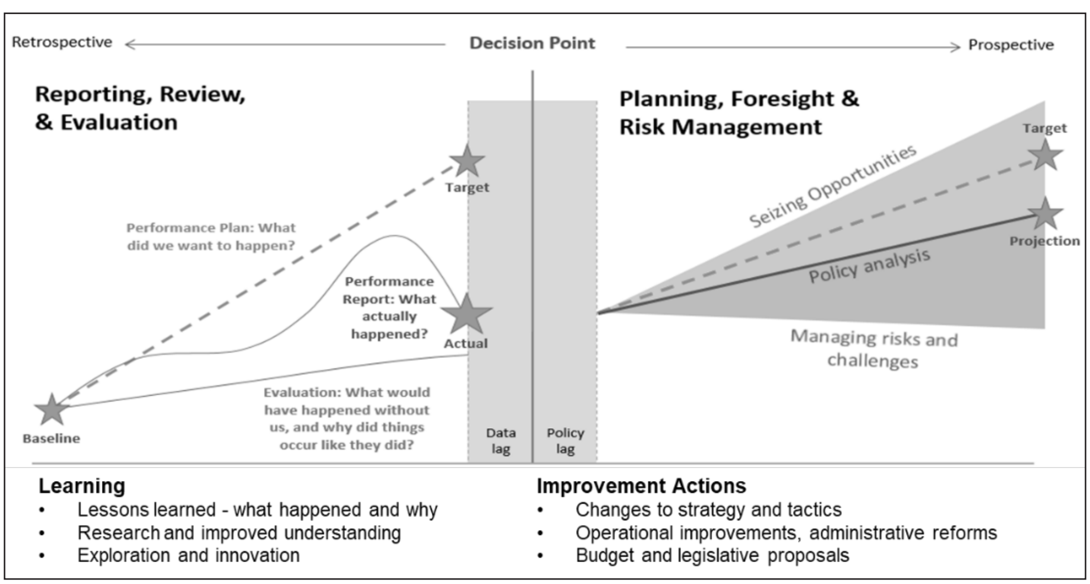
Conducting routine, data-driven performance reviews led by agency leaders on a set of the agency's performance improvement priorities is a management practice proven to produce better results. Incorporating a range of quantitative and qualitative evidence, regular reviews provide a mechanism for agency leaders to review the organization's performance and bring together the people, resources, and analysis needed to drive progress on agency priorities, both mission focused and management goals. Frequent data-driven performance reviews should reinforce the agency's priorities and establish an agency culture of continuous learning and improvement, sending a signal throughout the organization that agency leaders are focused on effective and efficient implementation to improve the delivery of results. Planning activities relat-ed to Agency Learning Agendas, annual Evaluation Plans, and Capacity Assessments required by the Foundations for Evidence-Based Policymaking Act of 2018 (i.e., "Evidence Act") reinforce this culture of learning and improvement, which is cultivated by the data-driven performance review.

Research by Moynihan and Kroll's (2016, 2021)[11] examining the impact of GPRAMA routines on a key behavioral outcome of the Federal Performance Framework—the use of performance information for decision-making—finds high positive correlations. Such findings regarding performance information use are embodied in two primary

[11] Moynihan, Donald, and Alexander Kroll. (2016). "Performance management routines that work? An early assessment of the GPRA Modernization Act." Public Administration Review 76(2): 314–323.

Moynihan, Donald, and Alexander Kroll. (2021). "Tools of Control? Comparing Congressional and Presidential Performance Management Reforms." Public Administration Review 81(4): 599–609.

Chart 5-2. Conceptual Framework for the Annual Data-driven Review of Strategic Objectives



routines of frequent, data-driven performance reviews within the Framework: the quarterly data-driven performance review of APGs; and the annual data-driven strategic review of agency strategic objectives.

Whether they are following the quarterly cadence for APGs, or the annual cadence for strategic objectives, these practices are being used to inform strategic and operational decision-making, budget formulation, and near-term agency actions by following a few key principles. First, agencies are afforded significant flexibility in designing the performance review process to fit and accommodate a diversity of organizational attributes, including the agency's mission, leadership preferences, organizational structure, and culture. Second, data-driven performance reviews, and particularly quarterly reviews of APGs, are conducted with the appropriate goal leader to assess progress achieved during the most recent quarter, overall trend data, and the likelihood of meeting the planned level of performance. During such sessions, goal leaders are held accountable for knowing whether or not their performance indicators are trending in the right direction at a reasonable speed and, if they are not, for understanding why they are not and for having a plan to accelerate progress on the goal.

The figure below represents a graphic depiction of how these principles are applied to provide a conceptual framework for the annual data-driven strategic review of strategic objectives, which are treated as the primary unit for strategic analysis and decision-making.

Based on feedback, the Federal Performance Framework's strategic review policy continues to confer a range of benefits, including improved interagency collaboration, a chance to identify evidence gaps and opportunities to improve data quality to in-form better resource allocation decisions, and further utilizing data-driven performance reviews to improve decision-making as part of the formulation process for the budget.

COMMUNICATING PERFORMANCE RESULTS AND INFORMATION TRANSPARENTLY

To improve the usefulness of program information through reporting modernization, a central website, Performance.gov, makes finding and consuming performance information easier for the public, Congress, delivery partners, agency employees, and other stakeholders. First established in 2010, Performance.gov continues to offer an online portal to Federal performance management efforts, helping to improve accountability by providing one centralized reporting location to find information on agency programs, goals, and regular progress updates towards achieving APGs and CAP Goals.

This Administration has continued to develop the Performance.gov platform as a primary means to inform the public on the management initiatives and performance improvements major Federal agencies are making, which allows for an increased and expanded ability to communicate directly with the American public. Site traffic has increased steadily over the years, even throughout administration transitions.

Enhancements to the site that make agency performance information more discoverable have also been made to coincide with the 2023 Budget. For example, with release of the President's 2023 Budget, agency strategic goals and strategic objectives have been posted to the site making this information more easily viewable. Presented on Performance.gov, Strategic Objectives represent, in the aggregate, the 'bottom-line' of the Federal Government. Offering increased transparency into strategic objectives enhances not only how agency's strategic goal frameworks are visualized, but also elevates their role and function within agency strategic planning and reviews for improving organizational performance.

Through these enhancements to date, along with other planned in future site updates including accompanying social media channels, the Administration continues to support the evolution of Performance.gov from a site that is not just a GPRAMA-compliance tool, but also one that builds trust in Government by communicating performance results effectively and offering a cohesive, comprehensive view of Federal performance and management. A new complementary site, Evaluation.gov, also offers a comprehensive view of agency evidence-building plans and associated program evaluation activities and resources.

THE STATE OF THE FEDERAL PERFORMANCE FRAMEWORK

At its core, the Federal Performance Framework and its associated practices and routines represent a tool by which the means of Government can be applied to deliver results for the people of the United States. The 1993 GPRA framework was organized around a strategic plan with annual performance plans and reports. The GPRA Modernization Act of 2010 updated and modernized the original 1993 GPRA, seeking to incorporate more recent lessons learned from the public and private sector management research practices. The GPRA Modernization Act reinforced core organizational performance and management routines and practices for Federal agencies by creating an updated statutory framework with a renewed focused on organizational strategic planning, priority goal setting, and enhanced public reporting of progress and results achieved. It shifted focus towards supporting leadership in identifying and accomplishing their top priorities within the framework; clarifying roles and responsibilities of agency COOs, Performance Improvement Officers, and Goal Leaders; and emphasizing the use of performance information and evidence for decision-making by agency leadership.

Although initially grounded in the provisions of the GPRA Modernization Act, the Federal Performance Framework continues to evolve to accommodate the layering of Government-wide, management focused legislation and initiatives that have been introduced to improve overall organizational performance by applying increasingly specialized decision-support functions and skillsets. Over the years, the Framework has incorporated both the introduction of related legislative requirements (e.g., the Foundations for Evidence-Based Policymaking Act of 2018, the Program Management Improvement Accountability Act) and management initiatives (e.g., Customer Experience, Enterprise Risk Management) that respond to a recognition of the need for increasingly sophisticated approaches to managing the organizational complexities of Federal agencies.

There is evidence from agencies and academic researchers showing the routines and practices established by GPRA Modernization Act and codified into the Framework through OMB's guidance are contributing to increased use of performance information. Specifically, research by Moynihan and Kroll demonstrates that the current GPRAMA routines are not only driving greater use of performance information in decision-making by managers (2016),[12] but specifically when compared to earlier management reforms – which failed to show positive correlations with increased manager use of performance information (2020).[13] The Government Accountability Office (GAO) recently examined the use of performance information by Federal managers. Using a series of questions known as the performance information index developed by the GAO, results from their 2020 Managers Survey found an increase in the overall use of performance information Government-wide, from 3.39 in 2017 to 3.64 in 2020.[14] In fact, the 2020 results from the GAO reflect the highest increase since the GAO developed the index in 2007. Moreover, the GAO further found that managers reported significantly greater use of performance information in decision-making when their programs were subject to data-driven reviews.[15]

Despite these promising trends and findings on the advantages the Performance Framework can convey to overall organizational performance and data-driven decision-making, the Administration recognizes there are inherent challenges with the Framework, some of which are common to implementing any common system for performance management across complex organizations. Accumulating over several years of implementation and organizational learning, the following challenges emerge as intrinsic to the Framework:

- Meeting the needs of separate, independent branches of the Federal Government that can at times have divergent incentive structures;
- Balancing the value of providing transparency and maintaining management routines with the administrative burden of performance reporting.
- Facilitating collaboration and coordination in areas that require multiple organizations working together to achieve an outcome;
- Orientation toward compliance activities over usefulness to agency leadership in assessing progress toward outcomes;
- Unevenness across agencies of capacity and capabilities--including technical expertise, staffing, and data--to do this work in increasingly complex organizational environments; and
- Limited tenure of leadership at agencies.

Although some of these barriers are inherent to most systems for performance management for complex organizations, OMB and agencies nonetheless continue efforts to address such challenges to improve overall efficacy and utility of the Framework.

[12] Moynihan, Donald, and Alexander Kroll. (2016). "Performance management routines that work? An early assessment of the GPRA Modernization Act." Public Administration Review 76(2): 314–323.

[13] Moynihan, Donald, and Alexander Kroll. (2021). "Tools of Control? Comparing Congressional and Presidential Performance Management Reforms." Public Administration Review 81(4): 599–609.

[14] U.S. Government Accountability Office (GAO). (2021). Evidence-Based Policy Making: Survey Results Suggest Increased Use of Performance Information across the Federal Government. *GAO-22-103910* (November, 2021).

[15] U.S. Government Accountability Office (GAO). (2021). Evidence-Based Policy Making: Survey Results Suggest Increased Use of Performance Information across the Federal Government. *GAO-22-103910* (November, 2021).

CONCLUSION

This chapter has offered descriptive insight into the Federal Performance Framework, illustrating progress that has been achieved in both its evolution and application by Federal agencies. The annual Federal Employee Viewpoint Survey (FEVS) question that asks "My agency is successful at accomplishing its mission" is one of the primary indicators being used at OMB to measure how well the Federal Performance Framework is working to enable mission achievement at agencies. Along with the upward trends being reported across many other FEVS questions, results from the most recent 2020 FEVS saw one of the highest increases in percent positive responses of respondents reporting "Strongly Agree or Agree" to the question "My agency is successful at accomplishing its mission."

Leadership engagement, clear goals, measurement, analysis of progress, and frequent progress reviews to find and promote what works and fix or eliminate what does not are keys to improving the lives of the American people. Implementation of the Federal Performance Framework and its application since 2010 are leading to increased use of data and performance information to drive the decision-making needed for organizational performance improvement at Federal agencies—particularly where previous systems have been less effective. As Federal managers have an important obligation to ensure that every dollar spent delivers equitable and effective results for all Americans, the Framework is a proven tool and means for achieving those ends. Looking ahead, the practices and routines of the Federal Performance Framework and their application across agencies serves to shape future initiatives in Federal performance management and capitalize on these promising performance tailwinds.

6. BUILDING AND USING EVIDENCE TO IMPROVE GOVERNMENT EFFECTIVENESS

The Budget and previous actions by the Administration demonstrate a strong and enduring commitment to building evidence capacity across the Federal Government and engaging in high-quality evaluations to learn and improve. During its first week, the Administration stated its commitment to making evidence-based decisions guided by the best available science and data. The Presidential Memorandum on Restoring Trust in Government Through Scientific Integrity and Evidence-Based Policymaking (January 2021) affirmed that "[s]cientific and technological information, data, and evidence are central to the development and iterative improvement of sound policies, and to the delivery of equitable programs, across every area of Government." Subsequent guidance in OMB Memorandum M-21-27, Evidence-Based Policymaking: Learning Agendas and Annual Evaluation Plans (June 2021) provided further details for agencies to execute on this commitment, and the Administration has relied on evidence as it tackles some of our nation's biggest challenges, including its response to the COVID-19 public health emergency and advancing racial equity. Meeting this goal of an evidence-based government requires that Federal agencies use evidence whenever possible to advance their missions and operations and to commit to build evidence where it is lacking. It requires the Federal Government to foster and strengthen a culture of evidence where its generation and use is routine and integrated across all agency functions. The Budget builds on agencies' efforts to effectuate evidence-based decision-making by further investing in agency capacity and activities to build and use evidence.

Building and Promoting a Culture of Evidence

Achieving an evidence-based Government demands a whole-of-Government approach where leadership and staff view evidence generation and use as essential to their roles. This is a mission-critical function, and evidence activities cannot occur in silos. The Federal Government must continue making progress by building on opportunities like those described below to fully realize the Administration's commitment to evidence-based policymaking.

Implementing the Evidence Act Title I: The Foundations for Evidence-Based Policymaking Act of 2018 (Public Law 115-435, "Evidence Act") is integral to advancing a Government driven by science and data. The statute makes agency evidence-building plans, known as Learning Agendas, foundational to building a culture of evidence generation and use. Learning Agendas and Annual Evaluation Plans provide a framework for systematic and strategic evidence building to support agencies in answering critical questions. OMB M-21-27 outlines a path for agencies to use these plans as tools to deliver an evidence-based Government. It directs agencies to focus attention on the evidence needed to solve big problems. More specifically, it calls on agency leaders, staff, and stakeholders to examine the agency's strategic goals and objectives, as outlined in the Agency Strategic Plan, and ask: what is it that our agency needs to do, what do we need to know about how to do it best, and what do we wish we knew? Situating Learning Agendas as part of Agency Strategic Plans reflects the integration of evidence building and use with the work of advancing agency goals. By using the development of these plans to think strategically about evidence needs, agencies can reduce scattered and ad hoc activities and instead prioritize resources on those questions that, when answered, can inform key decisions and high-priority functions. Moreover, the very process of creating Learning Agendas provides valuable learning and opportunities to bridge organizational siloes and bring disparate stakeholders to the same table.

Agencies have made significant progress implementing the requirements of the Evidence Act Title I. Since OMB released its initial implementation guidance in July 2019 – OMB Memorandum M-19-23, Phase 1 Implementation of the Foundations for Evidence-Based Policymaking Act of 2018: Learning Agendas, Personnel, and Planning Guidance – agencies have designated Evaluation Officers, Chief Data Officers, and Statistical Officials who bring critical leadership and expertise to their agencies. These leaders and their staff have identified priority questions that their agencies need to answer to meet their mission and improve their operations, planned and documented the significant evaluation activities they plan to undertake, and assessed their agency's capacity to build and use evidence. Developing these types of strategic evidence-building plans is new for most agencies, yet they have embraced these activities and are publishing their Learning Agendas, FY 2023 Annual Evaluation Plans, and Capacity Assessments alongside the 2023 Budget. Agencies are also publishing Evaluation Policies, which are critical tools to ensure that evaluation activities uphold the evaluation standards of relevance and utility, rigor, independence and objectivity, transparency, and ethics as discussed below. Many agencies that previously had Evaluation Policies have revised their policies over the past year to better integrate and reflect equity principles in line with the Administration's commitment to advancing equity.

Putting Plans into Action: As agencies begin the hard work of putting these evidence plans into action, this Administration has been clear about the important role that program evaluation must play in answering priority questions. OMB M-21-27 elevates program evaluation as a critical agency function, alongside information technology, human resources, and other key processes. Evaluation is not a compliance exercise, and it is not solely an accountability tool. Rather, agencies should use evaluation to learn what works, for whom, and under what circumstances, and to provide insights into how to improve. The Federal Government must move away from an orientation that views evaluations as narrowly focused on answering the question, "Did it work?" with a simple "Yes," or "No," to one that includes evaluation in program and policy design from the beginning in order to build knowledge and understanding that informs decision-making. Evaluations rarely produce unquestionably positive results, yet most still provide meaningful and useful findings from which we can learn. Similarly, null or negative results should not be viewed as an indication of failure but instead as an opportunity to gain valuable knowledge. Using evaluation in this way entails a cultural transformation throughout an agency, from top leadership to program managers to front-line staff. It requires that agencies invest in a skilled workforce with the appropriate training and expertise, including for the Evaluation Officer and other staff. Conducting evaluations and using the results effectively demands that agencies make the necessary investments to support evaluation as a key agency function, moving beyond the bare statutory minimum to more robust resources.

This cultural shift in agencies further requires that the commitment to building and using evidence adheres to high standards when conducting evidence-building activities, including evaluation. As a scientific activity, agencies must strive to uphold the standards for program evaluation laid out in OMB Memorandum M-20-12, Phase 4 Implementation of the Foundations for Evidence-Based Policymaking Act of 2018: Program Evaluation Standards and Practices (March 2020). The Guidance not only makes clear the need to ensure that evaluation is carried out with relevance and utility, rigor, independence and objectivity, transparency, and ethics. It also describes concrete practices that agencies can implement to support efforts to meet those standards. The Evaluation Policies that agencies have established provide another mechanism to meet the Administration's call to uphold scientific integrity, which is essential for restoring trust in Government. All scientific activities, including evidence-building activities like program evaluation, should be conducted without undue influence and consistent with appropriate standards and processes (Protecting the Integrity of Government Science, NSTC, January 2022).

Agencies must also consider how evaluation activities intersect with the Administration's commitment to advancing equity. Evaluation is key to identifying and testing strategies and innovations that can effectively reduce disparities in priority outcomes. It is also critical that agencies design evaluations to yield useful insights and avoid perpetuating underlying biases by considering equity throughout the lifecycle of evaluation. This includes robust and sustained engagement with the full range of relevant and interested stakeholders to inform the prioritization of evidence needs, as well as the design, conduct, and application of evaluation and other evidence-building activities. When conducted without the input and insight of those most directly affected by the programs and policies being evaluated, we risk maintaining blind spots in our understanding and perpetuating inequity. A focus on equity reinforces other critical principles like transparency and rigor; integrating an explicit commitment to equity in Evaluation Policies provides another channel for institutionalizing this principle in an agency's culture of evidence. To support understanding and awareness of how to integrate equity throughout the evaluation lifecycle, OMB's Evidence Team, in collaboration with a team of agency experts, hosted a five-part workshop series in the summer and fall of 2021.

Fostering Collaboration and Engagement: The Administration recognizes that effective collaboration across the Federal Government is essential to build on the strong foundation that dedicated civil servants in agencies have already put in place to support evidence-based policymaking. Since it started meeting monthly in Fall 2019, the Evaluation Officer Council has served as a forum for the Evaluation Officers from CFO Act agencies to come together as a community, exchange information, coordinate and collaborate on areas of common interest, and provide support to one another as they implement Title I of the Evidence Act. In Fall 2021, the Evaluation Officer Council honored Federal civil service leaders committed to advancing evaluation and evidence-based policymaking across Government through its inaugural Evaluation Officer Council Recognition Program. Those honored demonstrated dedication and commitment to using evaluation to improve Government and how we deliver for the American people. The Federal evaluation community is also collaborating through the Interagency Council on Evaluation Policy (ICEP). This group draws on evaluation experts from across Government to enhance the value and contributions of Federal evaluations to improve Government operations and delivery of Government services. These interagency communities highlight the ways in which Federal evaluation staff are working together to ensure that rigorous scientific tools like evaluation are used to help the Federal Government tackle big challenges.

With the launch of the new Evaluation.gov website in September 2021, the Federal Government now has a public-facing central home for evaluation and related evidence-building activities. The site demonstrates the Administration's commitment to transparency and coordination, bringing together information about Evaluation Officers and evaluation offices from every CFO Act agency, as well as other agencies who are engaging in this work. Evaluation.gov will soon provide a one-stop-shop for agencies, researchers, and the general public to find and access Learning Agendas, Annual Evaluation Plans, Capacity Assessments, and Agency Evaluation Policies. It will provide an accessible way for researchers and funding partners to easily see what priority questions agencies are trying to answer and then to align their own research portfolios to help answer those questions. While these kinds of partnerships can be difficult to form and sustain, the intent is to start breaking down long-standing barriers and help facilitate productive partnerships to solve our country's challenges. We also aim to open up engagement to a wide group of scholars, in particular those from Minority Serving Institutions (MSIs), Historically Black Colleges and Universities (HBCUs), community colleges, and those who may not typically have access to Federal projects and data.

New Initiatives to Accelerate Progress

The commitment to building fruitful partnerships both across Federal agencies and with non-Governmental researchers can be seen in efforts already taking shape. One such partnership is the Analytics for Equity pilot, a new initiative led by the National Science Foundation (NSF), the Office of Science and Technology Policy, and OMB. The Analytics for Equity pilot will leverage NSF's experience in funding research grants and connecting with academics, and it will distribute targeted funding to external research teams that are willing and capable of responding to Federal agencies' priority learning questions that focus on equity. The initiative aims to gain participation from academics with a broad range of institutional affiliations and areas of expertise. Agency partners will help shape the pilot's focus on a limited set of thematic areas and will provide guidance on data resources and agency needs.

The Biden-Harris Management Agenda Vision sets out key priorities for an equitable, effective, and accountable Government that delivers results for all Americans. A management-focused Learning Agenda in support of the President's Management Agenda (PMA) will identify key Government-wide questions to answer in support of the PMA Vision. This first-ever effort of its kind supports a larger effort under the PMA to advance management priorities for all Executive Branch Departments and agencies to improve how Government operates and performs. In support of the PMA vision of an equitable, effective, and accountable Government that delivers results for all, the PMA Learning Agenda will address critical evidence gaps and encourage research to close those gaps within, beyond, and in partnership with the Federal Government.

Achieving this vision of an evidence-based Government requires that we build and promote an environment and workforce that understands and appreciates evaluation and other evidence-building approaches. Recognizing this need, OMB is partnering with the U.S. Department of Health and Human Services (HHS) and agency evaluation experts to develop the Federal Evaluation Toolkit. This resource will help build evaluation skills among the Federal workforce broadly by addressing the value of evaluation, how to interpret and communicate results to agency leaders, and how leaders can – and should – use results to support decision-making. In addition, OMB, in partnership with the Office of Evaluation Sciences (OES) at the General Services Administration (GSA), offers a regular workshop series for Federal staff on technical and policy areas related to evaluation and other evidence activities. The workshops are well attended and receive consistent positive feedback, thus demonstrating the broad demand and interest in acquiring these skills.

Investing in Evidence

Building and sustaining an evidence-based Government is a long-term proposition. Targeted investments in FY 2022 are providing cross-agency support that amplifies individual agency activities. The 2023 Budget includes a number of proposals to build evidence where it is lacking and develop evaluation capacity, while also using evidence to inform other investments.

Building Evidence Where it is Needed: The American Rescue Plan Act of 2021 (Public Law 117-2, "ARP") provided resources for over 200 programs and services designed to counteract the public health and economic harms of the pandemic. Building evidence on equitable approaches to implementation of ARP investments is the focus of multi-year, multi-agency projects. In addition to agencies' own initiatives to evaluate ARP programming, OES is undertaking a portfolio of evaluations with agency partners to better understand how to improve awareness, access, and allocation of ARP programs and resources, focusing on ARP programs with equity goals. Another strategy to generate lessons from ARP is a collaboration among OMB, GSA, and agency partners to launch a multi-year national evaluation of a cross-section of priority ARP-funded programs, using an independent third-party research firm. This first of its kind effort will encompass multiple agencies, geographies, and programs, and seeks to answer questions about where and how ARP programs helped advance equity, while building evidence for future programs and policies.

Many of the priority questions we need answered to more effectively deliver on the Federal Government's mission are inherently cross-governmental. In critical areas like hiring, equity, and rebuilding the economy, many of the policy and programmatic solutions span agencies and functions. However, the current structures and processes for conducting evaluation make it difficult to fund and conduct joint studies that could benefit multiple agencies. A coordinated approach to evaluation will help agencies use taxpayer dollars efficiently and effectively and promote a culture of learning and continuous improvement. To begin meeting this challenge, the 2023 Budget makes new investments in cross-agency evaluations aligned with Administration priorities. Each of these new evaluations will be housed at a lead agency but will address priority questions common to multiple agencies. The Environmental Protection Agency (EPA) will lead a coordinated cross-agency process to support the design and execution of evaluations of Infrastructure Investment and Jobs Act (Public Law 117-58, "IIJA") investments. This is an opportunity to further ensure that IIJA investments are evidence-based and that agencies build evidence about the outcomes of these investments. The Small Business Administration will lead a coordinated cross-agency evaluation of agency efforts to improve equity in procurement, aligned with the Administration's commitment to increasing opportunities and removing barriers in Federal procurement. The Office of Personnel Management (OPM) will lead a series of pilot tests focused on the return to Federal facilities and hybrid work environments, working with GSA to implement and test new space configurations for physical offices, training approaches for managing hybrid teams, new technology products, or other innovations agencies may consider as they look to the future of work. Finally, the Budget includes funding for the Department of Labor (DOL) to lead a new rigorous interagency evaluation of strategies aimed at improving Diversity, Equity, Inclusivity, and Accessibility (DEIA) within the Federal workforce. DOL will lead an evaluation of agencies' DEIA efforts, in close collaboration with OPM and other agencies to drive long-term, meaningful changes for the Federal workforce. The cross-governmental nature of these evaluations means that a range of agencies will participate in the evaluations and that the findings can be shared, applied, and used across agencies and contexts. The lead agencies will be expected to work with other agency partners to design these evaluations so that the results are timely, relevant, useful, and disseminated broadly, in service of addressing these Administration priorities more effectively.

The 2023 Budget also makes a number of new evidence-building investments at agencies to support Administration priorities. At the Department of Education (ED), there is an additional $350 million, for a total of $514 million, for the Education Innovation and Research program, which the Department would target towards identifying and scaling evidence-based models that improve recruitment and retention of staff in education, in particular in the critical shortage of science, technology, engineering, and mathematics (STEM) education, career and technical education (CTE), special education, and multilingual education. Additionally at ED, there is $200 million in the CTE Innovation and Modernization Fund to build evidence of successful postsecondary models to address persistent challenges to career readiness and post-secondary attainment, especially among underserved students. Also at ED, a portion of the National Center for Education Statistics' National Assessment of Educational Progress (NAEP) funding is specifically requested for research and development efforts needed to maintain NAEP quality and reduce future program costs. At the Department of Justice (DOJ), the Budget proposes a significant investment to support the deployment of body-worn cameras (BWC) to the Department's law enforcement officers. Part of this investment will be set aside for evaluation to assess the role of BWC in advancing criminal justice reform.

Sustaining High Capacity Evaluation Capabilities: In addition to investments aimed at strengthening evaluation capacity across the Federal Government, the Budget sustains or enhances funding for evaluation offices or units that pre-date the Evidence Act, including for evaluation activities at ED's Institute for Education Sciences; several parts of HHS, including the Office of the Assistant Secretary for Planning and Evaluation (ASPE), the Office of Planning, Research and Evaluation (OPRE), and the Centers for Disease Control; the Department of Housing and Urban Development's (HUD) Office of Policy Development and Research; the Department of Agriculture's Food and Nutrition Service; DOL's Chief Evaluation Office; GSA's OES; the Millennium Challenge Corporation; and AmeriCorps. The Budget also continues essential authorities for evaluating and improving Federal programs. For example, the Budget maintains the authority for DOL to set-aside "up to 0.75 percent" of appropriations so that there may be sufficient funds for conducting significant and rigorous evaluations, and it continues to provide DOL's Chief Evaluation Office the authority to carry out grants and demonstration projects to test innovative strategies for building evidence. The Budget also includes measures to further support these offices, such as the request for the Evaluation Funding Flexibility General Provision to give DOL's Chief Evaluation Office and Bureau of Labor Statistics, and HHS's ASPE and OPRE the ability to use evaluation funds over a greater period of time

Using Evidence to Inform Investments: In addition to building evidence where it is lacking, the Administration supports new investments that are backed by strong evidence of effectiveness. For example, the Budget makes a number of investments in housing programs that are informed by careful and systematic evaluations of previous programs. Driven by evidence demonstrating that living in lower-poverty neighborhoods improves the long-term success of children and the health outcomes of adults, the Budget includes $445 million in HUD's Housing Choice Voucher program for mobility-related supportive services to provide low-income families who live in areas of concentrated poverty with greater options to move to higher-opportunity neighborhoods. The Budget includes $330 million for HUD grants to mitigate lead-based paint hazards in HUD-assisted and other low-income homes, reflecting clear evidence that ensuring children grow up in healthy, lead-safe homes provides a lifetime of benefits for both the children and society. The Budget includes $85 million for investments in HUD's Healthy Homes grants and contracts, supporting comprehensive household hazard mitigation practices that have been shown to significantly reduce the costs of environmental diseases in children. As another example, the Budget includes $3.3 billion for HUD's Continuum of Care program, which prioritizes grantees who commit to using a Housing First approach. The Housing First approach has been proven to be highly effective for ending homelessness, particularly for people experiencing chronic homelessness who have higher service needs. Finally, the Budget includes $455 million for HUD's Housing Opportunities for Persons with AIDS (HOPWA) program, based on evidence that housing interventions improve stability and connection to care for people with HIV/AIDS and that lack of stable housing is one of the most significant factors limiting the use of antiretrovirals.

At DOL, the Budget provides $303 million to expand investments in Registered Apprenticeship programs that have been shown to improve employment outcomes. The Budget also includes $6 million to provide greater opportunities for women to enter Registered Apprenticeship and nontraditional occupations. In addition, the Budget includes $375 million for Reemployment Services and Eligibility Assessments (RESEA). Beginning in FY 2023, states will be required to use no less than 25 percent of RESEA funds for interventions or service delivery strategies with strong causal evidence showing a demonstrated capacity to improve employment and earnings outcomes for program participants. States have the flexibility to use up to ten percent of their annual RESEA funding to conduct evaluations of these interventions and strategies, and the Budget continues to make funding available for DOL to support states in implementing the evidence-based requirements, including through identification of strong evidence in the Clearinghouse for Labor Evaluation and Research (CLEAR) website.

The Budget also continues to support the use and building of evidence related to implementation of the First Step Act, a high priority Administration initiative. Building on activities started in FY 2022, the Budget supports funding at the Bureau of Prisons (BOP) in DOJ for an evidence-informed, workforce development initiative to be administered by DOL in partnership with BOP. The initiative seeks to implement a variety of evidence-informed workforce development models and practices including case management, support services, Registered Apprenticeship, occupational skills training, and transitional employment for current prisoners in BOP facilities or those that have been recently transferred to community placements. While the program models will be developed using evidence, the initiative also includes funds for robust rigorous evaluation to assess prisoner outcomes (e.g., recidivism, labor market outcomes, etc.) and consider the relationship between these outcomes and the type, intensity, and duration of services provided.

Building Evidence and Evaluation Capacity: Agencies' capacity to build and use evidence varies widely, and achieving the goal of an evidence-based Government requires further investments to develop that capacity. The Budget makes a number of investments to allow agencies to build the systems, personnel, and processes that they need. For example, the EPA will invest in building a broader and higher quality portfolio of evidence. The Budget ensures that EPA will have the personnel and resources to engage in more robust foundational fact finding, more durable improvements in data access and sharing, and stronger engagement of – and collaboration with – external stakeholders, academics, and other researchers. It will support EPA's use of more rigorous and labor-intensive methodologies and increase the number of program evaluations and other empirical studies that support EPA's Learning Agenda. Similarly, the Budget supports an expanded $4 million independent evaluation fund at the Department of the Interior (DOI). This will allow DOI to conduct new studies and build evidence in areas on its Learning Agenda that are not otherwise funded.

In the Department of Homeland Security (DHS), there are several foundational investments to support evidence-building. For example, $500,000 is included for funding evaluation-skilled personnel and evaluation activities to support DHS's Evaluation Officer, including coordination and execution of the Learning Agenda and Annual Evaluation Plan. The Budget also includes funding for two highly skilled evaluators to strengthen the Federal Emergency Management Agencies (FEMA) capacity and capabilities for planning and executing high quality program evaluation and other evidence-building activities that inform learning and improvement across the breadth of FEMA programs and with regard to Administration priorities, including climate resilience for FEMA hazard mitigation grant priorities and equity.

At the Department of Veterans Affairs, the Budget requests funding to support two evaluation analysts in the Veterans Benefits Administration (VBA) to help build capacity that will allow VBA to promote greater equity in service delivery by measuring inequities among veterans who have historically been disadvantaged based on their race, ethnicity, sexual orientation, or gender identity; identify opportunities to address those inequities; and use data to systematically build evidence to understand whether changes have the intended effect of reducing inequities in service delivery.

Data Infrastructure and Capacity to Support Evidence-Building

The Evidence Act calls on agencies to strategically plan and organize evidence-building, data management, and data access functions to ensure an integrated and direct connection to evidence needs. The Budget recognizes that the collection, curation, governance, protection, and transparency of data are also essential for evidence building and thus includes commitments to advancing the data infrastructure and capacity that is foundational for building evidence within and outside Government. Chapter 15 describes how the Federal statistical system, especially the recognized statistical agencies and units, are expanding their longstanding capacity to produce and make accessible data for evidence-building as they work together to implement Title III of the Evidence Act. As a further example, the Budget continues to invest around $33.5 million to support states, school systems, and other partners to design and implement Statewide Longitudinal Data Systems (SLDS), a program of the National Center for Education Statistics (NCES) at IES, which supports early childhood through workforce data to make data-informed decisions and to conduct research to identify strategies to improve student outcomes. Similarly, $6 million would sustain investments in DOL's Workforce Data Quality Initiative (WDQI) to support states in developing, connecting, and enhancing their longitudinal data systems that integrate education and workforce data to provides students and job seekers with information to select the education and training programs that best suit their needs. SLDS and WDQI enable the support of evaluation and research on the effectiveness of workforce and education programs and thus are integral to supporting evidence-building at the State and Federal levels. The Departments continue to jointly convene efforts to maximize lessons and partnerships.

Strategic, cost-efficient evidence-building relies on strong data governance that facilitates the access, protection, and use of program and other administrative data to enable and support secondary uses, including for statistical and evaluation activities. Federal Evaluation Officers, in collaboration with Statistical Officials, Chief Data Officers, Senior Agency Officials for Privacy, Chief lnformation Security Officers, and other relevant officials, have a role in fostering data management for evaluation. Credible program evaluation requires using or collecting verifiable data that accurately capture the intended information and address the questions of interest. Administrative data that supports evaluation purposes can strengthen measurement reliability and validity of analyses and achieve cost efficiencies for the execution of evaluation studies.

Conclusion

The next fiscal year provides a critical opportunity to invest in the staff, capacity, and infrastructure needed to ensure that evidence is used to inform decision-making across the Federal Government. Given the complex issues facing our nation, evidence can and should be brought to bear as we seek to understand our Nation's challenges, develop and implement solutions, and measure progress. The Budget demonstrates the Administration's commitment to making evidence-based decisions guided by the best available science and data in order to improve Government programs, policies, and operations. The proposals in the Budget seek to promote a culture of evidence by developing and strengthening agency capacity, using evidence to inform proposals, and building evidence where it is lacking. Supporting the rigorous evaluation of priority initiatives is central to these efforts. These investments are important markers on the path to an evidence-based Government that effectively and efficiently achieves its mission on behalf of the American people.

7. STRENGTHENING THE FEDERAL WORKFORCE

The strength of any organization rests on its people, and the people who serve in Government are the Federal Government's most important assets. As the Nation's largest employer, more than four million Americans work for the Federal Government, both at home and overseas. Those serving in Government today are dedicated and talented professional public servants. This chapter outlines the Administration's commitment to public servants, demonstrated by the actions taken and those forthcoming to be a model employer by ensuring a safe work environment, bolstering employee engagement, fostering intern and early career hiring, and promoting diversity, equity, inclusion, and accessibility. This chapter also analyzes the current state of the Federal workforce, and how it has changed over the years, including data that have been pivotal in informing the Administration's workforce priorities, strategies, and initiatives.

The Federal Government can only realize its vision of being a model employer by continuously evaluating and improving how its workforce is supported and engaged. It starts with offering the Administration's unwavering support for the Federal workforce by treating them with dignity and respect and providing them the resources they need to carry out agency missions.

Federal employees have demonstrated incredible resilience during the pandemic to ensure their agencies deliver on critical missions, even as they have had to grapple with personal adversity, as has been the case for individuals and families across the Nation. Many Federal employees have worked onsite or in the field throughout the pandemic; at the same time, many Federal employees have been working for the past two years in different environments than they were previously, supported by technology that has enabled distributed, hybrid work.

The Federal Government now faces an extraordinary opportunity to rethink workforce planning and management. The Administration has embraced this opportunity, with the November 2021 launch of the multi-year, cross-cutting President's Management Agenda (PMA). For the first time in recent history, a focus on strengthening and empowering the Federal workforce is at the forefront of the PMA. Through the PMA, and supported by the President's Budget, agencies will take steps to ensure that the Federal workforce is strong, empowered, and well equipped to effectively deliver for the public.

Employers need the right skills in the right job at the right time. The Federal Government, as the Nation's largest employer, is no different. This includes improving Government systems to hire, retain, and develop the people with the skills needed to deliver agency missions, as well as having a workforce that reflects the full diversity of America at every employment level. The PMA recognizes that the Federal Government must be a model employer to achieve these overarching workforce goals, imbued with high employee engagement and a commitment to respect and support workers' rights to organize and bargain collectively, including by ensuring that Federal employees have a voice in their workplaces through their unions.

Being a model employer also involves evolving Federal workplaces and work practices to reflect the needs of the workforce today and tomorrow, reflecting trends in the U.S. labor market—a market for talent that has rapidly evolved as a result of innovation, technologies, tools, and lessons learned throughout the pandemic. For example, private sector employers have moved quickly to leverage the opportunities emerging from a changing world. To compete, the Federal Government must move quickly to design, test, and adopt approaches that will build diverse Federal talent pipelines and engage and retain that talent once hired, while simultaneously strengthening protections that preserve the non-partisan, merit-based civil service that is a hallmark of American democracy. The Federal Government's rules, processes, and institutional norms must support agencies as they evolve how they work, making the Federal Government more efficient, resilient, and effective.

A sizeable percentage of the Federal workforce is eligible to retire today (15 percent) and in the next five years (30 percent). Replacing the valuable contributions and skillsets of retiring public servants will be a challenge, given the competitive U.S. labor market. Coupled with longstanding, additional challenges stemming from a fragmented hiring process—challenges that have become further complicated and cumbersome for applicants and agencies alike—agencies face obstacles as they seek to recruit, hire, engage, and retain early career talent in particular in high-demand career fields, and in certain geographic areas.

To deliver on the Administration's priority to strengthen and empower the Federal workforce, the PMA vision serves as a roadmap for ensuring an equitable, effective, and accountable Federal Government that delivers results for all.

The Budget begins to put the PMA into action, by focusing resources on specific Federal workforce initiatives that will help lay the groundwork for success on a multi-year strategy. Namely, the Budget makes dedicated new investments to:

- Provide a pay increase of 4.6 percent for both civilian and military employees.
- Attract and hire the most qualified employees, including by developing a diverse and competent early-career pipeline by bolstering Federal paid in-

ternship programs and providing funds to support increased paid internship programs.

- Build on the concept of Federal agency "Talent Teams" as introduced in the 2022 Budget, providing a means and method to identify agency strategic human capital needs and translate those needs into hiring actions.
- Improve Federal hiring processes, by scaling innovative assessment and hiring processes like Subject Matter Expert Qualification Assessments (SMEQA) and enabling the sharing of qualified applicant lists among agencies, so agencies can find and hire high quality applicants more quickly.
- Expand the Federal presence, capacity, and recruitment efforts in communities outside of the Washington, D.C. Metro area – by reforming, reimagining, and strengthening Federal Executive Boards (FEBs) across the Nation.

In addition to specific investments through the Budget, the PMA sets forth the following four strategies to strengthen and empower the Federal workforce that will require leadership engagement, policy changes, and data-driven changes in organizations across the Government in the near and longer term:

Strategy 1: Attract and hire the most qualified employees, who reflect the diversity of our country, in the right roles across the Federal Government

Over the course of 2021, the Administration has made progress toward realizing hiring reform and in setting the stage for improving diversity, equity, inclusion and accessibility. Considerable work remains ahead as agencies implement new practices and further strengthen agency culture.

Recruiting Highly Qualified Talent

The number of interns in the Federal Government has decreased significantly over the past 10 years. Over that same time period the portion of the workforce under 30 years of age has also decreased. The Administration believes one of the most impactful ways to rebuild the Federal Government's lagging early-career talent pipeline is to revive Federal internship programs. There are a number of current programs and authorities available to agencies to hire interns, and these opportunities are often underutilized. Benefits of paid internship programs include increasing the chances of students gaining a full-time position after graduation, improving our ability to hire diverse candidates, allowing agencies to develop employees for specific business needs and critical skillsets, and serving as a trial period for agencies and interns to determine if the individual is a good fit for permanent employment. Agencies included in the Chief Financial Officers Act of 1990 (P.L. 101-576) (CFO Act agencies) have committed to hiring over 35,000 interns in 2023, which will be an increase over 2022 projected intern hiring.

Agencies are incorporating internships into workforce planning, and prioritizing resources to increase paid internship opportunities. The President's Management Council has formed an internship working group that will lead and guide improvements to internship policies and procedures, including working with the Office of Personnel Management (OPM) to reduce barriers to hiring a diverse group of paid interns and bolster Federal internship programs. This initiative is augmented by regulations published by OPM in 2021 that provide new hiring flexibilities for post-secondary students and college graduates, as authorized by amendments made to title 5 of the United States Code by section 1108 of the John S. McCain National Defense Authorization Act for Fiscal Year 2019 (P.L. 115-232; 5 U.S.C. 3115-16).

In addition to the heightened need and commitment to recruit interns and early career talent, Federal agencies face recruitment and retention challenges in other mission-critical skill areas, such as human resources (HR). Over the last five fiscal years, retention rates for HR management professionals have consistently trailed the Government-wide average retention rate (69.7 percent to 77.2 percent).[1] To help the Federal Government recruit and retain people with critical HR skills and leverage lessons learned during the pandemic, OPM is regularly consulting with agencies and providing guidance to assist them in developing and implementing flexible work arrangements as well as exploring policies to advance fair and equitable pay, empowering growth with developmental opportunities, and sustaining a culture of proactive agility through leadership and collaboration. OPM has taken additional steps to eliminate the barriers for employees who left Government to come back into service, including issuing regulations in 2021 that facilitate hiring former Federal employees with competitive status, as well as military spouses, who bring valued voices and expertise to civilian roles. Federal agencies are also exploring opportunities to encourage mobility between Government and industry to bring new perspectives and skills to the Federal Government. These activities will be continued and scaled under the PMA.

To help accelerate the recruitment and onboarding of interns and early career talent, OPM and the Office of Management and Budget (OMB) expect to work with agency Deputy Secretaries, Chief Human Capital Officers, and other agency executives across the Nation. In addition, the Federal network outside of Washington, D.C. will be engaged in these efforts, as described further below on the funding model and governance structure of the FEB network.

Improving the Effectiveness of the Hiring Process

Ensuring qualified and rigorously assessed applicants have a chance at serving their Nation fulfills the foundational values of the civil service while maximizing the talents of Federal agency HR staff. Consistent with merit systems principles, this focused effort will not only make

[1] FY 2016-2020 workforce retention rate data, U.S. Office of Personnel Management.

Table 7–1. HIRING TRENDS SINCE 2016

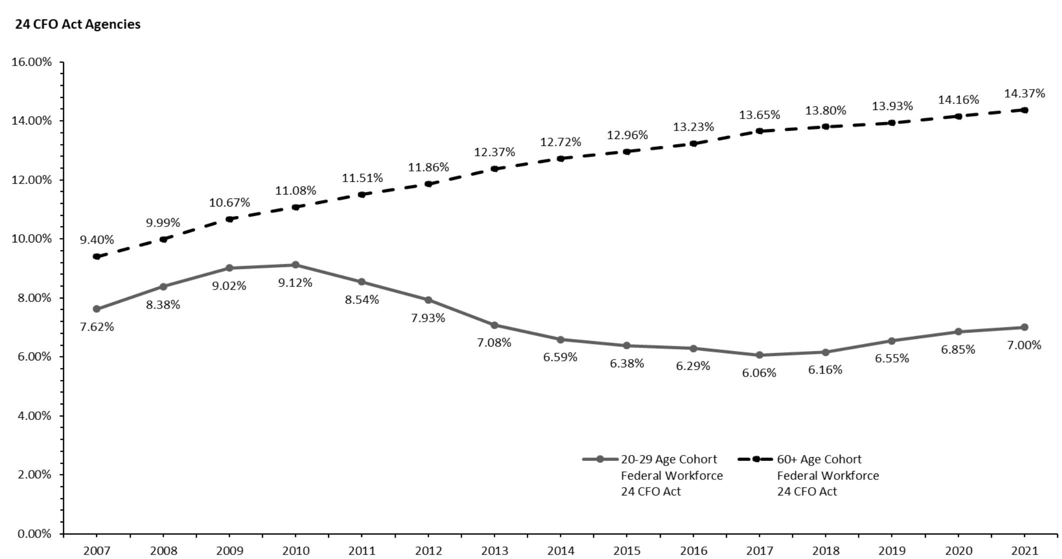
Federal Civilian Workforce	SEP 2016	SEP 2017	SEP 2018	SEP 2019	SEP 2020	SEP 2021
Total Federal Workforce Count*	2,097,038	2,087,747	2,100,802	2,132,812	2,181,106	2,191,011
Average Age	47.1	47.2	47.1	47.1	47.0	47.0
Total Under 30	7.88%	7.55%	7.76%	8.07%	8.39%	8.33%
Total 55 and over	28.16%	28.79%	28.99%	29.17%	29.11%	28.98%
Male	56.70%	56.60%	56.44%	56.27%	55.90%	55.56%
Female	43.29%	43.38%	43.52%	43.72%	44.10%	44.44%
All Disabilities	9.46%	10.49%	12.38%	13.89%	15.33%	17.01%
Targeted Disabilities (These totals are included in the total disability #'s above)	1.10%	2.69%	2.66%	2.61%	2.56%	2.52%
Veteran	29.33%	29.43%	29.34%	29.15%	28.78%	28.37%
American Indian or Alaskan Native	1.71%	1.69%	1.66%	1.63%	1.62%	1.62%
Asian	5.86%	5.99%	6.10%	6.01%	6.17%	6.49%
Black/African American	17.91%	18.15%	18.21%	18.02%	18.06%	18.19%
Native Hawaiian or Pacific Islander	0.49%	0.51%	0.52%	0.52%	0.54%	0.56%
More Than One Race	1.47%	1.60%	1.73%	1.82%	1.91%	2.01%
Hispanic/Latino (H/L)	8.46%	8.75%	9.08%	9.14%	9.33%	9.53%
White	64.04%	63.26%	62.63%	61.22%	60.86%	61.20%

Source: U.S. Office of Personnel Management
* Total count varies slightly from other sources because of date and data collection method

the hiring process easier to navigate for applicants and managers, but will make the process more effective by helping to ensure that the most qualified applicants are seen by managers, quality candidates are able to be hired, and those who are qualified but not ultimately selected can still receive offers from other Federal agencies.

The Budget both expands agency Talent Teams and provides funding for select agencies to share their high-quality competitive hiring announcements with other Federal agencies. This will help decrease the number of public announcements without any selections and increase applicant placement, leading to an improved applicant experience and ensuring agency hiring managers can select the talent they need. To scale these best practices, OPM is building functionality to engage subject matter experts (SMEs) in technical assessments and leveraging

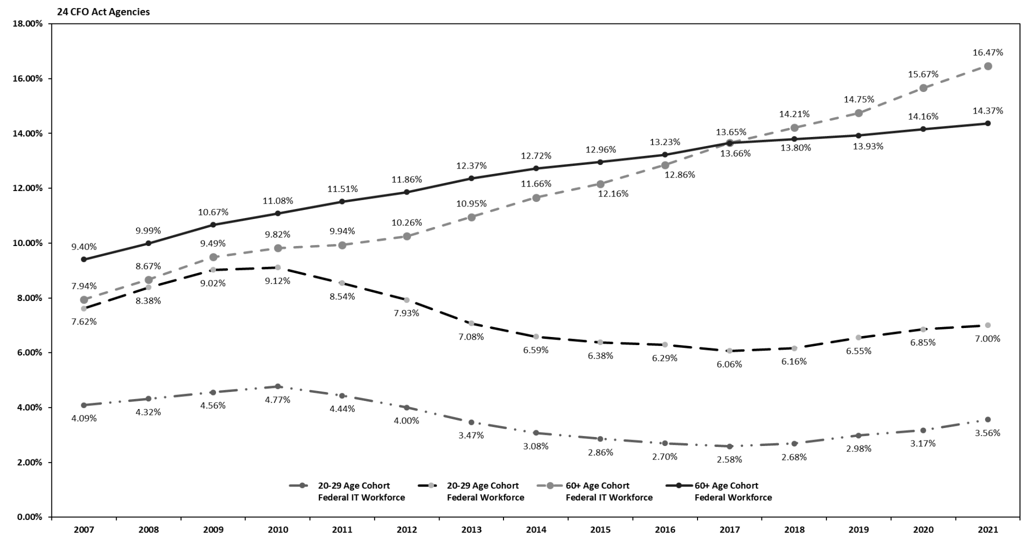
Chart 7-1. Potential Retirees to Younger than 30 Employees: Federal Workforce



60+ Age Cohort Percentage of Federal Workforce increases from 2007 to 2021 while 20-29 Age Cohort Percentage of Federal Workforce declines from 2007 to 2021.

Source: FedScope FY2007-2021 (Annual September Employment Cubes).
Data Filter: Job Series excludes nulls, Work Schedule includes only "F", Work Status includes only Non-Seasonal Full-Time Permanent, Age Cohort excludes less than 20 and unspecificed, 24 CFO Act Agencies only.
Data Range: FY2007-2021, Age Cohorts 20-29, 30-39, 40-49, 50-59, and 60+.

Chart 7-2. Potential Retires to Younger than 30 Employees: Federal IT Workforce Vs. Federal Workforce



60+ Age Cohort Percentage of Federal Workforce increases from 2007 to 2021 while 20-29 Age Cohort Percentage of Federal Workforce declines from 2007 to 2021.

Source: FedScope FY2007-2021 (Annual September Employment Cubes).
Data Filter: Job Series excludes nulls, Work Schedule includes only "F", Work Status includes only Non-Seasonal Full-Time Permanent, Age Cohort excludes less than 20 and unspecified, 24 CFO Act Agencies only.
Data Range: FY2007-2021, Age Cohorts 20-29, 30-39, 40-49, 50-59, and 60+.

centralized technology platforms to allow agencies to share approved applicant lists, so hiring managers can quickly see resumes of applicants who have been assessed and are "pre-cleared" for immediate selection.

Throughout 2021, OPM and OMB continued to work with agencies through a process known as SMEQA to incorporate SMEs earlier in the qualifications process to help assess technical experience. For example, the U.S. Digital Service, OMB, OPM, and the Chief Data Officer Council partnered on a single shared data scientist announcement that resulted in nearly 50 high-level and highly sought-after data scientists accepting permanent job placements in more than a dozen Federal agencies. Using the same SMEQA process, the Department of State hired 73 new employees from a single competitive hiring action for Foreign Affairs Officers. More agencies are staffing up assessment expertise to be able to create in-house technical assessments with the skilled technical staff they already have on board.

In FY 2022, most of the CFO Act agencies identified dedicated staff for newly established talent teams and dedicated financial resources toward improving hiring assessments and developing new tools to help improve hiring outcomes. Increased collaboration between hiring managers and their HR offices will improve the hiring process further. This strong foundation is critical to the work that will continue in FY 2023.

The Budget acknowledges the complex and longstanding challenges facing the Federal Government while reflecting a commitment to innovation, improvement, and performance. The Federal workforce is composed of dedicated public servants who work to improve the lives of the American people. The Budget demonstrates the Administration's commitment to them.

Civil Service Diversity, Equity, Inclusion, and Accessibility

On June 25, 2021, the President signed *Executive Order 14035, "Diversity, Equity, Inclusion, and Accessibility in the Federal Workforce,"* followed by a "Government-wide Strategic Plan to Advance Diversity, Equity, Inclusion, and Accessibility in the Federal Workforce," issued on November 23, 2021. The Executive Order stated that it is the policy of the Administration to be a model for diversity, equity, inclusion, and accessibility, where all employees are treated with dignity and respect. There is increasing evidence that diverse, equitable, inclusive, and accessible workplaces yield higher performance. This Executive Order focuses both on hiring a diverse workforce and on creating a culture in Federal agencies that supports diversity, equity, inclusion, and accessibility (DEIA) and provides an inclusive environment. In response to this Executive Order, agencies have established dedicated DEIA teams and conducted self-assessments of the current state of agency DEIA practices and programs, HR processes, and workforce composition. Over the course of FY 2022, Federal agencies are building strategic plans and action plans to operationalize best practices around diversity, equity, inclusion, and accessibility in FY 2023 and beyond.

In 2021, more Federal employees identified as members of historically underrepresented groups than in prior years. According to data from OPM from September 2021, the Federal civilian workforce self-identified as 61.2 percent White; 18.2 percent Black; 9.5 percent Hispanic of all races, a slight increase from 9.4 percent (compared to December 2019); 6.5 percent Asian/Pacific Islander; 1.6 percent Native American/Alaskan Native; and 2.0 percent more than one race, a slight increase from 1.9 percent (compared to December 2019). Men make up 55.6 percent of all permanent Federal employees, and women represent 44.4 percent, which is up from 43.9 percent. Veterans make up 30.1 percent of the Federal workforce, which is significantly higher than the percentage in the private sector non-agricultural workforce. 16.5 percent of all Federal employees self-identify as having a disability, which includes the approximately 2.6 percent who have a "targeted disability," such as blindness. Table 7–1 shows the staffing trends since 2016.

The Federal workforce has an average age of 47 years. Almost 29 percent (635,016) of employees are older than 55, while 8.3 percent (182,472) of employees are younger than 30, an increase from 8.1 percent (compared to December 2020). Chart 7-1 shows a widening age gap at the 24 large and mid-sized agencies since 2007. This gap carries into each career field. As an example, Chart 7-2 demonstrates the growing age disparity in the information technology sector that in particular shows the drop in the percentage of the Federal workforce under the age of 30 since 2010, when Federal internships and hiring programs for recent graduates became subject to new restrictions.

Personnel Vetting Transformation

The Administration is prioritizing improvements to how the Executive Branch vets its military, civilian, and contractor workforce through the Security, Suitability, and Credentialing Performance Accountability Council (PAC). These reforms encompass the policies, processes, and tools used to determine whether personnel should be trusted to provide needed services, be good stewards of taxpayer dollars, and protect sensitive information. During 2021, the Administration transitioned its national security sensitive workforce—those with access to classified and other sensitive information—from periodic background investigations into an initial continuous vetting capability under the Trusted Workforce 2.0 initiative. The Budget supports agencies continuing preparations to implement additional PAC reforms that will further modernize the personnel vetting system. These reforms will increase worker mobility, reduce time-to-hire timeframes, and increase employee engagement, as well as increase shared services and information sharing. Moreover, these reforms are aligned with and supportive of the Federal Government's broader efforts to recruit and retain a diverse and talented workforce.

Federal Executive Board Reform

In November 1961, President Kennedy issued a Presidential Directive establishing FEBs as a forum of workforce communication and collaboration outside of Washington, D.C. for the "improvement of the management and direction of Federal offices throughout the country."[2] With FEBs celebrating their sixtieth anniversary in 2021, the Administration is introducing a refreshed FEB funding and governance model to support operational viability for FEBs. FEBs will focus on advancing Administration priorities through implementation of the President's Management Agenda in Federal agencies and offices across the Nation, including by assisting agencies in strategic and collaborative efforts to recruit new talent. These reforms are timely and can bolster the increased collaboration that occurred outside of Washington, D.C., throughout the Nation during the pandemic due to virtual platforms that extended the reach of agencies and their employees.

A new $10 million interagency annual Line of Business (LOB) for funding and a governance model that establishes a FEB Program Management Office (PMO) will replace the current ad hoc funding structure. Fluctuating commitments of budget and staff by employing agencies previously jeopardized a sustained, dedicated approach over time. Centered around a coordinated set of workforce and Administration priorities, FEBs will focus on local recruitment efforts helping to build the next generation of Federal talent from diverse communities. In particular, leveraging FEBs to build internal and external relationships that will fortify Federal talent pipelines and recruitment is urgent given the challenges Federal agencies face around Federal hiring.

It is expected that this FEB reform effort will lead not only to a new governance structure in Washington, D.C., but also to enhanced practices in FEBs across the Nation. A greater focus on pooling resources in areas of common interest will advance program efficiencies and cost savings and lead to better engagement opportunities for Federal employees in the field enhancing overall agency mission resilience. For example, FEBs will have expanded resources and capabilities to support the Federal workforce in engaging directly with their communities and serving as coordinated and targeted recruitment hubs that can connect Federal agencies with regional talent pools, such as local educational institutions. Renewed FEBs will be able to assist in ensuring a more diverse workforce with representation from underserved communities and regions across the Nation. FEBs can foster intergovernmental collaboration in the field through coordination with State, tribal, local, and territorial government partners for improved mission delivery, such as supporting veterans, collaboration on climate issues, equitable outreach to underserved communities, and rebuilding the economy.

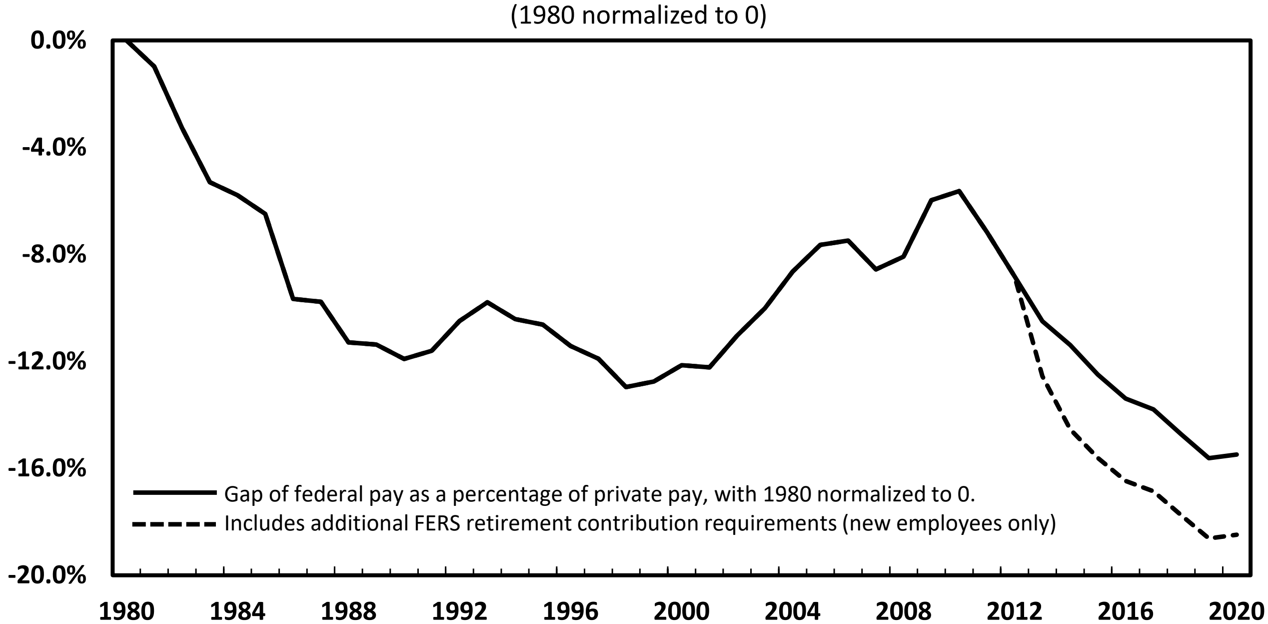
Strategy 2: Make every Federal job a good job, where all employees are engaged, supported, heard, and empowered, with opportunities to learn, grow, join a union and have an effective voice in their workplaces through their union, and thrive throughout their careers

Data show that an engaged workforce is a more effective workforce. The Gallup 2017 State of the American

[2] *Memorandum on the Need for Greater Coordination of Regional and Field Activities of the Government*, President John Kennedy, November 10, 1961

Chart 7-3. Federal vs. Private pay differential

(1980 normalized to 0)



For newly hired federal employees, FERS contributions increased 2.3 percentage points for employees hired in 2013 and an additional 1.3 percentage points for employees hired in 2014 or after.

Sources: Public Laws, Executive Orders, Office of Personnel Management, OPM Memoranda from federal websites, Congressional Budget Office, and Bureau of Labor Statistics.

Notes: Federal pay is for civilians and includes base and locality pay. Private pay is measured by the Employment Cost Index wages and salaries, private industry workers series.

Workplace Report shows that business units in the top quartile of engagement have over 40 percent lower absenteeism, between 24 percent and 59 percent lower turnover, 70 percent fewer employee safety incidents, 10 percent higher customer metrics, 17 percent higher productivity, 20 percent higher sales, and 21 percent higher profitability.[3] Employee engagement in the Federal Government has improved since the initiative began in 2014. Employee engagement has risen from 63 percent on the 15-question index in 2014 to 72 percent in 2020. The multi-faceted approach of providing the survey results back to managers and supervisors, engaging leadership at all levels in creating a dialogue around actions that can be taken, and holding managers and supervisors accountable for progress by incorporating Federal Employee Viewpoint Survey (FEVS) results into Senior Executive Service (SES) members' performance plans and appraisals has yielded steady improvements. With Federal workplaces and the Federal workforce undergoing change and transition, it is more important than ever to bolster and improve employee engagement to maintain and retain a strong and dedicated civil service, through a workplace culture that values inclusion, feedback, dialogue, respect, safety, and accountability.

Over the course of FY 2023, the Administration will continue to make progress in agency relations with Federal employee unions, while also striving for continued improvements on Federal employee engagement measures. 2021 was a model year with regard to the Administration's work and engagement with Federal employee unions. With guidance and leadership from OPM, agencies reset labor relations across the Federal Government, engaged with unions to keep workers safe during the pandemic, reinstituted long-standing provisions intended to facilitate effective union representation of workers (such as official time and union office space), expanded the scope of workplace topics on which agencies engage their unions, and also rolled back many anti-union policies put in place by the previous administration.

Moreover, the administration launched a Task Force on Worker Organizing and Empowerment, which issued a report outlining over 70 strategies to reduce barriers to worker organizing in all sectors. In furtherance of that report, Federal agencies have been directed to: include additional bargaining unit information in job announcements; involve unions in the new employee orientation process; provide new bargaining unit employees with information on their workplace rights under the Federal Service Labor-Management Relations Statute (FSLMRS) (Public Law 95-454, Title VII of the Civil Service Reform Act of 1978) during new employee orientation and on an ongoing basis; and highlight employees' rights to join a union. Further, the Administration is working to ensure

[3] *State of the American Workplace (gallup.com)*

Table 7–2. FEDERAL CIVILIAN EMPLOYMENT IN THE EXECUTIVE BRANCH
(Civilian employment as measured by full-time equivalents (FTE) in thousands, excluding the Postal Service)

Agency	Actual		Estimate		Change: 2022 to 2023	
	2020	2021	2022	2023	FTE	Percent
Cabinet agencies						
Agriculture	79.3	83.7	89.6	99.8	10.2	11.4%
Commerce	83.2	46.5	42.1	44.5	2.4	5.8%
Defense--Military Programs	776.8	783.2	786.0	790.8	4.9	0.6%
Education	3.7	4.0	4.0	4.3	0.3	8.1%
Energy	14.1	14.4	15.2	16.4	1.2	8.1%
Health and Human Services	75.1	78.4	81.6	84.5	2.9	3.5%
Homeland Security	197.5	201.6	197.3	206.5	9.3	4.7%
Housing and Urban Development	7.6	7.9	8.1	8.9	0.8	9.8%
Interior	60.6	62.0	63.4	68.1	4.7	7.4%
Justice	114.2	115.9	116.6	123.2	6.6	5.6%
Labor	14.5	14.7	15.4	17.2	1.8	11.7%
State	24.9	25.0	25.4	26.0	0.7	2.6%
Transportation	53.5	53.7	54.5	56.1	1.6	2.9%
Treasury	90.7	93.9	96.3	101.7	5.3	5.5%
Veterans Affairs	389.4	402.8	406.9	435.8	29.0	7.1%
Other agencies -- excluding Postal Service						
Bureau of Consumer Financial Protection	1.4	1.6	1.6	1.7	*	2.8%
Corps of Engineers--Civil Works	24.0	23.5	23.1	23.1	....	....
Environmental Protection Agency	13.9	14.0	14.9	16.6	1.7	11.2%
Equal Employment Opportunity Commission	1.9	1.9	2.1	2.1	0.1	3.8%
Federal Communications Commission	1.4	1.5	1.5	1.6	0.1	8.7%
Federal Deposit Insurance Corporation	5.8	5.9	6.3	6.3	*	0.1%
Federal Trade Commission	1.1	1.1	1.1	1.4	0.3	26.3%
General Services Administration	11.4	11.6	12.3	12.6	0.2	1.9%
International Assistance Programs	5.7	5.5	5.8	6.2	0.5	8.1%
National Aeronautics and Space Administration	17.2	16.8	17.7	17.6	–0.2	–0.9%
National Archives and Records Administration	2.8	2.7	2.8	3.0	0.2	6.8%
National Credit Union Administration	1.1	1.1	1.2	1.2	*	0.7%
National Labor Relations Board	1.2	1.2	1.2	1.3	0.1	7.4%
National Science Foundation	1.4	1.5	1.5	1.6	0.1	9.8%
Nuclear Regulatory Commission	2.8	2.8	2.9	2.9	*	0.5%
Office of Personnel Management **	2.5	2.4	2.3	2.5	0.3	11.4%
Securities and Exchange Commission	4.4	4.5	4.5	4.8	0.3	6.2%
Small Business Administration	4.8	6.0	10.7	5.6	–5.1	–47.9%
Smithsonian Institution	4.9	4.9	5.0	5.1	0.2	3.2%
Social Security Administration	60.3	59.9	58.9	60.0	1.1	1.8%
Tennessee Valley Authority	10.0	10.2	10.6	10.6	....	....
U.S. Agency for Global Media	1.7	1.6	1.7	1.7	*	0.7%
Other Defense--Civil Programs	1.0	1.1	1.1	1.2	*	3.3%
Total, Executive Branch civilian employment	....	....	....	....	....	....

* 50 or less.
** Includes transfer of functions to the General Services Administration and to other agencies.

that Federal jobs pay a living wage by implementing a new policy providing that all Federal jobs are paid at a rate of at least $15 per hour.

Retaining Valued Workers in a Rewarding and Inclusive Environment

The Budget reflects a pay increase of 4.6 percent for both civilian and military employees. Between 2009 and 2020, U.S. average worker pay rose by 38 percent while Federal civilian pay increases amounted to only a 15 percent rise. Chart 7-3 demonstrates the growing gap of Federal pay as a percentage of private sector pay. The differential between Federal civilian pay and private sector pay expanded substantially over this period, creating meaningful attrition risk within the existing workforce, reducing the competitiveness of Federal jobs, and devaluing the contributions of the Federal workforce to the Nation. The proposed Federal pay increase is needed to prevent Federal pay from falling even further behind. This pay raise helps ensure fair compensation for employees, by keeping pace with economic indicators – and, also recognizes the Federal workforce's tireless and selfless dedication to mission and service to the American people. Federal pay adjustments have not kept pace with the national labor market overall, or increases in the cost of goods, services, and benefits. The 2022 and 2023 civilian pay adjustments, consistent with the Employment Cost Index, are steps to address that imbalance. Additionally, the Administration is proposing a number of changes to Federal compensation to include: modifying critical position pay, establishing a critical skills incentive, increasing the special rate limitation for certain positions, and updating General Schedule pay setting for new appointments.

Looking beyond pay, one key aspect of retaining valued workers is ensuring that every individual can feel a "part" of the workforce, and that they belong, with an ability to bring their whole self into the workplace, without fear of exclusion, discrimination, or bias. Research shows that an employee's supervisor plays a critical role in creating an inclusive environment in the workplace. In 2020, 79 percent of Federal employees reported on the OPM FEVS that "My supervisor is committed to a workforce representative of all segments of society," and 85 percent reported that "My supervisor supports my need to balance work and other life issues."[4] These are both critical indicators to monitor as agencies focus on supporting supervisors in creating the inclusive workplaces.

Strategy 3: Reimagine and build a roadmap to the future of Federal work informed by lessons from the pandemic and nationwide workforce and workplace trends

On January 20, 2021, the President directed actions to protect the Federal workforce, including by creating the interagency Safer Federal Workforce Task Force to provide ongoing guidance to agencies on the operation of the Federal Government, the safety of its employees, and the continuity of Government functions during the COVID-19 pandemic. Agencies have worked closely with the Safer Federal Workforce Task Force to develop and update COVID-19 workplace safety plans to outline processes and procedures to ensure the health and safety of all Federal employees, onsite contractor employees, and individuals interacting with the Federal workforce, consistent with guidelines from the Centers for Disease Control and Prevention.

Throughout the pandemic, the more than 4 million Federal employees have been hard at work, protecting our country, providing critical services, and combatting COVID-19 and its impacts—with hundreds of thousands doing so in the field or in their agency workplaces. As more Federal employees come back together in physical workplaces, agencies will build on the innovations, tools, and technologies that were put into practice over the last two years to make the Federal Government even more efficient, resilient, and effective. Agencies are working to seize this transformational moment, taking this opportunity to learn from the changes made during the pandemic to help rethink how Federal Government work is conducted. Informed by lessons learned as the Federal workforce increasingly operates in a more hybrid and distributed environment, agencies aim to fully leverage new technologies, break down barriers to collaboration, leverage new ways to deliver services, and examine how to optimize the Government's real property footprint to support agency mission attainment at the right cost and in the right locations.

Human Capital Management and Operations, Including COVID-19 Response and "Future of Work"

In addition to agencies' focus on assessing current human capital and HR challenges and opportunities, the Administration is also engaging in analysis and decisions to be made around a vision for Federal workforce policies and Federal workplaces of the future. As part of the PMA, OPM, the General Services Administration (GSA), OMB are working together—with other Federal agencies through the President's Management Council—to inform new policies, tools, and resources needed to achieve that vision.

OMB, OPM and GSA have collaborated on guidance to agencies to help inform agency planning for post-reentry work environments, which, among additional principles and considerations, emphasized the importance in agency planning for how to best deliver on agency missions, empower decision-making within agencies, promote a flexible and agile workforce, and strengthen diversity, equity, inclusion, and accessibility, in consultation with—and consideration of—local communities and stakeholders.

As agencies foster increasingly hybrid and technology-enabled work environments, as well as expansions of remote and distributed work and other flexible ways of working, OMB, OPM, and GSA have also developed resources to support agencies during this period of transition. For example, OPM launched a Future of Work webpage in November 2021, which connects agency leaders and HR practitioners with newly issued guidance and tools, such as the 2021 Guide to Telework and Remote Work in the Federal Government, that support effective human capital management practices and promote innovation.

The "future of Federal work" is not an end state that will someday be achieved. It is inherently an evolving process. Rather than providing a prescriptive set of new policies and rules that agencies must follow in determining future work arrangements, the Administration is committed to encouraging innovation, creativity, experimentation, learning, and evidence-building in different work environments. By utilizing expanded flexibilities in work arrangements and increased adoption of technology similar to private sector strategies, the Government will enhance its ability to recruit and retain top talent.

In addition, the future of work is not limited to one aspect of the employee experience, it fully covers the entire employee lifecycle, from recruitment and onboarding to retirement. The overarching goal is to connect post-reentry workforce planning to long-term trends, facilitating

[4] 2020 Federal Employee Viewpoint Survey, U.S. Office of Personnel Management.

Table 7–3. TOTAL FEDERAL EMPLOYMENT
(As measured by Full-Time Equivalents)

Description	2021 Actual	2022 Estimate	2023 Estimate	Change: 2022 to 2023	
				FTE	PERCENT
Executive Branch Civilian:					
All agencies, Except Postal Service	2,183,067	2,206,257	2,288,566	82,309	3.6%
Postal Service [1]	580,736	566,431	560,217	-6,214	-1.1%
Subtotal, Executive Branch Civilian	2,763,803	2,772,688	2,848,783	76,095	2.7%
Executive Branch Uniformed Military:					
Department of Defense [2]	1,406,795	1,394,943	1,371,769	-23,174	-1.7%
Department of Homeland Security (USCG)	41,493	42,510	42,967	457	1.1%
Commissioned Corps (DOC, EPA, HHS)	6,302	6,345	6,438	93	1.4%
Subtotal, Uniformed Military	1,454,590	1,443,798	1,421,174	-22,624	-1.6%
Subtotal, Executive Branch	4,218,393	4,216,486	4,269,957	53,471	1.3%
Legislative Branch [3]	31,645	34,516	35,240	724	2.1%
Judicial Branch	33,041	33,775	34,556	781	2.3%
Grand Total	4,283,079	4,284,777	4,339,753	54,976	1.3%

[1] Includes Postal Rate Commission.
[2] Includes activated Guard and Reserve members on active duty. Does not include Full-Time Support (Active Guard & Reserve (AGRSs)) paid from Reserve Component appropriations.
[3] FTE data not available for the Senate (positions filled were used for actual year and extended at same level).
* Non-zero less than 0.1%

innovative approaches to achieve agency mission and promote employee health, wellbeing, and potential.

With the advent of increased telework and remote work, there is a need to consider how agency management processes, organizational structures, and resources support both the workforce and organizational and mission performance. Further, additional analysis will need to inform how Federal agencies manage support functions such as information technology systems and investments, agency real property, and the Federal real estate footprint. Investment to optimize the real property portfolio for a more agile workforce working in a more hybrid and distributed manner will limit rent expenditures in outyears and improve the portfolio's mission effectiveness.

Focused on mission, safety, and service, and informed by data, research, and input from Federal employee unions, local communities, and other stakeholders, Federal leaders and employees will continue working together to reevaluate assumptions about how and where work is performed.

Strategy 4: Build the personnel system and support required to sustain the Federal Government as a model employer able to effectively deliver on a broad range of agency missions

The Administration recognizes that to be a model employer and effectively support the Federal workforce requires a strong personnel system. Strategy 4 in the workforce pillar of the PMA focuses on building the capacity and capability of OPM as the strategic human capital leader for the Federal Government, including its ability to provide data-driven solutions and support, as well building the capabilities of the Federal HR workforce to support agency mission delivery. OPM's FY 2022-26 strategic plan provides the foundation for delivering on these efforts.

OPM's strategic plan focuses on transforming OPM's organizational capacity and capability to better serve as the leader in Federal human capital management. There are targeted efforts that span the range of critical elements within the agency, in the areas of people, resources, Information Technology (IT), and culture, which more specifically aim towards:

- Building the skills of the OPM workforce and attracting skilled talent.
- Establishing a sustainable funding and staffing model for OPM that better allows the agency to meet its mission.
- Modernizing OPM IT by establishing an enterprise-wide approach, eliminating fragmentation, and aligning IT investments with core mission requirements.
- Promoting a positive organizational culture where leadership drives an enterprise mindset, lives the OPM values, and supports employee engagement and professional growth.

The strategic plan also focuses on providing innovative and data-driven solutions to enable agencies to meet their missions, including:

- Expanding the quality and use of OPM's Federal human capital data.
- Taking a data-driven and best practices approach to recruitment, assessment, and hiring strategies that strengthen and support diversity, equity, and inclu-

sion, and accessibility across the Federal Government.

- Improving data collection, use, and sharing to support agencies in the provision of more equitable services and successful implementation of DEIA focused programs and policies.

The Administration recognized the importance of strengthening the HR workforce by returning administration of the Chief Human Capital Officers (CHCO) Council to OPM. This reconnection will better enable the development of programs, policies, and support for the HR workforce across Government to better drive talent acquisition and management in support of agency mission delivery. The work will consider ways to improve HR workforce skills through training, certifications, rotation programs, and other methods to better equip the critical people who are at the core of supporting agency talent.

Federal Workforce Trends and Updates

The total Federal workforce is comprised of 4.3 million staff, with 2.2 million Federal civilian employees and 2.1 million military personnel, including members of the reserve forces. (See Tables 7–2 and 7–3).[5] Using data from the Bureau of Labor Statistics on full-time, full-year workers, Table 7–4 breaks out all Federal and private sector jobs into 22 occupational groups to demonstrate the differences in composition between the Federal and private workforces. Table 7–5 summarizes total pay and benefit costs. Charts 7–4 and 7–5 present trends in educational levels for the Federal and private sector workforces over the past two decades, demonstrating a continuation in the advanced educational attainment of Federal employees. Chart 7–6 shows the trends in average age in both the Federal and private sectors, reflecting the average age of Federal employees to be significantly higher than the average age of private sector employees. Chart 7–7 and Chart 7–8 show the location of Federal employees in 1978 and again in 2021. Chart 7–9 reflects the changing nature of work, comparing the number of employees in each General Schedule grade in 1950 versus 2021, showing an almost complete shift from lower-grade to higher-grade types of work.

In calendar year 2021, USAJOBS.gov hosted over 370,000 job announcements, facilitated 900 million job searches, and enabled individuals to begin more than 17 million applications for Federal jobs. More than 3,000 job announcements related to the Federal Government's COVID-19 response led individuals to begin nearly a million applications. OPM's Retirement Services processed almost 100,000 new retirement cases and about 30,000 survivor claims. The Federal Employees Health Benefits Program offers 275 plan options and had an average premium increase for non-postal plans of 2.4 percent for the 2022 benefit year. Additionally, the various responsible agencies completed about 2.37 million background investigations.

The Federal Government's efforts to identify policies and workforce strategies that foster high-performance workplaces and promote employee engagement will not only serve agencies in retaining qualified and dedicated workers, they will also result in the creation of a pipeline of qualified Federal leaders, yielding better service to the American public and increased trust in Government. By seeking to be an equitable, effective, and accountable Government that delivers results for all, the Federal Government will transform itself into being the model employer it envisions today for its workforce and people.

[5] December 2021, Active Duty Military Personnel By Service and Selected Reserve Personnel by Reserve Component, Defense Manpower Data Center, Department of Defense (*https://dwp.dmdc.osd.mil/dwp/app/dod-data-reports/workforce-reports* DMDC Web (*osd.mil*).

Table 7–4. OCCUPATIONS OF FEDERAL AND PRIVATE SECTOR WORKFORCES
(Grouped by Average Private Sector Salary)

Occupational Groups	Percent	
	Federal Workers	Private Sector Workers
Highest Paid Occupations Ranked by Private Sector Salary		
Lawyers and judges	2%	1%
Engineers	4%	2%
Scientists and social scientists	4%	1%
Managers	13%	15%
Pilots, conductors, and related mechanics	3%	0%
Doctors, nurses, psychologists, etc.	9%	7%
Miscellaneous professionals	17%	11%
Administrators, accountants, HR personnel	6%	2%
Inspectors	1%	0%
Total Percentage	**60%**	**38%**
Medium Paid Occupations Ranked by Private Sector Salary		
Sales including real estate, insurance agents	1%	6%
Other miscellaneous occupations	4%	5%
Office workers	2%	5%
Automobile and other mechanics	2%	3%
Social workers	2%	1%
Drivers of trucks and taxis	1%	3%
Laborers and construction workers	3%	10%
Clerks and administrative assistants	12%	10%
Manufacturing	2%	7%
Law enforcement and related occupations	9%	1%
Total Percentage	**37%**	**51%**
Lowest Paid Occupations Ranked by Private Sector Salary		
Janitors and housekeepers	1%	2%
Other miscellaneous service workers	2%	5%
Cooks, bartenders, bakers, and wait staff	1%	4%
Total Percentage	**3.8%**	**11.1%**

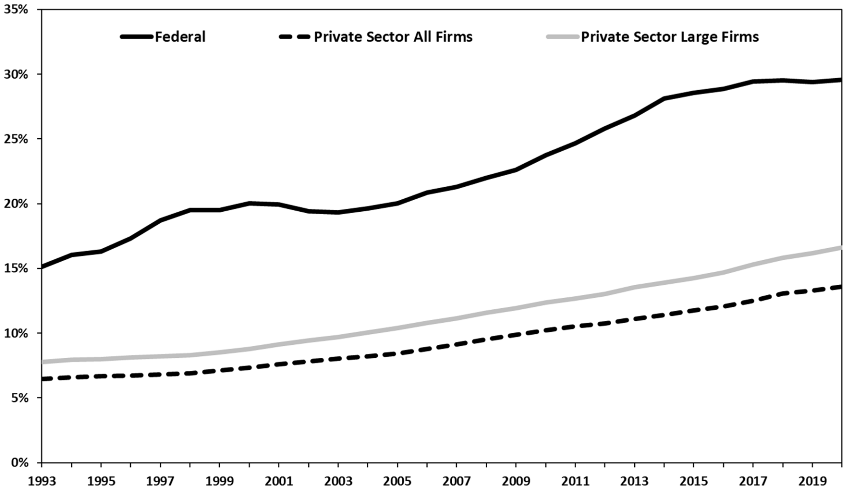
Source: 2017–2021 Current Population Survey, IPUMS-CPS, University of Minnesota, www.ipums.org.

Notes: Federal workers exclude the military and Postal Service, but include all other Federal workers. Private sector workers exclude the self-employed. Neither category includes State and local government workers. This analysis is limited to workers with at least 1,500 annual hours of work.

Table 7–5. PERSONNEL PAY AND BENEFITS
(In millions of dollars)

Description	2021 Actual	2022 Estimate	2023 Estimate	Change: 2022 to 2023	
				Dollars	Percent
Civilian Personnel Costs:					
Executive Branch (excluding Postal Service):					
Pay	220,715	227,486	248,781	21,295	9.4%
Benefits	101,971	104,270	108,718	4,448	4.3%
Subtotal	322,686	331,756	357,499	25,743	7.8%
Postal Service:					
Pay	41,062	41,819	41,754	-65	-0.2%
Benefits	12,147	10,613	10,765	152	1.4%
Subtotal	53,209	52,432	52,519	87	0.2%
Legislative Branch:					
Pay	2,491	2,593	2,945	352	13.6%
Benefits	896	983	1,109	126	12.8%
Subtotal	3,387	3,576	4,054	478	13.4%
Judicial Branch:					
Pay	3,545	3,748	4,430	682	18.2%
Benefits	1,288	1,305	1,338	33	2.5%
Subtotal	4,833	5,053	5,768	715	14.2%
Total, Civilian Personnel Costs	384,115	392,817	419,840	27,023	6.9%
Military Personnel Costs					
Department of Defense--Military Programs:					
Pay	114,662	113,970	119,524	5,554	4.9%
Benefits	56,887	59,872	62,269	2,397	4.0%
Subtotal	171,549	173,842	181,793	7,951	4.6%
All other Executive Branch uniform personnel:					
Pay	3,871	4,036	4,381	345	8.5%
Benefits	706	766	843	77	10.1%
Subtotal	4,577	4,802	5,224	422	8.8%
Total, Military Personnel Costs	176,126	178,644	187,017	8,373	4.7%
Grand total, personnel costs	**560,241**	**571,461**	**606,857**	**35,396**	**6.2%**
ADDENDUM					
Former Civilian Personnel:					
Pensions	93,952	99,424	104,835	5,411	5.4%
Health benefits	13,595	14,330	14,648	318	2.2%
Life insurance	41	40	41	1	2.5%
Subtotal	107,588	113,794	119,524	5,730	5.0%
Former Military Personnel:					
Pensions	65,186	68,522	74,158	5,636	8.2%
Health benefits	11,498	11,852	12,963	1,111	9.4%
Subtotal	76,684	80,374	87,121	6,747	8.4%
Total, Former Personnel	184,272	194,168	206,645	12,477	6.4%

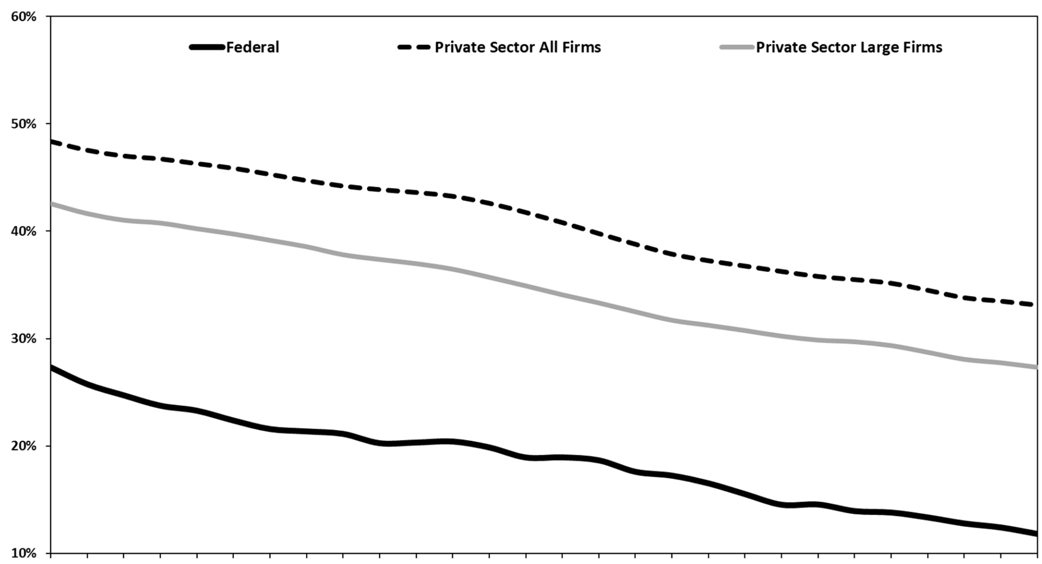
Chart 7-4. Masters Degree or Above By Year for Federal and Private Sectors



Source: 1992-2021 Current Population Survey, IPUMS-CPS, University of Minnesota, www.ipums.org.

Notes: Federal excludes the military and Postal Service but includes all other Federal workers. Private Sector excludes the self-employed. Neither category includes State and local government workers. Large firms have at least 1,000 workers. This analysis is limited to workers with at least 1,500 annual hours of work, and data is five-year averaged through 2018 (2019 averages 2017-2020, and 2020 averages 2018-2020). Industry is from the year preceding the year on the horozontal axis.

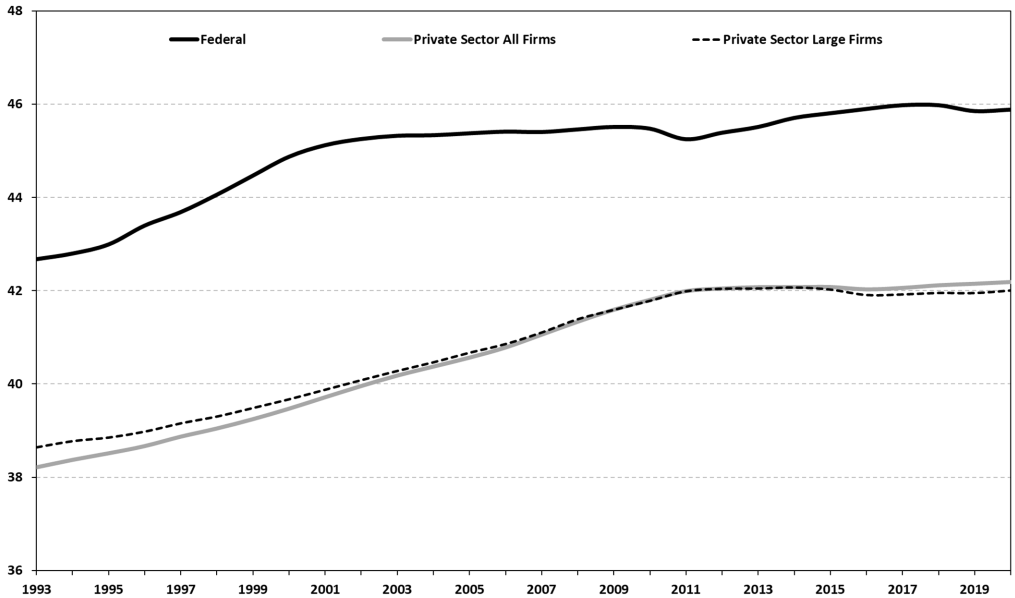
Chart 7-5. High School Graduate or Less By Year for Federal and Private Sectors



Source: 1992-2021 Current Population Survey, IPUMS-CPS, University of Minnesota, www.ipums.org.

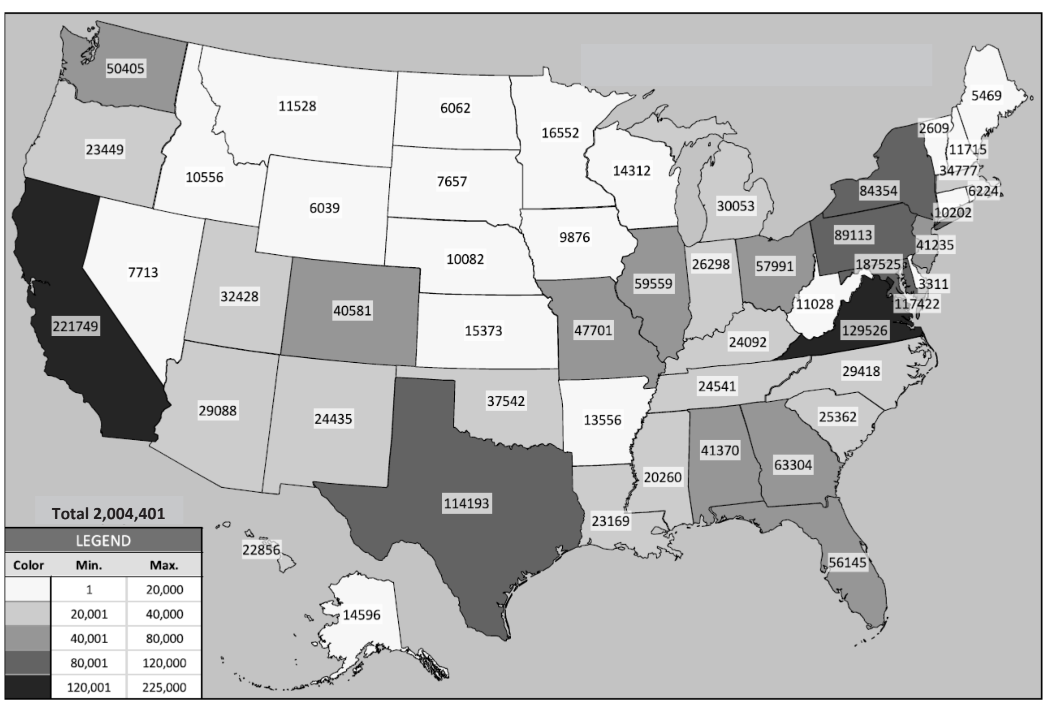
Notes: Federal excludes the military and Postal Service but includes all other Federal workers. Private Sector excludes the self-employed. Neither category includes State and local government workers. Large firms have at least 1,000 workers. This analysis is limited to workers with at least 1,500 annual hours of work, and data is five-year averaged through 2018 (2019 averages 2017-2020, and 2020 averages 2018-2020). Industry is from the year preceding the year on the horozontal axis.

Chart 7-6. Average Age by Year for Federal and Private Sectors



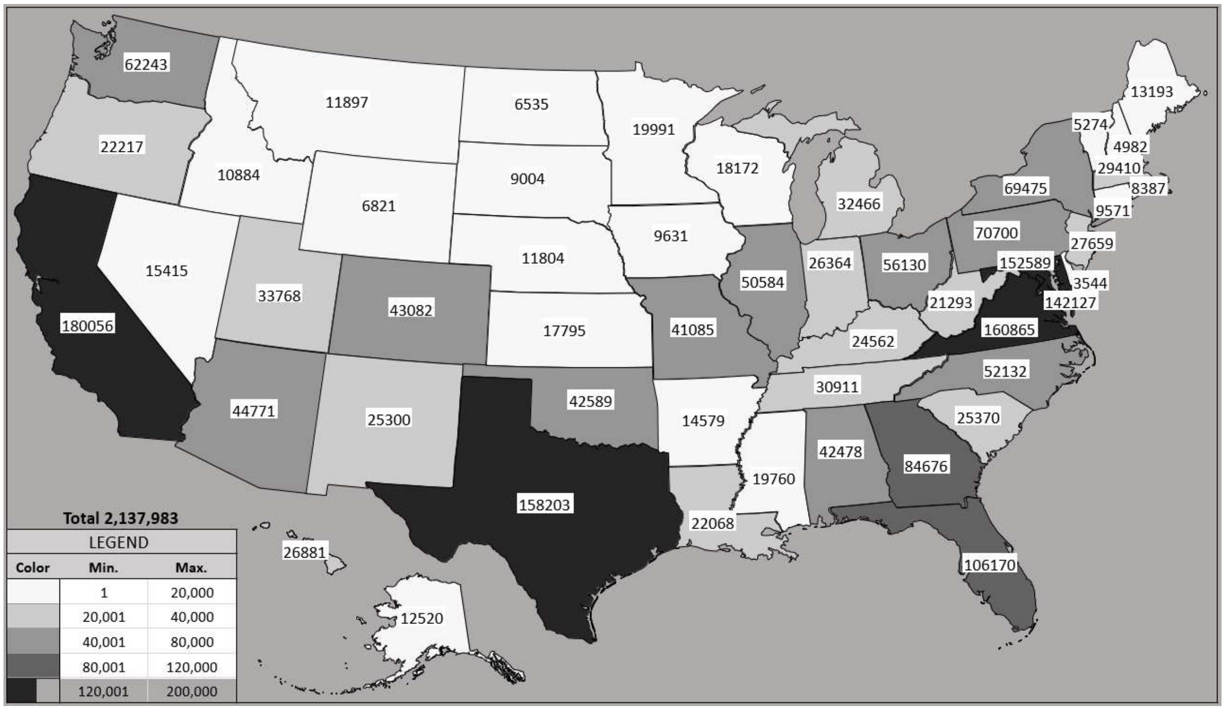
Source: 1992-2021 Current Population Survey, IPUMS-CPS, University of Minnesota, www.ipums.org.
Notes: Federal excludes the military and Postal Service but includes all other Federal workers. Private Sector excludes the self-employed. Neither category includes State and local government workers. Large firms have at least 1,000 workers. This analysis is limited to workers with at least 1,500 annual hours of work, and data is five-year averaged through 2018 (2019 averages 2017-2020, and 2020 averages 2018-2020). Industry is from the year preceding the year on the horozontal axis.

Chart 7-7. GOVERNMENT-WIDE ON-BOARD U.S. DISTRIBUTION 10–1–1978



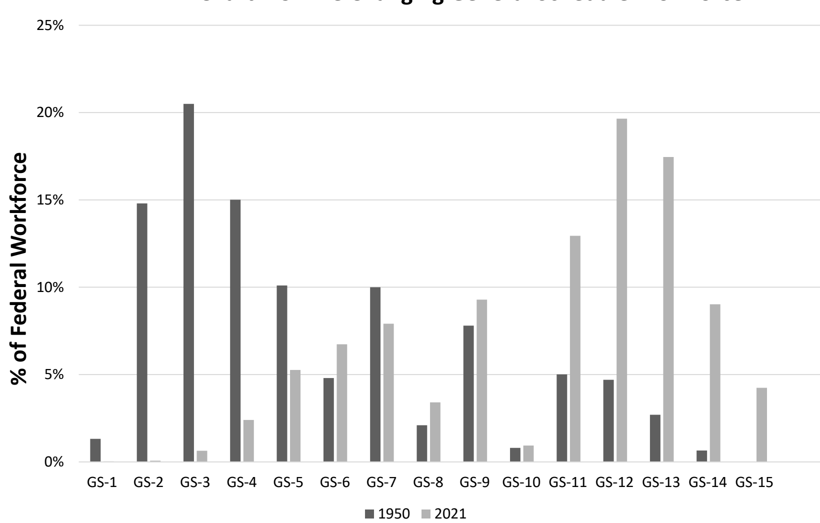
Source: Office of Personnel Management.

CHART 7-8. GOVERNMENT-WIDE ON-BOARD U.S. DISTRIBUTION 9-30-2021



Source: Office of Personnel Management

Chart 7-9. The Changing General Schedule Workforce



BUDGET CONCEPTS AND BUDGET PROCESS

8. BUDGET CONCEPTS

The budget system of the United States Government provides the means for the President and the Congress to decide how much money to spend, what to spend it on, and how to raise the money they have decided to spend. Through the budget system, they determine the allocation of resources among the agencies of the Federal Government and between the Federal Government and the private sector. The budget system focuses primarily on dollars, but it also allocates other resources, such as Federal employment. The decisions made in the budget process affect the Nation as a whole, State and local governments, and individual Americans. Many budget decisions have worldwide significance. The Congress and the President enact budget decisions into law. The budget system ensures that these laws are carried out.

This chapter provides an overview of the budget system and explains some of the more important budget concepts. It includes summary dollar amounts to illustrate major concepts. Other chapters of the budget documents discuss these concepts and more detailed amounts in greater depth.

The following section discusses the budget process, covering formulation of the President's Budget, action by the Congress, budget enforcement, and execution of enacted budget laws. The next section provides information on budget coverage, including a discussion of on-budget and off-budget amounts, functional classification, presentation of budget data, types of funds, and full-cost budgeting. Subsequent sections discuss the concepts of receipts and collections, budget authority, and outlays. These sections are followed by discussions of Federal credit; surpluses, deficits, and means of financing; Federal employment; and the basis for the budget figures. A glossary of budget terms appears at the end of the chapter.

Various laws, enacted to carry out requirements of the Constitution, govern the budget system. The chapter refers to the principal ones by title throughout the text and gives complete citations in the section just preceding the glossary.

THE BUDGET PROCESS

The budget process has three main phases, each of which is related to the others:

1. Formulation of the President's Budget;

2. Action by the Congress; and

3. Execution of enacted budget laws.

Formulation of the President's Budget

The Budget of the United States Government consists of several volumes that set forth the President's fiscal policy goals and priorities for the allocation of resources by the Government. The primary focus of the Budget is on the budget year—the next fiscal year for which the Congress needs to make appropriations, in this case 2023. (Fiscal year 2023 will begin on October 1, 2022, and end on September 30, 2023.) The Budget also covers the nine years following the budget year in order to reflect the effect of budget decisions over the longer term. It includes the funding levels provided for the current year, in this case 2022, which allows the reader to compare the President's Budget proposals with the most recently enacted levels. The Budget also includes data on the most recently completed fiscal year, in this case 2021, so that the reader can compare budget estimates to actual accounting data.

In a normal year (excluding transitions between administrations), the President begins the process of formulating the budget by establishing general budget and fiscal policy guidelines, usually by late spring of each year. Based on these guidelines, the Office of Management and Budget (OMB) works with the Federal agencies to establish specific policy directions and planning levels to guide the preparation of their budget requests.

During the formulation of the budget, the President, the Director of OMB, and other officials in the Executive Office of the President continually exchange information, proposals, and evaluations bearing on policy decisions with the Secretaries of the Departments and the heads of the other Government agencies. Decisions reflected in previously enacted budgets, including the one for the fiscal year in progress, reactions to the last proposed budget (which the Congress is considering at the same time the process of preparing the forthcoming budget begins), and evaluations of program performance all influence decisions concerning the forthcoming budget, as do projections of the economic outlook, prepared jointly by the Council of Economic Advisers, OMB, and the Department of the Treasury.

Agencies normally submit their budget requests to OMB, where analysts review them and identify issues that OMB officials need to discuss with the agencies. OMB and the agencies resolve many issues themselves. Others require the involvement of White House policy officials and the President. This decision-making process is usually completed by late December. At that time, the final stage of developing detailed budget data and the preparation of the budget documents begins.

The decision-makers must consider the effects of economic and technical assumptions on the budget estimates. Interest rates, economic growth, the rate of inflation, the unemployment rate, and the number of people eligible for various benefit programs, among other factors, affect Government spending and receipts. Small changes in these assumptions can alter budget estimates by many billions of dollars. (Chapter 2, "Economic Assumptions and Overview," provides more information on this subject.)

Thus, the budget formulation process involves the simultaneous consideration of the resource needs of individual programs, the allocation of resources among the agencies and functions of the Federal Government, and the total outlays and receipts that are appropriate in light of current and prospective economic conditions.

The law governing the President's Budget requires the transmittal of the following fiscal year's Budget to the Congress on or after the first Monday in January but not later than the first Monday in February of each year. The budget is usually scheduled for transmission to the Congress on the first Monday in February, giving the Congress eight months to act on the budget before the fiscal year begins. In years when a Presidential transition has taken place, this timeline for budget release is commonly extended to allow the new administration sufficient time to take office and formulate its budget policy. While there is no specific timeline set for this circumstance, the detailed budget is usually completed and released in April or May. However, in order to aid the congressional budget process (discussed below), new administrations often release a budget blueprint that contains broad spending outlines and descriptions of major policies and priorities earlier in the year.

Congressional Action[1]

The Congress considers the President's Budget proposals and approves, modifies, or disapproves them. It can change funding levels, eliminate programs, or add programs not requested by the President. It can add or eliminate taxes and other sources of receipts or make other changes that affect the amount of receipts collected.

The Congress does not enact a budget as such. Through the process of adopting a planning document called a budget resolution, the Congress agrees on targets for total spending and receipts, the size of the deficit or surplus, and the debt limit. The budget resolution provides the framework within which individual congressional committees prepare appropriations bills and other spending and receipts legislation. The Congress provides funding for specified purposes in appropriations acts each year. It also enacts changes each year in other laws that affect spending and receipts.

In making appropriations, the Congress does not vote on the level of outlays (spending) directly, but rather on budget authority, which is the authority provided by law to incur financial obligations that will result in outlays. In a separate process, prior to making appropriations, the Congress usually enacts legislation that authorizes an agency to carry out particular programs, authorizes the appropriation of funds to carry out those programs, and, in some cases, limits the amount that can be appropriated for the programs. Some authorizing legislation expires after one year, some expires after a specified number of years, and some is permanent. The Congress may enact appropriations for a program even though there is no specific authorization for it or its authorization has expired.

The Congress begins its work on its budget resolution shortly after it receives the President's Budget. Under the procedures established by the Congressional Budget Act of 1974 (Congressional Budget Act), the Congress decides on budget targets before commencing action on individual appropriations. The Congressional Budget Act requires each standing committee of the House and Senate to recommend budget levels and report legislative plans concerning matters within the committee's jurisdiction to the Budget Committee in each body. The House and Senate Budget Committees then each design and report, and each body then considers, a concurrent resolution on the budget. The Act calls for the House and Senate to resolve differences between their respective versions of the congressional budget resolution and adopt a single budget resolution by April 15 of each year.

In the report on the budget resolution, the Budget Committees allocate the total on-budget budget authority and outlays set forth in the resolution to the Appropriations Committees and the other committees that have jurisdiction over spending. These committee allocations are commonly known as "302(a)" allocations, in reference to the section of the Congressional Budget Act that provides for them. The Appropriations Committees are then required to divide their 302(a) allocations of budget authority and outlays among their subcommittees. These subcommittee allocations are known as "302(b)" allocations. There are procedural hurdles associated with considering appropriations bills that would breach an Appropriations subcommittee's 302(b) allocation. Similar procedural hurdles exist for considering legislation that would cause the 302(a) allocation for any committee to be breached. The Budget Committees' reports may discuss assumptions about the level of funding for major programs. While these assumptions do not bind the other committees and subcommittees, they may influence their decisions.

Budget resolutions may include "reserve funds," which permit adjustment of the resolution allocations as necessary to accommodate legislation addressing specific matters, such as healthcare or tax reform. Reserve funds are most often limited to legislation that is deficit neutral, including increases in some areas offset by decreases in others. The budget resolution may also contain "reconciliation directives" (discussed further below).

Since the concurrent resolution on the budget is not a law, it does not require the President's approval. However, the Congress considers the President's views in preparing budget resolutions, because legislation developed to

[1] For a fuller discussion of the congressional budget process, see Bill Heniff Jr., *Introduction to the Federal Budget Process* (Congressional Research Service Report 98–721), and Robert Keith and Allen Schick, *Manual on the Federal Budget Process* (Congressional Research Service Report 98–720, archived).

meet congressional budget allocations does require the President's approval. In some years, the President and the joint leadership of Congress have formally agreed on plans to reduce the deficit. These agreements were then reflected in the budget resolution and legislation passed for those years.

If the Congress does not pass a budget resolution, the House and Senate typically adopt one or more "deeming resolutions" in the form of a simple resolution or as a provision of a larger bill. A deeming resolution may serve nearly all functions of a budget resolution, except it may not trigger reconciliation procedures in the Senate.

Once the Congress approves the budget resolution, it turns its attention to enacting appropriations bills and authorizing legislation. The Appropriations Committee in each body has jurisdiction over annual appropriations. These committees are divided into subcommittees that hold hearings and review detailed budget justification materials prepared by the Executive Branch agencies within the subcommittee's jurisdiction. After a bill has been drafted by a subcommittee, the full committee and the whole House, in turn, must approve the bill, sometimes with amendments to the original version. The House then forwards the bill to the Senate, where a similar review follows. If the Senate disagrees with the House on particular matters in the bill, which is often the case, the two bodies form a conference committee (consisting of some Members of each body) to resolve the differences. The conference committee revises the bill and returns it to both bodies for approval. When the revised bill is agreed to, first in the House and then in the Senate, the Congress sends it to the President for approval or veto.

Since 1977, when the start of the fiscal year was established as October 1, there have been only three fiscal years (1989, 1995, and 1997) for which the Congress agreed to and enacted every regular appropriations bill by that date. When one or more appropriations bills are not enacted by this date, the Congress usually enacts a joint resolution called a "continuing resolution" (CR), which is an interim or stop-gap appropriations bill that provides authority for the affected agencies to continue operations at some specified level until a specific date or until the regular appropriations are enacted. Occasionally, a CR has funded a portion or all of the Government for the entire year.

The Congress must present these CRs to the President for approval or veto. In some cases, Congresses have failed to pass a CR or Presidents have rejected CRs because they contained unacceptable provisions. Left without funds, Government agencies were required by law to shut down operations—with exceptions for some limited activities—until the Congress passed a CR the President would approve. Shutdowns have lasted for periods of a day to several weeks.

The Congress also provides budget authority in laws other than appropriations acts. In fact, while annual appropriations acts fund the majority of Federal programs, they account for only about a third of the total spending in a typical year. Authorizing legislation controls the rest of the spending, which is commonly called "mandatory spending." A distinctive feature of these authorizing laws is that they provide agencies with the authority or requirement to spend money without first requiring the Appropriations Committees to enact funding. This category of spending includes interest the Government pays on the public debt and the spending of several major programs, such as Social Security, Medicare, Medicaid, unemployment insurance, and Federal employee retirement. Almost all taxes and most other receipts also result from authorizing laws. Article I, Section 7 of the Constitution provides that all bills for raising revenue shall originate in the House of Representatives. In the House, the Ways and Means Committee initiates tax bills; in the Senate, the Finance Committee has jurisdiction over tax laws.

The budget resolution often includes reconciliation directives, which require authorizing committees to recommend changes in laws that affect receipts or mandatory spending. They direct each designated committee to report amendments to the laws under the committee's jurisdiction that would achieve changes in the levels of receipts or mandatory spending controlled by those laws. These directives specify the dollar amount of changes that each designated committee is expected to achieve, but do

BUDGET CALENDAR

The following timetable highlights the scheduled dates for significant budget events during a normal budget year:

Between the 1st Monday in January and the 1st Monday in February	President transmits the budget
Six weeks later	Congressional committees report budget estimates to Budget Committees
April 15	Action to be completed on congressional budget resolution
May 15	House consideration of annual appropriations bills may begin even if the budget resolution has not been agreed to.
June 10	House Appropriations Committee to report the last of its annual appropriations bills.
June 15	Action to be completed on "reconciliation bill" by the Congress.
June 30	Action on appropriations to be completed by House
July 15	President transmits Mid-Session Review of the Budget
October 1	Fiscal year begins

not specify which laws are to be changed or the changes to be made. However, the Budget Committees' reports on the budget resolution frequently discuss assumptions about how the laws would be changed. Like other assumptions in the report, they do not bind the committees of jurisdiction but may influence their decisions. A reconciliation instruction may also specify the total amount by which the statutory limit on the public debt is to be changed.

The committees subject to reconciliation directives draft the implementing legislation. Such legislation may, for example, change the tax code, revise benefit formulas or eligibility requirements for benefit programs, or authorize Government agencies to charge fees to cover some of their costs. Reconciliation bills are typically omnibus legislation, combining the legislation submitted by each reconciled committee in a single act.

The Senate considers such omnibus reconciliation acts under expedited procedures that limit total debate on the bill. To offset the procedural advantage gained by expedited procedures, the Senate places significant restrictions on the substantive content of the reconciliation measure itself, as well as on amendments to the measure. Any material in the bill that is extraneous or that contains changes to the Federal Old-Age and Survivors Insurance and the Federal Disability Insurance programs is not in order under the Senate's expedited reconciliation procedures. Non-germane amendments are also prohibited. Reconciliation acts, together with appropriations acts for the year, are usually used to implement broad agreements between the President and the Congress on those occasions where the two branches have negotiated a comprehensive budget plan. Reconciliation acts have sometimes included other matters, such as laws providing the means for enforcing these agreements.

Budget Enforcement

The Federal Government uses budget enforcement mechanisms to control revenues, spending, and deficits. The Statutory Pay-As-You-Go Act of 2010, enacted on February 12, 2010, reestablished a statutory procedure to enforce a rule of deficit neutrality on new revenue and mandatory spending legislation. The Budget Control Act of 2011 (BCA), enacted on August 2, 2011, amended the Balanced Budget and Emergency Deficit Control Act of 1985 (BBEDCA) by reinstating limits ("caps") on the amount of discretionary budget authority that can be provided through the annual appropriations process. The BCA also created a Joint Select Committee on Deficit Reduction that was instructed to develop a bill to reduce the Federal deficit by at least $1.5 trillion over a 10-year period, and imposed automatic spending cuts to achieve $1.2 trillion of deficit reduction over nine years after the Joint Committee process failed to achieve its deficit reduction goal. The original enforcement mechanisms established by the BCA—the caps on spending in annual appropriations and instructions to calculate reductions to achieve the $1.2 trillion deficit reduction goal—expired at the end of fiscal year 2021, although the sequestration of mandatory spending has been extended through 2031.

BBEDCA divides spending into two types—discretionary spending and direct (or mandatory) spending. Discretionary spending is controlled through annual appropriations acts. Funding for salaries and other operating expenses of Government agencies, for example, is generally discretionary. Direct spending (also referred to as mandatory spending) is controlled by permanent laws. Medicare and Medicaid payments, unemployment insurance benefits, and farm price supports are examples of mandatory spending. Receipts are included under the same statutory enforcement rules that apply to mandatory spending because permanent laws generally control receipts.

Direct spending enforcement. The Statutory Pay-As-You-Go Act of 2010 requires that new legislation changing mandatory spending or revenue must be enacted on a "pay-as-you-go" (PAYGO) basis; that is, that the cumulative effects of such legislation must not increase projected on-budget deficits. PAYGO is a permanent requirement, and it does not impose a cap on spending or a floor on revenues. Instead, PAYGO requires that legislation reducing revenues must be fully offset by cuts in mandatory programs or by revenue increases, and that any bills increasing mandatory spending must be fully offset by revenue increases or cuts in mandatory spending.

This requirement of deficit neutrality is not enforced on a bill-by-bill basis, but is based on two scorecards that tally the cumulative budgetary effects of PAYGO legislation as averaged over rolling 5- and 10-year periods, starting with the budget year. Any impacts of PAYGO legislation on the current year deficit are counted as budget year impacts when placed on the scorecard. PAYGO is enforced by sequestration. Within 14 business days after a congressional session ends, OMB issues an annual PAYGO report. If either the 5- or 10-year scorecard shows net costs in the budget year column, the President is required to issue a sequestration order implementing across-the-board cuts to nonexempt mandatory programs by an amount sufficient to offset those net costs. The PAYGO effects of legislation may be directed in legislation by reference to statements inserted into the *Congressional Record* by the chairmen of the House and Senate Budget Committees. Any such estimates are determined by the Budget Committees and are informed by, but not required to match, the cost estimates prepared by the Congressional Budget Office (CBO). If this procedure is not followed, then the PAYGO effects of the legislation are determined by OMB. Provisions of mandatory spending or receipts legislation that are designated in that legislation as an emergency requirement are not scored as PAYGO budgetary effects.

The PAYGO rules apply to the outlays resulting from outyear changes in mandatory programs made in appropriations acts and to all revenue changes made in appropriations acts. However, outyear changes to mandatory programs as part of provisions that have zero net outlay effects over the sum of the current year and the next five fiscal years are not considered under the PAYGO rules.

The PAYGO rules do not apply to increases in mandatory spending or decreases in receipts that result automatically under existing law. For example, mandatory spending for benefit programs, such as unemployment insurance, rises when the number of beneficiaries rises, and many benefit payments are automatically increased for inflation under existing laws.

The House and Senate impose points of order against consideration of tax or mandatory spending legislation that would violate the PAYGO principle, although the time periods covered by these rules and the treatment of previously enacted costs or savings may differ in some respects from the requirements of the Statutory Pay-As-You-Go Act of 2010.

BBEDCA Section 251A reductions. The failure of the Joint Select Committee on Deficit Reduction to propose, and the Congress to enact, legislation to reduce the deficit by at least $1.5 trillion triggered automatic reductions to discretionary and mandatory spending in fiscal years 2013 through 2021. The reductions were implemented through a combination of sequestration of mandatory spending and reductions in the discretionary caps, with some modifications as provided for in the American Taxpayer Relief Act of 2012, and the Bipartisan Budget Acts (BBAs) of 2013, 2015, 2018, and 2019.

By amending section 251A of BBEDCA, the mandatory sequestration provisions were extended beyond 2021 by the BBA of 2013, which extended sequestration through 2023; Public Law 113-82, commonly referred to as the Military Retired Pay Restoration Act, which extended sequestration through 2024; the BBA of 2015, which extended sequestration through 2025; the BBA of 2018, which extended sequestration through 2027; the BBA of 2019, which extended sequestration through 2029; Public Law 116-136, commonly referred to as the CARES Act, which extended sequestration through 2030; and Public Law 117-58, the Infrastructure Investment and Jobs Act, which extended sequestration through 2031.

Section 251A of BBEDCA requires that the same percentage reductions for non-exempt mandatory defense and non-defense spending apply each year at the rate established in 2021 for fiscal years 2022 through 2031. Those reductions are 5.7 percent for non-defense accounts, 8.3 percent for defense accounts, and 2 percent for Medicare and community and migrant health centers.[2] Because the percentage reduction is known in advance, the Budget presents these reductions in the baseline at the account level. Previously, the Budget reflected the reductions starting in the budget year in a central allowance account.

Discretionary budget enforcement. BBEDCA specified spending limits ("caps") on discretionary budget authority for 2012 through 2021. Similar enforcement mechanisms were established by the Budget Enforcement Act of 1990 and were extended in 1993 and 1997, but expired at the end of 2002. The threat of sequestration if the caps were breached, and the ability to adjust the caps for certain types of spending, proved sufficient to ensure compliance with the discretionary spending limits.

When caps were in place, BBEDCA required OMB to adjust the caps each year for: changes in concepts and definitions; appropriations designated by the Congress and the President as emergency requirements; and appropriations designated by the Congress and the President for Overseas Contingency Operations/Global War on Terrorism (OCO/GWOT). BBEDCA also specified cap adjustments (which are limited to fixed amounts) for: appropriations for continuing disability reviews and redeterminations by the Social Security Administration; the healthcare fraud and abuse control program at the Department of Health and Human Services; appropriations designated by the Congress as being for disaster relief; appropriations for reemployment services and eligibility assessments; appropriations for wildfire suppression at the Department of Agriculture and the Department of the Interior; and, for 2020 only, appropriations provided for the 2020 Census at the Department of Commerce. Even without caps the 2023 Budget maintains this structure and proposes a base level of discretionary funding with some of the same adjustments formerly used under BBEDCA. Chapter 10 of this volume, "Budget Process," provides more information on those adjustments.

Budget Execution

Government agencies may not spend or obligate more than the Congress has appropriated, and they may use funds only for purposes specified in law. The Antideficiency Act prohibits them from spending or obligating funds in advance or in excess of an appropriation, unless specific authority to do so has been provided in law. Additionally, the Antideficiency Act requires the President to apportion the budgetary resources available for most executive branch agencies. The President has delegated this authority to OMB. Some apportionments are by time periods (usually by quarter of the fiscal year), some are by projects or activities, and others are by a combination of both. Agencies may request OMB to reapportion funds during the year to accommodate changing circumstances. This system helps to ensure that funds do not run out before the end of the fiscal year.

During the budget execution phase, the Government sometimes finds that it needs more funding than the Congress has appropriated for the fiscal year because of unanticipated circumstances. For example, more might be needed to respond to a severe natural disaster. Under such circumstances, the Congress may enact a supplemental appropriation.

On the other hand, the President may propose to reduce a previously enacted appropriation, through a "rescission" or "cancellation" of those funds. How the President proposes this reduction determines whether it is considered a rescission or a cancellation. A rescission is a reduction in previously enacted appropriations proposed pursuant to the Impoundment Control Act (ICA). The ICA allows the President, using the specific authorities in that Act,

[2] The 251A sequestration for Medicare programs was suspended between May 1, 2020 and December 31, 2020 by the CARES Act. This suspension was extended to March 31, 2021 by Public Law 116-260, the Consolidated Appropriations Act, 2021, further extended to December 31, 2021 by Public Law 117-7, and extended again to March 31, 2022 by Public Law 117-71, the Protecting Medicare and American Farmers from Sequester Cuts Act.

to transmit a “special message” to the Congress to inform them of these proposed rescissions, at which time the funding can be withheld from obligation for up to 45 days on the OMB-approved apportionment. Agencies are instructed not to withhold funds without the prior approval of OMB. If the Congress does not act to rescind these funds within the 45-day period, the funds are made available for obligation.

The President can also propose reductions to previously enacted appropriations outside of the ICA; in these cases, these reductions are referred to as cancellations. Cancellation proposals are not subject to the requirements and procedures of the ICA and amounts cannot be withheld from obligation. The 2023 President’s Budget includes $2.121 billion in proposed cancellations.

COVERAGE OF THE BUDGET

Federal Government and Budget Totals

The budget documents provide information on all Federal agencies and programs. However, because the laws governing Social Security (the Federal Old-Age and Survivors Insurance and the Federal Disability Insurance trust funds) and the Postal Service Fund require that the receipts and outlays for those activities be excluded from the budget totals and from the calculation of the deficit or surplus, the budget presents on-budget and off-budget totals. The off-budget totals include the Federal transactions excluded by law from the budget totals. The on-budget and off-budget amounts are added together to derive the totals for the Federal Government. These are sometimes referred to as the unified or consolidated budget totals.

It is not always obvious whether a transaction or activity should be included in the budget. Where there is a question, OMB normally follows the recommendation of the 1967 President’s Commission on Budget Concepts to be comprehensive of the full range of Federal agencies, programs, and activities. In recent years, for example, the budget has included the transactions of the Affordable Housing Program funds, the Universal Service Fund, the Public Company Accounting Oversight Board, the Securities Investor Protection Corporation, Guaranty Agencies Reserves, the National Railroad Retirement Investment Trust, the United Mine Workers Combined Benefits Fund, the Federal Financial Institutions Examination Council, Electric Reliability Organizations (EROs) established pursuant to the Energy Policy Act of 2005, the Corporation for Travel Promotion, and the National Association of Registered Agents and Brokers.

Table 8–1. TOTALS FOR THE BUDGET AND THE FEDERAL GOVERNMENT
(In billions of dollars)

	2021 Actual	Estimate	
		2022	2023
Budget authority			
Unified	7,142	5,590	5,935
On-budget	6,122	4,499	4,741
Off-budget	1,019	1,092	1,194
Receipts:			
Unified	4,047	4,437	4,638
On-budget	3,095	3,389	3,538
Off-budget	952	1,047	1,101
Outlays:			
Unified	6,822	5,852	5,792
On-budget	5,819	4,764	4,605
Off-budget	1,004	1,088	1,187
Deficit (–) / Surplus (+):			
Unified	–2,775	–1,415	–1,154
On-budget	–2,724	–1,374	–1,068
Off-budget	–52	–41	–86

In contrast, the budget excludes tribal trust funds that are owned by Indian Tribes and held and managed by the Government in a fiduciary capacity on the Tribes’ behalf. These funds are not owned by the Government, the Government is not the source of their capital, and the Government’s control is limited to the exercise of fiduciary duties. Similarly, the transactions of Government-sponsored enterprises, such as the Federal Home Loan Banks, are not included in the on-budget or off-budget totals. Federal laws established these enterprises for public policy purposes, but they are privately owned and operated corporations. Nevertheless, because of their public charters, the budget discusses them and reports summary financial data in the Budget *Appendix* and in some detailed tables.

The budget also excludes the revenues from copyright royalties and spending for subsequent payments to copyright holders where 1) the law allows copyright owners and users to voluntarily set the rate paid for the use of protected material, and 2) the amount paid by users of copyrighted material to copyright owners is related to the frequency or quantity of the material used. The budget excludes license royalties collected and paid out by the Copyright Office for the retransmission of network broadcasts via cable collected under 17 U.S.C. 111 because these revenues meet both of these conditions. The budget includes the royalties collected and paid out for license fees for digital audio recording technology under 17 U.S.C. 1004, since the amount of license fees paid is unrelated to usage of the material.

The *Appendix* includes a presentation for the Board of Governors of the Federal Reserve System for information only. The amounts are not included in either the on-budget or off-budget totals because of the independent status of the System within the Government. However, the Federal Reserve System transfers its net earnings to the Treasury, and the budget records them as receipts.

Chapter 9 of this volume, “Coverage of the Budget,” provides more information on this subject.

Functional Classification

The functional classification is used to organize budget authority, outlays, and other budget data according to the major purpose served—such as agriculture, transportation, income security, and national defense. There are 20 major functions, 17 of which are concerned with broad areas of national need and are further divided into subfunctions. For example, the Agriculture function comprises the subfunctions Farm Income Stabilization and Agricultural Research and Services. The functional classification meets the Congressional Budget Act requirement for a presentation in the budget by national needs and agency missions and programs. The remaining three functions—Net Interest, Undistributed Offsetting Receipts, and Allowances—enable the functional classification system to cover the entire Federal budget.

The following criteria are used in establishing functional categories and assigning activities to them:

- A function encompasses activities with similar purposes, emphasizing what the Federal Government seeks to accomplish rather than the means of accomplishment, the objects purchased, the clientele or geographic area served (except in the cases of functions 450 for Community and Regional Development, 570 for Medicare, 650 for Social Security, and 700 for Veterans Benefits and Services), or the Federal agency conducting the activity (except in the case of subfunction 051 in the National Defense function, which is used only for defense activities under the Department of Defense—Military).
- A function must be of continuing national importance, and the amounts attributable to it must be significant.
- Each basic unit being classified (generally the appropriation or fund account) usually is classified according to its primary purpose and assigned to only one subfunction. However, some large accounts that serve more than one major purpose are subdivided into two or more functions or subfunctions.

In consultation with the Congress, the functional classification is adjusted from time to time as warranted. Detailed functional tables, which provide information on Government activities by function and subfunction, are available online at *https://www.whitehouse.gov/omb/analytical-perspectives/* and on *OMB's website*.

Agencies, Accounts, Programs, Projects, and Activities

Various summary tables in the *Analytical Perspectives* volume of the Budget provide information on budget authority, outlays, and offsetting collections and receipts arrayed by Federal agency. A table that lists budget authority and outlays by budget account within each agency and the totals for each agency of budget authority, outlays, and receipts that offset the agency spending totals is available online at: *https://www.whitehouse.gov/omb/analytical-perspectives/* and on *OMB's website*. The *Appendix* provides budgetary, financial, and descriptive information about programs, projects, and activities by account within each agency.

Types of Funds

Agency activities are financed through Federal funds and trust funds.

Federal funds comprise several types of funds. Receipt accounts of the ***general fund***, which is the greater part of the budget, record receipts not earmarked by law for a specific purpose, such as income tax receipts. The general fund also includes the proceeds of general borrowing. General fund appropriations accounts record general fund expenditures. General fund appropriations draw from general fund receipts and borrowing collectively and, therefore, are not specifically linked to receipt accounts.

Special funds consist of receipt accounts for Federal fund receipts that laws have designated for specific purposes and the associated appropriation accounts for the expenditure of those receipts.

Public enterprise funds are revolving funds used for programs authorized by law to conduct a cycle of business-type operations, primarily with the public, in which outlays generate collections.

Intragovernmental funds are revolving funds that conduct business-type operations primarily within and between Government agencies. The collections and the outlays of revolving funds are recorded in the same budget account.

Trust funds account for the receipt and expenditure of monies by the Government for carrying out specific purposes and programs in accordance with the terms of a statute that designates the fund as a trust fund (such as the Highway Trust Fund) or for carrying out the stipulations of a trust where the Government itself is the beneficiary (such as any of several trust funds for gifts and donations for specific purposes). ***Trust revolving funds*** are trust funds credited with collections earmarked by law to carry out a cycle of business-type operations.

The Federal budget meaning of the term "trust," as applied to trust fund accounts, differs significantly from its private-sector usage. In the private sector, the beneficiary of a trust usually owns the trust's assets, which are managed by a trustee who must follow the stipulations of the trust. In contrast, the Federal Government owns the assets of most Federal trust funds, and it can raise or lower future trust fund collections and payments, or change the purposes for which the collections are used, by changing existing laws. There is no substantive difference between a trust fund and a special fund or between a trust revolving fund and a public enterprise revolving fund.

However, in some instances, the Government does act as a true trustee of assets that are owned or held for the benefit of others. For example, it maintains accounts on behalf of individual Federal employees in the Thrift Savings Fund, investing them as directed by the individual employee. The Government accounts for such funds in ***deposit funds***, which are not included in the budget. (Chapter 23 of this volume, "Trust Funds and Federal Funds," provides more information on this subject.)

Budgeting for Full Costs

A budget is a financial plan for allocating resources—deciding how much the Federal Government should spend in total, program by program, and for the parts of each program and deciding how to finance the spending. The budgetary system provides a process for proposing policies, making decisions, implementing them, and reporting the results. The budget needs to measure costs accurately so that decision makers can compare the cost of a program with its benefits, the cost of one program with another, and the cost of one method of reaching a specified goal with another. These costs need to be fully included in the budget up front, when the spending decision is made, so that executive and congressional decision makers have the information and the incentive to take the total costs into account when setting priorities.

The budget includes all types of spending, including both current operating expenditures and capital investment, and to the extent possible, both are measured on the basis of full cost. Questions are often raised about the measure of capital investment. The present budget provides policymakers the necessary information regarding investment spending. It records investment on a cash basis, and it requires the Congress to provide budget authority before an agency can obligate the Government to make a cash outlay. However, the budget measures only costs, and the benefits with which these costs are compared, based on policy makers' judgment, must be presented in supplementary materials. By these means, the budget allows the total cost of capital investment to be compared up front in a rough way with the total expected future net benefits. Such a comparison of total costs with benefits is consistent with the formal method of cost-benefit analysis of capital projects in government, in which the full cost of a capital asset as the cash is paid out is compared with the full stream of future benefits (all in terms of present values). (Chapter 17 of this volume, "Federal Investment," provides more information on capital investment.)

RECEIPTS, OFFSETTING COLLECTIONS, AND OFFSETTING RECEIPTS

In General

The budget records amounts collected by Government agencies two different ways. Depending on the nature of the activity generating the collection and the law that established the collection, they are recorded as either:

Governmental receipts, which are compared in total to outlays (net of offsetting collections and offsetting receipts) in calculating the surplus or deficit; or

Offsetting collections or ***offsetting receipts***, which are deducted from gross outlays to calculate net outlay figures.

Governmental Receipts

Governmental receipts are collections that result from the Government's exercise of its sovereign power to tax or otherwise compel payment. Sometimes they are called receipts, budget receipts, Federal receipts, or Federal revenues. They consist mostly of individual and corporation income taxes and social insurance taxes, but also include excise taxes, compulsory user charges, regulatory fees, customs duties, court fines, certain license fees, and deposits of earnings by the Federal Reserve System. Total receipts for the Federal Government include both on-budget and off-budget receipts (see Table 8–1, "Totals for the Budget and the Federal Government," which appears earlier in this chapter.) Chapter 11 of this volume, "Governmental Receipts," provides more information on governmental receipts.

Offsetting Collections and Offsetting Receipts

Offsetting collections and offsetting receipts are recorded as offsets to (deductions from) spending, not as additions on the receipt side of the budget. These amounts are recorded as offsets to outlays so that the budget totals represent governmental rather than market activity and reflect the Government's net transactions with the public. They are recorded in one of two ways, based on interpretation of laws and longstanding budget concepts and practice. They are offsetting collections when the collections are authorized by law to be credited to expenditure accounts and are generally available for expenditure without further legislation. Otherwise, they are deposited in receipt accounts and called offsetting receipts; many of these receipts are available for expenditure without further legislation as well.

Offsetting collections and offsetting receipts result from any of the following types of transactions:

- ***Business-like transactions or market-oriented activities with the public***—these include voluntary collections from the public in exchange for goods or services, such as the proceeds from the sale of postage stamps, the fees charged for admittance to recreation areas, and the proceeds from the sale of Government-owned land; and reimbursements for damages. The budget records these amounts as *offsetting collections from non-Federal sources* (for offsetting collections) or as *proprietary receipts* (for offsetting receipts).

- ***Intragovernmental transactions***—collections from other Federal Government accounts. The budget records collections by one Government account from another as *offsetting collections from Federal sources* (for offsetting collections) or as *intragovernmental receipts* (for offsetting receipts). For example, the General Services Administration rents office space to other Government agencies and records their rental payments as offsetting collections from Federal sources in the Federal Buildings Fund. These transactions are exactly offsetting and do not affect the surplus or deficit. However, they are an important accounting mechanism for allocating costs to the programs and activities that cause the Government to incur the costs.

- ***Voluntary gifts and donations***—gifts and donations of money to the Government, which are treated as offsets to budget authority and outlays.

- ***Offsetting governmental transactions***—collections from the public that are governmental in nature and should conceptually be treated like Federal revenues and compared in total to outlays (e.g., tax receipts, regulatory fees, compulsory user charges, custom duties, license fees) but required by law or longstanding practice to be misclassified as offsetting. The budget records amounts from non-Federal sources that are governmental in nature as *offsetting governmental collections* (for offsetting collections) or as *offsetting governmental receipts* (for offsetting receipts).

Offsetting Collections

Some laws authorize agencies to credit collections directly to the account from which they will be spent and, usually, to spend the collections for the purpose of the account without further action by the Congress. Most revolving funds operate with such authority. For example, a permanent law authorizes the Postal Service to use collections from the sale of stamps to finance its operations without a requirement for annual appropriations. The budget records these collections in the Postal Service Fund (a revolving fund) and records budget authority in an amount equal to the collections. In addition to revolving funds, some agencies are authorized to charge fees to defray a portion of costs for a program that are otherwise financed by appropriations from the general fund and usually to spend the collections without further action by the Congress. In such cases, the budget records the offsetting collections and resulting budget authority in the program's general fund expenditure account. Similarly, intragovernmental collections authorized by some laws may be recorded as offsetting collections and budget authority in revolving funds or in general fund expenditure accounts.

Sometimes appropriations acts or provisions in other laws limit the obligations that can be financed by offsetting collections. In those cases, the budget records budget authority in the amount available to incur obligations, not in the amount of the collections.

Offsetting collections credited to expenditure accounts automatically offset the outlays at the expenditure account level. Where accounts have offsetting collections, the budget shows the budget authority and outlays of the account both gross (before deducting offsetting collections) and net (after deducting offsetting collections). Totals for the agency, subfunction, and overall budget are net of offsetting collections.

Offsetting Receipts

Collections that are offset against gross outlays but are not authorized to be credited to expenditure accounts are credited to receipt accounts and are called offsetting receipts. Offsetting receipts are deducted from budget authority and outlays in arriving at total net budget authority and outlays. However, unlike offsetting collections credited to expenditure accounts, offsetting receipts do not offset budget authority and outlays at the account level. In most cases, they offset budget authority and outlays at the agency and subfunction levels.

Proprietary receipts from a few sources, however, are not offset against any specific agency or function and are classified as undistributed offsetting receipts. They are deducted from the Government-wide totals for net budget authority and outlays. For example, the collections of rents and royalties from outer continental shelf lands are undistributed because the amounts are large and for the most part are not related to the spending of the agency that administers the transactions and the subfunction that records the administrative expenses.

Similarly, two kinds of intragovernmental transactions—agencies' payments as employers into Federal employee retirement trust funds and interest received by trust funds—are classified as undistributed offsetting receipts. They appear instead as special deductions in computing total net budget authority and outlays for the Government rather than as offsets at the agency level. This special treatment is necessary because the amounts are so large they would distort measures of the agencies activities if they were attributed to the agency.

User Charges

User charges are fees assessed on individuals or organizations for the provision of Government services and for the sale or use of Government goods or resources. The payers of the user charge must be limited in the authorizing legislation to those receiving special benefits from, or subject to regulation by, the program or activity beyond the benefits received by the general public or broad segments of the public (such as those who pay income taxes or customs duties). Policy regarding user charges is established in OMB Circular A–25, "User Charges." The term encompasses proceeds from the sale or use of Government goods and services, including the sale of natural resources (such as timber, oil, and minerals) and proceeds from asset sales (such as property, plant, and equipment). User charges are not necessarily dedicated to the activity they finance and may be credited to the general fund of the Treasury.

The term "user charge" does not refer to a separate budget category for collections. User charges are classified in the budget as receipts, offsetting receipts, or offsetting collections according to the principles explained previously.

See Chapter 12, "Offsetting Collections and Offsetting Receipts," for more information on the classification of user charges.

BUDGET AUTHORITY, OBLIGATIONS, AND OUTLAYS

Budget authority, obligations, and outlays are the primary benchmarks and measures of the budget control system. The Congress enacts laws that provide agencies with spending authority in the form of budget authority. Before agencies can use these resources—obligate this budget authority—OMB must approve their spending plans. After the plans are approved, agencies can enter into binding agreements to purchase items or services or to make grants or other payments. These agreements are recorded as obligations of the United States and deducted from the amount of budgetary resources available to the agency. When payments are made, the obligations are liquidated and outlays recorded. These concepts are discussed more fully below.

Budget Authority and Other Budgetary Resources

Budget authority is the authority provided in law to enter into legal obligations that will result in immediate or future outlays of the Government. In other words, it is the amount of money that agencies are allowed to commit to be spent in current or future years. Government officials may obligate the Government to make outlays only to the extent they have been granted budget authority.

In deciding the amount of budget authority to request for a program, project, or activity, agency officials estimate the total amount of obligations they will need to incur to achieve desired goals and subtract the unobligated balances available for these purposes. The amount of budget authority requested is influenced by the nature of the programs, projects, or activities being financed. For current operating expenditures, the amount requested usually covers the needs for the fiscal year. For major procurement programs and construction projects, agencies generally must request sufficient budget authority in the first year to fully fund an economically useful segment of a procurement or project, even though it may be obligated over several years. This full funding policy is intended to ensure that the decision-makers take into account all costs and benefits at the time decisions are made to provide resources. It also avoids sinking money into a procurement or project without being certain if or when future funding will be available to complete the procurement or project, as well as saddling future agency budgets with must-pay bills to complete past projects.

Budget authority takes several forms:

- ***Appropriations***, provided in annual appropriations acts or authorizing laws, permit agencies to incur obligations and make payment;

- ***Borrowing authority***, usually provided in permanent laws, permits agencies to incur obligations but requires them to borrow funds, usually from the general fund of the Treasury, to make payment;

- ***Contract authority***, usually provided in permanent law, permits agencies to incur obligations in advance of a separate appropriation of the cash for payment or in anticipation of the collection of receipts that can be used for payment; and

- ***Spending authority from offsetting collections***, usually provided in permanent law, permits agencies to credit offsetting collections to an expenditure account, incur obligations, and make payment using the offsetting collections.

Because offsetting collections and offsetting receipts are deducted from gross budget authority, they are referred to as negative budget authority for some purposes, such as Congressional Budget Act provisions that pertain to budget authority.

Authorizing statutes usually determine the form of budget authority for a program. The authorizing statute may authorize a particular type of budget authority to be provided in annual appropriations acts, or it may provide one of the forms of budget authority directly, without the need for further appropriations.

An appropriation may make funds available from the general fund, special funds, or trust funds, or authorize the spending of offsetting collections credited to expenditure accounts, including revolving funds. Borrowing authority is usually authorized for business-like activities where the activity being financed is expected to produce income over time with which to repay the borrowing with interest. The use of contract authority is traditionally limited to transportation programs.

New budget authority for most Federal programs is normally provided in annual appropriations acts. However, new budget authority is also made available through permanent appropriations under existing laws and does not require current action by the Congress. Much of the permanent budget authority is for trust funds, interest on the public debt, and the authority to spend offsetting collections credited to appropriation or fund accounts. For most trust funds, the budget authority is appropriated automatically under existing law from the available balance of the fund and equals the estimated annual obligations of the funds. For interest on the public debt, budget authority is provided automatically under a permanent appropriation enacted in 1847 and equals interest outlays.

Annual appropriations acts generally make budget authority available for obligation only during the fiscal year to which the act applies. However, they frequently allow budget authority for a particular purpose to remain available for obligation for a longer period or indefinitely (that is, until expended or until the program objectives have been attained). Typically, budget authority for current operations is made available for only one year, and budget authority for construction and some research projects is available for a specified number of years or indefinitely. Most budget authority provided in authorizing statutes, such as for most trust funds, is available indefinitely. If budget authority is initially provided for a limited period of availability, an extension of availability would require enactment of another law (see “Reappropriation” later in this chapter).

Budget authority that is available for more than one year and not obligated in the year it becomes available is carried forward for obligation in a following year. In some cases, an account may carry forward unobligated budget authority from more than one prior year. The sum of such amounts constitutes the account's ***unobligated balance***. Most of these balances had been provided for specific uses such as the multiyear construction of a major project and so are not available for new programs. A small part may never be obligated or spent, primarily amounts provided for contingencies that do not occur or reserves that never have to be used.

Amounts of budget authority that have been obligated but not yet paid constitute the account's ***unpaid obligations***. For example, in the case of salaries and wages, one to three weeks elapse between the time of obligation and the time of payment. In the case of major procurement and construction, payments may occur over a period of several years after the obligation is made. Unpaid obligations (which are made up of accounts payable and undelivered orders) net of the accounts receivable and unfilled customers' orders are defined by law as the ***obligated balances***. Obligated balances of budget authority at the end of the year are carried forward until the obligations are paid or the balances are cancelled. (A general law provides that the obligated balance of budget authority that was made available for a definite period is automatically cancelled five years after the end of the period.) Due to such flows, a change in the amount of budget authority available in any one year may change the level of obligations and outlays for several years to come. Conversely, a change in the amount of obligations incurred from one year to the next does not necessarily result from an equal change in the amount of budget authority available for that year and will not necessarily result in an equal change in the level of outlays in that year.

The Congress usually makes budget authority available on the first day of the fiscal year for which the appropriations act is passed. Occasionally, the appropriations language specifies a different timing. The language may provide an ***advance appropriation***—budget authority that does not become available until one fiscal year or more beyond the fiscal year for which the appropriations act is passed. ***Forward funding*** is budget authority that is made available for obligation beginning in the last quarter of the fiscal year (beginning on July 1) for the financing of ongoing grant programs during the next fiscal year. This kind of funding is used mostly for education programs, so that obligations for education grants can be made prior to the beginning of the next school year. For certain benefit programs funded by annual appropriations, the appropriation provides for ***advance funding—***budget authority that is to be charged to the appropriation in the succeeding year, but which authorizes obligations to be incurred in the last quarter of the current fiscal year if necessary to meet benefit payments in excess of the specific amount appropriated for the year. When such authority is used, an adjustment is made to increase the budget authority for the fiscal year in which it is used and to reduce the budget authority of the succeeding fiscal year.

Provisions of law that extend into a new fiscal year the availability of unobligated amounts that have expired or would otherwise expire are called ***reappropriations***. Reappropriations of expired balances that are newly available for obligation in the current or budget year count as new budget authority in the fiscal year in which the balances become newly available. For example, if a 2023 appropriations act extends the availability of unobligated budget authority that expired at the end of 2022, new budget authority would be recorded for 2023. This scorekeeping is used because a reappropriation has exactly the same effect as allowing the earlier appropriation to expire at the end of 2022 and enacting a new appropriation for 2023.

For purposes of BBEDCA and the Statutory Pay-As-You-Go Act of 2010 (discussed earlier under "Budget Enforcement"), the budget classifies budget authority as ***discretionary*** or ***mandatory***. This classification indicates whether an appropriations act or authorizing legislation controls the amount of budget authority that is available. Generally, budget authority is discretionary if provided in an annual appropriations act and mandatory if provided in authorizing legislation. However, the budget authority provided in annual appropriations acts for certain specifically identified programs is also classified as mandatory by OMB and the congressional scorekeepers. This is because the authorizing legislation for these programs entitles beneficiaries—persons, households, or other levels of government—to receive payment, or otherwise legally obligates the Government to make payment and thereby effectively determines the amount of budget authority required, even though the payments are funded by a subsequent appropriation.

Sometimes, budget authority is characterized as current or permanent. Current authority requires the Congress to act on the request for new budget authority for the year involved. Permanent authority becomes available pursuant to standing provisions of law without appropriations action by the Congress for the year involved. Generally, budget authority is current if an annual appropriations act provides it and permanent if authorizing legislation provides it. By and large, the current/permanent distinction has been replaced by the discretionary/mandatory distinction, which is similar but not identical. Outlays are also classified as discretionary or mandatory according to the classification of the budget authority from which they flow (see "Outlays" later in this chapter).

The amount of budget authority recorded in the budget depends on whether the law provides a specific amount or employs a variable factor that determines the amount. It is considered ***definite*** if the law specifies a dollar amount (which may be stated as an upper limit, for example, "shall not exceed …"). It is considered ***indefinite*** if, instead of specifying an amount, the law permits the amount to be determined by subsequent circumstances. For example, indefinite budget authority is provided for interest on the public debt, payment of claims and judgments awarded by the courts against the United States, and many entitlement programs. Many of the laws that authorize collections to be credited to revolving, special, and trust funds make all of the collections available for expenditure for the authorized purposes of the fund, and such authority is considered to be indefinite budget authority because the amount of collections is not known in advance of their collection.

Obligations

Following the enactment of budget authority and the completion of required apportionment action, Government agencies incur obligations to make payments (see earlier discussion under "Budget Execution"). Agencies must record obligations when they incur a legal liability that will result in immediate or future outlays. Such obligations include the current liabilities for salaries, wages, and interest; and contracts for the purchase of supplies and equipment, construction, and the acquisition of office space, buildings, and land. For Federal credit programs, obligations are recorded in an amount equal to the estimated subsidy cost of direct loans and loan guarantees (see "Federal Credit" later in this chapter).

Outlays

Outlays are the measure of Government spending. They are payments that liquidate obligations (other than most exchanges of financial instruments, of which the repayment of debt is the prime example). The budget records outlays when obligations are paid, in the amount that is paid.

Agency, function and subfunction, and Government-wide outlay totals are stated net of offsetting collections and offsetting receipts for most budget presentations. (Offsetting receipts from a few sources do not offset any specific function, subfunction, or agency, as explained previously, but only offset Government-wide totals.) Outlay totals for accounts with offsetting collections are stated both gross and net of the offsetting collections credited to the account. However, the outlay totals for special and trust funds with offsetting receipts are not stated net of the offsetting receipts. In most cases, these receipts offset the agency, function, and subfunction totals but do not offset account-level outlays. However, when general fund payments are used to finance trust fund outlays to the public, the associated trust fund receipts are netted against the bureau totals to prevent double-counting budget authority and outlays at the bureau level.

The Government usually makes outlays in the form of cash (currency, checks, or electronic fund transfers). However, in some cases agencies pay obligations without disbursing cash, and the budget nevertheless records outlays for the equivalent method. For example, the budget records outlays for the full amount of Federal employees' salaries, even though the cash disbursed to employees is net of Federal and State income taxes withheld, retirement contributions, life and health insurance premiums, and other deductions. (The budget also records receipts for the amounts withheld from Federal employee paychecks for Federal income taxes and other payments to the Government.) When debt instruments (bonds, debentures, notes, or monetary credits) are used in place of cash to pay obligations, the budget records outlays financed by an increase in agency debt. For example, the budget records the acquisition of physical assets through certain types of lease-purchase arrangements as though a cash disbursement were made for an outright purchase. The transaction creates a Government debt, and the cash lease payments are treated as repayments of principal and interest.

The budget records outlays for the interest on the public issues of Treasury debt securities as the interest accrues, not when the cash is paid. A small portion of Treasury debt consists of inflation-indexed securities, which feature monthly adjustments to principal for inflation and semiannual payments of interest on the inflation-adjusted principal. As with fixed-rate securities, the budget records interest outlays as the interest accrues. The monthly adjustment to principal is recorded, simultaneously, as an increase in debt outstanding and an outlay of interest.

Most Treasury debt securities held by trust funds and other Government accounts are in the Government account series. The budget normally states the interest on these securities on a cash basis. When a Government account is invested in Federal debt securities, the purchase price is usually close or identical to the par (face) value of the security. The budget generally records the investment at par value and adjusts the interest paid by Treasury and collected by the account by the difference between purchase price and par, if any.

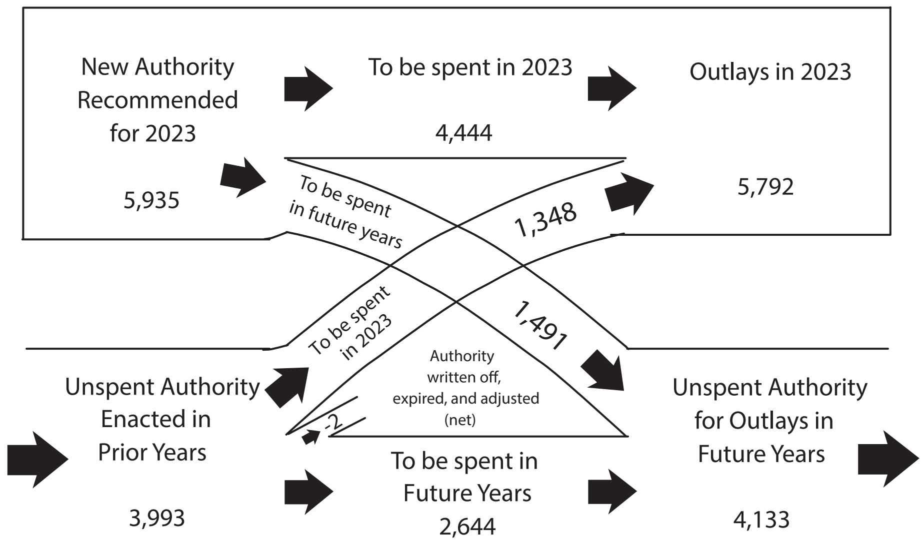
For Federal credit programs, outlays are equal to the subsidy cost of direct loans and loan guarantees and are recorded as the underlying loans are disbursed (see "Federal Credit" later in this chapter).

The budget records refunds of receipts that result from overpayments by the public (such as income taxes withheld in excess of tax liabilities) as reductions of receipts, rather than as outlays. However, the budget records payments to taxpayers for refundable tax credits (such as earned income tax credits) that exceed the taxpayer's tax liability as outlays. Similarly, when the Government makes overpayments that are later returned to the Government, those refunds to the Government are recorded as offsetting collections or offsetting receipts, not as governmental receipts.

Not all of the new budget authority for 2023 will be obligated or spent in 2023. Outlays during a fiscal year may liquidate obligations incurred in the same year or in prior years. Obligations, in turn, may be incurred against budget authority provided in the same year or against unobligated balances of budget authority provided in prior years. Outlays, therefore, flow in part from budget authority provided for the year in which the money is spent and in part from budget authority provided for prior years. The ratio of a given year's outlays resulting from budget authority enacted in that or a prior year to the original amount of that budget authority is referred to as the outlay rate for that year.

Chart 8-1. Relationship of Budget Authority to Outlays for 2023

(Billions of dollars)



As shown in the accompanying chart, $4,444 billion of outlays in 2023 (77 percent of the outlay total) will be made from that year's $5,935 billion total of proposed new budget authority (a first-year outlay rate of 75 percent). Thus, the remaining $1,348 billion of outlays in 2023 (23 percent of the outlay total) will be made from budget authority enacted in previous years. At the same time, $1,491 billion of the new budget authority proposed for 2023 (25 percent of the total amount proposed) will not lead to outlays until future years.

As described earlier, the budget classifies budget authority and outlays as discretionary or mandatory. This classification of outlays measures the extent to which actual spending is controlled through the annual appropriations process. About 24 percent of total outlays in 2021 ($1,636 billion) were discretionary and the remaining 76 percent ($5,186 billion in 2021) were mandatory spending and net interest. Such a large portion of total spending is mandatory because authorizing rather than appropriations legislation determines net interest ($352 billion in 2021) and the spending for a few programs with large amounts of spending each year, such as Social Security ($1,129 billion in 2021) and Medicare ($689 billion in 2021).

The bulk of mandatory outlays flow from budget authority recorded in the same fiscal year. This is not necessarily the case for discretionary budget authority and outlays. For most major construction and procurement projects and long-term contracts, for example, the budget authority available at the time the projects are initiated covers the entire estimated cost of the project even though the work will take place and outlays will be made over a period extending beyond the year for which the budget authority is enacted. Similarly, discretionary budget authority for most education and job training activities is appropriated for school or program years that begin in the fourth quarter of the fiscal year. Most of these funds result in outlays in the year after the appropriation.

FEDERAL CREDIT

Some Government programs provide assistance through direct loans or loan guarantees. A ***direct loan*** is a disbursement of funds by the Government to a non-Federal borrower under a contract that requires repayment of such funds with or without interest and includes economically equivalent transactions, such as the sale of Federal assets on credit terms. A ***loan guarantee*** is any guarantee, insurance, or other pledge with respect to the payment of all or a part of the principal or interest on any debt obligation of a non-Federal borrower to a non-Federal lender. The Federal Credit Reform Act of 1990, as amended (FCRA), prescribes the budgetary treatment for Federal credit programs. Under this treatment, the budget records obligations and outlays up front, for the net cost to the Government (subsidy cost), rather than recording the cash flows year by year over the term of the loan. FCRA treatment allows the comparison of direct loans and loan guarantees to each other, and to other methods of delivering assistance, such as grants.

The cost of direct loans and loan guarantees, sometimes called the “subsidy cost,” is estimated as the present value of expected payments to and from the public over the term of the loan, discounted using appropriate Treasury interest rates.[3] Similar to most other kinds of programs, agencies can make loans or guarantee loans only if the Congress has appropriated funds sufficient to cover the subsidy costs, or provided a limitation in an appropriations act on the amount of direct loans or loan guarantees that can be made.

The budget records the subsidy cost to the Government arising from direct loans and loan guarantees—the budget authority and outlays—in ***credit program accounts***. When a Federal agency disburses a direct loan or when a non-Federal lender disburses a loan guaranteed by a Federal agency, the program account disburses or outlays an amount equal to the estimated present value cost, or subsidy, to a non-budgetary credit ***financing account***. The financing accounts record the actual transactions with the public. For a few programs, the estimated subsidy cost is negative because the present value of expected Government collections exceeds the present value of expected payments to the public over the term of the loan. In such cases, the financing account pays the estimated subsidy cost to the program’s negative subsidy receipt account, where it is recorded as an offsetting receipt. In a few cases, the offsetting receipts of credit accounts are dedicated to a special fund established for the program and are available for appropriation for the program.

The agencies responsible for credit programs must reestimate the subsidy cost of the outstanding portfolio of direct loans and loan guarantees each year. If the estimated cost increases, the program account makes an additional payment to the financing account equal to the change in cost. If the estimated cost decreases, the financing account pays the difference to the program’s downward reestimate receipt account, where it is recorded as an offsetting receipt. The FCRA provides permanent indefinite appropriations to pay for upward reestimates.

If the Government modifies the terms of an outstanding direct loan or loan guarantee in a way that increases the cost as the result of a law or the exercise of administrative discretion under existing law, the program account records obligations for the increased cost and outlays the amount to the financing account. As with the original subsidy cost, agencies may incur modification costs only if the Congress has appropriated funds to cover them. A modification may also reduce costs, in which case the amounts are generally returned to the general fund, as the financing account makes a payment to the program’s negative subsidy receipt account.

Credit financing accounts record all cash flows arising from direct loan obligations and loan guarantee commitments. Such cash flows include all cash flows to and from the public, including direct loan disbursements and repayments, loan guarantee default payments, fees, and recoveries on defaults. Financing accounts also record intragovernmental transactions, such as the receipt of subsidy cost payments from program accounts, borrowing and repayments of Treasury debt to finance program activities, and interest paid to or received from the Treasury. The cash flows of direct loans and of loan guarantees are recorded in separate financing accounts for programs that provide both types of credit. The budget totals exclude the transactions of the financing accounts because they are not a cost to the Government. However, since financing accounts record all credit cash flows to and from the public, they affect the means of financing a budget surplus or deficit (see “Credit Financing Accounts” in the next section). The budget documents display the transactions of the financing accounts, together with the related program accounts, for information and analytical purposes.

The budgetary treatment of direct loan obligations and loan guarantee commitments made prior to 1992 was grandfathered in under FCRA. The budget records these on a cash basis in ***credit liquidating accounts***, the same as they were recorded before FCRA was enacted. However, this exception ceases to apply if the direct loans or loan guarantees are modified as described above. In that case, the budget records the subsidy cost or savings of the modification, as appropriate, and begins to account for the associated transactions under FCRA treatment for direct loan obligations and loan guarantee commitments made in 1992 or later.

Under the authority provided in various acts, certain activities that do not meet the definition in FCRA of a direct loan or loan guarantee are reflected pursuant to FCRA. For example, the Emergency Economic Stabilization Act of 2008 (EESA) created the Troubled Asset Relief Program (TARP) under the Department of the Treasury, and authorized Treasury to purchase or guarantee troubled assets until October 3, 2010. Under the TARP, Treasury purchased equity interests in financial institutions. Section 123 of the EESA provides the Administration the authority to treat these equity investments on a FCRA basis, recording outlays for the subsidy as is done for direct loans and loan guarantees. The budget reflects the cost to the Government of TARP direct loans, loan guarantees, and equity investments consistent with the FCRA and Section 123 of EESA, which requires an adjustment to the FCRA discount rate for market risks. Similarly, Treasury equity purchases under the Small Business Lending Fund are treated pursuant to the FCRA, as provided by the Small Business Jobs Act of 2010. The Coronavirus Aid, Relief, and Economic Security (CARES) Act authorized certain investments in programs and facilities established by the Federal Reserve. Section 4003 of the CARES Act provided that these amounts be treated in accordance with FCRA.

[3] Present value is a standard financial concept that considers the time-value of money. That is, it accounts for the fact that a given sum of money is worth more today than the same sum would be worth in the future because interest can be earned.

BUDGET DEFICIT OR SURPLUS AND MEANS OF FINANCING

When outlays exceed receipts, the difference is a deficit, which the Government finances primarily by borrowing. When receipts exceed outlays, the difference is a surplus, and the Government automatically uses the surplus primarily to reduce debt. The Federal debt held by the public is approximately the cumulative amount of borrowing to finance deficits, less repayments from surpluses, over the Nation's history.

Borrowing is not exactly equal to the deficit, and debt repayment is not exactly equal to the surplus, because of the other transactions affecting borrowing from the public, or other means of financing, such as those discussed in this section. The factors included in the other means of financing can either increase or decrease the Government's borrowing needs (or decrease or increase its ability to repay debt). For example, the change in the Treasury operating cash balance is a factor included in other means of financing. Holding receipts and outlays constant, increases in the cash balance increase the Government's need to borrow or reduce the Government's ability to repay debt, and decreases in the cash balance decrease the need to borrow or increase the ability to repay debt. In some years, the net effect of the other means of financing is minor relative to the borrowing or debt repayment; in other years, the net effect may be significant.

Borrowing and Debt Repayment

The budget treats borrowing and debt repayment as a means of financing, not as receipts and outlays. If borrowing were defined as receipts and debt repayment as outlays, the budget would always be virtually balanced by definition. This rule applies both to borrowing in the form of Treasury securities and to specialized borrowing in the form of agency securities. The rule reflects the commonsense understanding that lending or borrowing is just an exchange of financial assets of equal value—cash for Treasury securities—and so is fundamentally different from, say, paying taxes, which involve a net transfer of financial assets from taxpayers to the Government.

In 2021, the Government borrowed $1,267 billion from the public, bringing debt held by the public to $22,284 billion. This borrowing financed the $2,775 billion deficit in that year, as well as the net impacts of the other means of financing, such as changes in cash balances and other accounts discussed below.

In addition to selling debt to the public, the Department of the Treasury issues debt to Government accounts, primarily trust funds that are required by law to invest in Treasury securities. Issuing and redeeming this debt does not affect the means of financing, because these transactions occur between one Government account and another and thus do not raise or use any cash for the Government as a whole.

(See Chapter 4 of this volume, "Federal Borrowing and Debt," for a fuller discussion of this topic.)

Exercise of Monetary Power

Seigniorage is the profit from coining money. It is the difference between the value of coins as money and their cost of production. Seigniorage reduces the Government's need to borrow. Unlike the payment of taxes or other receipts, it does not involve a transfer of financial assets from the public. Instead, it arises from the exercise of the Government's power to create money and the public's desire to hold financial assets in the form of coins. Therefore, the budget excludes seigniorage from receipts and treats it as a means of financing other than borrowing from the public. The budget also treats proceeds from the sale of gold as a means of financing, since the value of gold is determined by its value as a monetary asset rather than as a commodity.

Credit Financing Accounts

The budget records the net cash flows of credit programs in credit financing accounts. These accounts include the transactions for direct loan and loan guarantee programs, as well as the equity purchase programs under TARP that are recorded on a credit basis consistent with Section 123 of EESA. Financing accounts also record equity purchases under the Small Business Lending Fund consistent with the Small Business Jobs Act of 2010, and certain investments in programs and facilities established by the Federal Reserve consistent with Section 4003 of the CARES Act. Credit financing accounts are excluded from the budget because they are not allocations of resources by the Government (see "Federal Credit" earlier in this chapter). However, even though they do not affect the surplus or deficit, they can either increase or decrease the Government's need to borrow. Therefore, they are recorded as a means of financing.

Financing account disbursements to the public increase the requirement for Treasury borrowing in the same way as an increase in budget outlays. Financing account receipts from the public can be used to finance the payment of the Government's obligations and therefore reduce the requirement for Treasury borrowing from the public in the same way as an increase in budget receipts.

Deposit Fund Account Balances

The Treasury uses non-budgetary accounts, called deposit funds, to record cash held temporarily until ownership is determined (for example, earnest money paid by bidders for mineral leases) or cash held by the Government as agent for others (for example, State and local income taxes withheld from Federal employees' salaries and not yet paid to the State or local government or amounts held in the Thrift Savings Fund, a defined contribution pension fund held and managed in a fiduciary capacity by the Government). Deposit fund balances may be held in the form of either invested or uninvested balances. To the extent that they are not invested, changes in the balances are available to finance expenditures without a change in borrowing and are recorded as a means of financing other than borrowing from the public. To the extent that they are invested in Federal debt, changes in the balances are reflected as borrowing from the public (in lieu of borrowing from other parts of the public) and are not reflected as a separate means of financing.

United States Quota Subscriptions to the International Monetary Fund (IMF)

The United States participates in the IMF primarily through a quota subscription. Financial transactions with the IMF are exchanges of monetary assets. When the IMF temporarily draws dollars from the U.S. quota, the United States simultaneously receives an equal, offsetting, interest-bearing, Special Drawing Right (SDR)-denominated claim in the form of an increase in the U.S. reserve position in the IMF. The U.S. reserve position in the IMF increases when the United States makes deposits in its account at the IMF when the IMF temporarily uses members' quota resources to make loans and decreases when the IMF returns funds to the United States as borrowing countries repay the IMF (and the cash flows from the reserve position to the Treasury letter of credit).

The U.S. transactions with the IMF under the quota subscriptions do not increase the deficit in any year, and the budget excludes these transfers from budget outlays and receipts, consistent with the budgetary treatment for exchanges of monetary assets recommended by the President's Commission on Budget Concepts in 1967. The only exception is that interest earnings on U.S. deposits in its IMF account are recorded as offsetting receipts. Other exchanges of monetary assets, such as deposits of cash in Treasury accounts at commercial banks, are likewise not included in the Budget. However, the Congress has historically expressed interest in showing some kind of budgetary effect for U.S. transactions with the IMF.[4]

[4] For a more detailed discussion of the history of the budgetary treatment of U.S. participation in the quota and New Arrangements to Borrow (NAB), see pages 139-141 in the *Analytical Perspectives* volume of the 2016 Budget. As discussed in that volume, the budgetary treatment of the U.S. participation in the NAB is similar to the quota. See pages 85-86 of the *Analytical Perspectives* volume of the 2018 Budget for a more complete discussion of the changes made to the budgetary presentation of quota increases in Title IX of the Department of State, Foreign Operations, and Related Programs Appropriations Act, 2016.

FEDERAL EMPLOYMENT

The Budget includes information on civilian and military employment. It also includes information on related personnel compensation and benefits and on staffing requirements at overseas missions. Chapter 7 of this volume, "Strengthening the Federal Workforce," provides employment levels measured in full-time equivalents (FTEs). Agency FTEs are the measure of total hours worked by an agencies Federal employees divided by the total number of one person's compensable work hours in a fiscal year.

BASIS FOR BUDGET FIGURES

Data for the Past Year

The past year column (2021) generally presents the actual transactions and balances as recorded in agency accounts and as summarized in the central financial reports prepared by the Department of the Treasury for the most recently completed fiscal year. Occasionally, the Budget reports corrections to data reported erroneously to Treasury but not discovered in time to be reflected in Treasury's published data. In addition, in certain cases the Budget has a broader scope and includes financial transactions that are not reported to Treasury (see Chapter 24 of this volume, "Comparison of Actual to Estimated Totals," for a summary of these differences).

Data for the Current Year

The current year column (2022) includes estimates of transactions and balances based on the amounts of budgetary resources that were available when the Budget was prepared. In cases where the Budget proposes policy changes effective in the current year, the data will also reflect the budgetary effect of those proposed changes.

Data for the Budget Year

The Budget year column (2023) includes estimates of transactions and balances based on the amounts of budgetary resources that are estimated to be available, including new budget authority requested under current authorizing legislation, and amounts estimated to result from changes in authorizing legislation and tax laws.

The Budget *Appendix* generally includes the appropriations language for the amounts proposed to be appropriated under current authorizing legislation. In a few cases, this language is transmitted later because the exact requirements are unknown when the budget is transmitted. The *Appendix* generally does not include appropriations language for the amounts that will be requested under proposed legislation; that language is usually transmitted later, after the legislation is enacted. Some tables in the budget identify the items for later transmittal and the related outlays separately. Estimates of the total requirements for the Budget year include both the amounts requested with the transmittal of the budget and the amounts planned for later transmittal.

Data for the Outyears

The Budget presents estimates for each of the nine years beyond the budget year (2024 through 2032) in order to reflect the effect of budget decisions on objectives and plans over a longer period.

Allowances

The budget may include lump-sum allowances to cover certain transactions that are expected to increase or decrease budget authority, outlays, or receipts but are not, for various reasons, reflected in the program details. For example, the budget might include an allowance to show the effect on the budget totals of a proposal that would affect many accounts by relatively small amounts, in order to avoid unnecessary detail in the presentations for the individual accounts.

Baseline

The Budget baseline is an estimate of the receipts, outlays, and deficits or surpluses that would occur if no changes were made to current laws and policies during the period covered by the Budget. The baseline assumes that receipts and mandatory spending, which generally are authorized on a permanent basis, will continue in the future consistent with current law and policy. The baseline assumes that the future funding for most discretionary programs, which generally are funded annually, will equal the most recently enacted appropriation, adjusted for inflation.

Baseline outlays represent the amount of resources that the Government would use over the period covered by the Budget on the basis of laws currently enacted.

The baseline serves several useful purposes:

- It may warn of future problems, either for Government fiscal policy as a whole or for individual tax and spending programs.
- It may provide a starting point for formulating the President's Budget.
- It may provide a benchmark against which the President's Budget and alternative proposals can be compared to assess the magnitude of proposed changes.

The baseline rules in BBEDCA provide that funding for discretionary programs is inflated from the most recent enacted appropriations using specified inflation rates. (Chapter 22 of this volume, "Current Services Estimates," provides more information on the baseline.)

PRINCIPAL BUDGET LAWS

The Budget and Accounting Act of 1921 created the core of the current Federal budget process. Before enactment of this law, there was no annual centralized budgeting in the Executive Branch. Federal Government agencies usually sent budget requests independently to congressional committees with no coordination of the various requests in formulating the Federal Government's budget. The Budget and Accounting Act required the President to coordinate the budget requests for all Government agencies and to send a comprehensive budget to the Congress. The Congress has amended the requirements many times and portions of the Act are codified in Title 31, United States Code. The major laws that govern the budget process are as follows:

Article 1, section 8, clause 1 of the Constitution, which empowers the Congress to lay and collect taxes.

Article 1, section 9, clause 7 of the Constitution, which requires appropriations in law before money may be spent from the Treasury and the publication of a regular statement of the receipts and expenditures of all public money.

Antideficiency Act (codified in Chapters 13 and 15 of Title 31, United States Code), which prescribes rules and procedures for budget execution.

Balanced Budget and Emergency Deficit Control Act of 1985, as amended, which establishes limits on discretionary spending and provides mechanisms for enforcing mandatory spending and discretionary spending limits.

Chapter 11 of Title 31, United States Code, which prescribes procedures for submission of the President's budget and information to be contained in it.

Congressional Budget and Impoundment Control Act of 1974 (Public Law 93–344), as amended. This Act comprises the:

- ***Congressional Budget Act of 1974***, as amended, which prescribes the congressional budget process;
- ***Impoundment Control Act of 1974, as amended***, which controls certain aspects of budget execution; and
- ***Federal Credit Reform Act of 1990, as amended (2 USC 661–661f)***, which the Budget Enforcement Act of 1990 included as an amendment to the Congressional Budget Act to prescribe the budget treatment for Federal credit programs.

Chapter 31 of Title 31, United States Code, which provides the authority for the Secretary of the Treasury to issue debt to finance the deficit and establishes a statutory limit on the level of the debt.

Chapter 33 of Title 31, United States Code, which establishes the Department of the Treasury as the authority for making disbursements of public funds, with the authority to delegate that authority to executive agencies in the interests of economy and efficiency.

Government Performance and Results Act of 1993 (Public Law 103–62, as amended), which emphasizes managing for results. It requires agencies to prepare strategic plans, annual performance plans, and annual performance reports.

Statutory Pay-As-You-Go Act of 2010, which establishes a budget enforcement mechanism generally requiring that direct spending and revenue legislation enacted into law not increase the deficit.

GLOSSARY OF BUDGET TERMS

Account refers to a separate financial reporting unit used by the Federal Government to record budget authority, outlays and income for budgeting or management information purposes as well as for accounting purposes. All budget (and off-budget) accounts are classified as being either expenditure or receipt accounts and by fund group. Budget (and off-budget) transactions fall within either of two fund groups: 1) Federal funds and 2) trust funds. (Cf. Federal funds group and trust funds group.)

Accrual method of measuring cost means an accounting method that records cost when the liability is incurred. As applied to Federal employee retirement benefits, accrual costs are recorded when the benefits are earned rather than when they are paid at some time in the future. The accrual method is used in part to provide data that assists in agency policymaking, but not used in presenting the overall budget of the United States Government.

Advance appropriation means appropriations of new budget authority that become available one or more fiscal years beyond the fiscal year for which the appropriation act was passed.

Advance funding means appropriations of budget authority provided in an appropriations act to be used, if necessary, to cover obligations incurred late in the fiscal year for benefit payments in excess of the amount specifically appropriated in the act for that year, where the budget authority is charged to the appropriation for the program for the fiscal year following the fiscal year for which the appropriations act is passed.

Agency means a Department or other establishment of the Government.

Allowance means a lump-sum included in the budget to represent certain transactions that are expected to increase or decrease budget authority, outlays, or receipts but that are not, for various reasons, reflected in the program details.

Balanced Budget and Emergency Deficit Control Act of 1985 (BBEDCA) refers to legislation that altered the budget process, primarily by replacing the earlier fixed targets for annual deficits with a Pay-As-You-Go requirement for new tax or mandatory spending legislation and with caps on annual discretionary funding. The Statutory Pay-As-You-Go Act of 2010, which is a standalone piece of legislation that did not directly amend the BBEDCA, reinstated a statutory pay-as-you-go rule for revenues and mandatory spending legislation, and the Budget Control Act of 2011, which did amend BBEDCA, reinstated discretionary caps on budget authority through 2021.

Balances of budget authority means the amounts of budget authority provided in previous years that have not been outlayed.

Baseline means a projection of the estimated receipts, outlays, and deficit or surplus that would result from continuing current law or current policies through the period covered by the budget.

Budget means the Budget of the United States Government, which sets forth the President's comprehensive financial plan for allocating resources and indicates the President's priorities for the Federal Government.

Budget authority (BA) means the authority provided by law to incur financial obligations that will result in outlays. (For a description of the several forms of budget authority, see "Budget Authority and Other Budgetary Resources" earlier in this chapter.)

Budget Control Act of 2011 refers to legislation that, among other things, amended BBEDCA to reinstate discretionary spending limits on budget authority through 2021 and restored the process for enforcing those spending limits. The legislation also increased the statutory debt ceiling; created a Joint Select Committee on Deficit Reduction that was instructed to develop a bill to reduce the Federal deficit by at least $1.5 trillion over a 10-year period; and provided a process to implement alternative spending reductions in the event that legislation achieving at least $1.2 trillion of deficit reduction was not enacted.

Budget resolution—see concurrent resolution on the budget.

Budget totals mean the totals included in the budget for budget authority, outlays, receipts, and the surplus or deficit. Some presentations in the budget distinguish on-budget totals from off-budget totals. On-budget totals reflect the transactions of all Federal Government entities except those excluded from the budget totals by law. Off-budget totals reflect the transactions of Government entities that are excluded from the on-budget totals by law. Under current law, the off-budget totals include the Social Security trust funds (Federal Old-Age and Survivors Insurance and Federal Disability Insurance Trust Funds) and the Postal Service Fund. The budget combines the on- and off-budget totals to derive unified (i.e. consolidated) totals for Federal activity.

Budget year refers to the fiscal year for which the budget is being considered, that is, with respect to a session of Congress, the fiscal year of the Government that starts on October 1 of the calendar year in which that session of the Congress begins.

Budgetary resources mean amounts available to incur obligations in a given year. The term comprises new budget authority and unobligated balances of budget authority provided in previous years.

Cap means the legal limits for each fiscal year under BBEDCA on the budget authority and outlays (only if applicable) provided by discretionary appropriations.

Cap adjustment means either an increase or a decrease that is permitted to the statutory cap limits for each fiscal year under BBEDCA on the budget authority and outlays (only if applicable) provided by discretionary appropriations only if certain conditions are met. These conditions may include providing for a base level of funding, a designation of the increase or decrease by the Congress, (and in some circumstances, the President) pursuant to a section of the BBEDCA, or a change in concepts and definitions of funding under the cap. Changes in concepts and definitions require consultation with the Congressional Appropriations and Budget Committees. As noted above, while there are no discretionary caps in place for 2023, the 2023 Budget retains several cap adjustments as "allocation adjustments" to be used pursuant to the Congressional Budget Act in the Congressional Budget Resolution.

Cash equivalent transaction means a transaction in which the Government makes outlays or receives collections in a form other than cash or the cash does not accurately measure the cost of the transaction. (For examples, see the section on "Outlays" earlier in this chapter.)

Collections mean money collected by the Government that the budget records as a governmental receipt, an offsetting collection, or an offsetting receipt.

Concurrent resolution on the budget refers to the concurrent resolution adopted by the Congress to set budgetary targets for appropriations, mandatory spending legislation, and tax legislation. These concurrent resolutions are required by the Congressional Budget Act of 1974, and are generally adopted annually.

Continuing resolution means an appropriations act that provides for the ongoing operation of the Government in the absence of enacted appropriations.

Cost refers to legislation or administrative actions that increase outlays or decrease receipts. (Cf. savings.)

Credit program account means a budget account that receives and obligates appropriations to cover the subsidy cost of a direct loan or loan guarantee and disburses the subsidy cost to a financing account.

Current services estimate—see Baseline.

Debt held by the public means the cumulative amount of money the Federal Government has borrowed from the public and not repaid.

Debt held by the public net of financial assets means the cumulative amount of money the Federal Government has borrowed from the public and not repaid, minus the current value of financial assets such as loan assets, bank deposits, or private-sector securities or equities held by the Government and plus the current value of financial liabilities other than debt.

Debt held by Government accounts means the debt the Department of the Treasury owes to accounts within the Federal Government. Most of it results from the surpluses of the Social Security and other trust funds, which are required by law to be invested in Federal securities.

Debt limit means the maximum amount of Federal debt that may legally be outstanding at any time. It includes both the debt held by the public and the debt held by Government accounts, but without accounting for offsetting financial assets. When the debt limit is reached, the Government cannot borrow more money until the Congress has enacted a law to increase the limit.

Deficit means the amount by which outlays exceed receipts in a fiscal year. It may refer to the on-budget, off-budget, or unified budget deficit.

Direct loan means a disbursement of funds by the Government to a non-Federal borrower under a contract that requires the repayment of such funds with or without interest. The term includes the purchase of, or participation in, a loan made by another lender. The term also includes the sale of a Government asset on credit terms of more than 90 days duration as well as financing arrangements for other transactions that defer payment for more than 90 days. It also includes loans financed by the Federal Financing Bank (FFB) pursuant to agency loan guarantee authority. The term does not include the acquisition of a federally guaranteed loan in satisfaction of default or other guarantee claims or the price support "loans" of the Commodity Credit Corporation. (Cf. loan guarantee.)

Direct spending—see mandatory spending.

Disaster funding means a discretionary appropriation that is enacted that the Congress designates as being for disaster relief. Such amounts are a cap adjustment to the limits on discretionary spending under BBEDCA. The total adjustment for this purpose cannot exceed a ceiling for a particular year that is defined as the total of the average funding provided for disaster relief over the previous 10 years (excluding the highest and lowest years) and the unused amount of the prior year's ceiling (excluding the portion of the prior year's ceiling that was itself due to any unused amount from the year before). Disaster relief is defined as activities carried out pursuant to a determination under section 102(2) of the Robert T. Stafford Disaster Relief and Emergency Assistance Act.

Discretionary spending means budgetary resources (except those provided to fund mandatory spending programs) provided in appropriations acts. (Cf. mandatory spending.)

Emergency requirement means an amount that the Congress has designated as an emergency requirement. Such amounts are not included in the estimated budgetary effects of PAYGO legislation under the requirements of the Statutory Pay-As-You-Go Act of 2010, if they are mandatory or receipts. Such a discretionary appropriation that is subsequently designated by the President as an emergency requirement results in a cap adjustment to the limits on discretionary spending under BBEDCA.

Entitlement refers to a program in which the Federal Government is legally obligated to make payments or provide aid to any person who, or State or local government that, meets the legal criteria for eligibility. Examples include Social Security, Medicare, Medicaid, and the Supplemental Nutrition Assistance Program (formerly Food Stamps).

Federal funds group refers to the moneys collected and spent by the Government through accounts other than those designated as trust funds. Federal funds include general, special, public enterprise, and intragovernmental funds. (Cf. trust funds group.)

Financing account means a non-budgetary account (an account whose transactions are excluded from the budget totals) that records all of the cash flows resulting from post-1991 direct loan obligations or loan guarantee commitments. At least one financing account is associated with each credit program account. For programs that make both direct loans and loan guarantees, separate financing accounts are required for direct loan cash flows and for loan guarantee cash flows. (Cf. liquidating account.)

Fiscal year means the Government's accounting period. It begins on October 1 and ends on September 30, and is designated by the calendar year in which it ends.

Forward funding means appropriations of budget authority that are made for obligation starting in the last quarter of the fiscal year for the financing of ongoing grant programs during the next fiscal year.

General fund means the accounts in which are recorded governmental receipts not earmarked by law for a specific purpose, the proceeds of general borrowing, and the expenditure of these moneys.

Government-sponsored enterprises mean private enterprises that were established and chartered by the Federal Government for public policy purposes. They are classified as non-budgetary and not included in the Federal budget because they are private companies, and their securities are not backed by the full faith and credit of the Federal Government. However, the budget presents statements of financial condition for certain Government sponsored enterprises such as the Federal National Mortgage Association. (Cf. off-budget.)

Intragovernmental fund—see Revolving fund.

Liquidating account means a budget account that records all cash flows to and from the Government resulting from pre-1992 direct loan obligations or loan guarantee commitments. (Cf. financing account.)

Loan guarantee means any guarantee, insurance, or other pledge with respect to the payment of all or a part of the principal or interest on any debt obligation of a non-Federal borrower to a non-Federal lender. The term does not include the insurance of deposits, shares, or other withdrawable accounts in financial institutions. (Cf. direct loan.)

Mandatory spending means spending controlled by laws other than appropriations acts (including spending for entitlement programs) and spending for the Supplemental Nutrition Assistance Program, formerly food stamps. Although the Statutory Pay-As-You-Go Act of 2010 uses the term direct spending to mean this, mandatory spending is commonly used instead. (Cf. discretionary spending.)

Means of financing refers to borrowing, the change in cash balances, and certain other transactions involved in financing a deficit. The term is also used to refer to the debt repayment, the change in cash balances, and certain other transactions involved in using a surplus. By definition, the means of financing are not treated as receipts or outlays and so are non-budgetary.

Obligated balance means the cumulative amount of budget authority that has been obligated but not yet outlayed. (Cf. unobligated balance.)

Obligation means a binding agreement that will result in outlays, immediately or in the future. Budgetary resources must be available before obligations can be incurred legally.

Off-budget refers to transactions of the Federal Government that would be treated as budgetary had the Congress not designated them by statute as "off-budget." Currently, transactions of the Social Security trust funds and the Postal Service are the only sets of transactions that are so designated. The term is sometimes used more broadly to refer to the transactions of private enterprises that were established and sponsored by the Government, most especially "Government-sponsored enterprises" such as the Federal Home Loan Banks. (Cf. budget totals.)

Offsetting collections mean collections that, by law, are credited directly to expenditure accounts and deducted from gross budget authority and outlays of the expenditure account, rather than added to receipts. Usually, they are authorized to be spent for the purposes of the account without further action by the Congress. They result from business-like transactions with the public, including payments from the public in exchange for goods and services, reimbursements for damages, and gifts or donations of money to the Government and from intragovernmental transactions with other Government accounts. The authority to spend offsetting collections is a form of budget authority. (Cf. receipts and offsetting receipts.)

Offsetting receipts mean collections that are credited to offsetting receipt accounts and deducted from gross budget authority and outlays, rather than added to receipts. They are not authorized to be credited to expenditure accounts. The legislation that authorizes the offsetting receipts may earmark them for a specific purpose and either appropriate them for expenditure for that purpose or require them to be appropriated in annual appropriation acts before they can be spent. Like offsetting collections, they result from business-like transactions or market-oriented activities with the public, including payments from the public in exchange for goods and services, reimbursements for damages, and gifts or donations of money to the Government and from intragovernmental transactions with other Government accounts. (Cf. receipts, undistributed offsetting receipts, and offsetting collections.)

On-budget refers to all budgetary transactions other than those designated by statute as off-budget. (Cf. budget totals.)

Outlay means a payment to liquidate an obligation (other than the repayment of debt principal or other disbursements that are "means of financing" transactions). Outlays generally are equal to cash disbursements, but also are recorded for cash-equivalent transactions, such as the issuance of debentures to pay insurance claims, and in a few cases are recorded on an accrual basis such as interest on public issues of the public debt. Outlays are the measure of Government spending.

Outyear estimates mean estimates presented in the budget for the years beyond the budget year of budget authority, outlays, receipts, and other items (such as debt).

Overseas Contingency Operations/Global War on Terrorism (OCO/GWOT) means a discretionary appropriation that is enacted that the Congress and, subsequently, the President have so designated on an account by account basis. Such a discretionary appropriation that is designated as OCO/GWOT results in a cap adjustment to the limits on discretionary spending under BBEDCA. Funding for these purposes has most recently been associated with the wars in Iraq and Afghanistan.

Pay-as-you-go (PAYGO) refers to requirements of the Statutory Pay-As-You-Go Act of 2010 that result in a sequestration if the estimated combined result of new legislation affecting direct spending or revenue increases the on-budget deficit relative to the baseline, as of the end of a congressional session.

Public enterprise fund—see Revolving fund.

Reappropriation means a provision of law that extends into a new fiscal year the availability of unobligated amounts that have expired or would otherwise expire.

Receipts mean collections that result from the Government's exercise of its sovereign power to tax or otherwise compel payment. They are compared to outlays in calculating a surplus or deficit. (Cf. offsetting collections and offsetting receipts.)

Revolving fund means a fund that conducts continuing cycles of business-like activity, in which the fund charges for the sale of products or services and uses the proceeds to finance its spending, usually without requirement for annual appropriations. There are two types of revolving funds: Public enterprise funds, which conduct business-like operations mainly with the public, and intragovernmental revolving funds, which conduct business-like operations mainly within and between Government agencies. (Cf. special fund and trust fund.)

Savings refers to legislation or administrative actions that decrease outlays or increase receipts. (Cf. cost.)

Scorekeeping means measuring the budget effects of legislation, generally in terms of budget authority, receipts, and outlays, for purposes of measuring adherence to the Budget or to budget targets established by the Congress, as through agreement to a Budget Resolution.

Sequestration means the cancellation of budgetary resources. The Statutory Pay-As-You-Go Act of 2010 requires such cancellations if revenue or direct spending legislation is enacted that, in total, increases projected deficits or reduces projected surpluses relative to the baseline. The Balanced Budget and Emergency Deficit Control Act of 1985, as amended, requires annual across-the-board cancellations to selected mandatory programs through 2031.

Special fund means a Federal fund account for receipts or offsetting receipts earmarked for specific purposes and the expenditure of these receipts. (Cf. revolving fund and trust fund.)

Statutory Pay-As-You-Go Act of 2010 refers to legislation that reinstated a statutory pay-as-you-go requirement for new tax or mandatory spending legislation. The law is a standalone piece of legislation that cross-references BBEDCA but does not directly amend that legislation. This is a permanent law and does not expire.

Subsidy means the estimated long-term cost to the Government of a direct loan or loan guarantee, calculated on a net present value basis, excluding administrative costs and any incidental effects on governmental receipts or outlays.

Surplus means the amount by which receipts exceed outlays in a fiscal year. It may refer to the on-budget, off-budget, or unified budget surplus.

Supplemental appropriation means an appropriation enacted subsequent to a regular annual appropriations act, when the need for additional funds is too urgent to be postponed until the next regular annual appropriations act.

Trust fund refers to a type of account, designated by law as a trust fund, for receipts or offsetting receipts dedicated to specific purposes and the expenditure of these receipts. Some revolving funds are designated as trust funds, and these are called trust revolving funds. (Cf. special fund and revolving fund.)

Trust funds group refers to the moneys collected and spent by the Government through trust fund accounts. (Cf. Federal funds group.)

Undistributed offsetting receipts mean offsetting receipts that are deducted from the Government-wide totals for budget authority and outlays instead of being offset against a specific agency and function. (Cf. offsetting receipts.)

Unified budget includes receipts from all sources and outlays for all programs of the Federal Government, including both on- and off-budget programs. It is the most comprehensive measure of the Government's annual finances.

Unobligated balance means the cumulative amount of budget authority that remains available for obligation under law in unexpired accounts. The term "expired balances available for adjustment only" refers to unobligated amounts in expired accounts.

User charges are charges assessed for the provision of Government services and for the sale or use of Government goods or resources. The payers of the user charge must be limited in the authorizing legislation to those receiving special benefits from, or subject to regulation by, the program or activity beyond the benefits received by the general public or broad segments of the public (such as those who pay income taxes or custom duties).

9. COVERAGE OF THE BUDGET

The Federal budget is the central instrument of national policy making. It is the Government's financial plan for proposing and deciding the allocation of resources to serve national objectives. The budget provides information on the cost and scope of Federal activities to inform decisions and to serve as a means to control the allocation of resources. When enacted, it establishes the level of public goods and services provided by the Government.

Federal Government activities can be either "budgetary" or "non-budgetary." Those activities that involve direct and measurable allocation of Federal resources are budgetary. The payments to and from the public resulting from budgetary activities are included in the budget's accounting of outlays and receipts. Federal activities that do not involve direct and measurable allocation of Federal resources are non-budgetary and are not included in the budget's accounting of outlays and receipts. More detailed information about outlays and receipts may be found in Chapter 8, "Budget Concepts," of this volume.

The budget documents include information on some non-budgetary activities because they can be important instruments of Federal policy and provide insight into the scope and nature of Federal activities. For example, the budget documents show the transactions of the Thrift Savings Program (TSP), a collection of investment funds managed by the Federal Retirement Thrift Investment Board (FRTIB). Despite the fact that the FRTIB is budgetary and one of the TSP funds is invested entirely in Federal securities, the transactions of these funds are non-budgetary because current and retired Federal employees own the funds. The Government manages these funds only in a fiduciary capacity.

The budget also includes information on cash flows that are a means of financing Federal activity, such as for credit financing accounts. However, to avoid double-counting, means of financing amounts are not included in the estimates of outlays or receipts because the costs of the underlying Federal activities are already reflected in the deficit.[1] This chapter provides details about the budgetary and non-budgetary activities of the Federal Government.

Budgetary Activities

The Federal Government has used the unified budget concept—which consolidates outlays and receipts from Federal funds and trust funds, including the Social Security trust funds—since 1968, starting with the 1969 Budget. The 1967 President's Commission on Budget Concepts (the Commission) recommended the change to include the financial transactions of all of the Federal Government's programs and agencies. Thus, the budget includes information on the financial transactions of all 15 Executive Departments, all independent agencies (from all three branches of Government), and all Government corporations.[2]

The budget shows outlays and receipts for on-budget and off-budget activities separately to reflect the legal distinction between the two. Although there is a legal distinction between on-budget and off-budget activities, conceptually there is no difference between them. Off-budget Federal activities reflect the same kinds of governmental roles as on-budget activities and result in outlays and receipts. Like on-budget activities, the Government funds and controls off-budget activities. The "unified budget" reflects the conceptual similarity between on-budget and off-budget activities by showing combined totals of outlays and receipts for both.

Many Government corporations are entities with business-type operations that charge the public for services at prices intended to allow the entity to be self-sustaining, although some operate at a loss in order to provide subsidies to specific recipients. Often these entities are more independent than other agencies and have limited exemptions from certain Federal personnel requirements to allow for flexibility.

All accounts in Table 26-1, "Federal Budget by Agencies and Account," in the supplemental materials to this volume are budgetary.[3] The majority of budgetary accounts are associated with the Departments or other entities that are clearly Federal agencies. Some budgetary accounts reflect Government payments to entities that the Government created or chartered as private or non-Federal entities. Some of these entities receive all or a majority of their funding from the Government. These include the Corporation for Public Broadcasting, Gallaudet University, Howard University, the Legal Services Corporation, the National Railroad Passenger Corporation (Amtrak), the Smithsonian Institution, the State Justice Institute, and the United States Institute of Peace. A related example is the Standard Setting Body, which is not

[1] For more information on means of financing, see the "Budget Deficit or Surplus and Means of Financing" section of Chapter 8, "Budget Concepts," in this volume.

[2] Government corporations are Government entities that are defined as corporations pursuant to the Government Corporation Control Act, as amended (31 U.S.C. 9101), or elsewhere in law. Examples include the Commodity Credit Corporation, the Export-Import Bank of the United States, the Federal Crop Insurance Corporation, the Federal Deposit Insurance Corporation, the Millennium Challenge Corporation, the Overseas Private Investment Corporation (now the U.S. International Development Finance Corporation), the Pension Benefit Guaranty Corporation, the Tennessee Valley Authority, the African Development Foundation (22 U.S.C. 290h-6), the Inter-American Foundation (22 U.S.C. 290f), the Presidio Trust (16 U.S.C. 460bb note), and the Valles Caldera Trust (16 U.S.C. 698v-4).

[3] Table 26-1 can be found at: *https://www.whitehouse.gov/omb/analytical-perspectives*.

Table 9–1. COMPARISON OF TOTAL, ON-BUDGET, AND OFF-BUDGET TRANSACTIONS [1]

(In billions of dollars)

Year	Receipts			Outlays			Surplus or deficit (–)		
	Total	On-budget	Off-budget	Total	On-budget	Off-budget	Total	On-budget	Off-budget
1981	599.3	469.1	130.2	678.2	543.0	135.3	–79.0	–73.9	–5.1
1982	617.8	474.3	143.5	745.7	594.9	150.9	–128.0	–120.6	–7.4
1983	600.6	453.2	147.3	808.4	660.9	147.4	–207.8	–207.7	–0.1
1984	666.4	500.4	166.1	851.8	685.6	166.2	–185.4	–185.3	–0.1
1985	734.0	547.9	186.2	946.3	769.4	176.9	–212.3	–221.5	9.2
1986	769.2	568.9	200.2	990.4	806.8	183.5	–221.2	–237.9	16.7
1987	854.3	640.9	213.4	1,004.0	809.2	194.8	–149.7	–168.4	18.6
1988	909.2	667.7	241.5	1,064.4	860.0	204.4	–155.2	–192.3	37.1
1989	991.1	727.4	263.7	1,143.7	932.8	210.9	–152.6	–205.4	52.8
1990	1,032.0	750.3	281.7	1,253.0	1,027.9	225.1	–221.0	–277.6	56.6
1991	1,055.0	761.1	293.9	1,324.2	1,082.5	241.7	–269.2	–321.4	52.2
1992	1,091.2	788.8	302.4	1,381.5	1,129.2	252.3	–290.3	–340.4	50.1
1993	1,154.3	842.4	311.9	1,409.4	1,142.8	266.6	–255.1	–300.4	45.3
1994	1,258.6	923.5	335.0	1,461.8	1,182.4	279.4	–203.2	–258.8	55.7
1995	1,351.8	1,000.7	351.1	1,515.7	1,227.1	288.7	–164.0	–226.4	62.4
1996	1,453.1	1,085.6	367.5	1,560.5	1,259.6	300.9	–107.4	–174.0	66.6
1997	1,579.2	1,187.2	392.0	1,601.1	1,290.5	310.6	–21.9	–103.2	81.4
1998	1,721.7	1,305.9	415.8	1,652.5	1,335.9	316.6	69.3	–29.9	99.2
1999	1,827.5	1,383.0	444.5	1,701.8	1,381.1	320.8	125.6	1.9	123.7
2000	2,025.2	1,544.6	480.6	1,789.0	1,458.2	330.8	236.2	86.4	149.8
2001	1,991.1	1,483.6	507.5	1,862.8	1,516.0	346.8	128.2	–32.4	160.7
2002	1,853.1	1,337.8	515.3	2,010.9	1,655.2	355.7	–157.8	–317.4	159.7
2003	1,782.3	1,258.5	523.8	2,159.9	1,796.9	363.0	–377.6	–538.4	160.8
2004	1,880.1	1,345.4	534.7	2,292.8	1,913.3	379.5	–412.7	–568.0	155.2
2005	2,153.6	1,576.1	577.5	2,472.0	2,069.7	402.2	–318.3	–493.6	175.3
2006	2,406.9	1,798.5	608.4	2,655.1	2,233.0	422.1	–248.2	–434.5	186.3
2007	2,568.0	1,932.9	635.1	2,728.7	2,275.0	453.6	–160.7	–342.2	181.5
2008	2,524.0	1,865.9	658.0	2,982.5	2,507.8	474.8	–458.6	–641.8	183.3
2009	2,105.0	1,451.0	654.0	3,517.7	3,000.7	517.0	–1,412.7	–1,549.7	137.0
2010	2,162.7	1,531.0	631.7	3,457.1	2,902.4	554.7	–1,294.4	–1,371.4	77.0
2011	2,303.5	1,737.7	565.8	3,603.1	3,104.5	498.6	–1,299.6	–1,366.8	67.2
2012	2,450.0	1,880.5	569.5	3,526.6	3,019.0	507.6	–1,076.6	–1,138.5	61.9
2013	2,775.1	2,101.8	673.3	3,454.9	2,821.1	633.8	–679.8	–719.2	39.5
2014	3,021.5	2,285.9	735.6	3,506.3	2,800.2	706.1	–484.8	–514.3	29.5
2015	3,249.9	2,479.5	770.4	3,691.9	2,948.8	743.1	–442.0	–469.3	27.3
2016	3,268.0	2,457.8	810.2	3,852.6	3,077.9	774.7	–584.7	–620.2	35.5
2017	3,316.2	2,465.6	850.6	3,981.6	3,180.4	801.2	–665.4	–714.9	49.4
2018	3,329.9	2,475.2	854.7	4,109.0	3,260.5	848.6	–779.1	–785.3	6.2
2019	3,463.4	2,549.1	914.3	4,447.0	3,540.3	906.6	–983.6	–991.3	7.7
2020	3,421.2	2,455.7	965.4	6,553.6	5,598.0	955.6	–3,132.4	–3,142.3	9.8
2021	4,047.1	3,094.8	952.3	6,822.4	5,818.6	1,003.8	–2,775.3	–2,723.8	–51.5
2022 estimate	4,436.6	3,389.4	1,047.2	5,851.6	4,763.7	1,087.9	–1,415.0	–1,374.3	–40.7
2023 estimate	4,638.2	3,537.6	1,100.6	5,792.0	4,605.3	1,186.7	–1,153.9	–1,067.8	–86.1
2024 estimate	4,874.4	3,716.5	1,157.9	6,075.2	4,801.5	1,273.8	–1,200.8	–1,085.0	–115.8
2025 estimate	5,076.3	3,868.2	1,208.2	6,406.0	5,051.9	1,354.2	–1,329.7	–1,183.7	–146.0
2026 estimate	5,405.7	4,141.7	1,264.0	6,733.8	5,295.2	1,438.6	–1,328.2	–1,153.5	–174.7
2027 estimate	5,695.9	4,380.6	1,315.2	7,047.6	5,533.6	1,514.0	–1,351.7	–1,153.0	–198.7

[1] Off-budget transactions consist of the Social Security Trust funds and the Postal Service fund.

a federally created entity but since 2003 has received a majority of funding through a federally mandated assessment on public companies under the Sarbanes-Oxley Act. Although the Federal payments to these entities are budgetary, the entities themselves are non-budgetary.

Whether the Government created or chartered an entity does not alone determine its budgetary status. The Commission recommended that the budget be comprehensive but it also recognized that proper budgetary classification required weighing all relevant factors regarding establishment, ownership, and control of an entity while erring on the side of inclusiveness. Generally, entities that are primarily Government owned or controlled are classified as budgetary. OMB determines the budgetary classification of entities in consultation with the Congressional Budget Office (CBO) and the Budget Committees of the Congress.

One recent example of a budgetary classification was for the Puerto Rico Financial Oversight Board, created in June 2016 by the Puerto Rico Oversight, Management, and Economic Stability Act (Public Law 114–187). By statute, this oversight board is not a Department, agencies, establishment, or instrumentality of the Federal Government, but is an entity within the territorial government financed entirely by the territorial government. Because the flow of funds from the territory to the oversight board is mandated by Federal law, the budget reflects the allocation of resources by the territorial government to the territorial entity as a receipt from the territorial government and an equal outlay to the oversight board, with net zero deficit impact. Because the oversight board itself is not a Federal entity, its operations are not included in the budget.

Another example involves the National Association of Registered Agents and Brokers (NARAB) (15 U.S.C. 6751-64), established by statute in 2015. NARAB allows for the adoption and application of insurance licensing, continuing education, and other nonresident producer qualification requirements on a multi-State basis. In other words, NARAB streamlines the ability of a nonresident insurer to become a licensed agent in another State. In exchange for providing enhanced market access, NARAB collects fees from its members. In addition to being statutorily established—which in itself is an indication that the entity is governmental for budget purposes—NARAB's board of directors is appointed by the President and confirmed by the Senate. It must also submit bylaws and an annual report to the Department of the Treasury and its primary function involves exercising a regulatory function.

Off-budget Federal activities.—Despite the Commission's recommendation that the budget be comprehensive, every year since 1971 at least one Federal program or agencies has been presented as off-budget because of a legal requirement.[4] The Government funds such off-budget Federal activities and administers them according to Federal legal requirements. However, their net costs are excluded, by law, from the rest of the budget totals, also known as the "on-budget" totals.

Off-budget Federal activities currently consist of the U.S. Postal Service and the two Social Security trust funds: Old-Age and Survivors Insurance and Disability Insurance. Social Security has been classified as off-budget since 1986 and the Postal Service has been classified as off-budget since 1990.[5] Other activities that were designated in law as off-budget at various times before 1986 have been classified as on-budget by law since at least 1985 as a result of the Balanced Budget and Emergency Deficit Control Act of 1985 (Public Law 99–177). Activities that were off-budget at one time but that are now on-budget are classified as on-budget for all years in historical budget data.

Social Security is the largest single program in the unified budget and it is classified by law as off-budget; as a result, the off-budget accounts constitute a significant part of total Federal spending and receipts. Table 9–1 divides total Federal Government outlays, receipts, and the surplus or deficit between on-budget and off-budget amounts. Within this table, the Social Security and Postal Service transactions are classified as off-budget for all years to provide a consistent comparison over time.

Non-Budgetary Activities

The Government characterizes some important Government activities as non-budgetary because they do not involve the direct allocation of resources.[6] These activities can affect budget outlays or receipts even though they have non-budgetary components.

Federal credit programs: budgetary and non-budgetary transactions.—Federal credit programs make direct loans or guarantee private loans to non-Federal borrowers. The Federal Credit Reform Act of 1990 (FCRA) (2 U.S.C. 661-661f) established the current budgetary treatment for credit programs. Under FCRA, the budgetary cost of a credit program, known as the "subsidy cost," is the estimated lifetime cost to the Government of a loan or a loan guarantee on a net present value basis, excluding administrative costs.

[4] While the term "off-budget" is sometimes used colloquially to mean non-budgetary, the term has a meaning distinct from non-budgetary. Off-budget activities would be considered budgetary, absent legal requirement to exclude these activities from the budget totals.

[5] See 42 U.S.C. 911 and 39 U.S.C. 2009a, respectively. The off-budget Postal Service accounts consist of the Postal Service Fund, which is classified as a mandatory account, and the Office of the Inspector General and the Postal Regulatory Commission, both of which are classified as discretionary accounts. The Postal Service Retiree Health Benefits Fund is an on-budget mandatory account with the Office of Personnel Management. The off-budget Social Security accounts consist of the Federal Old-Age and Survivors Insurance trust fund and the Federal Disability Insurance trust fund, both of which have mandatory and discretionary funding.

[6] Tax expenditures, which are discussed in Chapter 13 of this volume, are an example of Government activities that could be characterized as either budgetary or non-budgetary. Tax expenditures refer to the reduction in tax receipts resulting from the special tax treatment accorded certain private activities. Because tax expenditures reduce tax receipts and receipts are budgetary, tax expenditures clearly have budgetary effects. However, the size and composition of tax expenditures are not explicitly recorded in the budget as outlays or as negative receipts and, for this reason, tax expenditures might be considered a special case of non-budgetary transactions.

Outlays equal to the subsidy cost are recorded in the budget up front, as they are incurred—for example, when a loan is made or guaranteed. Credit program cash flows to and from the public are recorded in non-budgetary financing accounts and the information is included in budget documents to provide insight into the program size and costs. For more information about the mechanisms of credit programs, see Chapter 8 of this volume, “Budget Concepts.” More detail on credit programs is in Chapter 19 of this volume, “Credit and Insurance.”

Deposit funds.—Deposit funds are non-budgetary accounts that record amounts held by the Government temporarily until ownership is determined (such as earnest money paid by bidders for mineral leases) or held by the Government as an agent for others (such as State income taxes withheld from Federal employees' salaries and not yet paid to the States). The largest deposit fund is the Government Securities Investment Fund, also known as the G-Fund, which is part of the TSP, the Government's defined contribution retirement plan. The Federal Retirement Thrift Investment Board manages the fund's investment for Federal employees who participate in the TSP (which is similar to private-sector 401(k) plans). The Department of the Treasury holds the G-Fund assets, which are the property of Federal employees, only in a fiduciary capacity; the transactions of the Fund are not resource allocations by the Government and are therefore non-budgetary.[7] For similar reasons, Native American-owned funds that are held and managed in a fiduciary capacity are also excluded from the budget.

Government-Sponsored Enterprises (GSEs).— GSEs are privately owned and therefore distinct from Government corporations. The Federal Government has chartered GSEs such as the Federal National Mortgage Association (Fannie Mae), the Federal Home Loan Mortgage Corporation (Freddie Mac), the Federal Home Loan Banks, the Farm Credit System, and the Federal Agricultural Mortgage Corporation to provide financial intermediation for specified public purposes. Although federally chartered to serve public-policy purposes, GSEs are classified as non-budgetary because they are intended to be privately owned and controlled—with any public benefits accruing indirectly from the GSEs' business transactions. Estimates of the GSEs' activities can be found in a separate chapter of the Budget *Appendix*, and their activities are discussed in Chapter 19 of this volume, “Credit and Insurance.”

In September 2008, in response to the financial market crisis, the director of the Federal Housing Finance Agencies (FHFA)[8] placed Fannie Mae and Freddie Mac into conservatorship for the purpose of preserving the assets and restoring the solvency of these two GSEs. As conservator, FHFA has broad authority to direct the operations of these GSEs. However, these GSEs remain private companies with boards of directors and management responsible for their day-to-day operations. The Budget continues to treat these two GSEs as non-budgetary private entities in conservatorship rather than as Government agencies. By contrast, CBO treats these GSEs as budgetary Federal agencies. Both treatments include budgetary and non-budgetary amounts.

While OMB reflects all of the GSEs' transactions with the public as non-budgetary, the payments from the Treasury to the GSEs are recorded as budgetary outlays and dividends received by the Treasury are recorded as budgetary receipts. Under CBO's approach, the subsidy costs of Fannie Mae's and Freddie Mac's past credit activities are treated as having already been recorded in the budget estimates; the subsidy costs of future credit activities will be recorded when the activities occur. Lending and borrowing activities between the GSEs and the public apart from the subsidy costs are treated as non-budgetary by CBO, and Treasury payments to the GSEs are intragovernmental transfers (from Treasury to the GSEs) that net to zero in CBO's budget estimates.

Overall, both the budget's accounting and CBO's accounting present Fannie Mae's and Freddie Mac's gains and losses as Government receipts and outlays, which reduce or increase Government deficits. The two approaches, however, reflect the effect of the gains and losses in the budget at different times.

Other federally created non-budgetary entities.— In addition to the GSEs, the Federal Government has created a number of other entities that are classified as non-budgetary. These include federally funded research and development centers (FFRDCs), non-appropriated fund instrumentalities (NAFIs), and other entities; some of these are non-profit entities and some are for-profit entities.[9]

FFRDCs are entities that conduct agencies-specific research under contract or cooperative agreement. Some FFRDCs were created to conduct research for the Department of Defense but are administered by colleges, universities, or other non-profit entities. Despite this

[7] The administrative functions of the Federal Retirement Thrift Investment Board are carried out by Government employees and included in the budget totals.

[8] FHFA is the regulator of Fannie Mae, Freddie Mac, and the Federal Home Loan Banks.

[9] Although most entities created by the Federal Government are budgetary, the Congress and the President have chartered, but not necessarily created, approximately 100 non-profit entities that are non-budgetary. These include patriotic, charitable, and educational organizations under Title 36 of the U.S. Code and foundations and trusts chartered under other titles of the Code. Title 36 corporations include the American Legion, the American National Red Cross, Big Brothers—Big Sisters of America, Boy Scouts of America, Future Farmers of America, Girl Scouts of the United States of America, the National Academy of Public Administration, the National Academies of Sciences, Engineering, and Medicine, and Veterans of Foreign Wars of the United States. Virtually all of the non-profit entities chartered by the Government existed under State law prior to the granting of a Government charter, making the Government charter an honorary rather than governing charter. A major exception to this is the American National Red Cross. Its Government charter requires it to provide disaster relief and to ensure compliance with treaty obligations under the Geneva Convention. Although any Government payments (whether made as direct appropriations or through agencies appropriations) to these chartered non-profits, including the Red Cross, would be budgetary, the non-profits themselves are classified as non-budgetary. On April 29, 2015, the Subcommittee on Immigration and Border Security of the Committee on the Judiciary in the U.S. House of Representatives adopted a policy prohibiting the Congress from granting new Federal charters to private, non-profit organizations.

non-budgetary classification, many FFRDCs receive direct resource allocation from the Government and are included as budget lines in various agencies. Examples of FFRDCs include the Center for Naval Analysis and the Jet Propulsion Laboratory.[10] Even though FFRDCs are non-budgetary, Federal payments to the FFRDC are budget outlays. In addition to Federal funding, FFRDCs may receive funding from non-Federal sources.

Non-appropriated fund instrumentalities (NAFIs) are entities that support an agencies's current and retired personnel. Nearly all NAFIs are associated with the Departments of Defense, Homeland Security (Coast Guard), and Veterans Affairs. Most NAFIs are located on military bases and include the Armed Forces exchanges (which sell goods to military personnel and their families), recreational facilities, and childcare centers. NAFIs are financed by proceeds from the sale of goods or services and do not receive direct appropriations; thus, they are characterized as non-budgetary but any agencies payments to the NAFIs are recorded as budget outlays.

A number of entities created by the Government receive a significant amount of non-Federal funding. Non-Federal individuals or organizations significantly control some of these entities. These entities include Gallaudet University, Howard University, Amtrak, and the Universal Services Administrative Company, among others. Most of these entities receive direct appropriations or other recurring payments from the Government. The appropriations or other payments are budgetary and included in Table 26-1. However, many of these entities are themselves non-budgetary. Generally, entities that receive a significant portion of funding from non-Federal sources but are not controlled by the Government are non-budgetary.

Regulation.—Federal Government regulations often require the private sector or other levels of government to make expenditures for specified purposes that are intended to have public benefits, such as workplace safety and pollution control. Although the budget reflects the Government's cost of conducting regulatory activities, the costs imposed on the private sector as a result of regulation are treated as non-budgetary and not included in the budget. The annual Regulatory Plan and the semi-annual Unified Agenda of Federal Regulatory and Deregulatory Actions describe the Government's regulatory priorities and plans.[11] OMB has published the estimated costs and benefits of Federal regulation annually since 1997.[12]

Monetary policy.—As a fiscal policy tool, the budget is used by elected Government officials to promote economic growth and achieve other public policy objectives. Monetary policy is another tool that governments use to promote economic policy objectives. In the United States, the Federal Reserve System—which is composed of a Board of Governors and 12 regional Federal Reserve Banks—conducts monetary policy. The Federal Reserve Act provides that the goal of monetary policy is to "maintain long-run growth of the monetary and credit aggregates commensurate with the economy's long run potential to increase production, so as to promote effectively the goals of maximum employment, stable prices, and moderate long-term interest rates."[13] The Full Employment and Balanced Growth Act of 1978, also known as the Humphrey-Hawkins Act, reaffirmed the dual goals of full employment and price stability.[14]

By law, the Federal Reserve System is a self-financing entity that is independent of the Executive Branch and subject only to broad oversight by the Congress. Consistent with the recommendations of the Commission, the effects of monetary policy and the actions of the Federal Reserve System are non-budgetary, with exceptions for the transfer to the Treasury of excess income generated through its operations. The Federal Reserve System earns income from a variety of sources including interest on Government securities, foreign currency investments and loans to depository institutions, and fees for services (e.g., check clearing services) provided to depository institutions. The Federal Reserve System remits to Treasury any excess income over expenses annually. For the fiscal year ending September 2021, Treasury recorded $100.1 billion in receipts from the Federal Reserve System. In 2020, the Federal Reserve System also co-invested with the Treasury to establish lending facilities authorized by Section 13(3) of the Federal Reserve Act. The Coronavirus Aid, Relief, and Economic Security (CARES) Act appropriated funds to the Treasury to support Federal Reserve 13(3) lending facilities to provide liquidity to the financial system, including financing for States, Tribes, municipalities, eligible businesses, and nonprofit organizations.[15] In addition to remitting excess income to Treasury, current law requires the Federal Reserve to transfer a portion of its excess earnings to the Consumer Financial Protection Bureau (CFPB).[16]

The Board of Governors of the Federal Reserve is a Federal Government agencies, but because of its independent status, its budget is not subject to Executive Branch review and is included in the Budget *Appendix* for informational purposes only. The Federal Reserve Banks are subject to Board oversight and managed by boards of directors chosen by the Board of Governors and member banks, which include all national banks and State banks that choose to become members. The budgets of the regional Banks are subject to approval by the Board of Governors and are not included in the Budget *Appendix*.

---

[10] The National Science Foundation maintains a list of FFRDCs at *www.nsf.gov/statistics/ffrdc*.

[11] The most recent Regulatory Plan and introduction to the Unified Agenda issued by the General Services Administration's Regulatory Information Service Center are available at *www.reginfo.gov* and at *www.gpo.gov*.

[12] In the 2018, 2019, and 2020 report, OMB indicates that for the five rules for which monetized costs and benefits were estimated in 2019, the issuing agencies estimated a total of $0.2 to $3.7 billion in annual benefits and up to $0.6 billion in annual costs, in 2018 dollars. These totals include only the benefits and costs for the minority of rules for which both those categories of impacts were estimated. The most recent report is available at *https://www.whitehouse.gov/omb/information-regulatory-affairs/reports/#ORC*.

[13] See 12 U.S.C. 225a.

[14] See 15 U.S.C. 3101 et seq.

[15] See section 4003 of Public Law 116-136.

[16] See section 1011 of Public Law 111-203 (12 U.S.C. 5491).

10. BUDGET PROCESS

This chapter addresses several broad categories of budget process—the budget enforcement framework and related proposals, presentation, and reforms issues. First, the chapter discusses proposals related to budget enforcement. These proposals include: an explanation of the discretionary levels in the 2023 Budget; adjustments to base discretionary levels including program integrity initiatives, funding requests for disaster relief and wildfire suppression; limits on advance appropriations; a discussion of the system under the Statutory Pay-As-You-Go Act of 2010 (PAYGO) of scoring legislation affecting receipts and mandatory spending; and an extension of the spending reductions required by Section 251A of the Balanced Budget and Emergency Deficit Reduction Act (BBEDCA).

Second, this chapter describes proposals in budget presentation. The proposals include a discussion about adjustments to the BBEDCA baseline for spending enacted in the historic Infrastructure Investment and Jobs Act (IIJA, Public Law 117-58); a proposed reclassification of Contract Support Costs (CSCs) and Payments for Tribal Leases accounts in the Department of the Department of the Interior's Bureau of Indian Affairs; the Pell Grant program; improvements to how Joint Committee sequestration is shown in the Budget; and the budgetary treatment of the housing Government-sponsored enterprises and the United States Postal Service.

Third, this chapter describes reform proposals to improve budgeting with respect to individual programs as well as across Government. These proposals include: changes to capital budgeting for large civilian Federal capital projects; increases in funding and changes in how funding occurs for the Indian Health Services program at the Department of Health and Human Services; and changes to retiree medical care for the Department of Defense.

I. BUDGET ENFORCEMENT FRAMEWORK AND PROPOSALS

Discretionary Spending Levels

The 2023 Budget builds on the success in the 2022 congressional budget and appropriations processes by requesting funding levels that are appropriate for a budget resolution for 2023 rather than new caps on discretionary funding. The multi-year discretionary caps enacted in the BCA led to a decade of underinvestment in critical non-defense discretionary programs. The Administration intends to continue working with the Congress on reinvesting in research, education, public health, and other core functions of Government. The Congress followed the path the Administration put forward in its 2022 Budget by passing the Concurrent Resolution on the Budget for Fiscal Year 2022 (S.Con.Res. 14; 2022 budget resolution). Because the 2022 budget resolution retained many of the useful mechanisms of the statutory caps by defining base levels while allowing for adjustments to those levels above-base activities such as program integrity, disaster relief, and wildfire suppression, the 2023 Budget continues this approach.

For base defense programs, the 2023 Budget proposes a level of $813 billion, which is about 10 percent higher than the 2021 actual level. The amounts in the 2023 Budget are based on the forthcoming National Security and National Defense strategies and the Department of Defense Future Years Defense Program, which includes a five-year appropriations plan and estimated expenditures necessary to support the programs, projects, and activities of the Department of Defense. After 2027, the Budget mechanically extrapolates the growth rate from the final year of the five-year appropriations plan.

For non-defense, the 2023 Budget proposes to separate out the Veterans Affairs (VA) medical care program, requested at $119 billion, from the rest of non-defense discretionary spending, requested at $650 billion. The non-defense non-VA medical care base discretionary request of $650 billion is a 19-percent increase over the 2021 actual level and a 9.5 percent increase when compared to preliminary estimates of enacted 2022 non-defense appropriations, as estimated by the Congressional Budget Office after adjusting for VA medical care.

The Budget separates VA medical care as a third category within the discretionary budget based on a recognition that VA medical care has grown much more rapidly than other discretionary spending over time, largely due to systemwide growth in health care costs. Setting a separate budget allocation for VA medical care could help ensure adequate funding for veterans' health care without shortchanging other critical programs. After 2023, VA medical care receives an increase for its 2024 advance appropriation followed by current services growth in the remaining years while non-defense receives current services growth in all years after 2023. The discretionary policy levels are reflected in Table S–7 of the main *Budget* volume and proposed adjustments to the base appropriations levels are described below.

ADJUSTMENTS TO BASE DISCRETIONARY FUNDING LEVELS

Program Integrity Funding

There is compelling evidence that investments in administrative resources can significantly decrease the rate of improper payments and recoup many times their initial investment for certain programs. In such programs, using adjustments to base discretionary funding for program integrity activities allows for the expansion of oversight and enforcement activities in the largest benefit programs including Social Security, Unemployment Insurance, Medicare and Medicaid. In such cases, where return on investment using discretionary dollars is proven, adjustments to base discretionary funding are a useful budgeting tool. When the BCA was in place, BBEDCA allowed the discretionary caps to be adjusted to account for the discretionary funding that supported savings in these mandatory programs because budget scoring rules do not allow the mandatory savings to be credited for budget enforcement purposes.

The Administration continues to support making these discretionary investments, maintaining the same structure under the BCA, where adjustments were available only if appropriations meet a minimum amount. The Administration funds base amounts similar to previous years funding, and adjusts base discretionary spending upward for these dedicated amounts. The treatment of this funding in the Budget is consistent with Congress' use of congressional allocation adjustments done through the annual budget resolution process (see Chapter 8 the Budget Concepts for more information on this process). The adjustment amounts proposed extend through 2032 at the rate of inflation assumed in the 2023 Budget, except for funding for the Unemployment Insurance program, where the Budget adopts the outyear levels adopted by Congress through 2027, then allows the amounts to grow with inflation through the Budget window, and for Social Security, where the requested funding stream reflects a full complement of program integrity initiatives described below. The Budget shows the mandatory program savings from 10 years of discretionary program integrity funding separate from the baseline projections for spending in Social Security, Unemployment Insurance, Medicare and Medicaid. This separation allows the Administration to clearly show the effects of the savings from these proposed discretionary program integrity amounts that receive special budgetary treatment.

The following sections explain the benefits and budget presentation of the proposed level of adjustments to base discretionary funding for program integrity activities.

Social Security Administration (SSA) Dedicated Program Integrity Activities.—SSA takes seriously its responsibilities to ensure eligible individuals receive the benefits to which they are entitled, and to safeguard the integrity of benefit programs to better serve recipients. The Budget's proposed discretionary amount of $1,799 million ($288 million in base funding and $1,511 million in adjustment funding) will allow SSA to conduct 700,000 full medical continuing disability reviews (CDRs) and approximately 2.2 million Supplemental Security

Table 10–1. PROGRAM INTEGRITY DISCRETIONARY ADJUSTMENTS AND MANDATORY SAVINGS
(Budget authority and outlays in millions of dollars)

	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	10-year Total
Social Security Administration (SSA) Program Integrity:											
Discretionary Budget Authority (non add)[1]	1,511	1,583	1,393	1,509	1,582	1,629	1,686	1,771	1,803	1,836	16,303
Discretionary Outlays[1]	1,516	1,579	1,405	1,502	1,577	1,626	1,683	1,765	1,801	1,834	16,288
Mandatory Savings[2]	–112	–1,776	–3,142	–3,992	–4,885	–6,021	–6,289	–7,440	–8,242	–8,981	–50,880
Net Savings	1,404	–197	–1,737	–2,490	–3,308	–4,395	–4,606	–5,675	–6,441	–7,147	–34,592
Health Care Fraud and Abuse Control Program:											
Discretionary Budget Authority/Outlays[1]	576	593	611	629	648	667	687	708	729	751	6,599
Mandatory Savings[2, 3]	–1,119	–1,181	–1,246	–1,315	–1,354	–1,393	–1,435	–1,479	–1,523	–1,569	–13,614
Net Savings	–543	–588	–635	–686	–706	–726	–748	–771	–794	–818	–7,015
Unemployment Insurance (UI) Program Integrity:											
Discretionary Costs[1]	258	433	533	608	633	648	662	678	693	709	5,855
Mandatory Savings[2]	–474	–683	–700	–630	–618	–599	–585	–578	–861	–924	–6,652
Net Savings	–216	–250	–167	–22	15	49	77	100	–168	–215	–797

[1] The discretionary costs are equal to the outlays associated with the budget authority levels proposed for adjustments to the non-defense discretionary levels in the 2023 Budget.For SSA, the costs for 2023 through 2032 reflect the costs to complete the anticipated dedicated program integrity workloads for SSA; for HCFAC the costs for each of 2023 through 2032 are equal to the outlays associated with the budget authority levels inflated from the 2023 level for HCFAC, using the 2023 Budget assumptions. The UI levels for 2022 through 2027 are equal to the amounts authorized for congressional enforcement, while the remaining years are inflated from the 2027 level.

[2] The mandatory savings from the discretionary adjustment funding are included as proposals in the Budget and displayed as savings in the Social Security, Medicare, Medicaid, and UI programs. For the SSA, adjustment savings, amounts are based on SSA's Office of the Chief Actuary's and the Centers for Medicare and Medicaid Services' Office of the Actuary estimates of savings. For UI amounts are based on the Department of Labor's Division of Fiscal and Actuarial Services' estimates of savings.

[3] These savings are based on estimates from the HHS Office of the Actuary for return on investment (ROI) from program integrity activities.

Income (SSI) non-medical redeterminations of eligibility. The Social Security Act requires that SSA conducts medical CDRs, which are periodic reevaluations to determine whether disabled Old-Age, Survivors, and Disability Insurance (OASDI) or SSI beneficiaries continue to meet SSA's standards for disability. Redeterminations are periodic reviews of non-medical eligibility factors, such as income and resources, for the means-tested SSI program and can result in a revision of the individual's benefit level. Program integrity funds also support the anti-fraud cooperative disability investigation (CDI) units and special attorneys for fraud prosecutions. To support these important anti-fraud activities, the Budget provides for SSA to transfer up to $15.1 million to the SSA Inspector General to fund CDI unit activities.

The Budget includes a discretionary adjustment for each year of the 10-year budget window. Because the discretionary caps expired in 2021, the Budget reflects this adjustment for use in the Congressional budget process, pursuant to the Congressional Budget Act. As a result of the discretionary funding requested in 2023, as well as the fully funded base and continued funding of adjustment amounts in 2024 through 2032, the OASDI, SSI, Medicare and Medicaid programs would recoup about $75 billion in gross Federal savings, including approximately $51 billion from access to adjustments, with additional savings after the 10-year period, according to estimates from SSA's Office of the Chief Actuary and the Centers for Medicare and Medicaid Services' Office of the Actuary. Access to increased adjustment amounts and SSA's commitment to fund the fully loaded costs of performing the requested CDR and redetermination volumes would produce net deficit savings of approximately $35 billion in the 10-year window, and provide additional savings in the outyears. These costs and savings are reflected in Table 10-1.

SSA is required by law to conduct medical CDRs for all beneficiaries who are receiving disability benefits under the OASDI program, as well as all children under age 18 who are receiving SSI. SSI redeterminations are also required by law. SSA uses predictive models to prioritize the completion of redeterminations based on the likelihood of change in non-medical factors. The frequency of CDRs and redeterminations relies on the availability of funds to support these activities. The mandatory savings from the base funding in every year and the discretionary adjustment funding assumed for 2022 are included in the baseline, as the baseline assumes the continued funding of program integrity activities. The Budget shows the savings that would result from the increase in CDRs and redeterminations made possible by the discretionary adjustment funding requested in 2023 through 2032. These amounts fully support the dedicated program integrity workloads. With access to the amounts proposed, SSA is on track to regain currency in its CDR workload in 2023 and prevent new backlogs from forming throughout the budget window.

Current estimates indicate that CDRs conducted in 2023 will yield a return on investment (ROI) of about $8 on average in net Federal program savings over 10 years per $1 budgeted for dedicated program integrity funding, including OASDI, SSI, Medicare and Medicaid program effects. Similarly, SSA estimates indicate that non-medical redeterminations conducted in 2023 will yield a ROI of about $3 on average of net Federal program savings over 10 years per $1 budgeted for dedicated program integrity funding, including SSI and Medicaid program effects. The Budget assumes the full cost of performing CDRs to ensure that sufficient resources are available. The savings from one year of program integrity activities are realized over multiple years, as some reviews find that beneficiaries are no longer eligible to receive OASDI or SSI benefits.

The savings resulting from redeterminations will be different for the base funding and the adjustment funding levels in 2023 through 2032 because redeterminations of eligibility can uncover both underpayment and overpayment errors. SSI recipients are more likely to initiate a redetermination of eligibility if they believe there are underpayments, and these recipient-initiated redeterminations are included in the base program amounts provided annually. The estimated savings per dollar spent on CDRs and non-medical redeterminations in the baseline reflects an interaction with the Affordable Care Act's expansion of Medicaid to additional low-income adults, as a result of which some SSI beneficiaries, who would otherwise lose Medicaid coverage due to a medical CDR or non-medical redetermination, would continue to be covered.

Health Care Fraud and Abuse Control Program (HCFAC).—The Budget proposes base and adjustment funding levels over the next 10 years growing at the rate of inflation in the Budget. The discretionary base funding of $323 million and adjustment of $576 million for HCFAC activities in 2023 includes funding to invest in additional Medicare medical review; support Medicaid program integrity data analytics, the Medicaid and CHIP Program System (MACPro), and Medicaid error rate measurement; and data analytics and improper payment measurement work in the Marketplaces. The funding is to be allocated among the Centers for Medicare & Medicaid Services (CMS), the Health and Human Services Office of Inspector General, and the Department of Justice.

Over 2023 through 2032, as reflected in Table 10-1, this $6.6 billion investment in HCFAC adjustment funding will generate approximately $13.6 billion in savings to Medicare and Medicaid. This results in net deficit reduction of $7.0 billion over the 10-year period, reflecting prevention and recoupment of improper payments made to providers, as well as recoveries related to civil and criminal penalties. For HCFAC program integrity efforts, CMS actuaries conservatively estimate approximately $2 is saved or averted for every additional $1 spent.

Reemployment Services and Eligibility Assessments (RESEA).—The Bipartisan Budget Act of 2018 (BBA) established a new adjustment to discretionary base funding for program integrity efforts targeted at Unemployment Insurance through 2027. The RESEA adjustment is permitted up to a maximum amount specified in the law if the underlying appropriations bill first funds a base level of $117 million for Unemployment Insurance program integrity activities. The Budget proposes adjustment levels at the same amount enacted in the BBA. Program integrity funding in 2028 through 2032 continues to rise by the inflation estimated in the Budget. Table 10-1 shows the mandatory savings of $6.7 billion over 10 years, which includes an estimated $967 million reduction in State unemployment taxes. When netted against the discretionary costs for the cap adjustment funding, the 10-year net savings for the program is $797 million.

Disaster Relief Funding

The 2023 Budget maintains the same methodology for determining the funding ceiling for disaster relief used in previous budgets and adopted in the 2022 budget resolution. At the time the 2023 Budget was prepared, OMB estimated the total adjustment available for disaster funding for 2023 at $20.1 billion. This ceiling estimate is based on three components: a 10-year average of disaster relief funding provided in prior years that excludes the highest and lowest years ($11.0 billion); 5 percent of Robert T. Stafford Disaster Relief and Emergency Assistance Act (Stafford Act) amounts designated as emergency requirements since 2012 ($9.1 billion); and carryover from the previous year ($0 billion). Because 2022 appropriations were not completed in time to be reflected in the 2023 Budget, these estimates all assume enactment of the Administration's 2022 request for disaster funding. In addition, the estimate of emergency requirements for Stafford Act activities was updated based on applicable amounts provided in the Disaster Relief Supplemental Appropriations Act, 2022 (division B of Public Law 117-43) and the Infrastructure Investment and Jobs Act (division J of Public Law 117-58). For 2023, the Administration is requesting $19.7 billion in funding for the Federal Emergency Management Agency's (FEMA) Disaster Relief Program, of which nearly $9 billion will address the significant and ongoing recovery needs from the COVID-19 pandemic, $1 billion will go towards Building Resilient Infrastructure Communities (BRIC), and more than $0.1 billion for the Small Business Administration's Disaster Loans Program. The request covers the costs of Presidentially-declared major disasters, including identified costs for previously declared catastrophic events and the estimated annual cost of non-catastrophic events expected to be obligated in 2023.

Consistent with past practice, the 2023 request level does not seek to pre-fund anticipated needs in other programs that may arise out of disasters that have yet to occur. After 2023, the Administration does not have adequate information about known or future requirements necessary to estimate the total amount that will be requested in future years. Accordingly, the Budget does not explicitly request any disaster relief funding in any year after the budget year and includes a placeholder in each of the outyears that is equal to the 10-year average ($11.0 billion) of disaster relief currently estimated under the formula for the 2023 ceiling. This funding level does not reflect a specific request but a placeholder amount that, along with other outyear appropriations levels, will be decided on an annual basis as part of the normal budget development process.

Wildfire Suppression Operations at the Departments of Agriculture and the Interior

Wildfires naturally occur on public lands throughout the country. The cost of fighting wildfires has increased due to landscape conditions resulting from drought, pest and disease damage, overgrown forests, expanding residential and commercial development near the borders of public lands, and program management decisions. In the past, when these costs exceeded the funds appropriated, the Federal Government covered the shortfall through transfers from other land management programs. For example, in 2018, Forest Service wildfire suppression spending reached a record $2.6 billion, necessitating transfers of $720 million from other non-fire programs. Historically, these transfers have been repaid in subsequent appropriations; however, "fire borrowing" impedes the missions of land management agencies to reduce the risk of catastrophic fire and restore and maintain healthy functioning ecosystems.

To create funding certainty in times of wildfire disasters, the Consolidated Appropriations Act of 2018 (CAA) enacted a new cap adjustment to BBEDCA, which began in 2020. This adjustment was adopted in the 2022 budget resolution and the Administration proposes continuing this framework in the Budget. The adjustment is permitted so long as a base level of funding for wildfire suppression operations is funded in the underlying appropriations bill. The base level is defined as being equal to average cost over 10 years for wildfire suppression operations that was requested in the President's 2015 Budget. These amounts have been determined to be $1,011 million for the Department of Agriculture's Forest Service and $384 million for the Department of the Interior (DOI). The 2023 Budget requests these base amounts for wildfire suppression and seeks the full $2,550 million adjustment specified in the CAA of 2018 for 2023 with $2,210 million included for Forest Service and $340 million included for DOI. Providing the full level will ensure that adequate resources are available to fight wildland fires, protect communities, and safeguard human life during the most severe wildland fire season.

For the years after 2023, the Administration does not have sufficient information about future wildfire suppression needs and, therefore, includes a placeholder in the 2023 Budget for wildfire suppression in each of the outyears that is equal to the current 2023 request. Actual funding levels, up to but not exceeding the authorized funding adjustments, will be decided on an annual basis as part of the normal budget process.

Limit on Discretionary Advance Appropriations

An advance appropriation first becomes available for obligation one or more fiscal years beyond the year for which the appropriations act is passed. Budget authority is recorded in the year the funds become available for obligation, not in the year the appropriation is enacted.

There are legitimate policy reasons to use advance appropriations to fund programs. For example, some education grants are forward funded (available beginning July 1 of the fiscal year) to provide certainty of funding for an entire school year, since school years straddle Federal fiscal years. This funding is recorded in the budget year because the funding is first legally available in that fiscal year. However, $22.6 billion of this education funding is advance appropriated (available beginning three months later, on October 1) rather than forward funded. Prior Congresses increased advance appropriations and decreased the amounts of forward funding as a gimmick to free up room in the budget year without affecting the total amount available for a coming school year. This approach works because the advance appropriation is not recorded in the budget year but rather the following fiscal year. However, it works only in the year in which funds switch from forward funding to advance appropriations; that is, it works only in years in which the amounts of advance appropriations for such "straddle" programs are increased.

To curtail this approach, which allows over-budget funding in the budget year and exerts pressure for increased funding in future years, congressional budget resolutions since 2001 have set limits on the amount of discretionary advance appropriations and the accounts which can receive them. By freezing the amount that had been advance appropriated to these accounts at the level provided in the most recent appropriations bill, additional room within discretionary spending limits cannot be created by shifting additional funds to future fiscal years.

The Budget includes $28,768 million in advance appropriations for 2024, consistent with limits established in recent congressional budget resolutions, and freezes them at this level in subsequent years. Outside of these limits, the Administration's Budget would allow discretionary advance appropriations for veterans medical care, as is required by the Veterans Health Care Budget Reform and Transparency Act (Public Law 111-81). The veterans medical care accounts in the Department of Veterans Affairs (VA) currently comprise Medical Services, Medical Support and Compliance, Medical Facilities, and Medical Community Care. The level of advance appropriations funding for veterans medical care is largely determined by the VA's Enrollee Health Care Projection Model. This actuarial model projects the funding requirement for over 90 types of healthcare services, including primary care, specialty care, and mental health. The remaining funding requirement is estimated based on other models and assumptions for services such as readjustment counseling and special activities. VA has included detailed information in its Congressional Budget Justifications about the overall 2024 veterans medical care funding request.

For a detailed table of accounts that have received discretionary and mandatory advance appropriations since 2021 or for which the Budget requests advance appropriations for 2024 and beyond, please refer to the Advance Appropriations chapter in the *Appendix*.

Statutory PAYGO

The Statutory Pay-As-You-Go Act of 2010 (PAYGO Act; Public Law 111-139) requires that, subject to specific exceptions, all legislation enacted during each session of the Congress changing taxes or mandatory expenditures and collections not increase projected deficits.

The Act established 5- and 10-year scorecards to record the budgetary effects of legislation; these scorecards are maintained by OMB and are published on the OMB web site. The Act also established special scorekeeping rules that affect whether all estimated budgetary effects of PAYGO bills are entered on the scorecards. Changes to off-budget programs (Social Security and the Postal Service) do not have budgetary effects for the purposes of PAYGO and are not counted. Provisions designated by the Congress in law as emergencies appear on the scorecards, but the effects are subtracted before computing the scorecard totals.

In addition to the exemptions in the PAYGO Act itself, the Congress has enacted laws affecting revenues or direct spending with a provision directing that the budgetary effects of all or part of the law be held off of the PAYGO scorecards. In the most recently completed congressional session, four laws were enacted with such a provision.

The requirement of budget neutrality is enforced by an accompanying requirement of automatic across-the-board cuts in selected mandatory programs if enacted legislation, taken as a whole, does not meet that standard. If the annual report filed by OMB after the end of a congressional session shows net costs—that is, more costs than savings—in the budget-year column of either the 5- or 10-year scorecard, OMB is required to prepare, and the President is required to issue, a sequestration order implementing across-the-board cuts to non-exempt mandatory programs in an amount sufficient to offset the net costs on the PAYGO scorecards. The list of exempt programs and special sequestration rules for certain programs are contained in sections 255 and 256 of BBEDCA.

As was the case during an earlier PAYGO enforcement regime in the 1990s, the PAYGO sequestration has not been required since the PAYGO Act reinstated the statutory PAYGO requirement. For the first session of the 117th Congress, the most recently completed session, enacted legislation placed costs of $370.6 billion in each year of the 5-year scorecard and $187 million in each year of the 10-year scorecard. However, the budget year balance on each of the PAYGO scorecards is zero because the Protecting Medicare and American Farmers from Sequester Cuts Act (Public Law 117-71) shifted the debits on both scorecards from fiscal year 2022 to fiscal year 2023. Consequently, no PAYGO sequestration was required in 2022. [1]

BBEDCA Section 251A Reductions

In August 2011, as part of the Budget Control Act of 2011 (BCA; Public Law 112-25), bipartisan majorities in both the House and Senate voted to establish the Joint Select Committee on Deficit Reduction to recommend leg-

[1] OMB's annual PAYGO report is available on OMB's website at *https://www.whitehouse.gov/omb/paygo/*.

islation to achieve at least $1.5 trillion of deficit reduction over the period of fiscal years 2012 through 2021 (Joint Committee sequestration). The failure of the Congress to enact such comprehensive deficit reduction legislation to achieve the $1.5 trillion goal triggered a sequestration of discretionary and mandatory spending in 2013, led to reductions in the discretionary caps for 2014 through 2021, and forced additional sequestrations of mandatory spending in each of fiscal years 2014 through 2021. Sequestration of mandatory resources was continued in a series of laws for each year through 2031; as required a sequestration order for fiscal year 2023 will be released with the 2023 Budget. That sequestration is now called the BBEDCA 251A sequestration, after the Balanced Budget and Emergency Deficit Control Act, as amended (BBEDCA), the law where mandatory sequestration continues to be extended.

The discretionary cap regime in place under the BCA expired at the end of fiscal year 2021. Prior to the that time, various laws changed the annual reductions required to the discretionary spending limits set in the BCA through 2021. The Bipartisan Budget Act of 2019 (BBA of 2019; Public Law 116-37) adjusted these discretionary spending limits for fiscal years 2020 and 2021, the last years of the BCA caps. The future reductions to mandatory programs are to be implemented by a sequestration of non-exempt mandatory budgetary resources in each of fiscal years 2023 through 2031, and are triggered annually by the transmittal of the President's Budget for each year and take effect on the first day of the fiscal year. The Budget proposes to continue mandatory sequestration into 2032 and smooth the impact on Medicare by reducing the Medicare percentage to 2 percent in 2030 and 2031 while extending it through 2032. This proposal generates $12.4 billion in deficit reduction.

II. BUDGET PRESENTATION

Adjustments to BBEDCA Baseline for the Infrastructure Investment and Jobs Act (IIJA)

In order to provide a more realistic outlook for the deficit under current legislation and policies, the Budget proposals are presented relative to a baseline that makes adjustments to the statutory baseline defined in BBEDCA. Section 257 of BBEDCA provides the rules for constructing the baseline used by the Executive and Legislative Branches for scoring and other legal purposes. The adjustments made by the Administration are not intended to replace the BBEDCA baseline for these purposes, but rather are intended to make the baseline a more useful benchmark for assessing the deficit outlook and the impact of budget proposals. They also present a more realistic picture of the spending enacted in the historic infrastructure bill (Public Law 117-58, IIJA).

That historic infrastructure bill provided $457.6 billion in discretionary funding over ten years, some of it designated as both discretionary and emergency under BBEDCA. The law provided funding in 2022 only for some programs, and discretionary multi-year advances for other programs (usually 2022-2026). The Administration's adjusted baseline does not extend and inflate emergency funding provided for only 2022 in the baseline, since there is no expectation these funds will be provided in 2023. The multi-year advance appropriations are extended and inflated in the baseline beginning the year after the last year of funding provided under current law, generally 2026. However, the 2023 Budget request eliminates the continuation of the multi-year advance appropriation past the last year of funding provided.

IIJA also reauthorized surface transportation programs and provided higher contract authority (CA) for 2022-2026. However, under BBEDCA rules, spending would not increase in the baseline until future appropriations set the obligations limitations (oblims) to reflect that higher CA amount. The Administration's baseline adjusts surface transportation spending up to the higher levels enacted in IIJA for 2022. By increasing the oblim in 2022 to the level of IIJA contract authority in 2022 and extending and inflating that level through the 10-year budget window, spending is closely aligned to the levels provided for in IIJA. The 2023 Budget request shows the 2023 oblims, and thus spending, at the level of contract authority provided in IIJA, inflated into the outyears. Measuring this policy against a baseline that does not account for the 2022 spending enacted in IIJA would artificially distort the true cost of the policy choices made for 2023.

Reclassification of Contract Support Costs and Payments for Tribal Leases at the Department of Interior's Bureau of Indian Affairs

The 2023 Budget proposes to reclassify Contract Support Costs (CSCs) and Payments for Tribal Leases, programs that historically have been funded as discretionary in Department of the Interior's Bureau of Indian Affairs, as mandatory. Specifically, the Budget proposes that, beginning in 2023, the CSCs and Payments for Tribal Leases accounts will continue to be funded through the annual appropriations process but will be reclassified as mandatory funding. The 2023 Budget requests $464 million in 2023 and the reclassification totals $5.1 billion over 10 years. This shift is shown in the discretionary funding tables in the Budget by reducing the base discretionary in the amount of the 2023 Budget request, inflated into the 10-year window. Separately, the Administration is proposing broader changes to fund the programs in the Department of Health and Human Services' Indian Health Service, as described in the third section of this Chapter (Budget Reform proposals).

Pell Grants

The Pell Grant program includes features that make it unlike other discretionary programs, including that Pell Grants are awarded to all applicants who meet income and other eligibility criteria. This section provides some background on the unique nature of the Pell Grant program and explains how the Budget accommodates changes in discretionary costs.

Under current law, the Pell program has several notable features:

- The Pell Grant program acts like an entitlement program, such as the Supplemental Nutrition Assistance Program or Supplemental Security Income, in which anyone who meets specific eligibility requirements and applies for the program receives a benefit. Specifically, Pell Grant costs in a given year are determined by the maximum award set in statute, the number of eligible applicants, and the award for which those applicants are eligible based on their needs and costs of attendance. The maximum Pell award for the academic year 2021-2022 is $6,495, of which $5,435 was established in discretionary appropriations and the remaining $1,060 in mandatory funding is provided automatically by the College Cost Reduction and Access Act as amended (CCRAA).
- The cost of each Pell Grant is funded by discretionary budget authority provided in annual appropriations acts, along with mandatory budget authority provided not only by the CCRAA but also the Health Care and Education Reconciliation Act of 2010. There is no programmatic difference between the mandatory and discretionary funding.
- If valid applicants are more numerous than expected, or if these applicants are eligible for higher awards than anticipated, the Pell Grant program will cost more than projected at the time of the appropriation. If the costs during one academic year are higher than provided for in that year's appropriation, the Department of Education funds the extra costs with the subsequent year's appropriation.[2]
- To prevent deliberate underfunding of Pell costs, in 2006 the congressional and Executive Branch scorekeepers agreed to a special scorekeeping rule for Pell. Under this rule, the annual appropriations bill is charged with the full Congressional Budget Office estimated cost of the Pell Grant program for the budget year, plus or minus any cumulative shortfalls or surpluses from prior years.

[2] This ability to "borrow" from a subsequent appropriation is unique to the Pell program. It comes about for two reasons. First, like many education programs, Pell is "forward-funded"—the budget authority enacted in the fall of one year is intended for the subsequent academic year, which begins in the following July. Second, even though the amount of funding is predicated on the expected cost of Pell during one academic year, the money is made legally available for the full 24-month period covering the current fiscal year and the subsequent fiscal year. This means that, if the funding for an academic year proves inadequate, the following year's appropriation will legally be available to cover the funding shortage for the first academic year. The 2023 Budget appropriations request, for instance, will support the 2023-2024 academic year beginning in July 2022 but will become available in October 2022 and can therefore help cover any shortages that may arise in funding for the 2022-2023 academic year.

Table 10–2. DISCRETIONARY PELL FUNDING NEEDS

Amounts in millions ($)

Discretionary Pell Funding Needs (Baseline)	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Estimated Program Cost for $5,435 Disc. Maximum Award	22,414	25,543	25,980	26,419	26,875	28,152	28,593	29,059	29,546	29,901
Baseline Discretionary Appropriation - 2021 Enacted	22,475	22,475	22,475	22,475	22,475	22,475	22,475	22,475	22,475	22,475
Surplus/Funding Gap from Prior Year	15,929	17,161	15,263	12,928	10,155	6,925	2,418	–2,529	–7,943	–13,844
Mandatory Budget Authority Available	1,170	1,170	1,170	1,170	1,170	1,170	1,170	1,170	1,170	1,170
Baseline Discretionary Surplus/Funding Gap (–)	17,161	15,263	12,928	10,155	6,925	2,418	–2,529	–7,943	–13,844	–20,099
Effect of 2023 Budget Policies on Discretionary Pell Funding Needs	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Increase Discretionary Maximum Award to $6,335	–4,374	–4,619	–4,674	–4,733	–4,799	–5,062	–5,139	–5,226	–5,317	–5,404
Increase Mandatory Add-On to Double Grant by 2029	....	25	33	40	50	25	30	34	39	45
Mandatory Funding Shift [1]	–141	–125	–125	–126	–125	–148	–148	–149	–150	–151
Increase Discretionary Appropriation by $1.8 billion	1,800	1,800	1,800	1,800	1,800	1,800	1,800	1,800	1,800	1,800
Annual Effect of 2023 Budget Policies	–2,715	–2,919	–2,966	–3,019	–3,074	–3,385	–3,457	–3,541	–3,628	–3,710
Cumulative Effect of 2023 Budget Policies	–2,715	–5,634	–8,600	–11,619	–14,693	–18,078	–21,535	–25,076	–28,704	–32,414
2023 Budget Discretionary Surplus/ Funding Gap (–)	14,446	9,629	4,328	–1,464	–7,768	–15,660	–24,064	–33,019	–42,548	–52,513

[1] Some budget authority, provided in previous legislation and classified as mandatory but used to meet discretionary Pell grant program funding needs, will be reallocated to support new costs associated with the mandatory add-on.

Given the nature of the program, it is reasonable to consider Pell Grants an individual entitlement for purposes of budget analysis and enforcement. The discretionary portion of the award funded in annual appropriations acts counts against appropriations allocations established annually under §302 of the Congressional Budget Act.

The total cost of Pell Grants can fluctuate from year to year, even with no change in the maximum Pell Grant award, because of changes in enrollment, college costs, and student and family resources. In general, the demand for and costs of the program are countercyclical to the economy; more people go to school during periods of higher unemployment, but return to the workforce as the economy improves. During the COVID pandemic, however, enrollment continued its decline since the end of the Great Recession. The Budget projects the number of Pell recipients to increase by about three percent annually, on average, over the course of the ten-year budget window. Assuming no changes in current policy, the 2023 Budget baseline expects program costs to stay within available discretionary resources until 2029 (see Table 10-2). These estimates have changed from year to year, which illustrates difficulty in forecasting Pell program costs.

The 2023 Budget reflects a significant step in the President's goal of doubling the Pell Grant. The Budget would increase the maximum Pell Grant by $2,175 over the current level for the 2021-2022 school year, for a total award of $8,670. This increase is composed of a $900 increase to the discretionary maximum award and a $1,275 increase to the mandatory portion of the award. This historic increase to the grant would increase future discretionary Pell program costs by $49 billion over 10 years (see Table 10-2). The Budget provides $24.3 billion in discretionary budget authority in 2023 to support this increase, $1.8 billion more than 2022. The Budget projects that the Pell program will still have sufficient discretionary funds to meet program costs until 2026.

Gross Versus Net Reductions in Joint Committee Sequestration

The net realized savings from Joint Committee mandatory sequestration are less than the intended savings amounts as a result of peculiarities in the BBEDCA sequestration procedures. The 2023 Budget shows the net effect of Joint Committee sequestration reductions by accounting for reductions in 2023, and each outyear, that remain in the sequestered account and are anticipated to become newly available for obligation in the year after sequestration, in accordance with section 256(k)(6) of BBEDCA. The budget authority and outlays from these "pop-up" resources are included in the baseline and policy estimates and amount to a cost of $1.506 billion in 2023. Additionally, the Budget annually accounts for lost savings that results from the sequestration of certain interfund payments, which produces no net deficit reduction. Such amount is $986 million in 2023.

Fannie Mae and Freddie Mac

The Budget continues to present Fannie Mae and Freddie Mac, the housing Government-sponsored enterprises (GSEs) currently in Federal conservatorship, as non-Federal entities. However, Treasury equity investments in the GSEs are recorded as budgetary outlays, and the dividends on those investments are recorded as offsetting receipts. In addition, the budget estimates reflect collections from the 10-basis point increase in GSE guarantee fees that was enacted under the Temporary Payroll Tax Cut Continuation Act of 2011 (Public Law. 112-78) and extended by the IIJA. The Budget also reflects collections from a 4.2 basis point set-aside on each dollar of unpaid principal balance of new business purchases authorized under the Housing and Economic Recovery Act of 2008 (Public Law 111-289) to be remitted to several Federal affordable housing programs. The GSEs are discussed in more detail in Chapter 19, "Credit and Insurance."

Postal Service Reforms

The Postal Service is designated in statute as an off-budget independent establishment of the Executive Branch. This designation and budgetary treatment was most recently mandated in 1989. To reflect the Postal Service's practice since 2012 of using defaults to on-budget accounts to continue operations, despite losses, the Administration's baseline now reflects probable defaults to on-budget accounts. This treatment allows for a clearer presentation of the Postal Service's likely actions in the absence of reform and more realistic scoring of reform proposals, with improvements in the Postal Service's finances reflected through lower defaults, and added costs for the Postal Service reflected as higher defaults. Under current scoring rules, savings from reform for the Postal Service affect the unified deficit but do not affect the PAYGO scorecard. Savings to on-budget accounts through lower projected defaults affect both the PAYGO scorecard and the unified deficit.

III. BUDGET REFORM PROPOSALS

Federal Capital Revolving Fund

The structure of the Federal budget and budget enforcement requirements can create hurdles to funding large-dollar capital investments that are handled differently at the State and local government levels. Expenditures for capital investment are combined with operating expenses in the Federal unified budget. Both kinds of expenditures must compete for limited funding within the discretionary funding levels. Large-dollar Federal capital investments can be squeezed out in this competition, forcing agency managers to turn to operating leases to meet long-term Federal requirements. These alternatives are more expensive than ownership over the long-term because: (1) Treasury can always borrow at lower interest rates; and (2) to avoid triggering scorekeeping and recording requirements for capital leases,

Chart 10-1. Scoring of $1,035 million in GSA Construction Projects using the Federal Capital Revolving Fund*

Federal Capital Revolving Fund	Year 1	Years 2-15
Mandatory:		
Transfer to purchasing agency to buy building	1,035	
Purchasing agency repayments	-69	-966

Purchasing Agency	Year 1	Years 2-15
Mandatory:		
Collection of transfer from Federal Capital Revolving Fund	-1,035	
Payment to buy building	1,035	
Discretionary:		
Repayments to Federal Capital Revolving Fund	69	966

Total Government-wide Deficit Impact	Year 1	Years 2-15	Total
Mandatory:			
Purchase building	1,035		1,035
Collections from purchasing agency	-69	-966	-1,035
Discretionary:			
Purchasing agency repayments	69	966	1,035
Total Government-wide	1,035	---	1,035

*The 2023 Budget proposes two projects, the Jacob K. Javits Federal Building estimated to cost $735 million and the Public Buildings Service Kefauver Complex estimated to cost $300 milion.

agencies sign shorter-term consecutive leases of the same space. For example, the cost of two consecutive 15-year leases for a building can far exceed its fair market value, with the Government paying close to 180 percent of the value of the building. Alternative financing proposals typically run up against scorekeeping and recording rules that appropriately measure cost based on the full amount of the Government's obligations under the contract, which further constrains the ability of agency managers to meet capital needs.

In contrast, State and local governments separate capital investment from operating expenses. They are able to evaluate, rank, and finance proposed capital investments in separate capital budgets, which avoids direct competition between proposed capital acquisitions and operating expenses. If capital purchases are financed by borrowing, the associated debt service is an item in the operating budget. This separation of capital spending from operating expenses works well at the State and local government levels because of conditions that do not exist at the Federal level. State and local governments are required to balance their operating budgets, and their ability to borrow to finance capital spending is subject to the discipline of private credit markets that impose higher interest rates for riskier investments. In addition, State and local governments tend to own capital that they finance. In contrast, the Federal Government does not face a balanced budget requirement, and Treasury debt has historically been considered the safest investment regardless of the condition of the Federal balance sheet. Also, the bulk of Federal funding for capital is in the form of grants to lower levels of Government or to private entities, and it is difficult to see how non-federally owned investment can be included in a capital budget.

To deal with the drawbacks of the current Federal approach, the Budget proposes: (1) to create a Federal Capital Revolving Fund (FCRF) to fund large-dollar, federally owned, civilian real property capital projects; and (2) provide specific budget enforcement rules for the FCRF that would allow it to function, in effect, like State and local government capital budgets. This proposal incorporates principles that are central to the success of capital budgeting at the State and local level—a limit on total funding for capital investment, annual decisions on the allocation of funding for capital projects, and spreading the acquisition cost over 15 years in the discretionary operating budgets of agencies that purchase the assets. The 2023 Budget proposes that that FCRF would be capitalized initially by a $5 billion mandatory appropriation, and scored with anticipated outlays over the 10-year window for the purposes of pay-as-you-go budget enforcement rules. Balances in the FCRF would be available for transfer to purchasing agencies to fund large-dollar capital acquisitions only to the extent projects are designated in advance in appropriations Acts and the agency receives a discretionary appropriation for the first of a maximum of 15 required annual repayments. If these two conditions are met, the FCRF would transfer funds to the purchasing agency to cover the full cost to acquire the capital asset. Annual discretionary repayments by purchasing agencies would replenish the FCRF and would become available to fund additional capital projects. Total annual capital purchases would be limited to the lower of $2.5 billion or the balance in the FCRF, including annual repayments.

The Budget uses the FCRF concept to fund the Jacob K. Javits Federal Building estimated to cost $735 million and the Public Buildings Service Kefauver Complex estimated to cost $300 million. In accordance with the principles and design of the FCRF, the 2023 budget requests appropriations language in the General Services Administration's (GSA) Federal Buildings Fund account, designating that the projects to be funded out of the FCRF, which is also housed within GSA, along with 1/15 of the full purchase price, or $69 million for the first-year repayment back to the FCRF. The FCRF account is displayed funding the two GSA projects in 2023 with additional unspecified projects being funded in future years, along with returns to the account from the annual project repayments.

The flow of funds for the two modernization projects are illustrated in Chart 10–1. Current budget enforcement rules would require the entire $1.035 billion building cost to be scored as discretionary budget authority in the first year, which would negate the benefit of the FCRF and leave agencies and policy makers facing the same trade-off constraints. As shown in Chart 10–1, under this proposal, transfers from the FCRF to agencies to fund capital projects, $1.035 billion in the case of the two proposed projects in 2023, and the actual execution by agencies would be scored as direct spending (shown as mandatory in Chart 10–1), while agencies would use discretionary appropriations to fund the annual repayments to the FCRF, or $69 million for the first-year repayment. The proposal allocates the costs between direct spending and discretionary spending—the up-front cost of capital investment would already be reflected in the baseline as direct spending once the FCRF is enacted with $5 billion in mandatory capital. This scoring approves a total capital investment upfront, keeping individual large projects from competing with annual operating expenses in the annual appropriations process. On the discretionary side of the budget the budgetary trade off would be locking into the incremental annual cost of repaying the FCRF over 15-years. Knowing that future discretionary appropriations will have to be used to repay the FCRF would provide an incentive for agencies, OMB, and the Congress to select projects with the highest mission criticality and returns. OMB would review agencies' proposed projects for inclusion in the President's Budget, as shown with the NIST request, and the Appropriations Committees would make final allocations by authorizing projects in annual appropriations Acts and providing the first year of repayment. This approach would allow for a more effective capital planning process for the Government's largest civilian real property projects, and is similar to capital budgets used by State and local governments.

Funding for the Indian Health Service in the Department of Health and Human Services

The 2023 Budget proposes increased funding for the Department of Health and Human Services' Indian Health Service (IHS). The proposal moves IHS out of the annual appropriations process and provides dedicated funding through multi-year authorizing legislation. For 2023, the Budget requests $9.1 billion in funding across the IHS accounts, and the Administration's base discretionary request is reduced by that amount to account for the shift to the mandatory side of the Budget. Overall, the Budget proposes to increase amounts for IHS annually for total funding of $248.1 billion with a net cost of $146.9 billion over the 10-year window. This proposal is presented as a part of the Administration's commitment to provide stable funding for tribal healthcare needs. Concurrently, the 2023 Budget proposes to reclassify as mandatory the contract support and tribal leasing costs in the Department of the Interior's Bureau of Indian Affairs, as described above in the Budget Presentation section.

Accrual Accounting for Department of Defense Retiree Healthcare Benefits

The 2023 Budget proposes to expand accrual financing to include all DOD retiree healthcare costs, paying for this on the discretionary side of the Budget, and to move current benefits out of the discretionary budget and over to the mandatory, or direct spending, side of the Budget. Currently, healthcare for Medicare eligible military retirees and their families is funded through the Medicare-Eligible Retiree Healthcare Fund (MERHCF) via an accrual mechanism, while healthcare for non-Medicare eligible retirees and their family members is financed through discretionary annual Defense Health Program appropriations. Under this proposal, medical care funding for non-Medicare eligible retirees and their family members would be funded in the same way as medical care is funded for Medicare eligible retirees, by expanding the current MERHCF.

The current MERHCF was established by Congress in 2001 to provide an actuarially determined, mandatory fund for military Medicare-eligible retiree healthcare. It covers Medicare-eligible DOD beneficiaries, such as military retirees, retiree family members, and 100% disabled retirees and survivors. The MERHCF is funded through three sources:

1. A "normal cost" contribution (percentage of basic pay) for current members, paid from the discretionary Military Personnel Accounts, based on end-strength and covering the accruing costs of future benefits;
2. A treasury payment for the original unfunded liability, covering the costs for benefits previously earned but not previously funded, and;
3. Accrual fund investment earnings.

Under the Administration's proposal, the MERHCF would be expanded to include the costs of non-Medicare eligible military retirees. The expanded fund would also include other uniformed services (Public Health Service, Coast Guard, and NOAA Corps).

This proposal changes only the funding mechanism to recognize the full, accruing costs of military retiree healthcare benefits and does not change the benefits, or the cost of them, in any way. However, the additional accrued costs (or savings) of any change in benefits would now be reflected in DOD's yearly discretionary contributions. Currently, DOD requests yearly appropriations for the cost of healthcare for eligible retirees. Under this proposal, DOD would request the cost of accruing future benefits, which would be paid into the expanded fund and the cost of healthcare would be funded on the mandatory side of the Budget, roughly doubling the current mandatory spending on DOD retiree medical care.

Also on the mandatory side of the Budget, the estimated $278 billion unfunded liability (UFL), which represents the funding required to pay the costs of all benefits already earned but not funded, would be amortized through payments from the Treasury into the expanded Fund over 15 to 30 years, determined annually by the DOD Board of Actuaries.

The proposal would shift the budget authority and outlays for current healthcare from the discretionary side to the mandatory side, increasing mandatory outlays by the amount of the benefits (paid to providers) less any collections of accrual payments made by DOD. The proposal would not be implemented until 2024. The benefit payments are expected to slightly exceed the accrual collections over the 10-year Budget window, so there would be a net increase in mandatory spending, which would be scored as a PAYGO cost of the legislation, shown in the Budget as $1.255 billion over 10 years, per Table 10-3.

Successive Administrations have been supportive of accrual funding for long-term government liabilities. Accrual funding mechanisms are currently in place for, among other programs, federal civilian and military retirement and military healthcare for Medicare-eligible retirees. This method provides funding transparency and requires agencies to immediately reflect any costs of benefit changes.

Table 10–3. PAYGO SCORING: EXPANDING ACCRUAL ACCOUNTING FOR DOD RETIREE HEALTHCARE BENEFITS

(Outlays in millions of dollars)

	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	10 -year Total
Discretionary Effects:											
DOD projected accrual contributions under proposal	....	11,850	12,342	12,863	13,415	14,057	14,730	15,433	16,172	16,945	127,807
Reduce cost of current law retiree health benefits for Non-MERHCF population	....	–12,314	–12,804	–13,269	–13,766	–14,266	–14,782	–15,334	–15,937	–16,590	–129,062
DOD Discretionary Savings/Cost[1]:	....	–464	–462	–406	–351	–209	–52	99	235	355	–1,255
Intragovernmental Effects:											
Treasury UFL[2] Contributions paid from General Fund to expanded MERHCF (mandatory)	....	13,528	13,934	14,352	14,783	15,226	15,683	16,154	16,638	17,137	137,435
Treasury UFL Contributions received in expanded MERHCF (mandatory)	....	–13,528	–13,934	–14,352	–14,783	–15,226	–15,683	–16,154	–16,638	–17,137	–137,435
Interest earnings paid to MERHCF from General Fund under proposal (net interest)	....	–1,237	–3,724	1,288	–639	–1,048	–108	329	654	655	–3,829
Interest earnings received in MERCHF under proposal (net interest)	....	1,237	3,724	–1,288	639	1,048	108	–329	–654	–655	3,829
Net Effects:											
Receipt of DOD accrual contributions into the MERHCF under proposal (mandatory)	....	–11,850	–12,342	–12,863	–13,415	–14,057	–14,730	–15,433	–16,172	–16,945	–127,807
Cost of retiree health benefits for Non-MERHCF population under proposal (mandatory)	....	12,314	12,804	13,269	13,766	14,266	14,782	15,334	15,937	16,590	129,062
Proposed PAYGO Effects:	....	464	462	406	351	209	52	–99	–235	–355	1,255

[1] Budget authority and outlays are equivalent amounts. The proposed DOD discretionary Five Year Defense Program, which is reflected in the 2023 Budget, inlcudes this proposal with budget effects starting in 2024.

[2] Unfunded liability

FEDERAL RECEIPTS

11. GOVERNMENTAL RECEIPTS

This chapter presents the Budget's estimates of taxes and governmental receipts including the effects of tax legislation enacted in 2021, discusses the provisions of those enacted laws, and introduces the Administration's additional receipt proposals.

Table 11–1. RECEIPTS BY SOURCE—SUMMARY
(In billions of dollars)

	2021 Actual	Estimate										
		2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
	.	.	.	.	.	.	.	.	.	.	.	.
	.	.	.	.	.	.	.	.	.	.	.	.
	.	.	.	.	.	.	.	.	.	.	.	.
	.	.	.	.	.	.	.	.	.	.	.	.
	.	.	.	.	.	.	.	.	.	.	.	.
	.	.	.	.	.	.	.	.	.	.	.	.
	.	.	.	.	.	.	.	.	.	.	.	.
	.	.	.	.	.	.	.	.	.	.	.	.
	.	.	.	.	.	.	.	.	.	.	.	.
....												
	.	.	.	.	.	.	.	.	.	.	.	.
	.	.	.	.	.	.	.	.	.	.	.	.
	.	.	.	.	.	.	.	.	.	.	.	.

ESTIMATES OF GOVERNMENTAL RECEIPTS

Governmental receipts are taxes and other collections from the public that result from the exercise of the Federal Government's sovereign or governmental powers. The difference between governmental receipts and outlays is the surplus or deficit.

The Federal Government also collects income from the public through market-oriented activities. Collections from these activities are subtracted from gross outlays, rather than added to taxes and other governmental receipts, and are discussed in Chapter 12, "Offsetting Collections and Offsetting Receipts," in this volume.

Total governmental receipts (hereafter referred to as "receipts") are estimated to be $4,436.6 billion in 2022, an increase of $389.5 billion or 9.6 percent from 2021. The estimated increase in 2022 is largely due to increases in individual income taxes and social insurance and retirement receipts. Receipts in 2022 are estimated to be 18.3 percent of Gross Domestic Product (GDP), which is higher than in 2021 when receipts were 18.1 percent of GDP.

Receipts in the 2023 Budget are estimated to rise to $4,638.2 billion in 2023, an increase of $201.6 billion or 4.5 percent relative to 2022. Receipts are projected to grow at an average annual rate of 5.3 percent between 2023 and 2027, rising to $5,695.9 billion. Receipts are projected to rise to $7,083.0 billion in 2032, growing at an average annual rate of 4.5 percent between 2027 and 2032. This growth is largely due to assumed increases in incomes resulting from both real economic growth and inflation, along with tax reforms in the plan to Build a Better America.

As a share of GDP, receipts are projected to decrease slightly from 18.3 percent in 2022 to 18.1 percent in 2023, and to increase to 19.1 percent by 2028 where they remain through 2032.

LEGISLATION ENACTED IN 2021 THAT AFFECTS GOVERNMENTAL RECEIPTS

One law was enacted during 2021 that affects receipts. The most significant provision of this law in terms of impact on receipts is described below.[1]

INFRASTRUCTURE INVESTMENT AND JOBS ACT (Public Law 117–58)

The Act, which was signed into law on November 15, 2021, provides significant investment in our Nation's infrastructure and competitiveness. The law extends and modifies certain Superfund excise taxes, which will be used to remediate environmental harms.

[1] In the discussions of enacted legislation, years referred to are calendar years, unless otherwise noted.

BUDGET PROPOSALS

The 2023 Budget proposes a series of revenue raisers directed at wealthy individuals and large corporations. The Budget aims to replace counterproductive tax laws that reward offshoring and profit shifting with provisions that encourage job creation at home and put an end to the worldwide race to the bottom on corporate tax rates. It also includes a set of measures to make sure the wealthiest Americans and corporations pay their fair share in taxes while ensuring that no one making $400,000 per year or less will see their taxes rise. These proposals affecting governmental receipts are included in the table that follows. Descriptions of proposals can be found in the Department of the Treasury's *General Explanations of the Administration's Fiscal Year 2023 Revenue Proposals.*[2]

[2] Available at this link: *https://home.treasury.gov/policy-issues/tax-policy/revenue-proposals*.

Table 11–2. EFFECT OF BUDGET PROPOSALS
(In millions of dollars)

	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2023–2027	2023–2032
Reform business and international taxation:													
Raise the corporate income tax rate to 28 percent	....	83,500	138,893	136,355	134,942	137,761	139,987	137,573	135,244	134,857	135,448	631,451	1,314,560
Adopt the Undertaxed Profits Rule	....	....	20,427	33,464	29,329	26,655	26,170	25,638	25,109	25,665	27,006	109,875	239,463
Provide tax incentives for locating jobs and business activity in the United States and remove tax deductions for shipping jobs overseas:													
Provide tax credit for inshoring jobs to the United States	....	–8	–13	–14	–14	–15	–16	–16	–17	–18	–18	–64	–149
Remove tax deductions for shipping jobs overseas	....	8	13	14	14	15	16	16	17	18	18	64	149
Subtotal, provide tax incentives for locating jobs and business activity in the United States and remove tax deductions for shipping jobs overseas	....	....	....	....	....	....	....	....	....	....	....	....	....
Prevent basis shifting by related parties through partnerships	....	3,320	5,676	5,912	6,153	6,401	6,621	6,785	6,887	6,959	7,025	27,462	61,739
Conform definition of "control" with corporate affiliation test	....	761	1,104	1,125	1,143	1,158	1,170	1,179	1,182	1,182	1,176	5,291	11,180
Expand access to retroactive qualified electing fund elections	....	....	1	2	2	3	4	5	6	7	9	8	39
Expand the definition of foreign business entity to include taxable units	....	300	324	290	193	89	96	103	112	120	130	1,196	1,757
Subtotal, reform business and international taxation	....	87,881	166,425	177,148	171,762	172,067	174,048	171,283	168,540	168,790	170,794	775,283	1,628,738
Support housing and urban development:													
Make permanent the New Markets Tax Credit	....	....	....	....	–97	–278	–483	–716	–990	–1,290	–1,602	–375	–5,456
Allow selective basis boosts for bond-financed Low-Income Housing Credit projects	....	–2	–29	–140	–354	–617	–895	–1,148	–1,359	–1,561	–1,769	–1,142	–7,874
Subtotal, support housing and urban development	....	–2	–29	–140	–451	–895	–1,378	–1,864	–2,349	–2,851	–3,371	–1,517	–13,330
Modify fossil fuel taxation:													
Eliminate fossil fuel tax preferences:													
Repeal the enhanced oil recovery credit	....	....	....	31	80	130	186	237	271	301	330	241	1,566

Table 11–2. EFFECT OF BUDGET PROPOSALS—Continued

(In millions of dollars)

	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2023–2027	2023–2032
Repeal the deduction for costs paid or incurred for any tertiary injectant used as part of tertiary recovery method [1]	....	....	....	....	....	....	....	....	....	....	....	....	....
Repeal credit for oil and natural gas produced from marginal wells	....	....	3	52	144	219	265	288	301	317	333	418	1,922
Repeal expensing of intangible drilling costs	....	1,508	2,231	1,806	1,401	847	600	597	601	590	561	7,793	10,742
Repeal exception to passive loss limitation provided to working interests in oil and natural gas properties	....	10	9	9	9	8	8	8	8	7	7	45	83
Repeal the use of percentage depletion with respect to oil and natural gas wells	....	925	1,037	1,085	1,178	1,267	1,351	1,433	1,510	1,579	1,649	5,492	13,014
Repeal accelerated amortization for air pollution control facilities	....	14	34	54	71	88	103	117	115	103	92	261	791
Increase geological and geophysical amortization period for independent producers	....	631	831	930	1,008	1,045	1,086	1,128	1,158	1,193	1,218	4,445	10,228
Repeal expensing of mine exploration and development costs	....	131	194	156	122	74	52	52	52	50	49	677	932
Repeal percentage depletion for hard mineral fossil fuels	....	163	183	191	208	224	239	253	267	279	291	969	2,298
Repeal capital gains treatment for royalties	....	27	52	54	57	62	64	66	69	71	73	252	595
Repeal the exemption from the corporate income tax for fossil fuel publicly traded partnerships	....	....	....	....	....	....	90	176	216	253	288	....	1,023
Repeal the Oil Spill Liability Trust Fund (OSLTF) excise tax exemption for crude oil derived from bitumen and kerogen-rich rock [2]	....	29	38	39	40	41	41	42	43	45	46	187	404
Subtotal, eliminate fossil fuel tax preferences	....	3,438	4,612	4,407	4,318	4,005	4,085	4,397	4,611	4,788	4,937	20,780	43,598
Modify OSLTF financing and Superfund excise taxes:													
Eliminate the tax exemption for crude oil from bitumen and kerogen-rich rock for the Superfund [2]	....	64	85	87	88	88	89	90	92	95	95	412	873
Eliminate drawback for the OSLTF [2]	....	53	70	71	72	72	72	72	72	72	72	338	698
Subtotal, modify OSLTF financing and Superfund excise taxes	....	117	155	158	160	160	161	162	164	167	167	750	1,571
Subtotal, modify fossil fuel taxation	....	3,555	4,767	4,565	4,478	4,165	4,246	4,559	4,775	4,955	5,104	21,530	45,169
Strengthen taxation of high-income taxpayers:													
Increase the top marginal income tax rate for high earners	5,861	23,895	39,877	46,351	19,648	7,909	8,573	9,153	9,796	10,451	11,156	137,680	186,809
Reform the taxation of capital income	263	5,464	15,229	17,487	17,979	17,969	18,452	19,224	20,025	20,885	21,774	74,128	174,488

Table 11–2. EFFECT OF BUDGET PROPOSALS—Continued
(In millions of dollars)

	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2023–2027	2023–2032
Impose a minimum income tax on the wealthiest taxpayers	....	....	36,115	40,478	42,662	43,395	43,053	42,591	38,087	36,047	38,415	162,650	360,843
Subtotal, strengthen taxation of high-income taxpayers	6,124	29,359	91,221	104,316	80,289	69,273	70,078	70,968	67,908	67,383	71,345	374,458	722,140
Support families and students:													
Make adoption tax credit refundable and allow certain guardianship arrangements to qualify [3]	....	–11	–2,037	–1,244	–1,015	–1,038	–1,009	–1,016	–1,031	–1,043	–1,050	–5,345	–10,494
Provide income exclusion for student debt relief [3]	....	....	....	....	–2	–17	–41	–266	–292	–320	–351	–19	–1,289
Subtotal, support families and students	....	–11	–2,037	–1,244	–1,017	–1,055	–1,050	–1,282	–1,323	–1,363	–1,401	–5,364	–11,783
Modify estate and gift taxation:													
Modify income, estate and gift tax rules for certain grantor trusts	....	452	1,699	2,405	2,349	3,950	4,949	5,504	6,049	6,912	7,261	10,855	41,530
Require consistent valuation of promissory notes	....	342	716	747	697	695	658	649	637	619	601	3,197	6,361
Improve tax administration for trusts and decedents' estates	....	–15	–23	–24	–25	–30	–34	–38	–43	–45	–49	–117	–326
Limit duration of generation-skipping transfer tax exemption	....	....	....	....	....	....	....	....	....	....	....	....	....
Subtotal, modify estate and gift taxation	....	779	2,392	3,128	3,021	4,615	5,573	6,115	6,643	7,486	7,813	13,935	47,565
Close loopholes:													
Tax carried (profits) interests as ordinary income	....	406	677	675	674	672	679	692	706	720	735	3,104	6,636
Repeal deferral of gain from like-kind exchanges	....	676	1,857	1,914	1,971	2,030	2,091	2,154	2,218	2,285	2,354	8,448	19,550
Require 100 percent recapture of depreciation deductions as ordinary income for certain depreciable real property	....	35	113	233	364	505	657	821	1,000	1,192	1,400	1,250	6,320
Limit a partner's deduction in certain syndicated conservation easement transactions	....	925	4,689	2,739	2,114	1,488	1,261	1,299	1,337	1,377	1,419	11,955	18,648
Limit use of donor advised funds to avoid private foundation payout requirement	....	16	15	10	6	3	2	3	3	3	3	50	64
Extend the period for assessment of tax for certain Qualified Opportunity Fund investors	....	4	13	15	15	13	10	9	8	6	2	60	95
Establish an untaxed income account regime for certain small insurance companies	....	908	2,241	1,017	865	795	764	757	748	739	730	5,826	9,564
Expand pro rata interest expense disallowance for business-owned life insurance	....	530	540	582	619	665	704	739	774	812	850	2,936	6,815
Correct drafting errors in the taxation of insurance companies under the Tax Cuts and Jobs Act of 2017	....	86	112	116	100	75	70	63	59	55	51	489	787
Define the term "ultimate purchaser" for purposes of diesel fuel exportation [2]	....	4	6	9	10	13	14	17	20	22	24	42	139
Subtotal, close loopholes	....	3,590	10,263	7,310	6,738	6,259	6,252	6,554	6,873	7,211	7,568	34,160	68,618

Table 11–2. EFFECT OF BUDGET PROPOSALS—Continued

(In millions of dollars)

	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2023–2027	2023–2032
Improve tax administration and compliance:													
Enhance accuracy of tax information:													
Expand the Secretary's authority to require electronic filing for forms and returns	....	....	....	....	....	....	....	....	....	....	....	....	....
Improve information reporting for reportable payments subject to backup withholding	....	38	87	148	202	211	221	231	241	252	276	686	1,907
Subtotal, enhance accuracy of tax information	....	38	87	148	202	211	221	231	241	252	276	686	1,907
Address taxpayer noncompliance with listed transactions:													
Extend statute of limitations for listed transactions	....	23	51	64	78	76	74	73	72	70	69	292	650
Impose liability on shareholders to collect unpaid income taxes of applicable corporations	....	430	448	466	485	505	525	548	571	596	622	2,334	5,196
Subtotal, address taxpayer noncompliance with listed transactions	....	453	499	530	563	581	599	621	643	666	691	2,626	5,846
Amend the centralized partnership audit regime to permit the carryover of a reduction in tax that exceeds a partner's tax liability	....	–5	–5	–5	–5	–6	–6	–7	–7	–7	–7	–26	–60
Incorporate Chapters 2/2A in centralized partnership audit regime proceedings	....	....	....	....	....	....	....	....	....	....	....	....	....
Authorize limited sharing of business tax return information to measure the economy more accurately	....	....	....	....	....	....	....	....	....	....	....	....	....
Require employers to withhold tax on failed nonqualified deferred compensation plans	....	555	580	605	631	658	687	718	752	787	824	3,029	6,797
Impose an affirmative requirement to disclose a position contrary to a regulation	....	5	7	11	11	12	12	14	14	15	15	46	116
Extend to six years the statute of limitations for certain tax assessments	....	....	....	....	....	....	....	....	....	....	....	....	....
Expand and increase penalties for noncompliant return preparation and e-filing and authorize IRS oversight of paid preparers:													
Expand and increase penalties for noncompliant return preparation and e-filing [3]	....	14	31	38	45	51	53	55	58	60	63	179	468
Grant authority to IRS for oversight of all paid preparers [3]	....	25	34	45	51	50	54	58	64	70	76	205	527

Table 11–2. EFFECT OF BUDGET PROPOSALS—Continued

(In millions of dollars)

	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2023–2027	2023–2032
Subtotal, expand and increase penalties for noncompliant return preparation and e-filing and authorize IRS oversight of paid preparers	....	39	65	83	96	101	107	113	122	130	139	384	995
Address compliance in connection with tax responsibilities of expatriates	....	....	1	1	1	1	1	2	2	2	2	4	13
Simplify foreign exchange gain or loss rules and exchange rate rules for individuals	....	–1	–2	–2	–2	–3	–3	–3	–3	–3	–3	–10	–25
Increase threshold for simplified foreign tax credit rules and reporting	....	–14	–25	–27	–29	–31	–31	–32	–32	–32	–34	–126	–287
Subtotal, improve tax administration and compliance	....	1,070	1,207	1,344	1,468	1,524	1,587	1,657	1,732	1,810	1,903	6,613	15,302
Modernize rules, including those for digital assets:													
Modernize rules treating loans of securities as tax-free to include other asset classes and address income inclusion	....	....	....	....	....	....	....	....	....	....	....	....	....
Provide for information reporting by certain financial institutions and digital asset brokers for purposes of exchange of information	....	48	95	179	209	222	237	251	267	287	303	753	2,098
Require reporting by certain taxpayers of foreign digital asset accounts	....	50	100	188	220	234	250	264	282	302	319	792	2,209
Amend the mark-to-market rules for dealers and traders to include digital assets	....	4,846	133	146	161	177	194	214	235	259	284	5,463	6,649
Subtotal, modernize rules, including those for digital assets	....	4,944	328	513	590	633	681	729	784	848	906	7,008	10,956
Improve benefits tax administration:													
Clarify tax treatment of fixed indemnity health policies	....	....	....	....	....	....	....	....	....	....	....	....	....
Clarify tax treatment of on-demand pay arrangements	....	....	....	....	....	....	....	....	....	....	....	....	....
Rationalize funding for post-retirement medical and life insurance benefits	....	....	....	....	....	....	....	....	....	....	....	....	....
Subtotal, improve benefits tax administration	....	....	....	....	....	....	....	....	....	....	....	....	....
Other initiatives:													
Capture savings to UI from RESEA allocation adjustment	....	....	–24	–62	–115	–158	–195	–225	–250	12	54	–359	–963
Fund the Federal Payment Levy Program via collections	....	–22	–22	–22	–22	–22	–22	–22	–22	–22	–22	–110	–220
Improve access to behavioral healthcare in the private insurance market [3]	....	–1,881	–2,636	–2,773	–2,867	–2,986	–3,120	–3,261	–3,408	–3,565	–3,743	–13,143	–30,240
Require coverage of three behavioral health visits and three primary care visits without cost-sharing [3]	....	–1,120	–1,561	–1,632	–1,734	–1,812	–1,890	–1,991	–2,083	–2,179	–2,284	–7,859	–18,286

Table 11–2. EFFECT OF BUDGET PROPOSALS—Continued

(In millions of dollars)

	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2023–2027	2023–2032
Establish Electronic Visa Update System user fee	....	47	52	58	64	72	79	88	108	118	130	293	816
Subtotal, other initiatives	....	–2,976	–4,191	–4,431	–4,674	–4,906	–5,148	–5,411	–5,655	–5,636	–5,865	–21,178	–48,893
Total, effects of budget proposals	**6,124**	**128,189**	**270,346**	**292,509**	**262,204**	**251,680**	**254,889**	**253,308**	**247,928**	**248,633**	**254,796**	**1,204,928**	**2,464,482**

[1] Effects are included in the estimate of Repeal the enhanced oil recovery credit.

[2] Net of income offsets.

[3] This proposal affects both receipts and outlays for refundable tax credits. Both effects are shown above. The outlay effects included in these estimates are as follows:

	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2023–2027	2023–2032
Make adoption tax credit refundable and allow certain guardianship arrangements to qualify	....	....	–1,995	–1,202	–973	–996	–967	–974	–989	–1,001	–1,008	–5,166	–10,105
Provide income exclusion for student debt relief	....	....	....	....	....	–1	–1	–21	–24	–27	–29	–1	–103
Expand and increase penalties for noncompliant return preparation and e-filing	....	....	6	6	6	7	7	7	8	8	8	25	63
Grant authority to IRS for oversight of all paid preparers	....	12	14	21	23	19	20	21	23	25	27	89	205
Improve access to behavioral healthcare in the private insurance market	....	–446	–645	–684	–562	–537	–556	–578	–596	–617	–650	–2,874	–5,871
Require coverage of three behavioral health visits and three primary care visits without cost-sharing	....	–204	–290	–297	–244	–227	–233	–253	–261	–270	–279	–1,262	–2,558
Total, outlay effects of receipt proposals	....	–638	–2910	–2156	–1750	–1735	–1730	–1798	–1839	–1882	–1931	–9,189	–18,369

Table 11–3. RECEIPTS BY SOURCE

(In millions of dollars)

Source	2021 Actual	Estimate										
		2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Individual income taxes:												
Federal funds	2,044,377	2,257,246	2,305,437	2,318,969	2,431,261	2,726,706	2,926,034	3,074,404	3,241,021	3,420,201	3,610,062	3,788,728
Legislative proposal, not subject to PAYGO	....	....	–21	–29	–29	–30	–31	–32	–32	–32	–33	–34
Legislative proposal, subject to PAYGO	....	6,124	39,794	107,874	117,614	92,486	81,040	81,658	83,199	81,428	82,275	87,665
Total, Individual income taxes	**2,044,377**	**2,263,370**	**2,345,210**	**2,426,814**	**2,548,846**	**2,819,162**	**3,007,043**	**3,156,030**	**3,324,188**	**3,501,597**	**3,692,304**	**3,876,359**
Corporation income taxes:												
Federal funds	371,831	382,560	411,806	447,450	453,729	437,404	445,375	467,876	464,992	457,335	454,046	454,898
Legislative proposal, not subject to PAYGO	....	....	–7	–10	–10	–11	–11	–12	–12	–12	–12	–12
Legislative proposal, subject to PAYGO	....	....	89,113	168,476	179,698	174,667	174,601	176,416	173,256	169,591	168,790	169,728
Total, Corporation income taxes	**371,831**	**382,560**	**500,912**	**615,916**	**633,417**	**612,060**	**619,965**	**644,280**	**638,236**	**626,914**	**622,824**	**624,614**
Social insurance and retirement receipts (trust funds):												
Employment and general retirement:												
Old-age survivors insurance (off-budget)	814,034	895,175	940,869	989,826	1,032,770	1,080,478	1,124,300	1,180,584	1,229,910	1,286,858	1,346,162	1,405,503
Legislative proposal, not subject to PAYGO	....	....	3	9	9	10	10	10	9	9	9	9
Disability insurance (off-budget)	138,289	152,032	159,769	168,084	175,376	183,478	190,919	200,477	208,852	218,523	228,594	238,670
Legislative proposal, not subject to PAYGO	....	....	1	1	2	2	2	2	2	1	1	1
Hospital Insurance	294,818	328,635	343,339	361,183	376,149	392,982	409,135	429,641	447,778	468,807	490,800	513,511
Legislative proposal, not subject to PAYGO	....	....	–4	–5	–5	–5	–5	–5	–5	–5	–5	–7
Legislative proposal, subject to PAYGO	....	....	–938	–1,299	–1,359	–1,422	–1,481	–1,542	–1,607	–1,679	–1,752	–1,831
Railroad retirement:												
Social security equivalent account	1,842	2,322	2,251	2,294	2,332	2,371	2,409	2,448	2,487	2,527	2,575	2,624
Rail pension & supplemental annuity	2,875	3,090	3,043	3,126	3,194	3,254	3,312	3,371	3,430	3,492	3,716	3,837
Total, Employment and general retirement	1,251,858	1,381,254	1,448,333	1,523,219	1,588,468	1,661,148	1,728,601	1,814,986	1,890,856	1,978,533	2,070,100	2,162,317
On-budget	*(299,535)*	*(334,047)*	*(347,691)*	*(365,299)*	*(380,311)*	*(397,180)*	*(413,370)*	*(433,913)*	*(452,083)*	*(473,142)*	*(495,334)*	*(518,134)*
Off-budget	*(952,323)*	*(1,047,207)*	*(1,100,642)*	*(1,157,920)*	*(1,208,157)*	*(1,263,968)*	*(1,315,231)*	*(1,381,073)*	*(1,438,773)*	*(1,505,391)*	*(1,574,766)*	*(1,644,183)*
Unemployment insurance:												
Deposits by States[1]	50,350	51,138	46,708	46,159	45,315	44,843	45,440	45,926	48,505	50,019	50,814	52,076
Legislative proposal, not subject to PAYGO	....	....	....	–24	–62	–115	–158	–195	–225	–250	12	54
Legislative proposal, subject to PAYGO	....	....	....	....	....	....	....	....	....	....	....	....

Table 11–3. RECEIPTS BY SOURCE

(In millions of dollars)

Source	2021 Actual	Estimate 2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Federal unemployment receipts [1]	6,141	6,563	7,682	8,412	9,228	10,121	10,725	10,394	11,049	11,716	11,251	11,806
Railroad unemployment receipts [1]	111	279	318	163	53	59	108	170	184	149	128	159
Total, Unemployment insurance	56,602	57,980	54,708	54,710	54,534	54,908	56,115	56,295	59,513	61,634	62,205	64,095
Other retirement:												
Federal employees retirement - employee share	5,602	6,331	6,873	7,388	7,847	8,319	8,808	9,301	9,819	10,341	10,884	11,350
Non-Federal employees retirement [2]	26	31	30	30	30	29	29	29	28	28	27	27
Total, Other retirement	5,628	6,362	6,903	7,418	7,877	8,348	8,837	9,330	9,847	10,369	10,911	11,377
Total, Social insurance and retirement receipts (trust funds)	**1,314,088**	**1,445,596**	**1,509,944**	**1,585,347**	**1,650,879**	**1,724,404**	**1,793,553**	**1,880,611**	**1,960,216**	**2,050,536**	**2,143,216**	**2,237,789**
On-budget	*(361,765)*	*(398,389)*	*(409,302)*	*(427,427)*	*(442,722)*	*(460,436)*	*(478,322)*	*(499,538)*	*(521,443)*	*(545,145)*	*(568,450)*	(593,606)
Off-budget	*(952,323)*	*(1,047,207)*	*(1,100,642)*	*(1,157,920)*	*(1,208,157)*	*(1,263,968)*	*(1,315,231)*	*(1,381,073)*	*(1,438,773)*	*(1,505,391)*	*(1,574,766)*	*(1,644,183)*
Excise taxes:												
Federal funds:												
Alcohol	10,274	10,598	10,751	10,739	10,708	10,725	10,769	10,823	10,889	10,961	11,037	11,120
Tobacco	12,136	11,549	11,732	11,605	11,440	11,394	11,280	11,171	11,061	10,936	10,814	10,690
Transportation fuels	–6,036	–4,692	–2,427	–1,019	–1,004	–996	–983	–969	–954	–937	–931	–944
Legislative proposal, subject to PAYGO	....	....	5	8	11	14	17	20	23	26	29	32
Telephone and teletype services	321	235	191	158	128	102	80	61	46	39	31	28
Health insurance providers	206	....	....	....	....	....	....	....	....	....	....	....
Indoor tanning services	70	64	59	55	51	47	44	41	38	35	32	29
Medical devices	–3	....	....	....	....	....	....	....	....	....	....	....
Other Federal fund excise taxes	1,419	3,368	3,390	3,440	3,524	3,613	3,713	3,811	3,913	4,021	4,133	4,248
Legislative proposal, subject to PAYGO	....	....	16	15	10	6	3	2	3	3	3	3
Total, Federal funds	18,387	21,122	23,717	25,001	24,868	24,905	24,923	24,960	25,019	25,084	25,148	25,206
Trust funds:												
Transportation	43,464	43,133	43,529	43,525	43,389	43,276	43,094	42,997	42,917	42,796	43,082	43,625
Airport and airway	8,184	14,369	17,642	18,649	19,670	20,436	21,227	22,059	22,955	23,898	24,904	26,000
Sport fish restoration and boating safety	599	592	599	605	612	620	627	636	643	652	662	671
Tobacco assessments	2	....	....	....	....	....	....	....	....	....	....	....
Black lung disability insurance	286	207	151	136	121	119	117	117	118	117	116	115
Inland waterway	128	102	99	97	94	92	90	87	85	83	81	80
Superfund	....	388	1,574	1,644	1,712	1,782	1,852	1,928	2,008	2,096	2,184	2,282
Legislative proposal, subject to PAYGO	....	....	85	113	115	116	118	120	121	123	126	128
Oil spill liability	552	650	670	687	693	701	699	698	698	696	698	697
Legislative proposal, subject to PAYGO	....	....	108	146	148	150	151	151	152	153	155	156

Table 11–3. RECEIPTS BY SOURCE
(In millions of dollars)

Source	2021 Actual	Estimate										
		2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Vaccine injury compensation	313	329	326	324	325	327	330	336	340	346	351	356
Leaking underground storage tank	242	194	193	191	188	186	183	181	178	177	175	175
Supplementary medical insurance	2,790	2,660	1,581	4,019	2,800	2,800	2,800	1,581	2,800	4,019	2,800	2,800
Patient-centered outcomes research	327	367	387	407	428	451	474	499	525	553	583	615
Total, Trust funds	56,887	62,991	66,944	70,543	70,295	71,056	71,762	71,390	73,540	75,709	75,917	77,700
Total, Excise taxes	**75,274**	**84,113**	**90,661**	**95,544**	**95,163**	**95,961**	**96,685**	**96,350**	**98,559**	**100,793**	**101,065**	**102,906**
Estate and gift taxes:												
Federal funds	27,140	25,742	24,802	24,996	26,091	27,077	41,006	41,797	44,374	47,082	49,873	53,305
Legislative proposal, subject to PAYGO	....	....	625	–2,071	–1,535	–1,978	–913	–53	134	303	799	705
Total, Estate and gift taxes	**27,140**	**25,742**	**25,427**	**22,925**	**24,556**	**25,099**	**40,093**	**41,744**	**44,508**	**47,385**	**50,672**	**54,010**
Customs duties and fees:												
Federal funds	78,312	90,673	51,934	43,939	45,142	46,747	48,623	50,673	52,892	55,226	57,619	49,785
Trust funds	1,673	1,965	2,009	2,042	2,094	2,164	2,244	2,330	2,424	2,522	2,627	2,731
Total, Customs duties and fees	**79,985**	**92,638**	**53,943**	**45,981**	**47,236**	**48,911**	**50,867**	**53,003**	**55,316**	**57,748**	**60,246**	**52,516**
Miscellaneous receipts:												
Federal funds:												
Miscellaneous taxes	635	579	582	583	583	582	581	582	575	574	575	575
Deposit of earnings, Federal Reserve System	100,054	107,749	75,625	42,830	34,447	35,045	38,950	44,515	49,823	56,516	64,703	73,146
Transfers from the Federal Reserve	596	692	732	749	767	784	802	821	840	859	879	899
Fees for permits and regulatory and judicial services	21,676	20,265	21,374	23,816	26,606	29,870	33,538	37,129	40,510	42,922	44,770	46,115
Legislative proposal, subject to PAYGO	....	....	47	52	58	64	72	79	88	108	118	130
Fines, penalties, and forfeitures	10,014	11,833	12,116	12,341	12,416	12,434	12,361	12,417	12,458	12,505	12,452	12,602
Refunds and recoveries	–17	–17	–17	–17	–17	–17	–17	–17	–17	–17	–17	–17
Total, Federal funds	132,958	141,101	110,459	80,354	74,860	78,762	86,287	95,526	104,277	113,467	123,480	133,450
Trust funds:												
United Mine Workers of America, combined benefit fund	13	8	7	6	5	5	4	4	3	3	3	2
Defense cooperation	572	338	439	315	185	188	192	196	200	204	208	212
Fees for permits and regulatory and judicial services	....	40	40	40	40	40	40	40	40	40	40	40
Fines, penalties, and forfeitures	874	1,120	1,150	1,173	1,140	1,098	1,133	1,139	1,134	1,127	1,123	1,076
Total, Trust funds	1,459	1,506	1,636	1,534	1,370	1,331	1,369	1,379	1,377	1,374	1,374	1,330
Total, Miscellaneous receipts	**134,417**	**142,607**	**112,095**	**81,888**	**76,230**	**80,093**	**87,656**	**96,905**	**105,654**	**114,841**	**124,854**	**134,780**
Total, budget receipts	**4,047,112**	**4,436,626**	**4,638,192**	**4,874,415**	**5,076,327**	**5,405,690**	**5,695,862**	**5,968,923**	**6,226,677**	**6,499,814**	**6,795,181**	**7,082,974**
On-budget	*(3,094,789)*	*(3,389,419)*	*(3,537,550)*	*(3,716,495)*	*(3,868,170)*	*(4,141,722)*	*(4,380,631)*	*(4,587,850)*	*(4,787,904)*	*(4,994,423)*	*(5,220,415)*	*(5,438,791)*
Off-budget	*(952,323)*	*(1,047,207)*	*(1,100,642)*	*(1,157,920)*	*(1,208,157)*	*(1,263,968)*	*(1,315,231)*	*(1,381,073)*	*(1,438,773)*	*(1,505,391)*	*(1,574,766)*	*(1,644,183)*

[1] Deposits by States cover the benefit part of the program. Federal unemployment receipts cover administrative costs at both the Federal and State levels. Railroad unemployment receipts cover both the benefits and administrative costs of the program for the railroads.

[2] Represents employer and employee contributions to the civil service retirement and disability fund for covered employees of Government-sponsored, privately owned enterprises and the District of Columbia municipal government.

12. OFFSETTING COLLECTIONS AND OFFSETTING RECEIPTS

I. INTRODUCTION AND BACKGROUND

The Government records money collected in one of two ways. It is either recorded as a governmental receipt and included in the amount reported on the receipts side of the budget or it is recorded as an offsetting collection or offsetting receipt, which reduces (or "offsets") the amount reported on the outlay side of the budget. Governmental receipts are discussed in the previous chapter, "Governmental Receipts." The first section of this chapter broadly discusses offsetting collections and offsetting receipts. The second section discusses user charges, which consist of a subset of offsetting collections and offsetting receipts and a small share of governmental receipts. The third section describes the user charge proposals in the 2023 Budget.

Offsetting collections and offsetting receipts are recorded as offsets to spending so that the budget totals for receipts and (net) outlays reflect the amount of resources allocated by the Government through collective political choice, rather than through the marketplace.[1] This practice ensures that the budget totals measure the transactions of the Government with the public, and avoids the double counting that would otherwise result when one account makes a payment to another account and the receiving account then spends the proceeds. Offsetting receipts and offsetting collections are recorded in the budget in one of two ways, based on interpretation of laws and longstanding budget concepts and practice. They are offsetting collections when the collections are authorized to be credited to expenditure accounts. Otherwise, they are deposited in receipt accounts and called offsetting receipts.

There are two sources of offsetting receipts and offsetting collections: from the public and from other budget accounts. Like governmental receipts, offsetting receipts and offsetting collections from the public reduce the deficit or increase the surplus. In contrast, offsetting receipts and offsetting collections resulting from transactions with other budget accounts, called intragovernmental transactions, exactly offset the payments made by these accounts, with no net impact on the deficit or surplus.[2] In 2021, offsetting receipts and offsetting collections from the public were $710 billion, while receipts and collections from intragovernmental transactions were $1,546 billion, for a total of $2,255 billion Government-wide.

As described above, intragovernmental transactions are responsible for the majority of offsetting collections and offsetting receipts, when measured by the magnitude of the dollars collected. Examples of intragovernmental transactions include interest payments to funds that hold Government securities (such as the Social Security trust funds), general fund transfers to civilian and military retirement pension and health benefits funds, and agency payments to funds for employee health insurance and retirement benefits. Although receipts and collections from intragovernmental collections exactly offset the payments themselves, with no effect on the deficit or surplus, it is important to record these transactions in the budget to show how much the Government is allocating to fund various programs. For example, in the case of civilian retirement pensions, Government agencies make accrual payments to the Civil Service Retirement and Disability Fund on behalf of current employees to fund their future retirement benefits; the receipt of these payments to the Fund is shown in a single receipt account. Recording the receipt of these payments is important because it demonstrates the total cost to the Government today of providing this future benefit.

Offsetting receipts and collections from the public comprise approximately one-third of total offsetting collections and offsetting receipts, when measured by the magnitude of the dollars collected. Most of the funds collected through offsetting collections and offsetting receipts from the public arise from business-like transactions with the public. Unlike governmental receipts, which are derived from the Government's exercise of its sovereign power, these offsetting collections and offsetting receipts arise primarily from voluntary payments from the public for goods or services provided by the Government. They are classified as offsets to outlays for the cost of producing the goods or services for sale, rather than as governmental receipts. These activities include the sale of postage stamps, land, timber, and electricity; charging fees for services provided to the public (e.g., admission to National parks); and collecting premiums for healthcare benefits (e.g., Medicare Parts B and D). As described above, treating offsetting collections and offsetting receipts as offsets to outlays ensures the budgetary totals represent governmental rather than market activity.

A relatively small portion ($23.6 billion in 2021) of offsetting collections and offsetting receipts from the public is derived from the Government's exercise of its sovereign power. From a conceptual standpoint, these should be classified as governmental receipts. However, they are classified as offsetting rather than governmental receipts either because this classification has been specified in law or because these collections have traditionally been classi-

[1] Showing collections from business-type transactions as offsets on the spending side of the budget follows the concept recommended by the Report of the President's Commission on Budget Concepts in 1967 and is discussed in Chapter 8 of this volume, "Budget Concepts."

[2] For the purposes of this discussion, "collections from the public" include collections from non-budgetary Government accounts, such as credit financing accounts and deposit funds. For more information on these non-budgetary accounts, see Chapter 9, "Coverage of the Budget."

Table 12–1. OFFSETTING COLLECTIONS AND OFFSETTING RECEIPTS FROM THE PUBLIC
(In billions of dollars)

	Actual 2021	Estimate	
		2022	2023
Offsetting collections (credited to expenditure accounts):			
Postal Service stamps and other Postal Service fees (off-budget)	77.1	76.0	77.0
Sale of energy:			
Tennessee Valley Authority	54.1	53.9	53.7
Bonneville Power Administration	3.7	3.9	3.9
Employee contributions for employees and retired employees health benefits funds	17.8	18.8	19.8
Deposit Insurance	8.0	7.9	19.6
Pension Benefit Guaranty Corporation fund	10.0	11.6	12.6
Federal Crop Insurance Corporation Fund	4.3	5.6	5.4
Defense Commissary Agency	4.1	4.7	4.8
Patent and Trademark fees	3.6	4.1	4.2
National Flood Insurance Fund	3.7	3.8	3.6
All other user charges	42.5	35.9	39.0
Subtotal, user charges	229.1	226.1	243.5
Other collections credited to expenditure accounts:			
Commodity Credit Corporation fund	7.2	6.2	7.3
Supplemental Security Income (collections from the States)	2.4	3.2	3.1
Other collections	78.9	5.5	4.6
Subtotal, other collections	88.5	14.9	15.0
Subtotal, offsetting collections	317.6	241.0	258.5
Offsetting receipts (deposited in receipt accounts):			
User charges:			
Medicare premiums	122.1	140.9	156.8
Outer Continental Shelf rents, bonuses, and royalties	4.2	10.7	6.4
Immigration fees	5.0	4.8	5.1
Spectrum auction, relocation, and licenses	8.9	103.5	....
All other user charges	45.2	49.0	29.2
Subtotal, user charges deposited in receipt accounts	185.5	308.9	197.5
Other collections deposited in receipt accounts:			
Military assistance program sales	35.9	51.5	49.9
Interest received from credit financing accounts	47.4	51.7	45.9
Government-Sponsored Enterprise fees pursuant to Public Law 112–78, Section 401	4.9	5.6	5.9
Student loan receipt of negative subsidy and downward reestimates	5.4	28.0	2.7
All other collections deposited in receipt accounts	112.9	83.2	43.1
Subtotal, other collections deposited in receipt accounts	206.5	220.0	147.6
Subtotal, offsetting receipts	392.0	528.9	345.0
Total, offsetting collections and offsetting receipts from the public	709.6	769.9	603.6
Total, offsetting collections and offsetting receipts excluding off-budget	632.2	693.9	526.5
ADDENDUM:			
User charges that are offsetting collections and offsetting receipts [1]	414.6	535.0	441.0
Other offsetting collections and offsetting receipts from the public	295.0	234.9	162.6

[1] Excludes user charges that are classified on the receipts side of the budget. For total user charges, see Table 12–3.

fied as offsets to outlays. Most of the offsetting collections and offsetting receipts in this category derive from fees from Government regulatory services or Government licenses, and include, for example, charges for regulating the nuclear energy industry, bankruptcy filing fees, and immigration fees.[3]

The final source of offsetting collections and offsetting receipts from the public is gifts. Gifts are voluntary contributions to the Government to support particular purposes or reduce the amount of Government debt held by the public.

[3] This category of receipts is known as "offsetting governmental receipts." Some argue that regulatory or licensing fees should be viewed as payments for a particular service or for the right to engage in a particular type of business. However, these fees are conceptually much more similar to taxes because they are compulsory, and they fund activities that are intended to provide broadly dispersed benefits, such as protecting the health of the public. Reclassifying these fees as governmental receipts could require a change in law, and because of conventions for scoring appropriations bills, would make it impossible for fees that are controlled through annual appropriations acts to be scored as offsets to discretionary spending.

Table 12–2. SUMMARY OF OFFSETTING RECEIPTS BY TYPE
(In millions of dollars)

Receipt Type	Actual 2021	Estimate					
		2022	2023	2024	2025	2026	2027
Intragovernmental	1,133,021	1,103,936	1,018,402	1,093,440	1,136,674	1,241,334	1,195,546
Receipts from non-Federal sources:							
Proprietary	374,776	434,828	332,157	354,425	370,381	378,765	405,310
Offsetting governmental	17,239	94,027	12,856	13,873	14,145	14,361	14,518
Total, receipts from non-Federal sources	392,015	528,855	345,013	368,298	384,526	393,126	419,828
Total, offsetting receipts	1,525,036	1,632,791	1,363,415	1,461,738	1,521,200	1,634,460	1,615,374

The spending associated with the activities that generate offsetting collections and offsetting receipts from the public is included in total or "gross outlays." Offsetting collections and offsetting receipts from the public are subtracted from gross outlays to the public to yield "net outlays," which is the most common measure of outlays cited and generally referred to as simply "outlays."[4] For 2021, gross outlays to the public were $7,532 billion, or 33.7 percent of GDP and offsetting collections and offsetting receipts from the public were $710 billion, or 3.2 percent of GDP, resulting in net outlays of $6,822 billion or 30.5 percent of GDP. Government-wide net outlays reflect the Government's net disbursements to the public and are subtracted from governmental receipts to derive the Government's deficit or surplus. For 2021, governmental receipts were $4,047 billion, or 18.1 percent of GDP, and the deficit was $2,775 billion, or 12.4 percent of GDP.

Although both offsetting collections and offsetting receipts are subtracted from gross outlays to derive net outlays, they are treated differently when it comes to accounting for specific programs and agencies. Offsetting collections are usually authorized to be spent for the purposes of an expenditure account and are generally available for use when collected, without further action by the Congress. Therefore, offsetting collections are recorded as offsets to spending within expenditure accounts, so that the account total highlights the net flow of funds.

[4] Gross outlays to the public are derived by subtracting intragovernmental outlays from gross outlays. For 2021, gross outlays were $9,078 billion and intragovernmental outlays were $1,546 billion.

Like governmental receipts, offsetting receipts are credited to receipt accounts, and any spending of the receipts is recorded in separate expenditure accounts. As a result, the budget separately displays the flow of funds into and out of the Government. Offsetting receipts may or may not be designated for a specific purpose, depending on the legislation that authorizes their collection. If designated for a particular purpose, the offsetting receipts may, in some cases, be spent without further action by the Congress. When not designated for a particular purpose, offsetting receipts are credited to the general fund, which contains all funds not otherwise allocated and which is used to finance Government spending that is not financed out of dedicated funds. In some cases where the receipts are designated for a particular purpose, offsetting receipts are reported in a particular agency and reduce or offset the outlays reported for that agency. In other cases, the offsetting receipts are "undistributed," which means they reduce total Government outlays, but not the outlays of any particular agency.

Table 12–1 summarizes offsetting collections and offsetting receipts from the public. The amounts shown in the table are not evident in the commonly cited budget measure of outlays, which is already net of these collections and receipts. For 2023, the table shows that total offsetting collections and offsetting receipts from the public are estimated to be $604 billion or 2.4 percent of GDP. Of these, an estimated $259 billion are offsetting collections and an estimated $345 billion are offsetting

Table 12–3. GROSS OUTLAYS, USER CHARGES, OTHER OFFSETTING COLLECTIONS AND OFFSETTING RECEIPTS FROM THE PUBLIC, AND NET OUTLAYS
(In billions of dollars)

	Actual 2021	Estimate	
		2022	2023
Gross outlays to the public	7,532.1	6,621.5	6,395.6
Offsetting collections and offsetting receipts from the public:			
User charges	414.6	535.0	441.0
Other	295.0	234.9	162.6
Subtotal, offsetting collections and offsetting receipts from the public	709.6	769.9	603.6
Net outlays	6,822.4	5,851.6	5,792.0

[1] $4.4 billion of the total user charges for 2021 were classified as governmental receipts, and the remainder were classified as offsetting collections and offsetting receipts. $4.8 billion and $5.2 billion of the total user charges for 2022 and 2023 are classified as governmental receipts, respectively.

receipts. Table 12–1 also identifies those offsetting collections and offsetting receipts that are considered user charges, as defined and discussed below.

As shown in the table, major offsetting collections from the public include proceeds from Postal Service sales, electrical power sales, loan repayments to the Commodity Credit Corporation for loans made prior to enactment of the Federal Credit Reform Act, and Federal employee payments for health insurance. As also shown in the table, major offsetting receipts from the public include premiums for Medicare Parts A, B and D, proceeds from military assistance program sales, rents and royalties from Outer Continental Shelf oil extraction, and interest income.

Tables 12–2 and 12–3 provide further detail about offsetting receipts, including both offsetting receipts from the public (as summarized in Table 12–1) and intragovernmental transactions. Table 12–5, "Offsetting Receipts by Type," and Table 12–6, "Offsetting Collections and Offsetting Receipts, Detail—2023 Budget," which is a complete listing by account, are available at *https://www.whitehouse.gov/omb/analytical-perspectives/*. In total, offsetting receipts are estimated to be $1,363 billion in 2023; $1,018 billion are from intragovernmental transactions and $345 billion are from the public. The offsetting receipts from the public consist of proprietary receipts ($332 billion), which are those resulting from business-like transactions such as the sale of goods or services, and offsetting governmental receipts, which, as discussed above, are derived from the exercise of the Government's sovereign power and, absent a specification in law or a long-standing practice, would be classified on the receipts side of the budget ($13 billion).

II. USER CHARGES

User charges or user fees[5] refer generally to those monies that the Government receives from the public for market-oriented activities and regulatory activities. In combination with budget concepts, laws that authorize user charges determine whether a user charge is classified as an offsetting collection, an offsetting receipt, or a governmental receipt. Almost all user charges, as defined below, are classified as offsetting collections or offsetting receipts; for 2023, only an estimated 1.2 percent of user charges are classified as governmental receipts. As summarized in Table 12–3, total user charges for 2023 are estimated to be $446 billion with $441 billion being offsetting collections or offsetting receipts, and accounting for more than two-thirds of all offsetting collections and offsetting receipts from the public.[6]

Definition. In this chapter, user charges refer to fees, charges, and assessments levied on individuals or organizations directly benefiting from or subject to regulation by a Government program or activity, where the payers do not represent a broad segment of the public such as those who pay income taxes.

Examples of business-type or market-oriented user charges and regulatory and licensing user charges include those charges listed in Table 12-1 for offsetting collections and offsetting receipts. User charges exclude certain offsetting collections and offsetting receipts from the public, such as payments received from credit programs, and interest, and also exclude payments from one part of the Federal Government to another. In addition, user charges do not include dedicated taxes (such as taxes paid to social insurance programs or excise taxes on gasoline) or customs duties, fines, penalties, or forfeitures.

Alternative definitions. The definition for user charges used in this chapter follows the definition used in OMB Circular No. A–25, "User Charges," which provides policy guidance to Executive Branch Agencies on setting the amount for user charges. Alternative definitions may be used for other purposes. Much of the discussion of user charges below—their purpose, when they should be levied, and how the amount should be set—applies to these alternative definitions as well.

A narrower definition of user charges could be limited to proceeds from the sale of goods and services, excluding the proceeds from the sale of assets, and to proceeds that are dedicated to financing the goods and services being provided. This definition is similar to one the House of Representatives uses as a guide for purposes of committee jurisdiction. (See the Congressional Record, January 3, 1991, p. H31, item 8.) The definition of user charges could be even narrower by excluding regulatory fees and focusing solely on business-type transactions. Alternatively, the user charge definition could be broader than the one used in this chapter by including beneficiary- or liability-based excise taxes.[7]

What is the purpose of user charges? User charges are intended to improve the efficiency and equity of financing certain Government activities. Charging users for activities that benefit a relatively limited number of people reduces the burden on the general taxpayer, as

[5] In this chapter, the term "user charge" is generally used and has the same meaning as the term "user fee." The term "user charge" is the one used in OMB Circular No. A–11, "Preparation, Submission, and Execution of the Budget"; OMB Circular No. A–25, "User Charges"; and Chapter 8 of this volume, "Budget Concepts." In common usage, the terms "user charge" and "user fee" are often used interchangeably, and in A Glossary of Terms Used in the Federal Budget Process, GAO provides the same definition for both terms.

[6] User charge totals presented in this chapter include collections from accounts classified as containing user fee data. OMB accounts are classified as containing user fee data if more than half of collections are estimated to include user charges. Consequently, totals may include collections that are not user charges in accounts that meet the threshold and exclude user charges in accounts that do not meet the threshold.

[7] Beneficiary- and liability-based taxes are terms taken from the Congressional Budget Office, The Growth of Federal User Charges, August 1993, and updated in October 1995. Gasoline taxes are an example of beneficiary-based taxes. An example of a liability-based tax is the excise tax that formerly helped fund the hazardous substance superfund in the Environmental Protection Agency. This tax was paid by industry groups to finance environmental cleanup activities related to the industry activity but not necessarily caused by the payer of the fee.

does charging regulated parties for regulatory activities in a particular sector.

User charges that are set to cover the costs of production of goods and services can result in more efficient resource allocation within the economy. When buyers are charged the cost of providing goods and services, they make better cost-benefit calculations regarding the size of their purchase, which in turn signals to the Government how much of the goods or services it should provide. Prices in private, competitive markets serve the same purposes. User charges for goods and services that do not have special social or distributional benefits may also improve equity or fairness by requiring those who benefit from an activity to pay for it and by not requiring those who do not benefit from an activity to pay for it.

When should the Government impose a charge? Discussions of whether to finance spending with a tax or a fee often focus on whether the benefits of the activity accrue to the public in general or to a limited group of people. In general, if the benefits of spending accrue broadly to the public or include special social or distributional benefits, then the program should be financed by taxes paid by the public. In contrast, if the benefits accrue to a limited number of private individuals or organizations and do not include special social or distributional benefits, then the program should be financed by charges paid by the private beneficiaries. For Federal programs where the benefits are entirely public or entirely private, applying this principle can be relatively easy. For example, the benefits from national defense accrue to the public in general, and according to this principle should be (and are) financed by taxes. In contrast, the benefits of electricity sold by the Tennessee Valley Authority accrue primarily to those using the electricity, and should be (and predominantly are) financed by user charges.

In many cases, however, an activity has benefits that accrue to both public and private groups, and it may be difficult to identify how much of the benefits accrue to each. Because of this, it can be difficult to know how much of the program should be financed by taxes and how much by fees. For example, the benefits from recreation areas are mixed. Fees for visitors to these areas are appropriate because the visitors benefit directly from their visit, but the public in general also benefits because these areas protect the Nation's natural and historic heritage now and for posterity. For this reason, visitor recreation fees generally cover only part of the cost to the Government of maintaining the recreation property. Where a fee may be appropriate to finance all or part of an activity, the extent to which a fee can be easily administered must be considered. For example, if fees are charged for entering or using Government-owned land then there must be clear points of entry onto the land and attendants patrolling and monitoring the land's use.

What amount should be charged? When the Government is acting in its capacity as sovereign and where user charges are appropriate, such as for some regulatory activities, current policy supports setting fees equal to the full cost to the Government, including both direct and indirect costs. When the Government is not acting in its capacity as sovereign and engages in a purely business-type transaction (such as leasing or selling goods, services, or resources), market price is generally the basis for establishing the fee.[8] If the Government is engaged in a purely business-type transaction and economic resources are allocated efficiently, then this market price should be equal to or greater than the Government's full cost of production.

Classification of user charges in the budget. As shown in the note to Table 12–3, most user charges are classified as offsets to outlays on the spending side of the budget, but a few are classified on the receipts side of the budget. An estimated $5.2 billion in 2023 of user charges are classified on the receipts side and are included in the governmental receipts totals described in the previous chapter, "Governmental Receipts." They are classified as receipts because they are regulatory charges collected by the Federal Government by the exercise of its sovereign powers. Examples include filing fees in the United States courts and agricultural quarantine inspection fees.

The remaining user charges, an estimated $441 billion in 2023, are classified as offsetting collections and offsetting receipts on the spending side of the Budget. As discussed above in the context of all offsetting collections and offsetting receipts, some of these user charges are collected by the Federal Government by the exercise of its sovereign powers and conceptually should appear on the receipts side of the budget, but they are required by law or a long-standing practice to be classified on the spending side.

[8] Policies for setting user charges are promulgated in OMB Circular No. A–25: "User Charges" (July 8, 1993).

III. USER CHARGE PROPOSALS

As shown in Table 12–1, an estimated $244 billion of user charges for 2023 will be credited directly to expenditure accounts and will generally be available for expenditure when they are collected, without further action by the Congress. An estimated $197 billion of user charges for 2023 will be deposited in offsetting receipt accounts and will be available to be spent only according to the legislation that established the charges.

As shown in Table 12–4, the Administration is proposing new or increased user charges that would, in the aggregate, increase collections by an estimated $900 billion in 2023 and an estimated total of $19 billion from 2024 through 2032. These estimates reflect only the amounts to be collected; they do not include related spending. Each proposal is classified as either discretionary or mandatory, as those terms are defined in the Balanced Budget and Emergency Deficit Control Act of 1985, as amended. "Discretionary" refers to user charges controlled through annual appropriations acts and generally under the jurisdiction of the appropriations committees in the Congress. "Mandatory" refers to user charges controlled by permanent laws and under the jurisdiction of the authorizing committees. These and other terms are discussed further in this volume in Chapter 8, "Budget Concepts."

A. Discretionary User Charge Proposals

1. Offsetting collections

Department of Health and Human Services

Food and Drug Administration (FDA): Increase export certification user fee cap. Firms exporting products from the United States are often asked by foreign customers or foreign governments to supply a "certificate" for products regulated by the FDA to document the product's regulatory or marketing status. The proposal increases the maximum user fee cap from $175 per export certification to $600 to meet FDA's true cost of issuing export certificates and to ensure better and faster service for American companies that request the service.

FDA: Increase tobacco product user fee. Currently, FDA's regulation of all tobacco products is financed through user fees collected from six product categories: cigarettes, roll your own tobacco, snuff, chewing tobacco, cigars, and pipe tobacco. This proposal would expand FDA's tobacco user fees and include user fee assessments on e-cigarettes and other electronic nicotine delivery systems (ENDS) manufacturers, which currently do not pay user fees, and increase the current limitation on total tobacco user fee collections by $100 million in 2023. To ensure that resources keep up with new tobacco products, the proposal would also index future collections to inflation. The expansion of tobacco user fees will strengthen FDA's ability to respond to the growth of newer products such as e-cigarettes through investments in regulatory science, enforcement, and premarket review of product applications.

Department of the Interior

Bureau of Land Management (BLM): Establish onshore oil and gas inspection fees. The Budget proposes new inspection fees for oil and gas leases that are subject to inspection by BLM. The fees would be based on the number of oil and gas wells per lease or unit, providing for costs to be shared equitably across the industry. In 2023, BLM will spend $51 million on managing its compliance inspection program. Inspection costs include, among other things, the salaries and travel expenses of inspectors. The proposed fees will generate approximately $51 million in 2023, thereby fully offsetting the Bureau's cost of compliance inspections and requiring energy developers on Federal lands to fund the majority of inspection-related compliance costs incurred by BLM.

Bureau of Safety and Environmental Enforcement: Adjust offshore oil and gas inspection fees. The Budget proposes to update the existing inspection fee structure for offshore oil and gas production facilities to allow fees to be collected for each inspection that is conducted when a facility is subject to multiple inspections during a given year. This will reduce the need for taxpayer funds to support the program, while more equitably distributing costs among operators based on risk factors such as an operator's history of compliance with safety regulations. The proposed fees are estimated to generate $51 million in 2023, an increase of approximately $7 million over the amount that would be collected under the current fee structure.

Department of Justice

Increase Hart-Scott-Rodino premerger filing fees. The Federal Trade Commission and the Department of Justice Antitrust Division are responsible for reviewing corporate mergers to ensure they do not promote anticompetitive practices. Revenues collected from pre-merger filing fees, known as Hart-Scott-Rodino (HSR) fees, are split evenly between the two agencies. The Budget proposes to increase the HSR fees and index them to the annual change in the gross national product. The fee proposal would also create a new merger fee category for mergers valued at over $1 billion. Under the proposal, the fee increase would take effect in 2023, and it is estimated that in 2023 HSR fees would total $549 million ($274.5 million for each of Federal Trade Commission and DOJ Antitrust Division), an increase of $75 million per year ($37.5 million for each of Federal Trade Commission and DOJ Antitrust Division).

Department of State

Establish The National Museum of American Diplomacy rental fee. This new user fee will enable the Department of State to provide support, on a cost-recovery basis, to outside organizations for programs and conference activities held at The National Museum of American Diplomacy.

Commodity Futures Trading Commission (CFTC)

Establish CFTC user fee. The Budget proposes an amendment to the Commodity Exchange Act authorizing the CFTC to collect user fees to fund the Commission's activities, like other Federal financial and banking regulators. Fee funding would shift the costs of services provided by CFTC from the general taxpayer to the primary beneficiaries of CFTC oversight. Contingent upon enactment of legislation authorizing the CFTC to collect fees, the Administration proposes that collections begin in 2023 to offset a portion of CFTC's annual appropriation.

Federal Trade Commission

Increase Hart-Scott-Rodino premerger filing fees. See description under Department of Justice.

2. Offsetting receipts

Department of State

Extend Western Hemisphere Travel Initiative surcharge. The Administration proposes to permanently extend the authority for the Department of State to collect the Western Hemisphere Travel Initiative surcharge. The surcharge was initially enacted by the Passport Services Enhancement Act of 2005 (Public Law 109–167) to cover the Department's costs of meeting increased demand for passports, which resulted from the implementation of the Western Hemisphere Travel Initiative.

Increase Border Crossing Card (BCC) fee. The Budget includes a proposal to allow the fee charged for BCC minor applicants to be set administratively, rather than statutorily, at one-half the fee charged for processing an adult border crossing card. Administrative fee setting will allow the fee to better reflect the associated cost of service, consistent with other fees charged for consular services. As a result of this change, annual BCC fee collections beginning in 2023 are projected to increase by $11 million (from $3 million to $14 million).

Increase Machine-Readable Visa (MRV) fee. The Budget includes a proposal to authorize the Department of State to account for the cost of other consular services not otherwise subject to a fee or surcharge when setting the amount of the MRV fee.

B. Mandatory User Charge Proposals

Offsetting receipts

Department of Homeland Security

Extend expiring Customs and Border Protection (CBP) fees. The Budget proposes to extend the Merchandise Processing Fee beyond its current expiration date of September 30, 2031 to September 30, 2032, and makes permanent the rate increase (from 0.21 percent ad valorem to 0.3464 percent ad valorem) enacted in section 503 of the U.S.-Korea Free Trade Agreement Implementation Act (Public Law 112–41). It also proposes to extend fees statutorily set under the Consolidated Omnibus Budget Reconciliation Act of 1985 (COBRA) and the Express Consignment Courier Facilities (ECCF) fee created under the Trade Act of 2002 beyond their current expiration date of September 30, 2031 to September 30, 2032.

Department of Labor

Expand Foreign Labor Certification fees. The Budget proposes authorizing legislation to establish and retain fees to cover the costs of operating the foreign labor certification programs, which ensure that employers proposing to bring in immigrant workers have checked to ensure that American workers cannot meet their needs and that immigrant workers are being compensated appropriately and not disadvantaging American workers. The ability to charge fees for these programs would give the Department of Labor (DOL) a more reliable, workload-based source of funding for this function, as the Department of Homeland Security has, and would ultimately eliminate the need for discretionary appropriations. The proposal would allow DOL to charge fees for its prevailing wage determinations, permanent labor certification program, H–2B non-agricultural workers program, and CW–1 Northern Mariana Islands transitional workers program, as well as retain and adjust the H–2A agricultural worker application fees currently deposited into the General Fund. The fee levels would be set via regulation to ensure that the amounts are subject to review. Given DOL Inspector General's important role in investigating fraud and abuse, the proposal also includes a mechanism to provide funding for the Inspector General's work to oversee foreign labor certification programs.

C. User Charge Proposals that are Governmental Receipts

Department of Homeland Security

Establish Electronic Visa Update System user fee. The Budget proposes to establish a user fee for the Electronic Visa Update System (EVUS), a CBP program to collect biographic and travel-related information from certain non-immigrant visa holders prior to traveling to the United States. This process will complement the existing visa application process and enhance CBP's ability to make pre-travel admissibility and risk determinations. CBP proposes to establish a user fee to fund the costs of establishing, providing, and administering the system.

Table 12–4. USER CHARGE PROPOSALS IN THE 2023 BUDGET [1]

(Estimated collections in millions of dollars)

	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2023–2027	2023–2032
OFFSETTING COLLECTIONS AND OFFSETTING RECEIPTS													
DISCRETIONARY:													
Offsetting collections													
Department of Health and Human Services													
Food and Drug Administration (FDA): Increase export certification user fee cap	....	6	6	6	6	6	6	6	6	7	7	30	62
FDA: Increase tobacco product user fee	....	100	102	104	107	109	112	114	117	119	122	522	1,106
Department of the Interior													
Bureau of Land Management: Establish onshore oil and gas inspection fees	....	51	51	51	51	51	51	51	51	51	51	255	510
Bureau of Safety and Environmental Enforcement: Adjust offshore oil and gas inspection fees	....	7	7	7	7	7	7	7	7	7	7	35	70
Department of Justice													
Increase Hart-Scott-Rodino premerger filing fees	....	38	43	49	49	49	49	49	49	49	49	228	473
Department of State													
Establish The National Museum of American Diplomacy rental fee	....	*	*	*	*	*	*	*	*	*	*	*	*
Commodity Futures Trading Commission (CFTC)													
Establish CFTC user fee	....	116	121	126	131	136	142	148	154	161	168	630	1,403
Federal Trade Commission													
Increase Hart-Scott-Rodino premerger filing fees	....	38	43	49	49	49	49	49	49	49	49	228	473
Offsetting receipts													
Department of State													
Extend Western Hemisphere Travel Initiative surcharge	....	482	493	503	515	526	538	549	562	574	587	2,519	5,329
Increase Border Crossing Card fee	....	11	12	12	12	13	13	14	14	14	14	60	129
Increase Machine-Readable Visa fee	....	....	....	143	285	285	285	285	285	285	285	713	2,138
Subtotal, discretionary user charge proposals	....	849	878	1,050	1,212	1,231	1,252	1,272	1,294	1,316	1,339	5,220	11,693
MANDATORY:													
Offsetting receipts													
Department of Homeland Security													
Extend expiring Customs and Border Protection (CBP) fees	....	....	....	....	....	....	....	....	....	....	5,939	....	5,939
Department of Labor													
Expand Foreign Labor Certification fees	....	4	54	113	118	121	127	131	136	141	146	410	1,091
Subtotal, mandatory user charge proposals	....	4	54	113	118	121	127	131	136	141	6,085	410	7,030
Subtotal, user charge proposals that are offsetting collections and offsetting receipts	....	853	932	1,163	1,330	1,352	1,379	1,403	1,430	1,457	7,424	5,630	18,723
GOVERNMENTAL RECEIPTS													
Department of Homeland Security													
Establish Electronic Visa Update System user fee	....	47	52	58	64	72	79	88	108	118	130	293	816
Total, user charge proposals	....	**900**	**984**	**1,221**	**1,394**	**1,424**	**1,458**	**1,491**	**1,538**	**1,575**	**7,554**	**5,923**	**19,539**

[1] A positive sign indicates an increase in collections.

* $500,000 or less

13. TAX EXPENDITURES

The Congressional Budget Act of 1974 (Public Law 93–344) requires that a list of "tax expenditures" be included in the Budget. Tax expenditures are defined in the law as "revenue losses attributable to provisions of the Federal tax laws which allow a special exclusion, exemption, or deduction from gross income or which provide a special credit, a preferential rate of tax, or a deferral of tax liability." These exceptions may be viewed as alternatives to other policy instruments, such as spending or regulatory programs.

Identification and measurement of tax expenditures depends crucially on the baseline tax system against which the actual tax system is compared. The tax expenditure estimates presented in this document are patterned on a comprehensive income tax, which defines income as the sum of consumption and the change in net wealth in a given period of time.

An important assumption underlying each tax expenditure estimate reported below is that other parts of the Tax Code remain unchanged. The estimates would be different if tax expenditures were changed simultaneously because of potential interactions among provisions. For that reason, this document does not present a grand total for the estimated tax expenditures.

Tax expenditures relating to the individual and corporate income taxes are estimated for fiscal years 2021–2031 using two methods of accounting: current tax receipt effects and present value effects. The present value approach provides estimates of the receipt effects for tax expenditures that generally involve deferrals of tax payments into the future.

TAX EXPENDITURES IN THE INCOME TAX

Tax Expenditure Estimates

All tax expenditure estimates and descriptions presented here are based upon current tax law enacted as of July 31, 2021, and reflect the economic assumptions from the Midsession Review of the Fiscal Year 2022 Budget. In some cases, expired or repealed provisions are listed if their tax receipt effects occur in fiscal year 2021 or later.

The total receipt effects for tax expenditures for fiscal years 2021–2031 are displayed according to the Budget's functional categories in Table 13–1. Descriptions of the specific tax expenditure provisions follow the discussion of general features of the tax expenditure concept.

Two baseline concepts—the normal tax baseline and the reference tax law baseline—are used to identify and estimate tax expenditures.[1] For the most part, the two concepts coincide. However, items treated as tax expenditures under the normal tax baseline, but not the reference tax law baseline, are indicated by the designation "normal tax method" in the tables. The receipt effects for these items are zero using the reference tax law. The alternative baseline concepts are discussed in detail below.

Tables 13-2A and 13-2B report separately the respective portions of the total receipt effects that arise under the individual and corporate income taxes. The location of the estimates under the individual and corporate headings does not imply that these categories of filers benefit from the special tax provisions in proportion to the respective tax expenditure amounts shown. Rather, these breakdowns show the form of tax liability that the various provisions affect. The ultimate beneficiaries of corporate tax expenditures could be shareholders, employees, customers, or other providers of capital, depending on economic forces.

Table 13–3 ranks the major tax expenditures by the size of their 2022–2031 receipt effect. The first column provides the number of the provision in order to cross reference this table to Tables 13-1, 13-2A, and 13-2B, as well as to the descriptions below.

Interpreting Tax Expenditure Estimates

The estimates shown for individual tax expenditures in Tables 13–1 through 13–3 do not necessarily equal the increase in Federal receipts (or the change in the budget balance) that would result from repealing these special provisions, for the following reasons.

First, eliminating a tax expenditure may have incentive effects that alter economic behavior. These incentives can affect the resulting magnitudes of the activity, or the consequences of other tax provisions or Government programs. For example, if capital gains were taxed at higher ordinary income tax rates, capital gain realizations would be expected to decline, which could result in lower tax receipts depending on the elasticity of the capital gains tax rates. Such behavioral effects are not reflected in the estimates.

Second, tax expenditures are interdependent even without incentive effects. Repeal of a tax expenditure provision can increase or decrease the tax receipts associated with other provisions. For example, even if behavior does not change, repeal of an itemized deduction could increase the receipt costs from other deductions because

[1] These baseline concepts are thoroughly discussed in Special Analysis G of the 1985 Budget, where the former is referred to as the pre-1983 method and the latter the post-1982 method.

some taxpayers would be moved into higher tax brackets. Alternatively, repeal of an itemized deduction could lower the receipt cost from other deductions if taxpayers are led to claim the standard deduction instead of itemizing. Similarly, if two provisions were repealed simultaneously, the increase in tax liability could be greater or less than the sum of the two separate tax expenditures, because each is estimated assuming that the other remains in force. In addition, the estimates reported in Table 13–1 are the totals of individual and corporate income tax receipt effects reported in Tables 13–2A and 13–2B, and do not reflect any possible interactions between individual and corporate income tax receipts. For this reason, the estimates in Table 13–1 should be regarded as approximations.

Present-Value Estimates

The annual value of tax expenditures for tax deferrals is reported on a cash basis in all tables except Table 13–4. Cash-based estimates reflect the difference between taxes deferred in the current year and incoming receipts that are received due to deferrals of taxes from prior years. Although such estimates are useful as a measure of cash flows into the Government, they do not accurately reflect the true economic cost of these provisions. For example, for a provision where activity levels have changed over time, so that incoming tax receipts from past deferrals are greater than deferred receipts from new activity, the cash-basis tax expenditure estimate can be negative, despite the fact that in present-value terms current deferrals have a real cost to the Government (i.e., taxpayers). Alternatively, in the case of a newly enacted deferral provision, a cash-based estimate can overstate the real effect on receipts to the Government because the newly deferred taxes will ultimately be received.

Discounted present-value estimates of receipt effects are presented in Table 13–4 for certain provisions that involve tax deferrals or other long-term receipt effects. These estimates complement the cash-based tax expenditure estimates presented in the other tables.

The present-value estimates represent the receipt effects, net of future tax payments that follow from activities undertaken during calendar year 2021 which cause the deferrals or other long-term receipt effects. For instance, a pension contribution in 2021 would cause a deferral of tax payments on wages in 2021 and on pension fund earnings on this contribution (e.g., interest) in later years. In some future year, however, the 2021 pension contribution and accrued earnings will be paid out and taxes will be due; these receipts are included in the present-value estimate. In general, this conceptual approach is similar to the one used for reporting the budgetary effects of credit programs, where direct loans and guarantees in a given year affect future cash flows.

Tax Expenditure Baselines

A tax expenditure is an exception to baseline provisions of the tax structure that usually results in a reduction in the amount of tax owed. The 1974 Congressional Budget Act, which mandated the tax expenditure budget, did not specify the baseline provisions of the tax law. As noted previously, deciding whether provisions are exceptions, therefore, is a matter of judgment. As in prior years, most of this year's tax expenditure estimates are presented using two baselines: the normal tax baseline and the reference tax law baseline. Tax expenditures may take the form of credits, deductions, special exceptions and allowances.

The normal tax baseline is patterned on a practical variant of a comprehensive income tax, which defines income as the sum of consumption and the change in net wealth in a given period of time. The normal tax baseline allows personal exemptions, a standard deduction, and deduction of expenses incurred in earning income. It is not limited to a particular structure of tax rates, or by a specific definition of the taxpaying unit.

The reference tax law baseline is also patterned on a comprehensive income tax, but it is closer to existing law. Reference tax law tax expenditures are limited to special exceptions from a generally provided tax rule that serves programmatic functions in a way that is analogous to spending programs. Provisions under the reference tax law baseline are generally tax expenditures under the normal tax baseline, but the reverse is not always true.

Both the normal tax and reference tax law baselines allow several major departures from a pure comprehensive income tax. For example, under the normal tax and reference tax law baselines:

- Income is taxable only when it is realized in exchange. Thus, the deferral of tax on unrealized capital gains is not regarded as a tax expenditure. Accrued income would be taxed under a comprehensive income tax.
- There is a separate corporate income tax.
- Tax rates on noncorporate business income vary by level of income.
- Individual tax rates, including brackets, standard deduction, and personal exemptions, are allowed to vary with marital status.
- Values of assets and debt are not generally adjusted for inflation. A comprehensive income tax would adjust the cost basis of capital assets and debt for changes in the general price level. Thus, under a comprehensive income tax baseline, the failure to take account of inflation in measuring depreciation, capital gains, and interest income would be regarded as a negative tax expenditure (i.e., a tax penalty), and failure to take account of inflation in measuring interest costs would be regarded as a positive tax expenditure (i.e., a tax subsidy).
- The base erosion and anti-abuse tax (BEAT) for multinational corporations is treated as a minimum tax and considered part of the rate structure.

Although the reference tax law and normal tax baselines are generally similar, areas of difference include:

Tax rates. The separate schedules applying to the various taxpaying units and the Alternative Minimum Tax are treated as part of the baseline rate structure under both the reference tax law and normal tax methods.

Income subject to the tax. Income subject to tax is defined as gross income less the costs of earning that income. Under the reference tax law, gross income does not include gifts defined as receipts of money or property that are not consideration in an exchange nor does gross income include most transfer payments from the Government.[2] The normal tax baseline also excludes gifts between individuals from gross income. Under the normal tax baseline, however, all cash transfer payments from the Government to private individuals are counted in gross income, and exemptions of such transfers from tax are identified as tax expenditures. The costs of earning income are generally deductible in determining taxable income under both the reference tax law and normal tax baselines.[3]

Capital recovery. Under the reference tax law baseline no tax expenditures arise from accelerated depreciation. Under the normal tax baseline, the depreciation allowance for property is computed using estimates of economic depreciation.

Descriptions of Income Tax Provisions

Descriptions of the individual and corporate income tax expenditures reported on in this document follow. These descriptions relate to current law as of July 31, 2021. Legislation enacted in 2021 expanded the scope and size of tax expenditures by providing pandemic related relief. The American Rescue Plan Act of 2021 (Public Law 117-2, "ARP"), provided additional COVID-19-related rebates for eligible individuals and exempted some unemployment benefits from income taxation in 2021. It also expanded the child tax credit for 2021 and permanently extended the scope of the earned income tax credit, among other smaller changes.

National Defense

1. ***Exclusion of benefits and allowances to armed forces personnel.***—Under the baseline tax system, all compensation, including dedicated payments and in-kind benefits, should be included in taxable income because they represent accretions to wealth that do not materially differ from cash wages. As an example, a rental voucher of $100 is (approximately) equal in value to $100 of cash income. In contrast to this treatment, certain housing and meals, in addition to other benefits provided military personnel, either in cash or in kind, as well as certain amounts of pay related to combat service, are excluded from income subject to tax.

International Affairs

2. ***Exclusion of income earned abroad by U.S. citizens.***—Under the baseline tax system, all compensation received by U.S. citizens and residents is properly included in their taxable income. It makes no difference whether the compensation is a result of working abroad or whether it is labeled as a housing allowance. In contrast to this treatment, U.S. tax law allows U.S. citizens and residents who live abroad, work in the private sector, and satisfy a foreign residency requirement to exclude up to $80,000, plus adjustments for inflation since 2004, in foreign earned income from U.S. taxes. In addition, if these taxpayers are provided housing by their employers, then they may also exclude the cost of such housing from their income to the extent that it exceeds 16 percent of the earned income exclusion limit. This housing exclusion is capped at 30 percent of the earned income exclusion limit, with geographical adjustments. If taxpayers do not receive a specific allowance for housing expenses, they may deduct housing expenses up to the amount by which foreign earned income exceeds their foreign earned income exclusion.

3. ***Exclusion of certain allowances for Federal employees abroad.***—In general, all compensation received by U.S. citizens and residents is properly included in their taxable income. It makes no difference whether the compensation is a result of working abroad or whether it is labeled as an allowance for the high cost of living abroad. In contrast to this treatment, U.S. Federal civilian employees and Peace Corps members who work outside the continental United States are allowed to exclude from U.S. taxable income certain special allowances they receive to compensate them for the relatively high costs associated with living overseas. The allowances supplement wage income and cover expenses such as rent, education, and the cost of travel to and from the United States.

4. ***Reduced tax rate on active income of controlled foreign corporations (normal tax method).***—Under the baseline tax system, worldwide income forms the tax base of U.S. corporations. In contrast, U.S. tax law exempts or preferentially taxes certain portions of this income. Prior to the passage of the Tax Cuts and Jobs Act (Public Law 115-97, "TCJA") active foreign income was generally taxed only upon repatriation. TCJA changed these rules, so that certain active income (called "global intangible low tax income" or "GILTI") is taxed currently, even if it is not distributed. However, U.S. corporations generally receive a 50-percent deduction from U.S. tax on their GILTI (the deduction decreases to 37.5 percent in 2026), resulting in a substantially reduced rate of tax. In addition, some active income is excluded from tax, and distributions out of active income are no longer taxed upon repatriation. These reductions and exemp-

[2] Gross income does, however, include transfer payments associated with past employment, such as Social Security benefits.

[3] In the case of individuals who hold "passive" equity interests in businesses, the pro-rata shares of sales and expense deductions reportable in a year are limited. A passive business activity is defined generally to be one in which the holder of the interest, usually a partnership interest, does not actively perform managerial or other participatory functions. The taxpayer may generally report no larger deductions for a year than will reduce taxable income from such activities to zero. Deductions in excess of the limitation may be taken in subsequent years, or when the interest is liquidated. In addition, costs of earning income may be limited under the Alternative Minimum Tax.

Table 13–1. ESTIMATES OF TOTAL INCOME TAX EXPENDITURES FOR FISCAL YEARS 2021–2031
(In millions of dollars)

		Total from corporations and individuals											
		2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2022–2031
National Defense:													
1	Exclusion of benefits and allowances to armed forces personnel	13,940	14,500	15,050	15,630	14,390	14,540	15,060	15,720	16,430	17,200	18,020	156,540
International affairs:													
2	Exclusion of income earned abroad by U.S. citizens	6,470	6,790	7,130	7,490	7,860	8,260	8,670	9,100	9,560	10,040	10,540	85,440
3	Exclusion of certain allowances for Federal employees abroad	280	290	310	320	340	360	370	390	410	430	450	3,670
4	Reduced tax rate on active income of controlled foreign corporations (normal tax method)	19,524	33,814	36,350	38,870	41,180	36,721	34,221	35,276	35,988	36,825	37,723	366,967
5	Deduction for foreign-derived intangible income dervied from trade or business within the United States	6,842	11,896	12,789	13,677	14,488	9,125	9,593	9,891	10,092	10,325	10,577	112,453
6	Interest Charge Domestic International Sales Corporations (IC-DISCs)	990	1,520	1,590	1,670	1,770	2,040	2,280	2,410	2,520	2,630	2,750	21,180
General science, space, and technology:													
7	Expensing of research and experimentation expenditures (normal tax method)	6,420	–22,210	–39,660	–28,680	–17,470	–5,540	0	0	0	0	0	–113,560
8	Credit for increasing research activities	18,520	20,400	22,020	23,500	24,940	26,380	27,850	29,350	30,900	32,520	34,210	272,070
Energy:													
9	Expensing of exploration and development costs, fuels	–50	90	220	350	390	420	440	450	460	460	440	3,720
10	Excess of percentage over cost depletion, fuels	620	720	790	830	870	940	1,010	1,090	1,150	1,210	1,270	9,880
11	Exception from passive loss limitation for working interests in oil and gas properties	20	20	20	20	20	20	20	20	20	20	20	200
12	Capital gains treatment of royalties on coal	70	50	50	50	50	60	60	60	70	70	70	590
13	Exclusion of interest on energy facility bonds	10	10	10	10	10	10	10	10	10	10	10	100
14	Enhanced oil recovery credit	510	400	370	590	800	990	1,190	1,340	1,400	1,450	1,490	10,020
15	Energy production credit	5,290	5,220	5,510	5,900	6,170	5,910	5,730	5,410	5,020	4,400	3,660	52,930
16	Marginal wells credit	250	270	220	230	290	370	410	440	450	460	470	3,610
17	Energy investment credit	6,360	7,210	7,010	7,610	7,770	7,170	7,070	5,700	4,580	3,270	2,590	59,980
18	Alcohol fuel credits [1]	10	0	0	0	0	0	0	0	0	0	0	0
19	Bio-Diesel and small agri-biodiesel producer tax credits [2]	40	40	20	0	0	0	0	0	0	0	0	60
20	Tax credits for clean-fuel burning vehicles and refueling property	450	580	550	470	460	440	360	310	290	280	270	4,010
21	Exclusion of utility conservation subsidies	60	50	50	50	40	40	40	30	30	30	30	390
22	Credit for holding clean renewable energy bonds [3]	70	70	70	70	70	70	70	70	70	70	70	700
23	Credit for investment in clean coal facilities	0	0	10	20	40	40	40	30	30	20	20	250
24	Amortize all geological and geophysical expenditures over 2 years	110	120	120	140	140	140	140	140	130	120	120	1,310
25	Allowance of deduction for certain energy efficient commercial building property	210	140	120	120	120	130	130	130	130	130	130	1,280
26	Credit for construction of new energy efficient homes	370	280	260	250	260	270	170	60	20	0	0	1,570
27	Credit for energy efficiency improvements to existing homes	240	120	0	0	0	0	0	0	0	0	0	120
28	Credit for residential energy efficient property	2,590	2,200	1,640	480	140	0	0	0	0	0	0	4,460

Table 13–1. ESTIMATES OF TOTAL INCOME TAX EXPENDITURES FOR FISCAL YEARS 2021–2031—Continued

(In millions of dollars)

		Total from corporations and individuals											
		2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2022–2031
29	Qualified energy conservation bonds [4]	30	30	30	30	30	30	30	30	30	30	30	300
30	Advanced energy property credit	10	10	10	10	10	10	10	10	10	10	0	90
31	Advanced nuclear power production credit	0	30	140	210	240	270	280	280	280	230	100	2,060
32	Reduced tax rate for nuclear decommissioning funds	110	110	120	120	130	130	140	150	150	160	170	1,380
Natural resources and environment:													
33	Expensing of exploration and development costs, nonfuel minerals	0	10	10	20	40	40	40	40	40	40	40	320
34	Excess of percentage over cost depletion, nonfuel minerals	110	120	140	140	150	160	180	200	200	220	220	1,730
35	Exclusion of interest on bonds for water, sewage, and hazardous waste facilities	350	360	350	360	360	390	400	400	430	420	430	3,900
36	Capital gains treatment of certain timber income	140	140	150	150	160	170	190	200	210	220	230	1,820
37	Expensing of multiperiod timber growing costs	210	220	220	240	240	250	260	280	280	290	300	2,580
38	Tax incentives for preservation of historic structures	610	580	670	810	910	980	1,020	1,030	1,040	1,060	1,070	9,170
39	Carbon oxide sequestration credit	460	580	720	820	1,020	1,310	2,180	2,970	3,250	3,570	3,710	20,130
40	Deduction for endangered species recovery expenditures	30	30	30	40	40	40	60	60	60	70	70	500
Agriculture:													
41	Expensing of certain capital outlays	110	120	130	130	140	170	190	200	200	210	220	1,710
42	Expensing of certain multiperiod production costs	320	270	280	290	310	380	420	440	460	480	500	3,830
43	Treatment of loans forgiven for solvent farmers	50	60	60	60	60	70	70	70	70	70	70	660
44	Capital gains treatment of certain agriculture income	1,370	1,440	1,500	1,540	1,610	1,750	1,890	1,980	2,080	2,180	2,280	18,250
45	Income averaging for farmers	190	200	200	210	220	230	230	230	230	230	230	2,210
46	Deferral of gain on sale of farm refiners	20	20	20	20	20	20	20	20	20	20	20	200
47	Expensing of reforestation expenditures	50	60	60	60	70	70	80	80	80	80	80	720
Commerce and housing:													
Financial institutions and insurance:													
48	Exemption of credit union income	2,080	2,120	2,170	2,350	2,410	2,450	2,650	2,740	2,790	2,830	2,820	25,330
49	Exclusion of life insurance death benefits	11,970	12,910	13,400	14,130	14,930	15,890	16,850	17,140	17,700	18,180	18,590	159,720
50	Exemption or special alternative tax for small property and casualty insurance companies	1,050	1,170	1,210	1,240	1,270	1,300	1,350	1,380	1,410	1,470	1,510	13,310
51	Tax exemption of insurance income earned by tax-exempt organizations	330	350	360	370	370	380	390	390	400	410	420	3,840
52	Exclusion of interest spread of financial institutions	3,110	2,030	2,100	2,170	2,260	2,400	2,530	2,600	2,690	2,780	2,860	24,420
Housing:													
53	Exclusion of interest on owner-occupied mortgage subsidy bonds	910	920	890	920	920	1,000	1,040	1,050	1,140	1,090	1,130	10,100
54	Exclusion of interest on rental housing bonds	1,540	1,560	1,510	1,550	1,560	1,690	1,750	1,780	1,930	1,830	1,910	17,070
55	Mortgage interest expense on owner-occupied residences	29,370	30,340	31,340	33,530	36,770	79,990	105,190	111,260	117,100	123,350	129,490	798,360
56	Deductibility of State and local property tax on owner-occupied homes [17]	6,740	7,030	7,070	7,290	7,700	39,370	57,270	60,230	63,060	66,110	69,310	384,440

Table 13–1. ESTIMATES OF TOTAL INCOME TAX EXPENDITURES FOR FISCAL YEARS 2021–2031—Continued

(In millions of dollars)

		Total from corporations and individuals											
		2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2022–2031
57	Deferral of income from installment sales	1,490	1,560	1,620	1,670	1,730	1,800	1,870	1,940	2,020	2,110	2,200	18,520
58	Capital gains exclusion on home sales	40,900	42,730	44,640	46,410	48,110	53,260	56,890	58,980	61,240	63,650	66,210	542,120
59	Exclusion of net imputed rental income	124,100	130,880	135,350	137,800	139,670	168,950	176,240	183,760	191,740	200,200	209,370	1,673,960
60	Exception from passive loss rules for $25,000 of rental loss	5,910	5,940	6,200	6,460	6,980	7,720	8,010	8,260	8,480	8,750	9,080	75,880
61	Credit for low-income housing investments	8,900	11,280	10,540	10,380	10,340	10,410	10,690	10,970	11,250	11,550	11,850	109,260
62	Accelerated depreciation on rental housing (normal tax method)	4,390	4,430	4,550	4,820	5,160	5,720	6,310	6,740	7,060	7,260	7,490	59,540
63	Discharge of mortgage indebtedness	250	270	280	290	310	80	0	0	0	0	0	1,230
64	Premiums for mortgage insurance deductible as interest	580	150	0	0	0	0	0	0	0	0	0	150
	Commerce:												
65	Discharge of business indebtedness	30	40	20	20	10	30	30	30	30	40	40	290
66	Exceptions from imputed interest rules	20	30	40	50	50	60	70	70	80	80	80	110
67	Treatment of qualified dividends	31,650	33,120	34,660	35,880	37,560	40,660	43,600	45,580	47,870	50,100	52,400	421,430
68	Capital gains (except agriculture, timber, iron ore, and coal)	102,250	107,710	111,640	115,280	119,950	130,650	141,370	147,950	155,320	162,550	170,430	1,362,850
69	Capital gains exclusion of small corporation stock	1,520	1,620	1,740	1,830	1,900	1,970	2,040	2,110	2,200	2,290	2,390	20,090
70	Step-up basis of capital gains at death	41,850	43,910	46,060	48,480	51,420	53,990	58,580	62,250	66,070	70,270	74,830	575,860
71	Carryover basis of capital gains on gifts	3,400	4,290	4,360	4,610	4,650	5,240	5,890	5,700	5,590	5,590	5,670	51,590
72	Ordinary income treatment of loss from small business corporation stock sale	70	70	70	80	80	80	80	90	90	90	90	820
73	Deferral of capital gains from like-kind exchanges	3,200	3,350	3,520	3,690	3,870	4,070	4,260	4,480	4,710	4,940	5,190	42,080
74	Depreciation of buildings other than rental housing (normal tax method)	3,700	3,470	3,040	2,800	2,680	2,620	2,520	2,580	2,690	2,730	2,860	27,990
75	Accelerated depreciation of machinery and equipment (normal tax method)	31,470	26,180	11,510	–2,550	–14,470	–25,430	–37,190	–29,250	–15,150	–6,710	–1,390	–94,450
76	Expensing of certain small investments (normal tax method)	–1,580	–760	3,470	6,980	9,400	12,340	15,400	14,330	12,040	10,840	10,270	94,310
77	Exclusion of interest on small issue bonds	100	100	90	90	90	110	110	110	120	120	120	1,060
78	Special rules for certain film and TV production	–50	0	100	180	240	–390	–530	–260	–120	–50	–20	–850
79	Allow 20-percent deduction to certain pass-through income	33,775	56,071	56,703	59,145	63,032	25,908	0	0	0	0	0	260,859
Transportation:													
80	Tonnage tax	100	110	110	110	120	120	120	130	130	140	140	1,230
81	Deferral of tax on shipping companies	10	10	10	10	10	10	10	10	10	10	10	100
82	Exclusion of reimbursed employee parking expenses	1,464	1,742	2,087	2,145	2,216	2,327	2,437	2,546	2,668	2,850	3,042	24,060
83	Exclusion for employer-provided transit passes	292	359	443	465	489	533	567	612	656	745	841	5,710
84	Tax credit for certain expenditures for maintaining railroad tracks	170	170	130	80	60	40	30	30	20	10	10	580
85	Exclusion of interest on bonds for Highway Projects and rail-truck transfer facilities	250	250	230	230	210	200	190	180	170	160	150	1,970
Community and regional development:													
86	Exclusion of interest for airport, dock, and similar bonds	920	930	900	930	930	1,010	1,040	1,060	1,150	1,100	1,140	10,190

Table 13–1. ESTIMATES OF TOTAL INCOME TAX EXPENDITURES FOR FISCAL YEARS 2021–2031—Continued
(In millions of dollars)

		Total from corporations and individuals											
		2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2022–2031
87	Exemption of certain mutuals' and cooperatives' income	90	100	100	100	100	110	110	110	110	120	120	1,080
88	Empowerment zones	130	90	100	110	110	90	60	40	20	20	20	660
89	New markets tax credit	1,140	1,170	1,210	1,250	1,310	1,360	1,340	1,230	1,060	870	640	11,440
90	Credit to holders of Gulf and Midwest Tax Credit Bonds	120	110	100	90	80	80	80	70	60	60	50	780
91	Recovery Zone Bonds [5]	110	100	90	80	80	70	70	60	60	50	40	700
92	Tribal Economic Development Bonds	10	10	10	10	10	10	10	10	10	10	10	100
93	Opportunity Zones	2,990	3,490	2,100	2,180	2,070	–5,580	–11,220	590	780	990	1,120	–3,480
94	Disaster Employee Retention Credit	160	160	90	60	60	50	40	40	30	30	20	580
	Education, training, employment, and social services:												
	Education:												
95	Exclusion of scholarship and fellowship income (normal tax method)	3,790	4,140	4,280	4,520	4,800	5,370	6,230	6,590	6,980	7,380	7,800	58,090
96	Tax credits for post-secondary education expenses [6]	9,250	14,620	14,380	14,320	14,180	14,070	14,130	13,900	13,670	13,430	13,200	139,900
97	Deductibility of student loan interest	2,110	2,260	2,190	2,280	2,330	2,530	2,880	2,920	3,040	3,060	3,100	26,590
98	Qualified tuition programs (includes Education IRA)	2,790	2,970	3,200	3,570	4,060	4,980	5,980	7,090	8,550	10,500	13,070	63,970
99	Exclusion of interest on student-loan bonds	180	180	180	180	180	200	200	210	220	220	220	1,990
100	Exclusion of interest on bonds for private nonprofit educational facilities	2,450	2,470	2,400	2,460	2,480	2,690	2,780	2,820	3,070	2,920	3,030	27,120
101	Credit for holders of zone academy bonds [7]	130	110	90	80	60	50	50	40	40	40	30	590
102	Exclusion of interest on savings bonds redeemed to finance educational expenses	40	40	40	40	40	50	50	50	50	50	50	460
103	Parental personal exemption for students age 19 or over	0	0	0	0	0	3,400	5,020	4,930	4,830	4,740	4,640	27,560
104	Charitable contributions to educational institutions	4,880	5,190	5,510	5,820	6,130	7,290	9,370	9,800	10,260	10,430	10,620	80,420
105	Exclusion of employer-provided educational assistance	1,390	1,510	1,630	1,740	1,860	1,650	1,570	1,650	1,730	1,810	1,900	17,050
106	Special deduction for teacher expenses	170	180	170	170	180	190	210	210	210	210	220	1,950
107	Discharge of student loan indebtedness	90	90	100	110	120	150	170	190	210	240	260	1,640
108	Qualified school construction bonds [8]	540	520	490	470	440	410	390	360	330	320	300	4,030
	Training, employment, and social services:												
109	Work opportunity tax credit	1,690	1,780	1,830	1,890	1,950	1,300	530	370	280	200	160	10,290
110	Employer provided child care exclusion	420	530	640	680	730	970	1,100	1,170	1,240	1,320	1,390	9,770
111	Employer-provided child care credit	20	20	20	20	20	20	20	30	30	30	40	250
112	Assistance for adopted foster children	660	700	750	800	850	900	960	1,020	1,080	1,150	1,220	9,430
113	Adoption credit and exclusion	790	830	860	880	900	910	920	930	940	950	950	9,070
114	Exclusion of employee meals and lodging (other than military)	5,620	7,760	8,120	8,050	8,270	9,560	10,300	10,570	10,870	11,210	11,560	96,270
115	Credit for child and dependent care expenses [9]	3,860	5,230	3,480	3,540	3,610	3,730	3,870	3,950	4,040	4,120	4,210	39,780
116	Credit for disabled access expenditures	10	10	10	10	10	10	10	10	10	10	10	100
117	Deductibility of charitable contributions, other than education and health	43,610	46,410	49,220	52,050	54,810	66,080	86,500	90,570	94,830	99,300	103,980	743,750
118	Exclusion of certain foster care payments	510	510	520	530	540	540	540	540	560	580	590	5,450

Table 13–1. ESTIMATES OF TOTAL INCOME TAX EXPENDITURES FOR FISCAL YEARS 2021–2031—Continued

(In millions of dollars)

		Total from corporations and individuals											
		2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2022–2031
119	Exclusion of parsonage allowances	950	1,000	1,050	1,110	1,170	1,230	1,300	1,370	1,440	1,510	1,590	12,770
120	Indian employment credit	70	50	30	30	30	20	20	20	10	10	10	230
121	Credit for employer differential wage payments	0	0	0	0	0	10	10	10	20	20	20	90
Health:													
122	Exclusion of employer contributions for medical insurance premiums and medical care [10]	221,460	221,020	225,140	235,300	248,460	289,890	320,580	337,950	356,210	375,490	395,820	3,005,860
123	Self-employed medical insurance premiums	7,690	8,010	8,530	9,080	9,650	11,070	12,180	12,870	13,580	14,300	15,120	114,390
124	Medical Savings Accounts and Health Savings Accounts	10,760	10,890	11,150	11,610	12,220	13,900	14,960	15,490	16,050	16,540	17,020	139,830
125	Deductibility of medical expenses	8,350	8,820	9,390	10,100	10,980	16,760	20,830	22,660	24,600	26,700	28,940	179,780
126	Exclusion of interest on hospital construction bonds	3,510	3,530	3,430	3,520	3,540	3,840	3,970	4,040	4,380	4,170	4,320	38,740
127	Refundable Premium Assistance Tax Credit [11]	6,360	5,160	3,690	3,990	4,270	4,980	5,450	5,910	6,310	6,670	7,090	53,520
128	Credit for employee health insurance expenses of small business [12]	40	30	10	10	0	0	0	0	0	0	0	50
129	Deductibility of charitable contributions to health institutions	8,820	9,350	9,870	10,400	10,910	12,390	14,870	15,560	16,260	16,990	17,740	134,340
130	Tax credit for orphan drug research	1,900	2,290	2,750	3,310	3,990	4,800	5,770	6,940	8,360	10,060	12,110	60,380
131	Special Blue Cross/Blue Shield tax benefits	230	300	330	350	360	380	400	430	460	490	530	4,030
132	Distributions from retirement plans for premiums for health and long-term care insurance	450	460	470	490	500	590	630	650	660	670	670	5,790
133	Credit for family and sick leave taken by self-employed individuals	1,180	180	0	0	0	0	0	0	0	0	0	180
Income security:													
134	Child tax credit [13]	72,571	65,242	76,883	77,011	77,468	48,710	20,580	20,330	20,100	19,880	19,660	445,864
135	Exclusion of railroad Social Security equivalent benefits	300	280	250	230	210	200	190	170	140	110	80	1,860
136	Exclusion of workers' compensation benefits	9,010	9,020	9,030	9,040	9,040	9,050	9,060	9,070	9,080	9,080	9,090	90,560
137	Exclusion of public assistance benefits (normal tax method)	600	600	630	630	640	680	700	730	740	730	770	6,850
138	Exclusion of special benefits for disabled coal miners	20	20	20	20	20	20	10	10	10	10	10	150
139	Exclusion of military disability pensions	170	170	170	170	180	200	210	210	220	220	230	1,980
	Net exclusion of pension contributions and earnings:												
140	Defined benefit employer plans	70,340	73,370	74,750	77,170	78,490	86,410	86,680	87,300	84,610	81,640	77,550	807,970
141	Defined contribution employer plans	100,020	102,850	109,150	111,860	117,110	138,380	142,790	148,130	154,690	161,090	167,690	1,353,740
142	Individual Retirement Accounts (IRAs)	20,770	19,890	21,460	22,630	23,660	28,840	30,570	32,170	34,010	36,300	38,780	288,310
143	Low- and moderate-income savers' credit	1,220	1,260	1,300	1,270	1,270	1,440	1,410	1,400	1,400	1,390	1,400	13,540
144	Self-employed plans	32,260	33,170	35,210	36,080	37,780	44,640	46,060	47,780	49,900	51,960	54,090	436,670
	Exclusion of other employee benefits:												
145	Premiums on group term life insurance	3,190	3,250	3,330	3,450	3,580	4,060	4,310	4,450	4,590	4,740	4,900	40,660
146	Premiums on accident and disability insurance	340	340	340	350	350	350	350	350	350	350	350	3,480
147	Exclusion of investment income from Supplementary Unemployment Benefit Trusts	20	10	20	20	30	30	30	40	40	40	40	300
148	Exclusion of investment income from Voluntary Employee Benefit Associations trusts	1,130	1,190	1,260	1,330	1,420	1,580	1,640	1,720	1,810	1,900	1,990	15,840
149	Special Employee Stock Ownership Plan (ESOP) rules	210	220	220	230	230	240	240	250	250	270	270	2,420

Table 13–1. ESTIMATES OF TOTAL INCOME TAX EXPENDITURES FOR FISCAL YEARS 2021–2031—Continued
(In millions of dollars)

		Total from corporations and individuals											
		2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2022–2031
150	Additional deduction for the blind	40	40	40	40	50	50	50	50	50	60	60	490
151	Additional deduction for the elderly	5,900	6,020	6,520	6,940	7,490	6,450	6,960	7,500	7,820	8,370	8,940	73,010
152	Deductibility of casualty losses	0	0	0	0	0	655	1,006	1,031	1,067	1,111	1,137	6,006
153	Earned income tax credit (EITC) [14]	2,080	2,410	2,780	2,970	3,060	3,130	4,590	4,730	4,870	5,040	5,200	38,780
154	Recovery rebate credits [15]	20,480	1,280	20	0	0	0	0	0	0	0	0	1,300
155	Exemption of unemployment insurance benefits	26,480	0	0	0	0	0	0	0	0	0	0	0
Social Security:													
	Exclusion of social security benefits:												
156	Social Security benefits for retired and disabled workers and spouses, dependents, and survivors	26,630	27,240	27,570	29,330	29,890	33,300	38,390	40,090	41,900	43,740	45,510	356,960
157	Credit for certain employer social security contributions	1,040	1,410	1,560	1,670	1,780	1,890	1,990	2,100	2,210	2,320	2,420	19,350
Veterans benefits and services:													
158	Exclusion of veterans death benefits and disability compensation	9,770	11,010	11,380	11,720	12,160	13,180	14,950	15,580	16,230	16,890	17,590	140,690
159	Exclusion of veterans pensions	220	230	220	210	210	220	250	250	250	250	250	2,340
160	Exclusion of G.I. Bill benefits	1,470	1,510	1,470	1,500	1,550	1,670	1,880	1,950	2,020	2,090	2,170	17,810
161	Exclusion of interest on veterans housing bonds	80	90	90	80	90	90	100	100	110	110	100	960
General government:													
162	Exclusion of interest on public purpose State and local bonds	31,240	31,520	30,520	31,360	31,580	34,230	35,380	35,950	38,990	37,130	38,540	345,200
163	Build America Bonds [16]	0	0	0	0	0	0	0	0	0	0	0	0
164	Deductibility of nonbusiness State and local taxes other than on owner-occupied homes [17]	7,170	7,667	7,713	7,877	8,240	86,236	120,498	121,686	127,380	133,563	140,089	760,949
Interest:													
165	Deferral of interest on U.S. savings bonds	840	830	820	810	800	800	790	780	770	760	750	7,910
Addendum: Aid to State and local governments:													
	Deductibility of:												
	Property taxes on owner-occupied homes	6,740	7,030	7,070	7,290	7,700	39,370	57,270	60,230	63,060	66,110	69,310	384,440
	Nonbusiness State and local taxes other than on owner-occupied homes	7,170	7,667	7,713	7,877	8,240	86,236	120,498	121,686	127,380	133,563	140,089	760,949
	Exclusion of interest on State and local bonds for:												
	Public purposes	31,240	31,520	30,520	31,360	31,580	34,230	35,380	35,950	38,990	37,130	38,540	345,200
	Energy facilities	10	10	10	10	10	10	10	10	10	10	10	100
	Water, sewage, and hazardous waste disposal facilities	350	360	350	360	360	390	400	400	430	420	430	3,900
	Small-issues	100	100	90	90	90	110	110	110	120	120	120	1,060
	Owner-occupied mortgage subsidies	910	920	890	920	920	1,000	1,040	1,050	1,140	1,090	1,130	10,100
	Rental housing	1,540	1,560	1,510	1,550	1,560	1,690	1,750	1,780	1,930	1,830	1,910	17,070
	Airports, docks, and similar facilities	920	930	900	930	930	1,010	1,040	1,060	1,150	1,100	1,140	10,190
	Student loans	180	180	180	180	180	200	200	210	220	220	220	1,990
	Private nonprofit educational facilities	2,450	2,470	2,400	2,460	2,480	2,690	2,780	2,820	3,070	2,920	3,030	27,120
	Hospital construction	3,510	3,530	3,430	3,520	3,540	3,840	3,970	4,040	4,380	4,170	4,320	38,740
	Veterans' housing	80	90	90	80	90	90	100	100	110	110	100	960

Table 13–1. ESTIMATES OF TOTAL INCOME TAX EXPENDITURES FOR FISCAL YEARS 2021–2031—Continued

(In millions of dollars)

[1] The alternative fuel mixture credit results in a reduction in excise tax receipts (in millions of dollars) as follows: 2021 $1,020; 2022 $330 and $0 thereafter.

[2] In addition, the biodiesel producer tax credit results in a reduction in excise tax receipts (in millions of dollars) as follows: 2021 $3,610; 2022 $3,260; 2023 $1,360 and $0 thereafter.

[3] In addition, the credit for holding clean renewable energy bonds has outlay effects of (in millions of dollars): 2021 $40; 2022 $40; 2023 $40; 2024 $40; 2025 $40; 2026, $40; 2027 $40; 2028 $40; 2029 $40, 2030 $40, and 3031 $40.

[4] In addition, the qualified energy conservation bonds have outlay effects of (in millions of dollars): 2021 $40; 2022 $40; 2023 $40; 2024 $40; 2025 $40; 2026, $40; 2027 $40; 2028 $40; 2029 $40, 2030 $40, and 2031 $40.

[5] In addition, recovery zone bonds have outlay effects (in millions of dollars) as follows: 2021 $120; 2022 $120; 2023 $120; 2024 $110; 2025 $110; 2026, $110; 2027 $110; 2028 $110; 2029 $110, 2030 $100, and 2031 $100.

[6] In addition, the tax credits and deductions for postsecondary education expenses have outlay effects of 2021 $3,940; 2022 $2,980; 2023 $2,980; 2024 $2,960; 2025 $2,930; 2026 $2,890; 2027 $2,850; 2028 $2,810; 2029 $2,770; 2030 $2,730; and 2031 $2,680.

[7] In addition, the credit for holders of zone academy bonds has outlay effects of (in millions of dollars): 2021 $40; 2022 $40; 2023 $40; 2024 $40; 2025 $40; 2026 $40; 2027 $40; 2028 $40; 2029 $40, 2030 $40, and 2031 $40.

[8] In addition, the provision for school construction bonds has outlay effects of (in millions of dollars): 021 $570; 2022 $560; 2023 $560; 2024 $560; 2025 $550; 2026 $550; 2027 $550; 2028 $540; 2029 $540, 2030 $540, and 2031 $530.

[9] In addition, the credit is refundable for one year with outlay effects (millions of dollars): 2022 $7,960.

[10] In addition, the employer contributions for health have effects on payroll tax receipts (in millions of dollars) as follows: 2021 $128,380; 2022 $136,900; 2023 $143,900; 2024 $150,450; 2025 $158,470; 2026 $167,310; 2027 $175,910; 2028 $184,750; 2029 $194,090; 2030 $203,930; and 2031 $214,210;

[11] In addition, the premium assistance credit provision has outlay effects (in millions of dollars) as follows: 2021 $60,150; 2022 $47,790; 2023 $32,740; 2024 $30,680; 2025 $31,460; 2026 $32,090; 2027 $32,950; 2028 $35,920; 2029 $38,620; 2030 $40,680; and 2031 $42,570.

[12] In addition, the effect of the health coverage tax credit on receipts has outlay effects of (in millions of dollars) $20 in 2021 and $0 thereafter.

[13] In addition, the effect of the child tax credit on receipts has outlay effects of (in millions of dollars): 2021 $43,100; 2022 $111,650; 2023 $36,120; 2024 $35,970; 2025 $35,790; 2026 $36,230; 2027 $23,000; 2028 $22,760; 2029 $22,610; 2030 $22,490; and 2031 $22,420. The child tax credit line also includes the credit for other dependents (in millions of dollars): 2021 $9,071; 2022 $10,242; 2023 $10,273; 2024 $10,271; 2025 $10,388; 2026 $5.920; 2027 $0; 2028 $0; 2029 $0; 2030 $0; and 2031 $0.

[14] In addition, the earned income tax credit on receipts has outlay effects of (in millions of dollars): 2021 $68,870; 2022 $77,290; 2023 $64,440; 2024 $67,330; 2025 $68,650; 2026 $69,260; 2027 $68,940; 2028 $69,610; 2029 $70,440; 2030 $71,480; and 2031 $72,710.

[15] In addition, the recovery rebate credits have outlay effects of (in millions of dollars): 2021 $274,654; 2022 $2,528; 2023 $43; and $0 thereafter.

[16] In addition, the Build America Bonds have outlay effects of (in millions of dollars): 2021 $2,810; 2022 $2,790; 2023 $2,770; 2024 $2,750; 2025 $2,730; 2026 $2,710; 2027 $2,690; 2028 $2,670; 2029 $2,650, 2030 $2,630, and 2031 $2,600.

[17] Because of interactions with the $10,000 cap on State and local tax deductions for the years 2018 through 2025, these estimates understate the combined effects of repealing deductions for both property taxes on owner occupied housing and other non-business taxes. The estimate of repealing both is (in millions of dollars): 2021 $20,170; 2022 $20,790; 2023 $21,590; 2024 $22,563; 2025 $23,640; 2026 $114,960; 2027 $158,470; 2028 $162,300; 2029 $169,870; 2030 $178,000; and 2031 $186,600.

Table 13–2A. ESTIMATES OF TOTAL CORPORATE INCOME TAX EXPENDITURES FOR FISCAL YEARS 2021–2031

(In millions of dollars)

		Total from corporations											
		2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2022–2031
National Defense:													
1	Exclusion of benefits and allowances to armed forces personnel	0	0	0	0	0	0	0	0	0	0	0	0
International affairs:													
2	Exclusion of income earned abroad by U.S. citizens	0	0	0	0	0	0	0	0	0	0	0	0
3	Exclusion of certain allowances for Federal employees abroad	0	0	0	0	0	0	0	0	0	0	0	0
4	Reduced tax rate on active income of controlled foreign corporations (normal tax method)	19,313	33,579	36,099	38,605	40,894	36,504	33,984	35,038	35,750	36,578	37,470	364,499
5	Deduction for foreign-derived intangible income dervied from trade or business within the United States	6,842	11,896	12,789	13,677	14,488	9,125	9,593	9,891	10,092	10,325	10,577	112,453
6	Interest Charge Domestic International Sales Corporations (IC-DISCs)	0	0	0	0	0	0	0	0	0	0	0	0
General science, space, and technology:													
7	Expensing of research and experimentation expenditures (normal tax method)	5,530	–20,660	–33,210	–23,890	–14,400	–4,250	0	0	0	0	0	–96,410
8	Credit for increasing research activities	16,560	18,240	19,690	21,020	22,310	23,600	24,900	26,220	27,580	28,990	30,450	243,000
Energy:													
9	Expensing of exploration and development costs, fuels	–10	20	50	80	90	90	90	90	90	90	90	780
10	Excess of percentage over cost depletion, fuels	360	420	460	480	500	530	560	600	630	670	700	5,550
11	Exception from passive loss limitation for working interests in oil and gas properties	0	0	0	0	0	0	0	0	0	0	0	0
12	Capital gains treatment of royalties on coal	0	0	0	0	0	0	0	0	0	0	0	0
13	Exclusion of interest on energy facility bonds	0	0	0	0	0	0	0	0	0	0	0	0
14	Enhanced oil recovery credit	480	380	350	560	760	940	1,130	1,270	1,330	1,370	1,410	9,500
15	Energy production credit	4,760	4,700	4,960	5,310	5,550	5,320	5,160	4,870	4,520	3,960	3,290	47,640
16	Marginal wells credit	210	230	190	200	250	310	350	370	380	390	400	3,070
17	Energy investment credit	5,840	6,620	6,430	6,980	7,120	6,570	6,480	5,230	4,210	3,020	2,380	55,040
18	Alcohol fuel credits [1]	0	0	0	0	0	0	0	0	0	0	0	0
19	Bio-Diesel and small agri-biodiesel producer tax credits [2]	20	20	10	0	0	0	0	0	0	0	0	30
20	Tax credits for clean-fuel burning vehicles and refueling property	150	170	150	130	130	110	90	80	70	70	70	1,070
21	Exclusion of utility conservation subsidies	0	0	0	0	0	0	0	0	0	0	0	0
22	Credit for holding clean renewable energy bonds [3]	20	20	20	20	20	20	20	20	20	20	20	200
23	Credit for investment in clean coal facilities	0	0	10	20	40	40	40	30	30	20	20	250
24	Amortize all geological and geophysical expenditures over 2 years	40	40	40	50	50	50	50	50	40	40	40	450
25	Allowance of deduction for certain energy efficient commercial building property	40	20	20	20	20	20	20	20	20	20	20	200
26	Credit for construction of new energy efficient homes	230	160	160	150	160	170	110	40	10	0	0	960
27	Credit for energy efficiency improvements to existing homes	0	0	0	0	0	0	0	0	0	0	0	0
28	Credit for residential energy efficient property	0	0	0	0	0	0	0	0	0	0	0	0

Table 13–2A. ESTIMATES OF TOTAL CORPORATE INCOME TAX EXPENDITURES FOR FISCAL YEARS 2021–2031—Continued

(In millions of dollars)

		Total from corporations											
		2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2022–2031
29	Qualified energy conservation bonds [4]	10	10	10	10	10	10	10	10	10	10	10	100
30	Advanced energy property credit	10	10	10	10	10	10	10	10	10	10	0	90
31	Advanced nuclear power production credit	0	30	140	210	240	270	280	280	280	230	100	2,060
32	Reduced tax rate for nuclear decommissioning funds	110	110	120	120	130	130	140	150	150	160	170	1,380
Natural resources and environment:													
33	Expensing of exploration and development costs, nonfuel minerals	0	0	0	0	10	10	10	10	10	10	10	70
34	Excess of percentage over cost depletion, nonfuel minerals	60	70	80	80	90	90	100	110	110	120	120	970
35	Exclusion of interest on bonds for water, sewage, and hazardous waste facilities	60	50	40	50	50	60	70	70	80	70	90	630
36	Capital gains treatment of certain timber income	0	0	0	0	0	0	0	0	0	0	0	0
37	Expensing of multiperiod timber growing costs	100	100	100	110	110	110	110	120	120	120	130	1,130
38	Tax incentives for preservation of historic structures	480	460	540	650	730	780	810	820	830	840	850	7,310
39	Carbon oxide sequestration credit	460	580	720	820	1,020	1,310	2,180	2,970	3,250	3,570	3,710	20,130
40	Deduction for endangered species recovery expenditures	10	10	10	10	10	10	20	20	20	20	20	150
Agriculture:													
41	Expensing of certain capital outlays	0	10	10	10	10	10	10	10	10	10	10	100
42	Expensing of certain multiperiod production costs	10	10	10	10	10	10	20	20	20	20	20	150
43	Treatment of loans forgiven for solvent farmers	0	0	0	0	0	0	0	0	0	0	0	0
44	Capital gains treatment of certain agriculture income	0	0	0	0	0	0	0	0	0	0	0	0
45	Income averaging for farmers	0	0	0	0	0	0	0	0	0	0	0	0
46	Deferral of gain on sale of farm refiners	0	0	0	0	0	0	0	0	0	0	0	0
47	Expensing of reforestation expenditures	10	10	10	10	10	10	10	10	10	10	10	100
Commerce and housing:													
	Financial institutions and insurance:												
48	Exemption of credit union income	2,080	2,120	2,170	2,350	2,410	2,450	2,650	2,740	2,790	2,830	2,820	25,330
49	Exclusion of life insurance death benefits	1,210	1,290	1,340	1,370	1,400	1,420	1,450	1,480	1,510	1,540	1,580	14,380
50	Exemption or special alternative tax for small property and casualty insurance companies	1,050	1,170	1,210	1,240	1,270	1,300	1,350	1,380	1,410	1,470	1,510	13,310
51	Tax exemption of insurance income earned by tax-exempt organizations	330	350	360	370	370	380	390	390	400	410	420	3,840
52	Exclusion of interest spread of financial institutions	0	0	0	0	0	0	0	0	0	0	0	0
	Housing:												
53	Exclusion of interest on owner-occupied mortgage subsidy bonds	150	120	90	120	120	150	170	180	220	180	240	1,590
54	Exclusion of interest on rental housing bonds	250	200	160	200	210	250	290	300	370	300	410	2,690
55	Mortgage interest expense on owner-occupied residences	0	0	0	0	0	0	0	0	0	0	0	0
56	Deductibility of State and local property tax on owner-occupied homes	0	0	0	0	0	0	0	0	0	0	0	0

Table 13–2A. ESTIMATES OF TOTAL CORPORATE INCOME TAX EXPENDITURES FOR FISCAL YEARS 2021–2031—Continued

(In millions of dollars)

		Total from corporations											
		2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2022–2031
57	Deferral of income from installment sales	0	0	0	0	0	0	0	0	0	0	0	0
58	Capital gains exclusion on home sales	0	0	0	0	0	0	0	0	0	0	0	0
59	Exclusion of net imputed rental income	0	0	0	0	0	0	0	0	0	0	0	0
60	Exception from passive loss rules for $25,000 of rental loss	0	0	0	0	0	0	0	0	0	0	0	0
61	Credit for low-income housing investments	8,430	10,720	10,020	9,860	9,820	9,890	10,150	10,420	10,690	10,970	11,260	103,800
62	Accelerated depreciation on rental housing (normal tax method)	60	60	60	70	80	90	90	100	100	100	110	860
63	Discharge of mortgage indebtedness	0	0	0	0	0	0	0	0	0	0	0	0
64	Premiums for mortgage insurance deductible as interest	0	0	0	0	0	0	0	0	0	0	0	0
	Commerce:												
65	Discharge of business indebtedness	0	0	0	0	0	0	0	0	0	0	0	0
66	Exceptions from imputed interest rules	0	0	0	0	0	0	0	0	0	0	0	0
67	Treatment of qualified dividends	0	0	0	0	0	0	0	0	0	0	0	0
68	Capital gains (except agriculture, timber, iron ore, and coal)	0	0	0	0	0	0	0	0	0	0	0	0
69	Capital gains exclusion of small corporation stock	0	0	0	0	0	0	0	0	0	0	0	0
70	Step-up basis of capital gains at death	0	0	0	0	0	0	0	0	0	0	0	0
71	Carryover basis of capital gains on gifts	0	0	0	0	0	0	0	0	0	0	0	0
72	Ordinary income treatment of loss from small business corporation stock sale	0	0	0	0	0	0	0	0	0	0	0	0
73	Deferral of capital gains from like-kind exchanges	1,120	1,170	1,230	1,290	1,350	1,420	1,480	1,560	1,640	1,720	1,810	14,670
74	Depreciation of buildings other than rental housing (normal tax method)	720	610	370	350	370	340	300	320	370	420	460	3,910
75	Accelerated depreciation of machinery and equipment (normal tax method)	14,350	10,190	4,490	–2,330	–9,310	–14,580	–18,840	–14,780	–8,300	–4,290	–1,810	–59,560
76	Expensing of certain small investments (normal tax method)	–10	30	120	370	630	800	950	840	640	520	450	5,350
77	Exclusion of interest on small issue bonds	20	10	10	10	10	20	20	20	20	20	30	170
78	Special rules for certain film and TV production	–30	0	60	110	150	–230	–310	–150	–70	–30	–10	–480
79	Allow 20-percent deduction to certain pass-through income	0	0	0	0	0	0	0	0	0	0	0	0
Transportation:													
80	Tonnage tax	100	110	110	110	120	120	120	130	130	140	140	1,230
81	Deferral of tax on shipping companies	10	10	10	10	10	10	10	10	10	10	10	100
82	Exclusion of reimbursed employee parking expenses	–1,044	–1,243	–1,422	–1,476	–1,545	–1,615	–1,686	–1,765	–1,849	–1,886	–1,924	–16,411
83	Exclusion for employer-provided transit passes	–350	–427	–501	–532	–572	–611	–657	–703	–754	–769	–784	–6,310
84	Tax credit for certain expenditures for maintaining railroad tracks	110	110	80	50	40	30	20	20	10	10	10	380
85	Exclusion of interest on bonds for Highway Projects and rail-truck transfer facilities	130	130	120	120	110	100	100	90	80	80	70	1,000
Community and regional development:													
86	Exclusion of interest for airport, dock, and similar bonds	150	120	90	120	120	150	170	180	220	180	240	1,590

Table 13–2A. ESTIMATES OF TOTAL CORPORATE INCOME TAX EXPENDITURES FOR FISCAL YEARS 2021–2031—Continued

(In millions of dollars)

		Total from corporations											
		2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2022–2031
87	Exemption of certain mutuals' and cooperatives' income	90	100	100	100	100	110	110	110	110	120	120	1,080
88	Empowerment zones	80	70	70	80	80	60	40	30	20	20	20	490
89	New markets tax credit	1,120	1,150	1,190	1,230	1,280	1,330	1,310	1,200	1,040	850	630	11,210
90	Credit to holders of Gulf and Midwest Tax Credit Bonds	20	10	10	10	10	10	10	10	10	10	10	100
91	Recovery Zone Bonds [5]	20	10	10	10	10	10	10	10	10	10	10	100
92	Tribal Economic Development Bonds	0	0	0	0	0	0	0	0	0	0	0	0
93	Opportunity Zones	630	530	390	380	380	–1,820	–1,260	110	150	180	210	–750
94	Disaster Employee Retention Credit	130	130	70	50	50	40	30	30	20	20	20	460
	Education, training, employment, and social services:												
	Education:												
95	Exclusion of scholarship and fellowship income (normal tax method)	0	0	0	0	0	0	0	0	0	0	0	0
96	Tax credits for post-secondary education expenses [6]	0	0	0	0	0	0	0	0	0	0	0	0
97	Deductibility of student loan interest	0	0	0	0	0	0	0	0	0	0	0	0
98	Qualified tuition programs (includes Education IRA)	0	0	0	0	0	0	0	0	0	0	0	0
99	Exclusion of interest on student-loan bonds	30	20	20	20	20	30	30	40	40	40	50	310
100	Exclusion of interest on bonds for private nonprofit educational facilities	400	320	250	320	330	400	460	480	590	480	650	4,280
101	Credit for holders of zone academy bonds [7]	130	110	90	80	60	50	50	40	40	40	30	590
102	Exclusion of interest on savings bonds redeemed to finance educational expenses	0	0	0	0	0	0	0	0	0	0	0	0
103	Parental personal exemption for students age 19 or over	0	0	0	0	0	0	0	0	0	0	0	0
104	Charitable contributions to educational institutions	630	670	700	740	770	810	840	870	900	940	990	8,230
105	Exclusion of employer-provided educational assistance	0	0	0	0	0	0	0	0	0	0	0	0
106	Special deduction for teacher expenses	0	0	0	0	0	0	0	0	0	0	0	0
107	Discharge of student loan indebtedness	0	0	0	0	0	0	0	0	0	0	0	0
108	Qualified school construction bonds [8]	130	130	120	120	110	100	100	90	80	80	70	1,000
	Training, employment, and social services:												
109	Work opportunity tax credit	1,280	1,340	1,380	1,430	1,470	920	410	290	220	160	130	7,750
110	Employer provided child care exclusion	0	0	0	0	0	0	0	0	0	0	0	0
111	Employer-provided child care credit	20	20	20	20	20	20	20	30	30	30	30	240
112	Assistance for adopted foster children	0	0	0	0	0	0	0	0	0	0	0	0
113	Adoption credit and exclusion	0	0	0	0	0	0	0	0	0	0	0	0
114	Exclusion of employee meals and lodging (other than military)	–210	–140	–560	–840	–880	–910	–950	–980	–1,020	–1,060	–1,100	–8,440
115	Credit for child and dependent care expenses	0	0	0	0	0	0	0	0	0	0	0	0
116	Credit for disabled access expenditures	0	0	0	0	0	0	0	0	0	0	0	0
117	Deductibility of charitable contributions, other than education and health	1,270	1,320	1,370	1,420	1,480	1,550	1,610	1,670	1,730	1,800	1,870	15,820

Table 13–2A. ESTIMATES OF TOTAL CORPORATE INCOME TAX EXPENDITURES FOR FISCAL YEARS 2021–2031—Continued
(In millions of dollars)

		Total from corporations											
		2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2022–2031
118	Exclusion of certain foster care payments	0	0	0	0	0	0	0	0	0	0	0	0
119	Exclusion of parsonage allowances	0	0	0	0	0	0	0	0	0	0	0	0
120	Indian employment credit	40	30	10	10	10	10	10	10	0	0	0	90
121	Credit for employer differential wage payments	0	0	0	0	0	10	10	10	10	10	10	60
Health:													
122	Exclusion of employer contributions for medical insurance premiums and medical care [10]	0	0	0	0	0	0	0	0	0	0	0	0
123	Self-employed medical insurance premiums	0	0	0	0	0	0	0	0	0	0	0	0
124	Medical Savings Accounts and Health Savings Accounts	0	0	0	0	0	0	0	0	0	0	0	0
125	Deductibility of medical expenses	0	0	0	0	0	0	0	0	0	0	0	0
126	Exclusion of interest on hospital construction bonds	580	460	360	460	470	570	650	690	840	690	920	6,110
127	Refundable Premium Assistance Tax Credit [11]	0	0	0	0	0	0	0	0	0	0	0	0
128	Credit for employee health insurance expenses of small business [12]	10	10	0	0	0	0	0	0	0	0	0	10
129	Deductibility of charitable contributions to health institutions	4,110	4,330	4,540	4,760	4,980	5,200	5,420	5,660	5,890	6,130	6,370	53,280
130	Tax credit for orphan drug research	1,890	2,280	2,740	3,300	3,970	4,780	5,750	6,920	8,340	10,040	12,090	60,210
131	Special Blue Cross/Blue Shield tax benefits	230	300	330	350	360	380	400	430	460	490	530	4,030
132	Distributions from retirement plans for premiums for health and long-term care insurance	0	0	0	0	0	0	0	0	0	0	0	0
133	Credit for family and sick leave taken by self-employed individuals	0	0	0	0	0	0	0	0	0	0	0	0
Income security:													
134	Child tax credit [13]	0	0	0	0	0	0	0	0	0	0	0	0
135	Exclusion of railroad Social Security equivalent benefits	0	0	0	0	0	0	0	0	0	0	0	0
136	Exclusion of workers' compensation benefits	0	0	0	0	0	0	0	0	0	0	0	0
137	Exclusion of public assistance benefits (normal tax method)	0	0	0	0	0	0	0	0	0	0	0	0
138	Exclusion of special benefits for disabled coal miners	0	0	0	0	0	0	0	0	0	0	0	0
139	Exclusion of military disability pensions	0	0	0	0	0	0	0	0	0	0	0	0
	Net exclusion of pension contributions and earnings:	0	0	0	0	0	0	0	0	0	0	0	0
140	Defined benefit employer plans	0	0	0	0	0	0	0	0	0	0	0	0
141	Defined contribution employer plans	0	0	0	0	0	0	0	0	0	0	0	0
142	Individual Retirement Accounts (IRAs)	0	0	0	0	0	0	0	0	0	0	0	0
143	Low- and moderate-income savers' credit	0	0	0	0	0	0	0	0	0	0	0	0
144	Self-employed plans	0	0	0	0	0	0	0	0	0	0	0	0
	Exclusion of other employee benefits:												
145	Premiums on group term life insurance	0	0	0	0	0	0	0	0	0	0	0	0
146	Premiums on accident and disability insurance	0	0	0	0	0	0	0	0	0	0	0	0
147	Exclusion of investment income from Supplementary Unemployment Benefit Trusts	0	0	0	0	0	0	0	0	0	0	0	0

Table 13–2A. ESTIMATES OF TOTAL CORPORATE INCOME TAX EXPENDITURES FOR FISCAL YEARS 2021–2031—Continued

(In millions of dollars)

		Total from corporations											
		2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2022–2031
148	Exclusion of investment income from Voluntary Employee Benefit Associations trusts	1,130	1,190	1,260	1,330	1,420	1,580	1,640	1,720	1,810	1,900	1,990	15,840
149	Special Employee Stock Ownership Plan (ESOP) rules	180	190	190	200	200	210	210	220	220	230	230	2,100
150	Additional deduction for the blind	0	0	0	0	0	0	0	0	0	0	0	0
151	Additional deduction for the elderly	0	0	0	0	0	0	0	0	0	0	0	0
152	Deductibility of casualty losses	0	0	0	0	0	0	0	0	0	0	0	0
153	Earned income tax credit (EITC) [14]	0	0	0	0	0	0	0	0	0	0	0	0
154	Recovery rebate credits [15]	0	0	0	0	0	0	0	0	0	0	0	0
155	Exemption of unemployment insurance benefits	0	0	0	0	0	0	0	0	0	0	0	0
Social Security:													
	Exclusion of social security benefits:	0	0	0	0	0	0	0	0	0	0	0	0
156	Social Security benefits for retired and disabled workers and spouses, dependents and survivors	0	0	0	0	0	0	0	0	0	0	0	0
157	Credit for certain employer social security contributions	230	310	330	350	370	390	400	420	440	460	470	3,940
Veterans benefits and services:													
158	Exclusion of veterans death benefits and disability compensation	0	0	0	0	0	0	0	0	0	0	0	0
159	Exclusion of veterans pensions	0	0	0	0	0	0	0	0	0	0	0	0
160	Exclusion of G.I. Bill benefits	0	0	0	0	0	0	0	0	0	0	0	0
161	Exclusion of interest on veterans housing bonds	10	10	10	10	10	10	20	20	20	20	20	150
General government:													
162	Exclusion of interest on public purpose State and local bonds	5,140	4,110	3,160	4,080	4,210	5,060	5,820	6,110	7,450	6,120	8,220	54,340
163	Build America Bonds [16]	0	0	0	0	0	0	0	0	0	0	0	0
164	Deductibility of nonbusiness State and local taxes other than on owner-occupied homes [17]	0	0	0	0	0	0	0	0	0	0	0	0
Interest:													
165	Deferral of interest on U.S. savings bonds	0	0	0	0	0	0	0	0	0	0	0	0
Addendum: Aid to State and local governments:													
	Deductibility of:												
	Property taxes on owner-occupied homes	0	0	0	0	0	0	0	0	0	0	0	0
	Nonbusiness State and local taxes other than on owner-occupied homes	0	0	0	0	0	0	0	0	0	0	0	0
	Exclusion of interest on State and local bonds for:												
	Public purposes	5,140	4,110	3,160	4,080	4,210	5,060	5,820	6,110	7,450	6,120	8,220	54,340
	Energy facilities	0	0	0	0	0	0	0	0	0	0	0	0
	Water, sewage, and hazardous waste disposal facilities	60	50	40	50	50	60	70	70	80	70	90	630
	Small-issues	20	10	10	10	10	20	20	20	20	20	30	170
	Owner-occupied mortgage subsidies	150	120	90	120	120	150	170	180	220	180	240	1,590
	Rental housing	250	200	160	200	210	250	290	300	370	300	410	2,690
	Airports, docks, and similar facilities	150	120	90	120	120	150	170	180	220	180	240	1,590
	Student loans	30	20	20	20	20	30	30	40	40	40	50	310
	Private nonprofit educational facilities	400	320	250	320	330	400	460	480	590	480	650	4,280

Table 13–2A. ESTIMATES OF TOTAL CORPORATE INCOME TAX EXPENDITURES FOR FISCAL YEARS 2021–2031—Continued

(In millions of dollars)

	Total from corporations											
	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2022–2031
Hospital construction	580	460	360	460	470	570	650	690	840	690	920	6,110
Veterans' housing	10	10	10	10	10	10	20	20	20	20	20	150

See Table 1 footnotes for specific table information

Table 13–2B. ESTIMATES OF TOTAL INDIVIDUAL INCOME TAX EXPENDITURES FOR FISCAL YEARS 2021–2031
(In millions of dollars)

		Total from individuals											
		2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2022–2031
National Defense:													
1	Exclusion of benefits and allowances to armed forces personnel	13,940	14,500	15,050	15,630	14,390	14,540	15,060	15,720	16,430	17,200	18,020	156,540
International affairs:													
2	Exclusion of income earned abroad by U.S. citizens	6,470	6,790	7,130	7,490	7,860	8,260	8,670	9,100	9,560	10,040	10,540	85,440
3	Exclusion of certain allowances for Federal employees abroad	280	290	310	320	340	360	370	390	410	430	450	3,670
4	Reduced tax rate on active income of controlled foreign corporations (normal tax method)	211	235	251	265	286	217	237	238	238	247	253	2,468
5	Deduction for foreign-derived intangible income dervied from trade or business within the United States	0	0	0	0	0	0	0	0	0	0	0	0
6	Interest Charge Domestic International Sales Corporations (IC-DISCs)	990	1,520	1,590	1,670	1,770	2,040	2,280	2,410	2,520	2,630	2,750	21,180
General science, space, and technology:													
7	Expensing of research and experimentation expenditures (normal tax method)	890	–1,550	–6,450	–4,790	–3,070	–1,290	0	0	0	0	0	–17,150
8	Credit for increasing research activities	1,960	2,160	2,330	2,480	2,630	2,780	2,950	3,130	3,320	3,530	3,760	29,070
Energy:													
9	Expensing of exploration and development costs, fuels	–40	70	170	270	300	330	350	360	370	370	350	2,940
10	Excess of percentage over cost depletion, fuels	260	300	330	350	370	410	450	490	520	540	570	4,330
11	Exception from passive loss limitation for working interests in oil and gas properties	20	20	20	20	20	20	20	20	20	20	20	200
12	Capital gains treatment of royalties on coal	70	50	50	50	50	60	60	60	70	70	70	590
13	Exclusion of interest on energy facility bonds	10	10	10	10	10	10	10	10	10	10	10	100
14	Enhanced oil recovery credit	30	20	20	30	40	50	60	70	70	80	80	520
15	Energy production credit	530	520	550	590	620	590	570	540	500	440	370	5,290
16	Marginal wells credit	40	40	30	30	40	60	60	70	70	70	70	540
17	Energy investment credit	520	590	580	630	650	600	590	470	370	250	210	4,940
18	Alcohol fuel credits [1]	10	0	0	0	0	0	0	0	0	0	0	0
19	Bio-Diesel and small agri-biodiesel producer tax credits [2]	20	20	10	0	0	0	0	0	0	0	0	30
20	Tax credits for clean-fuel burning vehicles and refueling property	300	410	400	340	330	330	270	230	220	210	200	2,940
21	Exclusion of utility conservation subsidies	60	50	50	50	40	40	40	30	30	30	30	390
22	Credit for holding clean renewable energy bonds [3]	50	50	50	50	50	50	50	50	50	50	50	500
23	Credit for investment in clean coal facilities	0	0	0	0	0	0	0	0	0	0	0	0
24	Amortize all geological and geophysical expenditures over 2 years	70	80	80	90	90	90	90	90	90	80	80	860
25	Allowance of deduction for certain energy efficient commercial building property	170	120	100	100	100	110	110	110	110	110	110	1,080
26	Credit for construction of new energy efficient homes	140	120	100	100	100	100	60	20	10	0	0	610
27	Credit for energy efficiency improvements to existing homes	240	120	0	0	0	0	0	0	0	0	0	120
28	Credit for residential energy efficient property	2,590	2,200	1,640	480	140	0	0	0	0	0	0	4,460

Table 13–2B. ESTIMATES OF TOTAL INDIVIDUAL INCOME TAX EXPENDITURES FOR FISCAL YEARS 2021–2031—Continued

(In millions of dollars)

		Total from individuals											
		2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2022–2031
29	Qualified energy conservation bonds [4]	20	20	20	20	20	20	20	20	20	20	20	200
30	Advanced energy property credit	0	0	0	0	0	0	0	0	0	0	0	0
31	Advanced nuclear power production credit	0	0	0	0	0	0	0	0	0	0	0	0
32	Reduced tax rate for nuclear decommissioning funds	0	0	0	0	0	0	0	0	0	0	0	0
Natural resources and environment:													
33	Expensing of exploration and development costs, nonfuel minerals	0	10	10	20	30	30	30	30	30	30	30	250
34	Excess of percentage over cost depletion, nonfuel minerals	50	50	60	60	60	70	80	90	90	100	100	760
35	Exclusion of interest on bonds for water, sewage, and hazardous waste facilities	290	310	310	310	310	330	330	330	350	350	340	3,270
36	Capital gains treatment of certain timber income	140	140	150	150	160	170	190	200	210	220	230	1,820
37	Expensing of multiperiod timber growing costs	110	120	120	130	130	140	150	160	160	170	170	1,450
38	Tax incentives for preservation of historic structures	130	120	130	160	180	200	210	210	210	220	220	1,860
39	Carbon oxide sequestration credit	0	0	0	0	0	0	0	0	0	0	0	0
40	Deduction for endangered species recovery expenditures	20	20	20	30	30	30	40	40	40	50	50	350
Agriculture:													
41	Expensing of certain capital outlays	110	110	120	120	130	160	180	190	190	200	210	1,610
42	Expensing of certain multiperiod production costs	310	260	270	280	300	370	400	420	440	460	480	3,680
43	Treatment of loans forgiven for solvent farmers	50	60	60	60	60	70	70	70	70	70	70	660
44	Capital gains treatment of certain agriculture income	1,370	1,440	1,500	1,540	1,610	1,750	1,890	1,980	2,080	2,180	2,280	18,250
45	Income averaging for farmers	190	200	200	210	220	230	230	230	230	230	230	2,210
46	Deferral of gain on sale of farm refiners	20	20	20	20	20	20	20	20	20	20	20	200
47	Expensing of reforestation expenditures	40	50	50	50	60	60	70	70	70	70	70	620
Commerce and housing:													
	Financial institutions and insurance:												
48	Exemption of credit union income	0	0	0	0	0	0	0	0	0	0	0	0
49	Exclusion of life insurance death benefits	10,760	11,620	12,060	12,760	13,530	14,470	15,400	15,660	16,190	16,640	17,010	145,340
50	Exemption or special alternative tax for small property and casualty insurance companies	0	0	0	0	0	0	0	0	0	0	0	0
51	Tax exemption of insurance income earned by tax-exempt organizations	0	0	0	0	0	0	0	0	0	0	0	0
52	Exclusion of interest spread of financial institutions	3,110	2,030	2,100	2,170	2,260	2,400	2,530	2,600	2,690	2,780	2,860	24,420
	Housing:												
53	Exclusion of interest on owner-occupied mortgage subsidy bonds	760	800	800	800	800	850	870	870	920	910	890	8,510
54	Exclusion of interest on rental housing bonds	1,290	1,360	1,350	1,350	1,350	1,440	1,460	1,480	1,560	1,530	1,500	14,380
55	Mortgage interest expense on owner-occupied residences	29,370	30,340	31,340	33,530	36,770	79,990	105,190	111,260	117,100	123,350	129,490	798,360
56	Deductibility of State and local property tax on owner-occupied homes	6,740	7,030	7,070	7,290	7,700	39,370	57,270	60,230	63,060	66,110	69,310	384,440

Table 13–2B. ESTIMATES OF TOTAL INDIVIDUAL INCOME TAX EXPENDITURES FOR FISCAL YEARS 2021–2031—Continued

(In millions of dollars)

		Total from individuals											
		2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2022–2031
57	Deferral of income from installment sales	1,490	1,560	1,620	1,670	1,730	1,800	1,870	1,940	2,020	2,110	2,200	18,520
58	Capital gains exclusion on home sales	40,900	42,730	44,640	46,410	48,110	53,260	56,890	58,980	61,240	63,650	66,210	542,120
59	Exclusion of net imputed rental income	124,100	130,880	135,350	137,800	139,670	168,950	176,240	183,760	191,740	200,200	209,370	1,673,960
60	Exception from passive loss rules for $25,000 of rental loss	5,910	5,940	6,200	6,460	6,980	7,720	8,010	8,260	8,480	8,750	9,080	75,880
61	Credit for low-income housing investments	470	560	520	520	520	520	540	550	560	580	590	5,460
62	Accelerated depreciation on rental housing (normal tax method)	4,330	4,370	4,490	4,750	5,080	5,630	6,220	6,640	6,960	7,160	7,380	58,680
63	Discharge of mortgage indebtedness	250	270	280	290	310	80	0	0	0	0	0	1,230
64	Premiums for mortgage insurance deductible as interest	580	150	0	0	0	0	0	0	0	0	0	150
	Commerce:												
65	Discharge of business indebtedness	30	40	20	20	10	30	30	30	30	40	40	290
66	Exceptions from imputed interest rules	20	30	40	50	50	60	70	70	80	80	80	110
67	Treatment of qualified dividends	31,650	33,120	34,660	35,880	37,560	40,660	43,600	45,580	47,870	50,100	52,400	421,430
68	Capital gains (except agriculture, timber, iron ore, and coal)	102,250	107,710	111,640	115,280	119,950	130,650	141,370	147,950	155,320	162,550	170,430	1,362,850
69	Capital gains exclusion of small corporation stock	1,520	1,620	1,740	1,830	1,900	1,970	2,040	2,110	2,200	2,290	2,390	20,090
70	Step-up basis of capital gains at death	41,850	43,910	46,060	48,480	51,420	53,990	58,580	62,250	66,070	70,270	74,830	575,860
71	Carryover basis of capital gains on gifts	3,400	4,290	4,360	4,610	4,650	5,240	5,890	5,700	5,590	5,590	5,670	51,590
72	Ordinary income treatment of loss from small business corporation stock sale	70	70	70	80	80	80	80	90	90	90	90	820
73	Deferral of capital gains from like-kind exchanges	2,080	2,180	2,290	2,400	2,520	2,650	2,780	2,920	3,070	3,220	3,380	27,410
74	Depreciation of buildings other than rental housing (normal tax method)	2,980	2,860	2,670	2,450	2,310	2,280	2,220	2,260	2,320	2,310	2,400	24,080
75	Accelerated depreciation of machinery and equipment (normal tax method)	17,120	15,990	7,020	–220	–5,160	–10,850	–18,350	–14,470	–6,850	–2,420	420	–34,890
76	Expensing of certain small investments (normal tax method)	–1,570	–790	3,350	6,610	8,770	11,540	14,450	13,490	11,400	10,320	9,820	88,960
77	Exclusion of interest on small issue bonds	80	90	80	80	80	90	90	90	100	100	90	890
78	Special rules for certain film and TV production	–20	0	40	70	90	–160	–220	–110	–50	–20	–10	–370
79	Allow 20-percent deduction to certain pass-through income	33,775	56,071	56,703	59,145	63,032	25,908	0	0	0	0	0	260,859
	Transportation:												
80	Tonnage tax	0	0	0	0	0	0	0	0	0	0	0	0
81	Deferral of tax on shipping companies	0	0	0	0	0	0	0	0	0	0	0	0
82	Exclusion of reimbursed employee parking expenses	2,508	2,985	3,509	3,621	3,761	3,942	4,123	4,311	4,517	4,736	4,966	40,471
83	Exclusion for employer-provided transit passes	642	786	944	997	1,061	1,144	1,224	1,315	1,410	1,514	1,625	12,020
84	Tax credit for certain expenditures for maintaining railroad tracks	60	60	50	30	20	10	10	10	10	0	0	200
85	Exclusion of interest on bonds for Highway Projects and rail-truck transfer facilities	120	120	110	110	100	100	90	90	90	80	80	970

Table 13–2B. ESTIMATES OF TOTAL INDIVIDUAL INCOME TAX EXPENDITURES FOR FISCAL YEARS 2021–2031—Continued

(In millions of dollars)

		Total from individuals											
		2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2022–2031
Community and regional development:													
86	Exclusion of interest for airport, dock, and similar bonds	770	810	810	810	810	860	870	880	930	920	900	8,600
87	Exemption of certain mutuals' and cooperatives' income	0	0	0	0	0	0	0	0	0	0	0	0
88	Empowerment zones	50	20	30	30	30	30	20	10	0	0	0	170
89	New markets tax credit	20	20	20	20	30	30	30	30	20	20	10	230
90	Credit to holders of Gulf and Midwest Tax Credit Bonds	100	100	90	80	70	70	70	60	50	50	40	680
91	Recovery Zone Bonds [5]	90	90	80	70	70	60	60	50	50	40	30	600
92	Tribal Economic Development Bonds	10	10	10	10	10	10	10	10	10	10	10	100
93	Opportunity Zones	2,360	2,960	1,710	1,800	1,690	–3,760	–9,960	480	630	810	910	–2,730
94	Disaster Employee Retention Credit	30	30	20	10	10	10	10	10	10	10	0	120
Education, training, employment, and social services:													
Education:													
95	Exclusion of scholarship and fellowship income (normal tax method)	3,790	4,140	4,280	4,520	4,800	5,370	6,230	6,590	6,980	7,380	7,800	58,090
96	Tax credits for post-secondary education expenses [6]	9,250	14,620	14,380	14,320	14,180	14,070	14,130	13,900	13,670	13,430	13,200	139,900
97	Deductibility of student loan interest	2,110	2,260	2,190	2,280	2,330	2,530	2,880	2,920	3,040	3,060	3,100	26,590
98	Qualified tuition programs (includes Education IRA)	2,790	2,970	3,200	3,570	4,060	4,980	5,980	7,090	8,550	10,500	13,070	63,970
99	Exclusion of interest on student-loan bonds	150	160	160	160	160	170	170	170	180	180	170	1,680
100	Exclusion of interest on bonds for private nonprofit educational facilities	2,050	2,150	2,150	2,140	2,150	2,290	2,320	2,340	2,480	2,440	2,380	22,840
101	Credit for holders of zone academy bonds [7]	0	0	0	0	0	0	0	0	0	0	0	0
102	Exclusion of interest on savings bonds redeemed to finance educational expenses	40	40	40	40	40	50	50	50	50	50	50	460
103	Parental personal exemption for students age 19 or over	0	0	0	0	0	3,400	5,020	4,930	4,830	4,740	4,640	27,560
104	Charitable contributions to educational institutions	4,250	4,520	4,810	5,080	5,360	6,480	8,530	8,930	9,360	9,490	9,630	72,190
105	Exclusion of employer-provided educational assistance	1,390	1,510	1,630	1,740	1,860	1,650	1,570	1,650	1,730	1,810	1,900	17,050
106	Special deduction for teacher expenses	170	180	170	170	180	190	210	210	210	210	220	1,950
107	Discharge of student loan indebtedness	90	90	100	110	120	150	170	190	210	240	260	1,640
108	Qualified school construction bonds [8]	410	390	370	350	330	310	290	270	250	240	230	3,030
Training, employment, and social services:													
109	Work opportunity tax credit	410	440	450	460	480	380	120	80	60	40	30	2,540
110	Employer provided child care exclusion	420	530	640	680	730	970	1,100	1,170	1,240	1,320	1,390	9,770
111	Employer-provided child care credit	0	0	0	0	0	0	0	0	0	0	10	10
112	Assistance for adopted foster children	660	700	750	800	850	900	960	1,020	1,080	1,150	1,220	9,430
113	Adoption credit and exclusion	790	830	860	880	900	910	920	930	940	950	950	9,070
114	Exclusion of employee meals and lodging (other than military)	5,830	7,900	8,680	8,890	9,150	10,470	11,250	11,550	11,890	12,270	12,660	104,710
115	Credit for child and dependent care expenses	3,860	5,230	3,480	3,540	3,610	3,730	3,870	3,950	4,040	4,120	4,210	39,780
116	Credit for disabled access expenditures	10	10	10	10	10	10	10	10	10	10	10	100

Table 13–2B. ESTIMATES OF TOTAL INDIVIDUAL INCOME TAX EXPENDITURES FOR FISCAL YEARS 2021–2031—Continued

(In millions of dollars)

		Total from individuals											
		2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2022–2031
117	Deductibility of charitable contributions, other than education and health	42,340	45,090	47,850	50,630	53,330	64,530	84,890	88,900	93,100	97,500	102,110	727,930
118	Exclusion of certain foster care payments	510	510	520	530	540	540	540	540	560	580	590	5,450
119	Exclusion of parsonage allowances	950	1,000	1,050	1,110	1,170	1,230	1,300	1,370	1,440	1,510	1,590	12,770
120	Indian employment credit	30	20	20	20	20	10	10	10	10	10	10	140
121	Credit for employer differential wage payments	0	0	0	0	0	0	0	0	10	10	10	30
Health:													
122	Exclusion of employer contributions for medical insurance premiums and medical care [10]	221,460	221,020	225,140	235,300	248,460	289,890	320,580	337,950	356,210	375,490	395,820	3,005,860
123	Self-employed medical insurance premiums	7,690	8,010	8,530	9,080	9,650	11,070	12,180	12,870	13,580	14,300	15,120	114,390
124	Deductibility of charitable contributions to health institutions	10,760	10,890	11,150	11,610	12,220	13,900	14,960	15,490	16,050	16,540	17,020	139,830
125	Deductibility of medical expenses	8,350	8,820	9,390	10,100	10,980	16,760	20,830	22,660	24,600	26,700	28,940	179,780
126	Exclusion of interest on hospital construction bonds	2,930	3,070	3,070	3,060	3,070	3,270	3,320	3,350	3,540	3,480	3,400	32,630
127	Refundable Premium Assistance Tax Credit [11]	6,360	5,160	3,690	3,990	4,270	4,980	5,450	5,910	6,310	6,670	7,090	53,520
128	Credit for employee health insurance expenses of small business [12]	30	20	10	10	0	0	0	0	0	0	0	40
129	Deductibility of charitable contributions (health)	4,710	5,020	5,330	5,640	5,930	7,190	9,450	9,900	10,370	10,860	11,370	81,060
130	Tax credit for orphan drug research	10	10	10	10	20	20	20	20	20	20	20	170
131	Special Blue Cross/Blue Shield tax benefits	0	0	0	0	0	0	0	0	0	0	0	0
132	Distributions from retirement plans for premiums for health and long-term care insurance	450	460	470	490	500	590	630	650	660	670	670	5,790
133	Credit for family and sick leave taken by self-employed individuals	1,180	180	0	0	0	0	0	0	0	0	0	180
Income security:													
134	Child tax credit [13]	72,571	65,242	76,883	77,011	77,468	48,710	20,580	20,330	20,100	19,880	19,660	445,864
135	Exclusion of railroad Social Security equivalent benefits	300	280	250	230	210	200	190	170	140	110	80	1,860
136	Exclusion of workers' compensation benefits	9,010	9,020	9,030	9,040	9,040	9,050	9,060	9,070	9,080	9,080	9,090	90,560
137	Exclusion of public assistance benefits (normal tax method)	600	600	630	630	640	680	700	730	740	730	770	6,850
138	Exclusion of special benefits for disabled coal miners	20	20	20	20	20	20	10	10	10	10	10	150
139	Exclusion of military disability pensions	170	170	170	170	180	200	210	210	220	220	230	1,980
	Net exclusion of pension contributions and earnings:												
140	Defined benefit employer plans	70,340	73,370	74,750	77,170	78,490	86,410	86,680	87,300	84,610	81,640	77,550	807,970
141	Defined contribution employer plans	100,020	102,850	109,150	111,860	117,110	138,380	142,790	148,130	154,690	161,090	167,690	1,353,740
142	Individual Retirement Accounts (IRAs)	20,770	19,890	21,460	22,630	23,660	28,840	30,570	32,170	34,010	36,300	38,780	288,310
143	Low- and moderate-income savers' credit	1,220	1,260	1,300	1,270	1,270	1,440	1,410	1,400	1,400	1,390	1,400	13,540
144	Self-employed plans	32,260	33,170	35,210	36,080	37,780	44,640	46,060	47,780	49,900	51,960	54,090	436,670
	Exclusion of other employee benefits:												
145	Premiums on group term life insurance	3,190	3,250	3,330	3,450	3,580	4,060	4,310	4,450	4,590	4,740	4,900	40,660
146	Premiums on accident and disability insurance	340	340	340	350	350	350	350	350	350	350	350	3,480

Table 13–2B. ESTIMATES OF TOTAL INDIVIDUAL INCOME TAX EXPENDITURES FOR FISCAL YEARS 2021–2031—Continued

(In millions of dollars)

		Total from individuals											
		2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2022–2031
147	Exclusion of investment income from Supplementary Unemployment Benefit Trusts	20	10	20	20	30	30	30	40	40	40	40	300
148	Exclusion of investment income from Voluntary Employee Benefit Associations trusts	0	0	0	0	0	0	0	0	0	0	0	0
149	Special Employee Stock Ownership Plan (ESOP) rules	30	30	30	30	30	30	30	30	30	40	40	320
150	Additional deduction for the blind	40	40	40	40	50	50	50	50	50	60	60	490
151	Additional deduction for the elderly	5,900	6,020	6,520	6,940	7,490	6,450	6,960	7,500	7,820	8,370	8,940	73,010
152	Deductibility of casualty losses	0	0	0	0	0	655	1,006	1,031	1,067	1,111	1,137	6,006
153	Earned income tax credit (EITC) [14]	2,080	2,410	2,780	2,970	3,060	3,130	4,590	4,730	4,870	5,040	5,200	38,780
154	Recovery rebate credits [15]	20,480	1,280	20	0	0	0	0	0	0	0	0	1,300
155	Exemption of unemployment insurance benefits	26,480	0	0	0	0	0	0	0	0	0	0	0
	Social Security:												
	Exclusion of social security benefits:												
156	Social Security benefits for retired and disabled workers and spouses, dependents and survivors	26,630	27,240	27,570	29,330	29,890	33,300	38,390	40,090	41,900	43,740	45,510	356,960
157	Credit for certain employer social security contributions	810	1,100	1,230	1,320	1,410	1,500	1,590	1,680	1,770	1,860	1,950	15,410
	Veterans benefits and services:												
158	Exclusion of veterans death benefits and disability compensation	9,770	11,010	11,380	11,720	12,160	13,180	14,950	15,580	16,230	16,890	17,590	140,690
159	Exclusion of veterans pensions	220	230	220	210	210	220	250	250	250	250	250	2,340
160	Exclusion of G.I. Bill benefits	1,470	1,510	1,470	1,500	1,550	1,670	1,880	1,950	2,020	2,090	2,170	17,810
161	Exclusion of interest on veterans housing bonds	70	80	80	70	80	80	80	80	90	90	80	810
	General government:												
162	Exclusion of interest on public purpose State and local bonds	26,100	27,410	27,360	27,280	27,370	29,170	29,560	29,840	31,540	31,010	30,320	290,860
163	Build America Bonds [16]	0	0	0	0	0	0	0	0	0	0	0	0
164	Deductibility of nonbusiness State and local taxes other than on owner-occupied homes [17]	7,170	7,667	7,713	7,877	8,240	86,236	120,498	121,686	127,380	133,563	140,089	760,949
	Interest:												
165	Deferral of interest on U.S. savings bonds	840	830	820	810	800	800	790	780	770	760	750	7,910
	Addendum: Aid to State and local governments:												
	Deductibility of:												
	Property taxes on owner-occupied homes	6,740	7,030	7,070	7,290	7,700	39,370	57,270	60,230	63,060	66,110	69,310	384,440
	Nonbusiness State and local taxes other than on owner-occupied homes	7,170	7,667	7,713	7,877	8,240	86,236	120,498	121,686	127,380	133,563	140,089	760,949
	Exclusion of interest on State and local bonds for:												
	Public purposes	26,100	27,410	27,360	27,280	27,370	29,170	29,560	29,840	31,540	31,010	30,320	290,860
	Energy facilities	10	10	10	10	10	10	10	10	10	10	10	100
	Water, sewage, and hazardous waste disposal facilities	290	310	310	310	310	330	330	330	350	350	340	3,270
	Small-issues	80	90	80	80	80	90	90	90	100	100	90	890
	Owner-occupied mortgage subsidies	760	800	800	800	800	850	870	870	920	910	890	8,510
	Rental housing	1,290	1,360	1,350	1,350	1,350	1,440	1,460	1,480	1,560	1,530	1,500	14,380
	Airports, docks, and similar facilities	770	810	810	810	810	860	870	880	930	920	900	8,600
	Student loans	150	160	160	160	160	170	170	170	180	180	170	1,680

Table 13–2B. ESTIMATES OF TOTAL INDIVIDUAL INCOME TAX EXPENDITURES FOR FISCAL YEARS 2021–2031—Continued

(In millions of dollars)

	Total from individuals											
	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2022–2031
Private nonprofit educational facilities	2,050	2,150	2,150	2,140	2,150	2,290	2,320	2,340	2,480	2,440	2,380	22,840
Hospital construction	2,930	3,070	3,070	3,060	3,070	3,270	3,320	3,350	3,540	3,480	3,400	32,630
Veterans' housing	70	80	80	70	80	80	80	80	90	90	80	810

See Table 1 footnotes for specific table information

Table 13–3. INCOME TAX EXPENDITURES RANKED BY TOTAL FISCAL YEAR 2022–2031 PROJECTED REVENUE EFFECT

(In millions of dollars)

	Provision	2021	2022	2022–2031
122	Exclusion of employer contributions for medical insurance premiums and medical care [10]	221,460	221,020	3,005,860
59	Exclusion of net imputed rental income	124,100	130,880	1,673,960
68	Capital gains (except agriculture, timber, iron ore, and coal)	102,250	107,710	1,362,850
141	Defined contribution employer plans	100,020	102,850	1,353,740
140	Defined benefit employer plans	70,340	73,370	807,970
55	Mortgage interest expense on owner-occupied residences	29,370	30,340	798,360
164	Deductibility of nonbusiness State and local taxes other than on owner-occupied homes [17]	7,170	7,667	760,949
117	Deductibility of charitable contributions, other than education and health	43,610	46,410	743,750
70	Step-up basis of capital gains at death	41,850	43,910	575,860
58	Capital gains exclusion on home sales	40,900	42,730	542,120
134	Child tax credit [13]	72,571	65,242	445,864
144	Self-employed plans	32,260	33,170	436,670
67	Treatment of qualified dividends	31,650	33,120	421,430
56	Deductibility of State and local property tax on owner-occupied homes [17]	6,740	7,030	384,440
4	Reduced tax rate on active income of controlled foreign corporations (normal tax method)	19,524	33,814	366,967
156	Social Security benefits for retired and disabled workers and spouses, dependents, and survivors	26,630	27,240	356,960
162	Exclusion of interest on public purpose State and local bonds	31,240	31,520	345,200
142	Individual Retirement Accounts (IRAs)	20,770	19,890	288,310
8	Credit for increasing research activities	18,520	20,400	272,070
79	Allow 20-percent deduction to certain pass-through income	33,775	56,071	260,859
125	Deductibility of medical expenses	8,350	8,820	179,780
49	Exclusion of life insurance death benefits	11,970	12,910	159,720
1	Exclusion of benefits and allowances to armed forces personnel	13,940	14,500	156,540
158	Exclusion of veterans death benefits and disability compensation	9,770	11,010	140,690
96	Tax credits for post-secondary education expenses [6]	9,250	14,620	139,900
124	Medical Savings Accounts and Health Savings Accounts	10,760	10,890	139,830
129	Deductibility of charitable contributions to health institutions	8,820	9,350	134,340
123	Self-employed medical insurance premiums	7,690	8,010	114,390
5	Deduction for foreign-derived intangible income dervied from trade or business within the United States	6,842	11,896	112,453
61	Credit for low-income housing investments	8,900	11,280	109,260
114	Exclusion of employee meals and lodging (other than military)	5,620	7,760	96,270
7	Expensing of research and experimentation expenditures (normal tax method)	–1,580	–760	94,310
76	Expensing of certain small investments (normal tax method)	–1,580	–760	94,310
136	Exclusion of workers' compensation benefits	9,010	9,020	90,560
2	Exclusion of income earned abroad by U.S. citizens	6,470	6,790	85,440
104	Charitable contributions to educational institutions	4,880	5,190	80,420
60	Exception from passive loss rules for $25,000 of rental loss	5,910	5,940	75,880
151	Additional deduction for the elderly	5,900	6,020	73,010
98	Qualified tuition programs (includes Education IRA)	2,790	2,970	63,970
130	Tax credit for orphan drug research	1,900	2,290	60,380
17	Energy investment credit	6,360	7,210	59,980
62	Accelerated depreciation on rental housing (normal tax method)	4,390	4,430	59,540
95	Exclusion of scholarship and fellowship income (normal tax method)	3,790	4,140	58,090
127	Refundable Premium Assistance Tax Credit [11]	6,360	5,160	53,520
15	Energy production credit	5,290	5,220	52,930
71	Carryover basis of capital gains on gifts	3,400	4,290	51,590
73	Deferral of capital gains from like-kind exchanges	3,200	3,350	42,080
145	Premiums on group term life insurance	3,190	3,250	40,660
115	Credit for child and dependent care expenses [9]	3,860	5,230	39,780

Table 13–3. INCOME TAX EXPENDITURES RANKED BY TOTAL FISCAL YEAR 2022–2031 PROJECTED REVENUE EFFECT—Continued
(In millions of dollars)

	Provision	2021	2022	2022–2031
153	Earned income tax credit (EITC) [14]	2,080	2,410	38,780
126	Exclusion of interest on hospital construction bonds	3,510	3,530	38,740
74	Depreciation of buildings other than rental housing (normal tax method)	3,700	3,470	27,990
103	Parental personal exemption for students age 19 or over	0	0	27,560
100	Exclusion of interest on bonds for private nonprofit educational facilities	2,450	2,470	27,120
97	Deductibility of student loan interest	2,110	2,260	26,590
48	Exemption of credit union income	2,080	2,120	25,330
52	Exclusion of interest spread of financial institutions	3,110	2,030	24,420
82	Exclusion of reimbursed employee parking expenses	1,464	1,742	24,060
6	Interest Charge Domestic International Sales Corporations (IC-DISCs)	990	1,520	21,180
39	Carbon oxide sequestration credit	460	580	20,130
69	Capital gains exclusion of small corporation stock	1,520	1,620	20,090
157	Credit for certain employer social security contributions	1,040	1,410	19,350
57	Deferral of income from installment sales	1,490	1,560	18,520
44	Capital gains treatment of certain agriculture income	1,370	1,440	18,250
160	Exclusion of G.I. Bill benefits	1,470	1,510	17,810
54	Exclusion of interest on rental housing bonds	1,540	1,560	17,070
105	Exclusion of employer-provided educational assistance	1,390	1,510	17,050
148	Exclusion of investment income from Voluntary Employee Benefit Associations trusts	1,130	1,190	15,840
143	Low- and moderate-income savers' credit	1,220	1,260	13,540
50	Exemption or special alternative tax for small property and casualty insurance companies	1,050	1,170	13,310
119	Exclusion of parsonage allowances	950	1,000	12,770
89	New markets tax credit	1,140	1,170	11,440
109	Work opportunity tax credit	1,690	1,780	10,290
86	Exclusion of interest for airport, dock, and similar bonds	920	930	10,190
53	Exclusion of interest on owner-occupied mortgage subsidy bonds	910	920	10,100
14	Enhanced oil recovery credit	510	400	10,020
10	Excess of percentage over cost depletion, fuels	620	720	9,880
110	Employer provided child care exclusion	420	530	9,770
112	Assistance for adopted foster children	660	700	9,430
38	Tax incentives for preservation of historic structures	610	580	9,170
113	Adoption credit and exclusion	790	830	9,070
165	Deferral of interest on U.S. savings bonds	840	830	7,910
137	Exclusion of public assistance benefits (normal tax method)	600	600	6,850
152	Deductibility of casualty losses	0	0	6,006
132	Distributions from retirement plans for premiums for health and long-term care insurance	450	460	5,790
83	Exclusion for employer-provided transit passes	292	359	5,710
118	Exclusion of certain foster care payments	510	510	5,450
28	Credit for residential energy efficient property	2,590	2,200	4,460
108	Qualified school construction bonds [8]	540	520	4,030
131	Special Blue Cross/Blue Shield tax benefits	230	300	4,030
20	Tax credits for clean-fuel burning vehicles and refueling property	450	580	4,010
35	Exclusion of interest on bonds for water, sewage, and hazardous waste facilities	350	360	3,900
51	Tax exemption of insurance income earned by tax-exempt organizations	330	350	3,840
42	Expensing of certain multiperiod production costs	320	270	3,830
9	Expensing of exploration and development costs, fuels	–50	90	3,720
3	Exclusion of certain allowances for Federal employees abroad	280	290	3,670
16	Marginal wells credit	250	270	3,610
146	Premiums on accident and disability insurance	340	340	3,480
37	Expensing of multiperiod timber growing costs	210	220	2,580

Table 13–3. INCOME TAX EXPENDITURES RANKED BY TOTAL FISCAL YEAR 2022–2031 PROJECTED REVENUE EFFECT—Continued
(In millions of dollars)

	Provision	2021	2022	2022–2031
149	Special Employee Stock Ownership Plan (ESOP) rules	210	220	2,420
159	Exclusion of veterans pensions	220	230	2,340
45	Income averaging for farmers	190	200	2,210
31	Advanced nuclear power production credit	0	30	2,060
99	Exclusion of interest on student-loan bonds	180	180	1,990
139	Exclusion of military disability pensions	170	170	1,980
85	Exclusion of interest on bonds for Highway Projects and rail-truck transfer facilities	250	250	1,970
106	Special deduction for teacher expenses	170	180	1,950
135	Exclusion of railroad Social Security equivalent benefits	300	280	1,860
36	Capital gains treatment of certain timber income	140	140	1,820
34	Excess of percentage over cost depletion, nonfuel minerals	110	120	1,730
41	Expensing of certain capital outlays	110	120	1,710
107	Discharge of student loan indebtedness	90	90	1,640
26	Credit for construction of new energy efficient homes	370	280	1,570
32	Reduced tax rate for nuclear decommissioning funds	110	110	1,380
24	Amortize all geological and geophysical expenditures over 2 years	110	120	1,310
154	Recovery rebate credits [15]	20,480	1,280	1,300
25	Allowance of deduction for certain energy efficient commercial building property	210	140	1,280
63	Discharge of mortgage indebtedness	250	270	1,230
80	Tonnage tax	100	110	1,230
87	Exemption of certain mutuals' and cooperatives' income	90	100	1,080
77	Exclusion of interest on small issue bonds	100	100	1,060
161	Exclusion of interest on veterans housing bonds	80	90	960
72	Ordinary income treatment of loss from small business corporation stock sale	70	70	820
90	Credit to holders of Gulf and Midwest Tax Credit Bonds	120	110	780
47	Expensing of reforestation expenditures	50	60	720
22	Credit for holding clean renewable energy bonds [3]	70	70	700
91	Recovery Zone Bonds [5]	110	100	700
43	Treatment of loans forgiven for solvent farmers	50	60	660
88	Empowerment zones	130	90	660
12	Capital gains treatment of royalties on coal	70	50	590
101	Credit for holders of zone academy bonds [7]	130	110	590
84	Tax credit for certain expenditures for maintaining railroad tracks	170	170	580
94	Disaster Employee Retention Credit	160	160	580
40	Deduction for endangered species recovery expenditures	30	30	500
150	Additional deduction for the blind	40	40	490
102	Exclusion of interest on savings bonds redeemed to finance educational expenses	40	40	460
21	Exclusion of utility conservation subsidies	60	50	390
33	Expensing of exploration and development costs, nonfuel minerals	0	10	320
29	Qualified energy conservation bonds [4]	30	30	300
147	Exclusion of investment income from Supplementary Unemployment Benefit Trusts	20	10	300
65	Discharge of business indebtedness	30	40	290
23	Credit for investment in clean coal facilities	0	0	250
111	Employer-provided child care credit	20	20	250
120	Indian employment credit	70	50	230
11	Exception from passive loss limitation for working interests in oil and gas properties	20	20	200
46	Deferral of gain on sale of farm refiners	20	20	200
133	Credit for family and sick leave taken by self-employed individuals	1,180	180	180
64	Premiums for mortgage insurance deductible as interest	580	150	150
138	Exclusion of special benefits for disabled coal miners	20	20	150

Table 13–3. INCOME TAX EXPENDITURES RANKED BY TOTAL FISCAL YEAR 2022–2031 PROJECTED REVENUE EFFECT—Continued

(In millions of dollars)

	Provision	2021	2022	2022–2031
27	Credit for energy efficiency improvements to existing homes	240	120	120
66	Exceptions from imputed interest rules	20	30	110
13	Exclusion of interest on energy facility bonds	10	10	100
81	Deferral of tax on shipping companies	10	10	100
92	Tribal Economic Development Bonds	10	10	100
116	Credit for disabled access expenditures	10	10	100
30	Advanced energy property credit	10	10	90
121	Credit for employer differential wage payments	0	0	90
19	Bio-Diesel and small agri-biodiesel producer tax credits [2]	40	40	60
128	Credit for employee health insurance expenses of small business [12]	40	30	50
18	Alcohol fuel credits [1]	10	0	0
163	Build America Bonds [16]	0	0	0
78	Special rules for certain film and TV production	–50	0	–850
93	Opportunity Zones	2,990	3,490	–3,480
75	Accelerated depreciation of machinery and equipment (normal tax method)	31,470	26,180	–94,450

See Table 1 footnotes for specific table information

Table 13–4. PRESENT VALUE OF SELECTED TAX EXPENDITURES FOR ACTIVITY IN CALENDAR YEAR 2021

(In millions of dollars)

	Provision	2021 Present Value of Revenue Loss
7	Expensing of research and experimentation expenditures (normal tax method)	1,920
22	Credit for holding clean renewable energy bonds	0
9	Expensing of exploration and development costs - fuels	310
33	Expensing of exploration and development costs - nonfuels	30
37	Expensing of multiperiod timber growing costs	100
42	Expensing of certain multiperiod production costs - agriculture	170
41	Expensing of certain capital outlays - agriculture	90
47	Expensing of reforestation expenditures	30
62	Accelerated depreciation on rental housing	-6,430
74	Depreciation of buildings other than rental	-1,970
75	Accelerated depreciation of machinery and equipment	-27,470
76	Expensing of certain small investments (normal tax method)	0
101	Credit for holders of zone academy bonds	0
61	Credit for low-income housing investments	11,150
98	Qualified tuition programs	5,720
140	Defined benefit employer plans	48,060
141	Defined contribution employer plans	119,110
142	Exclusion of IRA contributions and earnings	2,910
142	Exclusion of Roth earnings and distributions	8,080
142	Exclusion of non-deductible IRA earnings	730
144	Exclusion of contributions and earnings for self-employed plans	7,670
162	Exclusion of interest on public-purpose bonds	11,700
	Exclusion of interest on non-public purpose bonds [1]	4,620
165	Deferral of interest on U.S. savings bonds	120

[1] Includes all components, other than public purpose, listed under ‘Exclusion of interest on State and local bonds’ in the Addendum to Table 1.

tions from U.S. taxation are considered tax expenditures. However, U.S. shareholders of specified foreign corporations must include their pro rata share of accumulated post-1986 deferred foreign income (as of the last taxable year before January 1, 2018) in U.S. taxable income, and this inclusion acts as an offset to the reduced tax rate on CFC income in the years in which the payments are received.

5. ***Deduction for foreign-derived intangible income derived from a trade or business within the United States.***—Under the baseline tax system, the United States taxes income earned by U.S. corporations from serving foreign markets (e.g., exports and royalties) at the full U.S. rate. After the passage of TCJA, domestic corporations are allowed a deduction equal to 37.5 percent of "foreign-derived intangible income," which is essentially income from serving foreign markets (defined on a formulaic basis). The deduction falls to 21.875 percent in 2026.

6. ***Interest Charge Domestic International Sales Corporations (IC-DISCs).***—Under the baseline tax system, taxpayer earnings are subject to tax using the regular tax rates applied to all taxpayers. In contrast, IC-DISCs allow a portion of income from exports to be taxed at the qualified dividend rate which is no higher than 20 percent (plus a 3.8 percent surtax for high-income taxpayers).

General Science, Space, and Technology

7. ***Expensing of research and experimentation expenditures (normal tax method).***—The baseline tax system allows a deduction for the cost of producing income. It requires taxpayers to capitalize the costs associated with investments over time to better match the streams of income and associated costs. Research and experimentation (R&E) projects can be viewed as investments because, if successful, their benefits accrue for several years. It is often difficult, however, to identify whether a specific R&E project is successful and, if successful, what its expected life will be. Because of this ambiguity, the reference tax law baseline system would allow expensing of R&E expenditures. In contrast, under the normal tax method, the expensing of R&E expenditures is viewed as a tax expenditure. The baseline assumed for the normal tax method is that all R&E expenditures are successful and have an expected life of five years. Current law requires R&E expenditures paid or incurred in taxable years beginning after December 31, 2021, to be capitalized and amortized over 5 years, while allowing R&E expenditures paid or incurred in prior taxable years to be expensed.

8. ***Credit for increasing research activities.***—The baseline tax system would uniformly tax all returns to investments and not allow credits for particular activities, investments, or industries. In contrast, the Tax Code allows an R&E credit of up to 20 percent of qualified research expenditures in excess of a base amount. The base amount of the credit is generally determined by multiplying a "fixed-base percentage" by the average amount of the company's gross receipts for the prior four years. The taxpayer's fixed base percentage generally is the ratio of its research expenses to gross receipts for 1984 through 1988. Taxpayers can elect the alternative simplified credit regime, which equals 14 percent of qualified research expenses that exceed 50 percent of the average qualified research expenses for the three preceding taxable years.

Energy

9. ***Expensing of exploration and development costs, fuels.***—Under the baseline tax system, the costs of exploring and developing oil and gas wells and coal mines or other natural fuel deposits would be capitalized and then amortized (or depreciated) over an estimate of the economic life of the property. This insures that the net income from the well or mine is measured appropriately each year. In contrast to this treatment, current law allows immediate deduction, i.e., expensing, of intangible drilling costs for successful investments in domestic oil and gas wells (such as wages, the cost of using machinery for grading and drilling, and the cost of unsalvageable materials used in constructing wells). Current law also allows immediate deduction of eligible exploration and development costs for domestic coal mines and other natural fuel deposits. Because expensing allows recovery of costs sooner, it is more advantageous to the taxpayer than amortization. Expensing provisions for exploration expenditures apply only to properties for which a deduction for percentage depletion is allowable. For oil and gas wells, integrated oil companies may expense only 70 percent of intangible drilling costs and must amortize the remaining 30 percent over five years. Non-integrated oil companies may expense all such costs.

10. ***Excess of percentage over cost depletion, fuels.***—The baseline tax system would allow recovery of the costs of developing certain oil, gas, and mineral fuel properties using cost depletion. Cost depletion is similar in concept to depreciation, in that the costs of developing or acquiring the asset are capitalized and then gradually reduced over an estimate of the asset's economic life, as is appropriate for measuring net income. In contrast, the Tax Code generally allows independent fuel producers and royalty owners to take percentage depletion deductions rather than cost depletion on limited quantities of output. Under percentage depletion, taxpayers deduct a percentage of gross income from fossil fuel production. In certain cases the deduction is limited to a fraction of the asset's net income. Over the life of an investment, percentage depletion deductions can exceed the cost of the investment. Consequently, percentage depletion may provide more advantageous tax treatment than would cost depletion, which limits deductions to an investment's cost.

11. ***Exception from passive loss limitation for working interests in oil and gas properties.***—The baseline tax system accepts current law's general rule limiting taxpayers' ability to deduct losses from passive activities against nonpassive income (e.g., wages, interest, and dividends). Passive activities generally are defined as those in which the taxpayer does not materially participate, though there are numerous additional considerations brought to bear on the determination of

which activities are passive for a given taxpayer. Losses are limited in an attempt to limit tax sheltering activities. Passive losses that are unused may be carried forward and applied against future passive income. An exception from the passive loss limitation is provided for a working interest in an oil or gas property that the taxpayer holds directly or through an entity that does not limit the liability of the taxpayer with respect to the interest. Thus, taxpayers can deduct losses from such working interests against nonpassive income without regard to whether they materially participate in the activity.

12. ***Capital gains treatment of royalties on coal.***—The baseline tax system generally would tax all income under the regular tax rate schedule. It would not allow preferentially low tax rates to apply to certain types or sources of income. Current law allows capital gains realized by individuals to be taxed at a preferentially low rate that is no higher than 20 percent (plus the 3.8 percent surtax). Certain sales of coal under royalty contracts qualify for taxation as capital gains rather than ordinary income.

13. ***Exclusion of interest on energy facility bonds.***—The baseline tax system generally would tax all income under the regular tax rate schedule. It would not allow preferentially low (or zero) tax rates to apply to certain types or sources of income. In contrast, the Tax Code allows interest earned on State and local bonds used to finance construction of certain energy facilities to be exempt from tax. These bonds are generally subject to the State private-activity-bond annual volume cap.

14. ***Enhanced oil recovery credit.***—A credit is provided equal to 15 percent of the taxpayer's costs for enhanced oil recovery on U.S. projects. The credit is reduced in proportion to the ratio of the reference price of oil for the previous calendar year minus $28 (adjusted for inflation from 1990) to $6.

15. ***Energy production credit.***—The baseline tax system would not allow credits for particular activities, investments, or industries. Instead, it generally would seek to tax uniformly all returns from investment-like activities. In contrast, the Tax Code provides a credit for certain electricity produced from wind energy, biomass, geothermal energy, solar energy, small irrigation power, municipal solid waste, or qualified hydropower and sold to an unrelated party. Wind facilities must have begun construction before January 1, 2022. Facilities that begin construction in 2017 receive 80 percent of the credit, facilities that begin construction in 2018 receive 60 percent of the credit, facilities that begin construction in 2019 receive 40 percent of the credit, and facilities that begin construction in 2020-2021 receive 60 percent of the credit. Qualified facilities producing electricity from sources other than wind must begin construction before January 1, 2022. In addition to the electricity production credit, a ten-year income tax credit is allowed for the production of refined coal for facilities placed in service before January 1, 2012. The Tax Code also provided an income tax credit for Indian coal facilities. The Indian coal facilities credit expires on December 31, 2021.

16. ***Marginal wells credit.***—A credit is provided for crude oil and natural gas produced from a qualified marginal well. A marginal well is one that does not produce more than 1,095 barrel-of-oil equivalents per year, with this limit adjusted proportionately for the number of days the well is in production. The credit is no more than $3.00 per barrel of qualified crude oil production and $0.50 per thousand cubic feet of qualified natural gas production. The credit for natural gas is reduced in proportion to the amount by which the reference price of natural gas at the wellhead for the previous calendar year exceeds $1.67 per thousand cubic feet and is zero for a reference price that exceeds $2.00. The credit for crude oil is reduced in proportion to the amount by which the reference price of oil for the previous calendar year exceeds $15.00 per barrel and is zero for a reference price that exceeds $18.00. All dollar amounts are adjusted for inflation from 2004.

17. ***Energy investment credit.***—The baseline tax system would not allow credits for particular activities, investments, or industries. Instead, it generally would seek to tax uniformly all returns from investment-like activities. However, the Tax Code provides credits for investments in solar and geothermal energy property, qualified fuel cell power plants, stationary microturbine power plants, geothermal heat pumps, waste energy recovery property, small wind property, offshore wind, and combined heat and power property. The credit is 30 percent for property that begins construction before 2020, 26 percent for property that begins construction in 2020-2022, and 22 percent for property that begins construction in 2023 and in all cases that is placed in service before January 1, 2026. The credit for offshore wind is 30 percent for facilities placed in service before January 1, 2026. A 10-percent credit is available for geothermal or qualified solar property placed in service after December 31, 2025. Owners of renewable power facilities that qualify for the energy production credit may instead elect to take an energy investment credit at a rate specified by law.

18. ***Alcohol fuel credits.***—The baseline tax system would not allow credits for particular activities, investments, or industries. Instead, it generally would seek to tax uniformly all returns from investment-like activities. In contrast, the Tax Code provides an income tax credit for qualified cellulosic biofuel production which was renamed the Second generation biofuel producer credit. This provision expires on December 31, 2021.

19. ***Bio-diesel and small agri-biodiesel producer tax credits.***—The baseline tax system would not allow credits for particular activities, investments, or industries. Instead, it generally would seek to tax uniformly all returns from investment-like activities. However, the Tax Code allows an income tax credit for Bio-diesel and for Bio-diesel derived from virgin sources. In lieu of the Biodiesel credit, the taxpayer could claim a refundable excise tax credit. In addition, small agri-biodiesel producers were eligible for a separate income tax credit for biodiesel production, and a separate credit was available for qualified renewable diesel fuel mixtures. This provision expires on December 31, 2022.

20. ***Tax credits for clean-fuel burning vehicles and refueling property.***—The baseline tax system would not allow credits for particular activities, investments, or industries. Instead, it generally would seek to tax uniformly all returns from investment-like activities. In contrast, the Tax Code allows credits for plug-in electric-drive motor vehicles, alternative fuel vehicle refueling property, two-wheeled plug-in electric vehicles, and fuel cell motor vehicles. These provisions, except for the plug-in electric-drive motor vehicle credit, expired after December 31, 2017.

21. ***Exclusion of utility conservation subsidies.***—The baseline tax system generally takes a comprehensive view of taxable income that includes a wide variety of (measurable) accretions to wealth. In certain circumstances, public utilities offer rate subsidies to non-business customers who invest in energy conservation measures. These rate subsidies are equivalent to payments from the utility to its customer, and so represent accretions to wealth, income that would be taxable to the customer under the baseline tax system. In contrast, the Tax Code exempts these subsidies from the non-business customer's gross income.

22. ***Credit for holding clean renewable energy bonds.***—The baseline tax system would uniformly tax all returns to investments and not allow credits for particular activities, investments, or industries. In contrast, the Tax Code provides for the issuance of Clean Renewable Energy Bonds that entitle the bond holder to a Federal income tax credit in lieu of interest. As of March 2010, issuers of the unused authorization of such bonds could opt to receive direct payment with the yield becoming fully taxable.

23. ***Credit for investment in clean coal facilities.***—The baseline tax system would uniformly tax all returns to investments and not allow credits for particular activities, investments, or industries. In contrast, the Tax Code provides investment tax credits for clean coal facilities producing electricity and for industrial gasification combined cycle projects.

24. ***Amortize all geological and geophysical expenditures over two years.***—The baseline tax system allows taxpayers to deduct the decline in the economic value of an investment over its economic life. However, the Tax Code allows geological and geophysical expenditures incurred in connection with oil and gas exploration in the United States to be amortized over two years for non-integrated oil companies, a span of time that is generally shorter than the economic life of the assets.

25. ***Allowance of deduction for certain energy efficient commercial building property.***—The baseline tax system would not allow deductions in lieu of normal depreciation allowances for particular investments in particular industries. Instead, it generally would seek to tax uniformly all returns from investment-like activities. In contrast, the Tax Code allows a deduction for certain energy efficient commercial building property. The basis of such property is reduced by the amount of the deduction. Starting in 2021, the maximum deduction amount per square foot will be increased by a cost-of -living adjustment.

26. ***Credit for construction of new energy efficient homes.***—The baseline tax system would not allow credits for particular activities, investments, or industries. Instead, it generally would seek to tax uniformly all returns from investment-like activities. However, the Tax Code allowed contractors a tax credit of $2,000 for the construction of a qualified new energy-efficient home that had an annual level of heating and cooling energy consumption at least 50 percent below the annual consumption under the 2006 International Energy Conservation Code. The credit equaled $1,000 in the case of a new manufactured home that met a 30-percent standard or requirements for EPA's Energy Star homes. This provision expired on December 31, 2017.

27. ***Credit for energy efficiency improvements to existing homes.***—The baseline tax system would not allow credits for particular activities, investments, or industries. However, the Tax Code provided an investment tax credit for expenditures made on insulation, exterior windows, and doors that improved the energy efficiency of homes and met certain standards. The Tax Code also provided a credit for purchases of advanced main air circulating fans, natural gas, propane, or oil furnaces or hot water boilers, and other qualified energy efficient property. This provision expired on December 31, 2017, but legislation enacted in 2020 allowed taxpayers to claim tax credits retroactively for three years.

28. ***Credit for residential energy efficient property.***—The baseline tax system would uniformly tax all returns to investments and not allow credits for particular activities, investments, or industries. However, the Tax Code provides a credit for the purchase of a qualified photovoltaic property and solar water heating property, as well as for fuel cell power plants, geothermal heat pumps, and small wind property used in or placed on a residence. The credit is 30 percent for property placed in service before January 1, 2020, 26 percent for property placed in service in 2020–2022, and 22 percent for property placed in service in 2023.

29. ***Credit for qualified energy conservation bonds.***—The baseline tax system would uniformly tax all returns to investments and not allow credits for particular activities, investments, or industries. However, the Tax Code provides for the issuance of energy conservation bonds which entitle the bond holder to a Federal income tax credit in lieu of interest. As of March 2010, issuers of the unused authorization of such bonds could opt to receive direct payment with the yield becoming fully taxable.

30. ***Advanced energy property credit.***—The baseline tax system would not allow credits for particular activities, investments, or industries. However, the Tax Code provides a 30-percent investment credit for property used in a qualified advanced energy manufacturing project. The Department of the Treasury may award up to $2.3 billion in tax credits for qualified investments.

31. ***Advanced nuclear power facilities production credit.***—The baseline tax system would not allow credits or deductions for particular activities, investments, or industries. Instead, it generally would seek to

tax uniformly all returns from investment-like activities. In contrast, the Tax Code allows a tax credit equal to 1.8 cents times the number of kilowatt hours of electricity produced at a qualifying advanced nuclear power facility. A taxpayer may claim no more than $125 million per 1,000 megawatts of capacity. The Department of the Treasury may allocate up to 6,000 megawatts of credit-eligible capacity. Any unutilized national capacity limitation shall be allocated after December 31, 2020, according to prioritization rules set forth by statute.

32. ***Reduced tax rate for nuclear decommissioning funds.***—The baseline tax system would uniformly tax all returns to investments and not allow special rates for particular activities, investments, or industries. In contrast, the Tax Code provides a special 20-percent tax rate for investments made by Nuclear Decommissioning Reserve Funds.

Natural Resources and Environment

33. ***Expensing of exploration and development costs, nonfuel minerals.***—The baseline tax system allows the taxpayer to deduct the depreciation of an asset according to the decline in its economic value over time. However, certain capital outlays associated with exploration and development of nonfuel minerals may be expensed rather than depreciated over the life of the asset.

34. ***Excess of percentage over cost depletion, nonfuel minerals.***—The baseline tax system allows the taxpayer to deduct the decline in the economic value of an investment over time. Under current law, however, most nonfuel mineral extractors may use percentage depletion (whereby the deduction is fixed as a percentage of receipts) rather than cost depletion, with percentage depletion rates ranging from 22 percent for sulfur to 5 percent for sand and gravel. Over the life of an investment, percentage depletion deductions can exceed the cost of the investment. Consequently, percentage depletion may provide more advantageous tax treatment than would cost depletion, which limits deductions to an investment's cost.

35. ***Exclusion of interest on bonds for water, sewage, and hazardous waste facilities.***—The baseline tax system generally would tax all income under the regular tax rate schedule. It would not allow preferentially low (or zero) tax rates to apply to certain types or sources of income. In contrast, the Tax Code allows interest earned on State and local bonds used to finance construction of sewage, water, or hazardous waste facilities to be exempt from tax. These bonds are generally subject to the State private-activity bond annual volume cap.

36. ***Capital gains treatment of certain timber.***—The baseline tax system generally would tax all income under the regular tax rate schedule. It would not allow preferentially low tax rates to apply to certain types or sources of income. However, under current law certain timber sales can be treated as a capital gain rather than ordinary income and therefore subject to the lower capital-gains tax rate. Current law allows capital gains to be taxed at a preferentially low rate that is no higher than 20 percent (plus the 3.8 percent surtax).

37. ***Expensing of multi-period timber growing costs.***—The baseline tax system requires the taxpayer to capitalize costs associated with investment property. However, most of the production costs of growing timber may be expensed under current law rather than capitalized and deducted when the timber is sold, thereby accelerating cost recovery.

38. ***Tax incentives for preservation of historic structures.***—The baseline tax system would not allow credits for particular activities, investments, or industries. However, expenditures to preserve and restore certified historic structures qualify for an investment tax credit of 20 percent for certified rehabilitation activities. The taxpayer's recoverable basis must be reduced by the amount of the credit. The credit must be claimed ratably over the five years after the property is placed in service, for property placed in service after December 31, 2017.

39. ***Carbon oxide sequestration credit***.—The baseline tax system would uniformly tax all returns to investments and not allow credits for particular activities, investments, or industries. In contrast, the Tax Code allows a credit for qualified carbon oxide captured at a qualified facility and disposed of in secure geological storage. In addition, the provision allows a credit for qualified carbon oxide that is captured at a qualified facility and used as a tertiary injectant in a qualified enhanced oil or natural gas recovery project. The credit differs according to whether the carbon was captured using equipment which was originally placed in service before February 9, 2018, or thereafter.

40. ***Deduction for endangered species recovery expenditures.***—The baseline tax system would not allow deductions in addition to normal depreciation allowances for particular investments in particular industries. Instead, it generally would seek to tax uniformly all returns from investment-like activities. In contrast, under current law farmers can deduct up to 25 percent of their gross income for expenses incurred as a result of site and habitat improvement activities that will benefit endangered species on their farm land, in accordance with site specific management actions included in species recovery plans approved pursuant to the Endangered Species Act of 1973.

Agriculture

41. ***Expensing of certain capital outlays.***—The baseline tax system requires the taxpayer to capitalize costs associated with investment property. However, farmers may expense certain expenditures for feed and fertilizer, for soil and water conservation measures, and certain other capital improvements under current law.

42. ***Expensing of certain multiperiod production costs.***—The baseline tax system requires the taxpayer to capitalize costs associated with an investment over time. However, the production of livestock and crops with a production period greater than two years is exempt from the uniform cost capitalization rules (e.g., for costs for es-

tablishing orchards or structure improvements), thereby accelerating cost recovery.

43. ***Treatment of loans forgiven for solvent farmers.***—Because loan forgiveness increases a debtors net worth the baseline tax system requires debtors to include the amount of loan forgiveness as income or else reduce their recoverable basis in the property related to the loan. If the amount of forgiveness exceeds the basis, the excess forgiveness is taxable if the taxpayer is not insolvent. For bankrupt debtors, the amount of loan forgiveness reduces carryover losses, unused credits, and then basis, with the remainder of the forgiven debt excluded from taxation. Qualified farm debt that is forgiven, however, is excluded from income even when the taxpayer is solvent.

44. ***Capital gains treatment of certain agriculture income.***—The baseline tax system generally would tax all income under the regular tax rate schedule. It would not allow preferentially low tax rates to apply to certain types or sources of income. In contrast, current law allows capital gains to be taxed at a preferentially low rate that is no higher than 20 percent (plus the 3.8 percent surtax). Certain agricultural income, such as unharvested crops, qualify for taxation as capital gains rather than ordinary income, and so benefit from the preferentially low 20-percent maximum tax rate on capital gains (plus the 3.8-percent surtax).

45. ***Income averaging for farmers.***—The baseline tax system generally taxes all earned income each year at the rate determined by the income tax. However, taxpayers may average their taxable income from farming and fishing over the previous three years.

46. ***Deferral of gain on sales of farm refiners.***—The baseline tax system generally subjects capital gains to taxes the year that they are realized. However, the Tax Code allows a taxpayer who sells stock in a farm refiner to a farmers' cooperative to defer recognition of the gain if the proceeds are re-invested in a qualified replacement property.

47. ***Expensing of reforestation expenditures.***—The baseline tax system requires the taxpayer to capitalize costs associated with an investment over time. In contrast, the Tax Code provides for the expensing of the first $10,000 in reforestation expenditures with 7-year amortization of the remaining expenses.

Commerce and Housing

This category includes a number of tax expenditure provisions that also affect economic activity in other functional categories. For example, provisions related to investment, such as accelerated depreciation, could be classified under the energy, natural resources and environment, agriculture, or transportation categories.

48. ***Exemption of credit union income.***—Under the baseline tax system, corporations pay taxes on their profits under the regular tax rate schedule. However, in the Tax Code the earnings of credit unions not distributed to members as interest or dividends are exempt from the income tax.

49. ***Exclusion of life insurance death benefits.***—Under the baseline tax system, individuals and corporations would pay taxes on their income when it is (actually or constructively) received or accrued. Nevertheless, current law generally excludes from tax amounts received under life insurance contracts if such amounts are paid by reason of the death of the insured.

50. ***Exclusion or special alternative tax for small property and casualty insurance companies.***—The baseline tax system would require corporations to pay taxes on their profits under the regular tax rate schedule. It would not allow preferentially low (or zero) tax rates to apply to certain types or sources of income. Under current law, however, stock non-life insurance companies are generally exempt from tax if their gross receipts for the taxable year do not exceed $600,000 and more than 50 percent of such gross receipts consist of premiums. Mutual non-life insurance companies are generally tax-exempt if their annual gross receipts do not exceed $150,000 and more than 35 percent of gross receipts consist of premiums. Also, non-life insurance companies with no more than a specified level of annual net written premiums generally may elect to pay tax only on their taxable investment income provided certain ownership diversification requirements are met. The underwriting income (premiums, less insurance losses and expenses) of electing companies is excluded from tax. The specified premium limit is indexed for inflation; for 2021, the premium limit is $2.4 million.

51. ***Tax exemption of insurance income earned by tax-exempt organizations.***—Under the baseline tax system, corporations pay taxes on their profits under the regular tax rate schedule. The baseline tax system would not allow preferentially low (or zero) tax rates to apply to certain types or sources of income. Generally the income generated by life and property and casualty insurance companies is subject to tax, albeit under special rules. However, income from insurance operations conducted by certain tax-exempt organizations, such as fraternal societies, voluntary employee benefit associations, and others are exempt from tax.

52. ***Exclusion of interest spread of financial institutions.***—The baseline tax system generally would tax all income under the regular tax rate schedule. It would not allow preferentially low (or zero) tax rates to apply to certain types or sources of income. Consumers pay for some deposit-linked services, such as check cashing, by accepting a below-market interest rate on their demand deposits. If they received a market rate of interest on those deposits and paid explicit fees for the associated services, they would pay taxes on the full market rate and (unlike businesses) could not deduct the fees. The Government thus foregoes tax on the difference between the risk-free market interest rate and below-market interest rates on demand deposits, which under competitive conditions should equal the value of deposit services.

53. ***Exclusion of interest on owner-occupied mortgage subsidy bonds.***—The baseline tax system generally would tax all income under the regular tax rate schedule. It would not allow preferentially low (or zero)

tax rates to apply to certain types or sources of income. In contrast, the Tax Code allows interest earned on State and local bonds used to finance homes purchased by first-time, low-to-moderate-income buyers to be exempt from tax. These bonds are generally subject to the State private-activity-bond annual volume cap.

54. ***Exclusion of interest on rental housing bonds.***—The baseline tax system generally would tax all income under the regular tax rate schedule. It would not allow preferentially low (or zero) tax rates to apply to certain types or sources of income. In contrast, the Tax Code allows interest earned on State and local government bonds used to finance multifamily rental housing projects to be tax-exempt.

55. ***Mortgage interest expense on owner-occupied residences.***—Under the baseline tax system, expenses incurred in earning income would be deductible. However, such expenses would not be deductible when the income or the return on an investment is not taxed. In contrast, the Tax Code allows an exclusion from a taxpayer's taxable income for the value of owner-occupied housing services and also allows the owner-occupant to deduct mortgage interest paid on his or her primary residence and one secondary residence as an itemized non-business deduction. In general, the mortgage interest deduction is limited to interest on debt no greater than the owner's basis in the residence, and is also limited to interest on debt of no more than $1 million. Interest on up to $100,000 of other debt secured by a lien on a principal or second residence is also deductible, irrespective of the purpose of borrowing, provided the total debt does not exceed the fair market value of the residence. As an alternative to the deduction, holders of qualified Mortgage Credit Certificates issued by State or local governmental units or agencies may claim a tax credit equal to a proportion of their interest expense. In the case of taxable years beginning after December 31, 2017, and before January 1, 2026, (1) the $1 million limit is reduced to $750,000 for indebtedness incurred after December 15, 2017, and (2) the deduction for interest on home equity indebtedness is disallowed.

56. ***Deductibility of State and local property tax on owner-occupied homes.***—Under the baseline tax system, expenses incurred in earning income would be deductible. However, such expenses would not be deductible when the income or the return on an investment is not taxed. In contrast, the Tax Code allows an exclusion from a taxpayer's taxable income for the value of owner-occupied housing services and also allows the owner-occupant to deduct property taxes paid on real property. In the case of taxable years beginning after December 31, 2017, and before January 1, 2026, (1) the deduction for foreign real property taxes paid is disallowed and (2) the deduction for taxes paid in any taxable year, which includes the deduction for property taxes on real property, is limited to $10,000 ($5,000 in the case of a married individual filing a separate return).

57. ***Deferral of income from installment sales.***—The baseline tax system generally would tax all income under the regular tax rate schedule. It would not allow preferentially low (or zero) tax rates, or deferral of tax, to apply to certain types or sources of income. Dealers in real and personal property (i.e., sellers who regularly hold property for sale or resale) cannot defer taxable income from installment sales until the receipt of the loan repayment. Nondealers (i.e., sellers of real property used in their business) are required to pay interest on deferred taxes attributable to their total installment obligations in excess of $5 million. Only properties with sales prices exceeding $150,000 are includable in the total. The payment of a market rate of interest eliminates the benefit of the tax deferral. The tax exemption for nondealers with total installment obligations of less than $5 million is, therefore, a tax expenditure.

58. ***Capital gains exclusion on home sales.***—The baseline tax system would not allow deductions and exemptions for certain types of income. In contrast, the Tax Code allows homeowners to exclude from gross income up to $250,000 ($500,000 in the case of a married couple filing a joint return) of the capital gains from the sale of a principal residence. To qualify, the taxpayer must have owned and used the property as the taxpayer's principal residence for a total of at least two of the five years preceding the date of sale. In addition, the exclusion may not be used more than once every two years.

59. ***Exclusion of net imputed rental income.***—Under the baseline tax system, the taxable income of a taxpayer who is an owner-occupant would include the implicit value of gross rental income on housing services earned on the investment in owner-occupied housing and would allow a deduction for expenses, such as interest, depreciation, property taxes, and other costs, associated with earning such rental income. In contrast, the Tax Code allows an exclusion from taxable income for the implicit gross rental income on housing services, while in certain circumstances allows a deduction for some costs associated with such income, such as for mortgage interest and property taxes.

60. ***Exception from passive loss rules for $25,000 of rental loss.***—The baseline tax system accepts current law's general rule limiting taxpayers' ability to deduct losses from passive activities against nonpassive income (e.g., wages, interest, and dividends). Passive activities generally are defined as those in which the taxpayer does not materially participate, and there are numerous additional considerations brought to bear on the determination of which activities are passive for a given taxpayer. Losses are limited in an attempt to limit tax sheltering activities. Passive losses that are unused may be carried forward and applied against future passive income. In contrast to the general restrictions on passive losses, the Tax Code exempts certain owners of rental real estate activities from "passive income" limitations. The exemption is limited to $25,000 in losses and phases out for taxpayers with income between $100,000 and $150,000.

61. ***Credit for low-income housing investments.***—The baseline tax system would uniformly tax all returns to investments and not allow credits for particular activities, investments, or industries. However, under current law taxpayers who invest in certain low-income housing are eligible for a tax credit. The credit rate is set

so that the present value of the credit is equal to at least 70 percent of the building's qualified basis for new construction and 30 percent for (1) housing receiving other Federal benefits (such as tax-exempt bond financing) or (2) substantially rehabilitated existing housing. The credit can exceed these levels in certain statutorily defined and State designated areas where project development costs are higher. The credit is allowed in equal amounts over 10 years and is generally subject to a volume cap.

62. ***Accelerated depreciation on rental housing (normal tax method).***—Under a comprehensive economic income tax, the costs of acquiring a building are capitalized and depreciated over time in accordance with the decline in the property's economic value due to wear and tear or obsolescence. This insures that the net income from the rental property is measured appropriately each year. Current law allows depreciation that is accelerated relative to economic depreciation. However, the depreciation provisions of the Tax Code are part of the reference tax law, and thus do not give rise to tax expenditures under reference tax law. Under normal tax baseline, in contrast, depreciation allowances reflect estimates of economic depreciation.

63. ***Discharge of mortgage indebtedness.***—Under the baseline tax system, all income would generally be taxed under the regular tax rate schedule. The baseline tax system would not allow preferentially low (or zero) tax rates to apply to certain types or sources of income. In contrast, the Tax Code allows an exclusion from a taxpayer's taxable income for any discharge of indebtedness of up to $2 million ($1 million in the case of a married individual filing a separate return) from a qualified principal residence. The provision applies to debt discharged after January 1, 2021 and before January 1, 2026.

64. ***Premiums for mortgage insurance deductible as interest.***—Under the baseline tax system, expenses incurred in earning income would be deductible, but such expenses would not be deductible when the income or the return on an investment is not taxed. Because imputed rental income is not subject to tax, mortgage insurance premiums do not represent expenses incurred in earning income. In contrast, the Tax Code allows mortgage insurance premiums to be treated as deductible mortgage interest expenses. The provision applies to premiums paid in 2021.

65. ***Discharge of business indebtedness.***—Under the baseline tax system, all income would generally be taxed under the regular tax rate schedule. The baseline tax system would not allow preferentially low (or zero) tax rates to apply to certain types or sources of income. In contrast, the Tax Code allows an exclusion from a taxpayer's taxable income for any discharge of qualified real property business indebtedness by taxpayers other than a C corporation. If the canceled debt is not reported as current income, however, the basis of the underlying property must be reduced by the amount canceled.

66. ***Exceptions from imputed interest rules.***—Under the baseline tax system, holders (issuers) of debt instruments are generally required to report interest earned (paid) in the period it accrues, not when received. In addition, the amount of interest accrued is determined by the actual price paid, not by the stated principal and interest stipulated in the instrument. But under current law, any debt associated with the sale of property worth less than $250,000 is exempted from the general interest accounting rules. This general $250,000 exception is not a tax expenditure under reference tax law but is under normal tax baseline. Current law also includes exceptions for certain property worth more than $250,000. These are tax expenditure under reference tax law and normal tax baselines. These exceptions include, sales of personal residences worth more than $250,000, and sales of farms and small businesses worth between $250,000 and $1 million.

67. ***Treatment of qualified dividends.***—The baseline tax system generally would tax all income under the regular tax rate schedule. It would not allow preferentially low tax rates to apply to certain types or sources of income. For individuals, tax rates on regular income vary from 10 percent to 39.6 percent in the budget window (plus a 3.8-percent surtax on high income taxpayers), depending on the taxpayer's income. In contrast, under current law, qualified dividends are taxed at a preferentially low rate that is no higher than 20 percent (plus the 3.8-percent surtax).

68. ***Capital gains (except agriculture, timber, iron ore, and coal).***—The baseline tax system generally would tax all income under the regular tax rate schedule. It would not allow preferentially low tax rates to apply to certain types or sources of income. Under current law, capital gains on assets held for more than one year are taxed at a preferentially low rate that is no higher than 20 percent (plus the 3.8-percent surtax).

69. ***Capital gains exclusion of small corporation stock.***—The baseline tax system would not allow deductions and exemptions or provide preferential treatment of certain sources of income or types of activities. In contrast, the Tax Code provided an exclusion of 50 percent, applied to ordinary rates with a maximum of a 28-percent tax rate, for capital gains from qualified small business stock held by individuals for more than 5 years; 75 percent for stock issued after February 17, 2009 and before September 28, 2010; and 100 percent for stock issued after September 27, 2010. A qualified small business is a corporation whose gross assets do not exceed $50 million as of the date of issuance of the stock.

70. ***Step-up basis of capital gains at death.***—Under the baseline tax system, unrealized capital gains would be taxed when assets are transferred at death. It would not allow for exempting gains upon transfer of the underlying assets to the heirs. In contrast, capital gains on assets held at the owner's death are not subject to capital gains tax under current law. The cost basis of the appreciated assets is adjusted to the market value at the owner's date of death which becomes the basis for the heirs.

71. ***Carryover basis of capital gains on gifts.***—Under the baseline tax system, unrealized capital gains would be taxed when assets are transferred by gift. In contrast, when a gift of appreciated asset is made under current law, the donor's basis in the transferred property (the cost that was incurred when the transferred property

was first acquired) carries over to the donee. The carryover of the donor's basis allows a continued deferral of unrealized capital gains.

72. ***Ordinary income treatment of loss from small business corporation stock sale.***—The baseline tax system limits to $3,000 the write-off of losses from capital assets, with carryover of the excess to future years. In contrast, the Tax Code allows up to $100,000 in losses from the sale of small business corporate stock (capitalization less than $1 million) to be treated as ordinary losses and fully deducted.

73. ***Deferral of capital gains from like-kind exchanges.***—The baseline tax system generally would tax all income under the regular tax rate schedule. It would not allow preferentially low (or zero) tax rates, or deferral of tax, to apply to certain types or sources of income. In contrast, current law allows the deferral of accrued gains on assets transferred in qualified like-kind exchanges.

74. ***Depreciation of buildings other than rental housing (normal tax method).***—Under a comprehensive economic income tax, the costs of acquiring a building are capitalized and depreciated over time in accordance with the decline in the property's economic value due to wear and tear or obsolescence. This insures that the net income from the property is measured appropriately each year. Current law allows depreciation deductions that differ from those under economic depreciation. However, the depreciation provisions of the Tax Code are part of the reference tax law, and thus do not give rise to tax expenditures under reference tax law. Under normal tax baseline, in contrast, depreciation allowances reflect estimates of economic depreciation.

75. ***Accelerated depreciation of machinery and equipment (normal tax method).***—Under a comprehensive economic income tax, the costs of acquiring machinery and equipment are capitalized and depreciated over time in accordance with the decline in the property's economic value due to wear and tear or obsolescence. This insures that the net income from the property is measured appropriately each year. Current law allows depreciation deductions that are accelerated relative to economic depreciation. In particular, through 2022, 100 percent of the purchase cost of qualified property is eligible to be expensed immediately; this percentage phases out to zero through 2027. The depreciation provisions of the Tax Code are part of the reference tax law, and thus do not give rise to tax expenditures under reference tax law. Under the normal tax baseline, in contrast, depreciation allowances reflect estimates of economic depreciation.

76. ***Expensing of certain small investments (normal tax method).***—Under the reference tax law baseline, the costs of acquiring tangible property and computer software would be depreciated using the Tax Code's depreciation provisions. Under the normal tax baseline, depreciation allowances are estimates of economic depreciation. However, subject to investment limitations, the Tax Code allows up to $1 million (indexed for inflation) in qualifying investments in tangible property and certain computer software to be expensed rather than depreciated over time.

77. ***Exclusion of interest on small issue bonds.***—The baseline tax system generally would tax all income under the regular tax rate schedule. It would not allow preferentially low (or zero) tax rates to apply to certain types or sources of income. In contrast, the Tax Code allows interest earned on small issue industrial development bonds (IDBs) issued by State and local governments to finance manufacturing facilities to be tax exempt. Depreciable property financed with small issue IDBs must be depreciated, however, using the straight-line method. The annual volume of small issue IDBs is subject to the unified volume cap discussed in the mortgage housing bond section above.

78. ***Special rules for certain film and TV production.***—The baseline tax system generally would tax all income under the regular tax rate schedule. It would not allow deductions and exemptions or preferentially low (or zero) tax rates to apply to certain types or sources of income. In contrast, the Tax Code allowed taxpayers to deduct up to $15 million per production ($20 million in certain distressed areas) in non-capital expenditures incurred during the year. This provision is scheduled to expire at the end of 2025.

79. ***Allow 20-percent deduction to certain pass-through income.***—The baseline tax system generally would tax all income under the regular tax rate schedule. It would not allow deductions and exemptions or preferentially low (or zero) tax rates to apply to certain types or sources of income. In contrast, for tax years 2018 to 2025, the Tax Code allows for a deduction equal to up to 20 percent of income attributable to domestic pass-through businesses, subject to certain limitations.

Transportation

80. ***Tonnage tax.***—The baseline tax system generally would tax all profits and income under the regular tax rate schedule. U.S. shipping companies may choose to be subject to a tonnage tax based on gross shipping weight in lieu of an income tax, in which case profits would not be subject to tax under the regular tax rate schedule.

81. ***Deferral of tax on shipping companies.***—The baseline tax system generally would tax all profits and income under the regular tax rate schedule. It would not allow preferentially low (or zero) tax rates to apply to certain types or sources of income. In contrast, the Tax Code allows certain companies that operate U.S. flag vessels to defer income taxes on that portion of their income used for shipping purposes (e.g., primarily construction, modernization and major repairs to ships, and repayment of loans to finance these investments).

82. ***Exclusion of reimbursed employee parking expenses.***—Under the baseline tax system, all compensation, including dedicated payments and in-kind benefits, would be included in taxable income. Dedicated payments and in-kind benefits represent accretions to wealth that do not differ materially from cash wages. In contrast, the Tax Code allows an exclusion from taxable income for employee parking expenses that are paid for by the employer or that are received by the employee in lieu of wages. In

2021, the maximum amount of the parking exclusion is $270 per month. The tax expenditure estimate does not include any subsidy provided through employer-owned parking facilities. However, beginning in 2018, parking expenses are no longer deductible to employers (except government).

83. ***Exclusion for employer-provided transit passes.***—Under the baseline tax system, all compensation, including dedicated payments and in-kind benefits, would be included in taxable income. Dedicated payments and in-kind benefits represent accretions to wealth that do not differ materially from cash wages. In contrast, the Tax Code allows an exclusion from a taxpayer's taxable income for passes, tokens, fare cards, and vanpool expenses that are paid for by an employer or that are received by the employee in lieu of wages to defray an employee's commuting costs. Due to a parity to parking provision, the maximum amount of the transit exclusion is $270 per month in 2021. However, beginning in 2018, transit expenses are no longer deductible to employers (except government).

84. ***Tax credit for certain expenditures for maintaining railroad tracks.***—The baseline tax system would not allow credits for particular activities, investments, or industries. However, the Tax Code allowed eligible taxpayers to claim a credit equal to the lesser of 50 percent of maintenance expenditures and the product of $3,500 and the number of miles of railroad track owned or leased. This provision applies to maintenance expenditures in taxable years beginning before January 1, 2017.

85. ***Exclusion of interest on bonds for Highway Projects and rail-truck transfer facilities.***—The baseline tax system generally would tax all income under the regular tax rate schedule. It would not allow preferentially low (or zero) tax rates to apply to certain types or sources of income. In contrast, the Tax Code provides for $15 billion of tax-exempt bond authority to finance qualified highway or surface freight transfer facilities.

Community and Regional Development

86. ***Exclusion of interest for airport, dock, and similar bonds.***—The baseline tax system generally would tax all income under the regular tax rate schedule. It would not allow preferentially low (or zero) tax rates to apply to certain types or sources of income. In contrast, the Tax Code allows interest earned on State and local bonds issued to finance high-speed rail facilities and Government-owned airports, docks, wharves, and sport and convention facilities to be tax-exempt. These bonds are not subject to a volume cap.

87. ***Exemption of certain mutuals' and cooperatives' income.***—Under the baseline tax system, corporations pay taxes on their profits under the regular tax rate schedule. In contrast, the Tax Code provides for the incomes of mutual and cooperative telephone and electric companies to be exempt from tax if at least 85 percent of their receipts are derived from patron service charges.

88. ***Empowerment zones.***—The baseline tax system generally would tax all income under the regular tax rate schedule. It would not allow preferentially low tax rates to apply to certain types or sources of income, tax credits, and write-offs faster than economic depreciation. In contrast, the Tax Code allows qualifying businesses in designated economically depressed areas to receive tax benefits such as an employment credit and special tax-exempt financing. A taxpayer's ability to accrue new tax benefits for empowerment zones expires on December 31, 2025.

89. ***New markets tax credit.***—The baseline tax system would not allow credits for particular activities, investments, or industries. However, the Tax Code allows taxpayers who make qualified equity investments in a community development entity (CDE), which then make qualified investments in low-income communities, to be eligible for a tax credit that is received over 7 years. The total equity investment available for the credit across all CDEs is generally $5 billion for each calendar year 2020 through 2025, the last year for which credit allocations are authorized.

90. ***Credit to holders of Gulf and Midwest Tax Credit Bonds.***—The baseline tax system would not allow credits for particular activities, investments, or industries. Instead, under current law taxpayers that own Gulf and Midwest Tax Credit bonds receive a non-refundable tax credit rather than interest. The credit is included in gross income.

91. ***Recovery Zone Bonds.***—The baseline tax system would not allow credits for particular activities, investments, or industries. In addition, it would tax all income under the regular tax rate schedule. It would not allow preferentially low (or zero) tax rates to apply to certain types or sources of income. In contrast, the Tax Code allowed local governments to issue up $10 billion in taxable Recovery Zone Economic Development Bonds in 2009 and 2010 and receive a direct payment from Treasury equal to 45 percent of interest expenses. In addition, local governments could issue up to $15 billion in tax exempt Recovery Zone Facility Bonds. These bonds financed certain kinds of business development in areas of economic distress.

92. ***Tribal Economic Development Bonds.***—The baseline tax system generally would tax all income under the regular tax rate schedule. It would not allow preferentially low (or zero) tax rates to apply to certain types or sources of income. In contrast, the Tax Code was modified in 2009 to allow Indian tribal governments to issue tax exempt "tribal economic development bonds." There is a national bond limitation of $2 billion on such bonds.

93. ***Opportunity Zones.***—The baseline tax system generally would tax all income under the regular tax rate schedule. It would not allow deferral or exclusion from income for investments made within certain geographic regions. In contrast, the Tax Code allows the temporary deferral of the recognition of capital gain if reinvested prior to December 31, 2026, in a qualifying opportunity fund which in turn invests in qualifying low-income communities designated as opportunity zones. For quali-

fying investments held at least 5 years, 10 percent of the deferred gain is excluded from income; this exclusion increases to 15 percent for investments held for at least 7 years. In addition, capital gains from the sale or exchange of an investment in a qualified opportunity fund held for at least 10 years are excluded from gross income.

94. ***Disaster Employee Retention Credit.***—The baseline tax system would not allow credits for particular activities, investments, or industries. In contrast, the Tax Code provides employers located in certain presidentially declared disaster areas during the years 2017 through 2020 a 40-percent credit for up to $6,000 in wages paid to each eligible employee while the business was inoperable as a result of the disaster. Only wages paid after the disaster occurred and within 150 days of the last day of the incident period are eligible for the credit. Employers must reduce their deduction for wages paid by the amount of the credit claimed.

Education, Training, Employment, and Social Services

95. ***Exclusion of scholarship and fellowship income (normal tax method).***—Scholarships and fellowships are excluded from taxable income to the extent they pay for tuition and course-related expenses of the grantee. Similarly, tuition reductions for employees of educational institutions and their families are not included in taxable income. From an economic point of view, scholarships and fellowships are either gifts not conditioned on the performance of services, or they are rebates of educational costs. Thus, under the baseline tax system of the reference tax law method, this exclusion is not a tax expenditure because this method does not include either gifts or price reductions in a taxpayer's gross income. The exclusion, however, is considered a tax expenditure under the normal tax method, which includes gift-like transfers of Government funds in gross income. (Many scholarships are derived directly or indirectly from Government funding.)

96. ***Tax credits for post-secondary education expenses.***—The baseline tax system would not allow credits for particular activities, investments, or industries. Under current law in 2021, however, there are two credits for certain post-secondary education expenses. The American Opportunity Tax Credit (AOTC) allows a partially refundable credit of up to $2,500 per eligible student for qualified tuition and related expenses paid. The AOTC may be claimed during each of the first four years of the student's post-secondary education. The Lifetime Learning Credit (LLC) allows a non-refundable credit for 20 percent of an eligible student's qualified tuition and fees, up to a maximum credit of $2,000 per return. The LLC may be claimed during any year of the student's post-secondary education. Only one credit may be claimed per student in a given tax year. The combined credits are phased out for taxpayers with modified adjusted gross income between $160,000 and $180,000 if married filing jointly ($80,000 and $90,000 for other taxpayers), not indexed. Married individuals filing separate returns cannot claim either credit.

97. ***Deductibility of student loan interest.***—The baseline tax system accepts current law's general rule limiting taxpayers' ability to deduct non-business interest expenses. In contrast, taxpayers may claim an above-the-line deduction of up to $2,500 on interest paid on an education loan. In 2021, the maximum deduction is phased down ratably for taxpayers with modified adjusted gross income (AGI) between $140,000 and $170,000 if married filing jointly ($70,000 and $85,000 for other taxpayers). Married individuals filing separate returns cannot claim the deduction.

98. ***Qualified tuition programs (includes Education IRA).***—The baseline tax system generally would tax all income under the regular tax rate schedule. It would not allow preferentially low (or zero) tax rates to apply to certain types or sources of income. Some States have adopted prepaid tuition plans, prepaid room and board plans, and college savings plans, which allow persons to pay in advance or save for college expenses for designated beneficiaries. Under current law, investment income, or the return on prepayments, is not taxed when earned, and is tax-exempt when withdrawn to pay for qualified expenses. Beginning in 2018, the definition of a qualified expense was expanded to include up to $10,000 per child per year of expenses for primary or secondary education, including tuition at religious schools.

99. ***Exclusion of interest on student-loan bonds.***—The baseline tax system generally would tax all income under the regular tax rate schedule. It would not allow preferentially low (or zero) tax rates to apply to certain types or sources of income. In contrast, interest earned on State and local bonds issued to finance student loans is tax-exempt under current law. The volume of all such private activity bonds that each State may issue annually is limited.

100. ***Exclusion of interest on bonds for private nonprofit educational facilities.***—The baseline tax system generally would tax all income under the regular tax rate schedule. It would not allow preferentially low (or zero) tax rates to apply to certain types or sources of income. In contrast, under current law interest earned on State and local government bonds issued to finance the construction of facilities used by private nonprofit educational institutions is not taxed.

101. ***Credit for holders of zone academy bonds.***—The baseline tax system would not allow credits for particular activities, investments, or industries. Under current law, however, financial institutions that own zone academy bonds receive a non-refundable tax credit rather than interest. The credit is included in gross income. Proceeds from zone academy bonds may only be used to renovate, but not construct, qualifying schools and for certain other school purposes. The total amount of zone academy bonds that may be issued was limited to $1.4 billion in 2009 and 2010. As of March 2010, issuers of the unused authorization of such bonds could opt to receive direct payment with the yield becoming fully taxable. An

additional $0.4 billion of these bonds with a tax credit was authorized to be issued each year in 2011 through 2016.

102. ***Exclusion of interest on savings bonds redeemed to finance educational expenses.***—The baseline tax system generally would tax all income under the regular tax rate schedule. It would not allow preferentially low (or zero) tax rates to apply to certain types or sources of income. Under current law, however, interest earned on U.S. savings bonds issued after December 31, 1989, is tax-exempt if the bonds are transferred to an educational institution to pay for educational expenses. The tax exemption is phased out for taxpayers with AGI between $124,800 and $154,800 if married filing jointly ($83,200 and $98,200 for other taxpayers) in 2021.

103. ***Parental personal exemption for students age 19 or over.***—Under the baseline tax system, a personal exemption would be allowed for the taxpayer, as well as for the taxpayer's spouse and dependents who do not claim a personal exemption on their own tax returns. These exemptions are repealed for taxable years beginning after December 31, 2017, and before January 1, 2026. However, the definitions regarding eligibility for dependent exemptions for children (and qualifying relatives), which determine eligibility for a number of family-related provisions, remain in place. These provisions include the new $500 credit for dependents other than qualifying children (Other Dependent Credit, or ODP). In general, to be considered a dependent child, a child would have to be under age 19. In contrast, the Tax Code allows taxpayers to consider their children aged 19 to 23 as dependents, as long as the children are full-time students and reside with the taxpayer for over half the year (with exceptions for temporary absences from home, such as for school attendance). Absent this provision, children over 18 would need to meet the more stringent rules for qualified relatives in order to qualify the taxpayer for certain benefits, including the ODP.

104. ***Charitable contributions to educational institutions.***—The baseline tax system would not allow a deduction for personal expenditures. In contrast, the Tax Code provides taxpayers a deduction for contributions to nonprofit educational institutions that are similar to personal expenditures. Moreover, taxpayers who donate capital assets to educational institutions can deduct the asset's current value without being taxed on any appreciation in value. An individual's total charitable contribution generally may not exceed 50 percent (60 percent for tax years 2018 and 2025) of adjusted gross income; a corporation's total charitable contributions generally may not exceed 10 percent of pre-tax income.

105. ***Exclusion of employer-provided educational assistance.***—Under the baseline tax system, all compensation, including dedicated payments and in-kind benefits, should be included in taxable income because it represents accretions to wealth that do not materially differ from cash wages. Under current law, however, employer-provided educational assistance is excluded from an employee's gross income, even though the employer's costs for this assistance are a deductible business expense. The maximum exclusion is $5,250 per taxpayer. From March 27, 2020 through December 31, 2025, employer-provided student loan payments are considered eligible educational assistance.

106. ***Special deduction for teacher expenses.***—The baseline tax system would not allow a deduction for personal expenditures. In contrast, the Tax Code allowed educators in both public and private elementary and secondary schools, who worked at least 900 hours during a school year as a teacher, instructor, counselor, principal or aide, to subtract up to $250 of qualified expenses, indexed to 2014, when determining their AGI.

107. ***Discharge of student loan indebtedness.***—Under the baseline tax system, all compensation, including dedicated payments and in-kind benefits, should be included in taxable income. In contrast, the Tax Code allows certain professionals who perform in underserved areas or specific fields, and as a consequence have their student loans discharged, not to recognize such discharge as income.

108. ***Qualified school construction bonds.***—The baseline tax system would not allow credits for particular activities, investments, or industries. Instead, it generally would seek to tax uniformly all returns from investment-like activities. In contrast, the Tax Code was modified in 2009 to provide a tax credit in lieu of interest to holders of qualified school construction bonds. The national volume limit is $22.4 billion over 2009 and 2010. As of March 2010, issuers of such bonds could opt to receive direct payment with the yield becoming fully taxable.

109. ***Work opportunity tax credit.***—The baseline tax system would not allow credits for particular activities, investments, or industries. Instead, it generally would seek to tax uniformly all returns from investment-like activities. In contrast, the Tax Code provides employers with a tax credit for qualified wages paid to individuals. The credit applies to employees who began work on or before December 31, 2025, and who are certified as members of various targeted groups. The amount of the credit that can be claimed is 25 percent of qualified wages for employment less than 400 hours and 40 percent for employment of 400 hours or more. Generally, the maximum credit per employee is $2,400 and can only be claimed on the first year of wages an individual earns from an employer. However, the credit for long-term welfare recipients can be claimed on second year wages as well and has a $9,000 maximum. Also, certain categories of veterans are eligible for a higher maximum credit of up to $9,600. Employers must reduce their deduction for wages paid by the amount of the credit claimed.

110. ***Employer-provided child care exclusion.***—Under the baseline tax system, all compensation, including dedicated payments and in-kind benefits, should be included in taxable income. In contrast, current law allows up to $5,000 of employer-provided child care to be excluded from an employee's gross income even though the employer's costs for the child care are a deductible business expense. The amount is increased to $10,500 for 2021.

111. ***Employer-provided child care credit.***—The baseline tax system would not allow credits for particular

activities, investments, or industries. In contrast, current law provides a credit equal to 25 percent of qualified expenses for employee child care and 10 percent of qualified expenses for child care resource and referral services. Employer deductions for such expenses are reduced by the amount of the credit. The maximum total credit is limited to $150,000 per taxable year.

112. ***Assistance for adopted foster children.***—Under the baseline tax system, all compensation, including dedicated payments and in-kind benefits, should be included in taxable income. Taxpayers who adopt eligible children from the public foster care system can receive monthly payments for the children's significant and varied needs and a reimbursement of up to $2,000 for nonrecurring adoption expenses; special needs adoptions receive the maximum benefit even if that amount is not spent. These payments are excluded from gross income under current law.

113. ***Adoption credit and exclusion.***—The baseline tax system would not allow credits for particular activities. In contrast, taxpayers can receive a tax credit for qualified adoption expenses under current law. Taxpayers may also exclude qualified adoption expenses provided or reimbursed by an employer from income, subject to the same maximum amounts and phase-out as the credit. The same expenses cannot qualify for tax benefits under both programs; however, a taxpayer may use the benefits of the exclusion and the tax credit for different expenses.

114. ***Exclusion of employee meals and lodging (other than military).***—Under the baseline tax system, all compensation, including dedicated payments and in-kind benefits, should be included in taxable income. Furthermore, all compensation would generally be deductible by the employer. In contrast, under current law employer-provided meals and lodging are excluded from an employee's gross income. Additionally, beginning in 2018, employers are allowed a deduction for only 50 percent of the expenses of employer-provided meals, except that in 2021 and 2022, employers are eligible for a full deduction on restaurant meals provided to employees. Employer-provided lodging is fully deductible by the employer, in general.

115. ***Credit for child and dependent care expenses.***—The baseline tax system would not allow credits for particular activities or targeted at specific groups. In contrast, the Tax Code provides a tax credit to parents who work or attend school and who have child and dependent care expenses. In taxable year 2021 expenditures up to a maximum of $8,000 for one dependent and $16,000 for two or more dependents are eligible for the credit. The credit is equal to 50 percent of qualified expenditures for taxpayers with incomes up to $125,000. The credit rate is reduced by one percentage point for each $2,000 of income in excess of $125,000 until reaching 20 percent. The credit rate is further reduced by one percentage point for each $2,000 of income in excess of $400,000 until phasing out completely for incomes in excess of $438,000. The credit is fully refundable. For taxable years after 2021, expenditures up to a maximum $3,000 for one dependent and $6,000 for two or more dependents are eligible for a nonrefundable credit. The credit is equal to 35 percent of qualified expenditures for taxpayers with incomes of up to $15,000. The credit is reduced to a minimum of 20 percent by one percentage point for each $2,000 of income in excess of $15,000.

116. ***Credit for disabled access expenditures.***—The baseline tax system would not allow credits for particular activities, investments, or industries. In contrast, the Tax Code provides small businesses (less than $1 million in gross receipts or fewer than 31 full-time employees) a 50-percent credit for expenditures in excess of $250 to remove access barriers for disabled persons. The credit is limited to $5,000.

117. ***Deductibility of charitable contributions, other than education and health.***—The baseline tax system would not allow a deduction for personal expenditures including charitable contributions. In contrast, the Tax Code provides taxpayers a deduction for contributions to charitable, religious, and certain other nonprofit organizations. Taxpayers who donate capital assets to charitable organizations can deduct the assets' current value without being taxed on any appreciation in value. An individual's total charitable contribution generally may not exceed 50 percent (60 percent between 2018 and 2025) of adjusted gross income; a corporation's total charitable contributions generally may not exceed 10 percent of pre-tax income.

118. ***Exclusion of certain foster care payments.***—The baseline tax system generally would tax all income under the regular tax rate schedule. It would not allow preferentially low (or zero) tax rates to apply to certain types or sources of income. Foster parents provide a home and care for children who are wards of the State, under contract with the State. Under current law, compensation received for this service is excluded from the gross incomes of foster parents; the expenses they incur are nondeductible.

119. ***Exclusion of parsonage allowances.***—Under the baseline tax system, all compensation, including dedicated payments and in-kind benefits, would be included in taxable income. Dedicated payments and in-kind benefits represent accretions to wealth that do not differ materially from cash wages. In contrast, the Tax Code allows an exclusion from a clergyman's taxable income for the value of the clergyman's housing allowance or the rental value of the clergyman's parsonage.

120. ***Indian employment credit.***—The baseline tax system would not allow credits for particular activities, investments, or industries. Instead, it generally would seek to tax uniformly all returns from investment-like activities. In contrast, the Tax Code provides employers with a tax credit for qualified wages paid to employees who are enrolled members of Indian Tribes. The amount of the credit that could be claimed is 20 percent of the excess of qualified wages and health insurance costs paid by the employer in the current tax year over the amount of such wages and costs paid by the employer in 1993. Qualified wages and health insurance costs with respect to any employee for the taxable year could not exceed $20,000.

Employees have to live on or near the reservation where they work to be eligible for the credit. Employers must reduce their deduction for wages paid by the amount of the credit claimed. The credit does not apply to taxable years beginning after December 31, 2021.

121. ***Credit for employer differential wage payments.***—The baseline tax system would not allow credits for particular activities, investments, or industries. In contrast, the Tax Code provides employers with a 20-percent tax credit for eligible differential wages paid to employees who are members of the uniformed services while on active duty for more than 30 days. The amount of eligible differential wage payments made to a qualified employee in a taxable year is capped at $20,000. Employers must reduce their deduction for wages paid by the amount of the credit claimed.

Health

122. ***Exclusion of employer contributions for medical insurance premiums and medical care.***—Under the baseline tax system, all compensation, including dedicated payments and in-kind benefits, should be included in taxable income. In contrast, under current law, employer-paid health insurance premiums and other medical expenses (including long-term care or Health Reimbursement Accounts) are not included in employee gross income even though they are deducted as a business expense by the employee.

123. ***Self-employed medical insurance premiums.***—Under the baseline tax system, all compensation and remuneration, including dedicated payments and in-kind benefits, should be included in taxable income. In contrast, under current law self-employed taxpayers may deduct their family health insurance premiums. Taxpayers without self-employment income are not eligible for this special deduction. The deduction is not available for any month in which the self-employed individual is eligible to participate in an employer-subsidized health plan and the deduction may not exceed the self-employed individual's earned income from self-employment.

124. ***Medical Savings Accounts and Health Savings Accounts.***—Under the baseline tax system, all compensation, including dedicated payments and in-kind benefits, should be included in taxable income. Also, the baseline tax system would not allow a deduction for personal expenditures and generally would tax investment earnings. In contrast, individual contributions to Archer Medical Savings Accounts (Archer MSAs) and Health Savings Accounts (HSAs) are allowed as a deduction in determining adjusted gross income whether or not the individual itemizes deductions. Employer contributions to Archer MSAs and HSAs are excluded from income and employment taxes. Archer MSAs and HSAs require that the individual have coverage by a qualifying high deductible health plan. Earnings from the accounts are excluded from taxable income. Distributions from the accounts used for medical expenses are not taxable. The rules for HSAs are generally more flexible than for Archer MSAs and the deductible contribution amounts are greater (in 2019, $3,500 for taxpayers with individual coverage and $7,000 for taxpayers with family coverage). Thus, HSAs have largely replaced MSAs.

125. ***Deductibility of medical expenses.***—The baseline tax system would not allow a deduction for personal expenditures. In contrast, under current law personal expenditures for medical care (including the costs of prescription drugs) exceeding 7.5 percent of the taxpayer's adjusted gross income are deductible. For tax years beginning after 2012, only medical expenditures exceeding 10 percent of the taxpayer's adjusted gross income are deductible. However, for the years 2013, 2014, 2015, and 2016, if either the taxpayer or the taxpayer's spouse turned 65 before the end of the taxable year, the threshold remained at 7.5 percent of adjusted income. Beginning in 2017, the 10-percent threshold applied to all taxpayers, including those over 65.

126. ***Exclusion of interest on hospital construction bonds.***—The baseline tax system generally would tax all income under the regular tax rate schedule. It would not allow preferentially low (or zero) tax rates to apply to certain types or sources of income. In contrast, under current law interest earned on State and local government debt issued to finance hospital construction is excluded from income subject to tax.

127. ***Refundable Premium Assistance Tax Credit.***—The baseline tax system would not allow credits for particular activities or targeted at specific groups. In contrast, for taxable years ending after 2013, the Tax Code provides a premium assistance credit to any eligible taxpayer for any qualified health insurance purchased through a Health Insurance Exchange. In general, an eligible taxpayer is a taxpayer with annual household income between 100 percent and 400 percent of the Federal poverty level for a family of the taxpayer's size and that does not have access to affordable minimum essential health care coverage. The amount of the credit equals the lesser of (1) the actual premiums paid by the taxpayer for such coverage or (2) the difference between the cost of a statutorily-identified benchmark plan offered on the exchange and a required payment by the taxpayer that increases with income. The American Rescue Plan Act of 2021 (P.L. 117-2) temporarily increased the Premium Tax Credit in three ways. For 2021 and 2022, the legislation increased the Premium Tax Credit for currently eligible individuals and families, providing access to free plans for those earning 100 to 150 percent of the Federal poverty level, and expanded eligibility to newly include individuals and families with income above 400 percent of the Federal poverty level. The legislation also expanded eligibility in 2021 to individuals who receive unemployment insurance for any week in 2021. The legislation also eliminated the requirement for individuals to repay any excess advance payments of the Premium Tax Credit for 2020.

128. ***Credit for employee health insurance expenses of small business.***—The baseline tax system would not allow credits for particular activities or targeted at specific groups. In contrast, the Tax Code provides a tax credit to qualified small employers that make a certain level of non-elective contributions towards the

purchase of certain health insurance coverage for its employees. To receive a credit, an employer must have fewer than 25 full-time-equivalent employees whose average annual full-time-equivalent wages from the employer are less than $50,000 (indexed for taxable years after 2013). However, to receive a full credit, an employer must have no more than 10 full-time employees, and the average wage paid to these employees must be no more than $25,000 (indexed for taxable years after 2013). A qualifying employer may claim the credit for any taxable year beginning in 2010, 2011, 2012, and 2013 and for up to two years for insurance purchased through a Health Insurance Exchange thereafter. For taxable years beginning in 2010, 2011, 2012, and 2013, the maximum credit is 35 percent of premiums paid by qualified taxable employers and 25 percent of premiums paid by qualified tax-exempt organizations. For taxable years beginning in 2014 and later years, the maximum tax credit increases to 50 percent of premiums paid by qualified taxable employers and 35 percent of premiums paid by qualified tax-exempt organizations.

129. ***Deductibility of charitable contributions to health institutions.***—The baseline tax system would not allow a deduction for personal expenditures including charitable contributions. In contrast, the Tax Code provides individuals and corporations a deduction for contributions to nonprofit health institutions. Tax expenditures resulting from the deductibility of contributions to other charitable institutions are listed under the education, training, employment, and social services function.

130. ***Tax credit for orphan drug research.***—The baseline tax system would not allow credits for particular activities, investments, or industries. In contrast, under current law drug firms can claim a tax credit of 25 percent of the costs for clinical testing required by the Food and Drug Administration for drugs that treat rare physical conditions or rare diseases.

131. ***Special Blue Cross/Blue Shield tax benefits.***—The baseline tax system generally would tax all profits under the regular tax rate schedule using broadly applicable measures of baseline income. It would not allow preferentially low tax rates to apply to certain types or sources of income. In contrast, certain Blue Cross and Blue Shield (BC/BS) health insurance providers and certain other health insurers are provided with special tax benefits, provided that their percentage of total premium revenue expended on reimbursement for clinical services provided to enrollees or for activities that improve health care quality is not less than 85 percent for the taxable year. A qualifying insurer may take as a deduction 100 percent of any net increase in its unearned premium reserves, instead of the 80 percent allowed other insurers. A qualifying insurer is also allowed a special deduction equal to the amount by which 25 percent of its health-claim expenses exceeds its beginning-of-the-year accounting surplus. The deduction is limited to the insurer's taxable income determined without the special deduction.

132. ***Distributions from retirement plans for premiums for health and long-term care insurance.***—Under the baseline tax system, all compensation, including dedicated and deferred payments, should be included in taxable income. In contrast, the Tax Code provides for tax-free distributions of up to $3,000 from governmental retirement plans for premiums for health and long term care premiums of public safety officers.

133. ***Credit for family and sick leave taken by self-employed individuals.***—The baseline tax system would not allow credits for particular activities or targeted as specific groups. Under current law, however, self-employed individuals are allowed a refundable credit equal for certain family or sick leave taken. In general, the sick leave credit is equal to 100 percent of daily self-employment income (equal to self-employment income divided by 260) during a period of qualified sick leave, up to $511 per day for 10 days. The family leave credit is equal to two thirds of daily self-employment income (but no greater than two thirds of $200) during a period of qualified family leave for up to 10 weeks. Under current law, the credit applies to leave taken prior to April 1, 2021.

Income Security

134. ***Child tax credit.***—The baseline tax system would not allow credits for particular activities or targeted at specific groups. Under current law, however, taxpayers with children under age 18 can qualify for a child tax credit. In taxable year 2021 taxpayers may claim a credit of up to $3,600 per child under six and up to $3,000 per child age six through 17. To be eligible for the child tax credit, the child must have a Social Security Number (SSN). The credit is fully refundable: the full amount of any credit unclaimed due to insufficient tax liability is refundable as an additional child tax credit. Taxpayers may claim a refund even if they do not have earnings or income. A taxpayer may also claim a nonrefundable credit of $500 for each qualifying child not eligible for the child tax credit (those over seventeen and those without SSNs) and for each dependent relative. The first $1,600 ($1,000 for those six and over) of the child tax credit per child phases out sequentially at the rate of $50 per $1,000 of modified AGI above $150,000 if married filing jointly ($112,500 head of household filers and $75,000 for all other filers). Larger families follow a modified phaseout rule extending this range. The combined credit for other dependents and the remaining $2,000 per child of the child tax credit is phased out for taxpayers at the rate of $50 per $1,000 of modified AGI above $400,000 if married filing jointly ($200,000 for all other filers). A taxpayer may receive up to 50 percent of their otherwise allowable credit as an advance based on information reported on their 2020 individual return, or their 2019 return if the 2020 return is unavailable. Safe harbor rules protect moderate income taxpayers who receive an advance but are not eligible based on their 2021 return. In taxable years 2022 through 2025, taxpayers may claim a $2,000 per child partially refundable child tax credit. Up to $1,400 per child of unclaimed credit due to insufficient tax liability may be refundable—taxpayers may claim a refund for 15 percent of earnings in excess of a $2,500 floor, up to the lesser of the amount of unused credit or $1,400 per child. To be eligible for the child tax

credit, the child must have an SSN. A taxpayer may also claim a nonrefundable credit of $500 for each qualifying child not eligible for the $2,000 credit (those over sixteen and those without SSNs) and for each dependent relative. The total combined child and other dependent credit is phased out for taxpayers at the rate of $50 per $1,000 of modified AGI above $400,000 if married filing jointly ($200,000 for all other filers). For tax years beginning after December 31, 2025, the credit returns to its pre-TCJA value of $1,000. At that time, up to the full value of the credit (subject to a phase-in of 15 percent of earnings in excess of $3,000) will be refundable and the $500 other dependent credit will expire. The credit will once again phase out at the rate of $50 per $1,000 of modified AGI above $110,000 if married filing jointly ($75,000 for single or head of household filers and $55,000 for married taxpayers filing separately). The social security requirement will remain in place.

135. ***Exclusion of railroad Social Security equivalent benefits.***—Under the baseline tax system, all compensation, including dedicated and deferred payments, should be included in taxable income. In contrast, the Social Security Equivalent Benefit paid to railroad retirees and disabled persons is not generally subject to the income tax unless the recipient's modified gross income reaches a certain threshold under current law. See provision number 156, Social Security benefits for retired and disabled workers and spouses, dependents, and survivors, for a discussion of the threshold.

136. ***Exclusion of workers' compensation benefits.***—Under the baseline tax system, all compensation, including dedicated payments and in-kind benefits, should be included in taxable income. However, workers compensation is not subject to the income tax under current law.

137. ***Exclusion of public assistance benefits (normal tax method).***—Under the reference tax law baseline, gifts and transfers are not treated as income to the recipients. In contrast, the normal tax method considers cash transfers from the Government as part of the recipients' income, and thus, treats the exclusion for public assistance benefits under current law as a tax expenditure.

138. ***Exclusion of special benefits for disabled coal miners.***—Under the baseline tax system, all compensation, including dedicated payments and in-kind benefits, should be included in taxable income. However, disability payments to former coal miners out of the Black Lung Trust Fund, although income to the recipient, are not subject to the income tax.

139. ***Exclusion of military disability pensions.***—Under the baseline tax system, all compensation, including dedicated payments and in-kind benefits, should be included in taxable income. In contrast, most of the military disability pension income received by current disabled military retirees is excluded from their income subject to tax.

140. ***Defined benefit employer plans.***—Under the baseline tax system, all compensation, including deferred and dedicated payments, should be included in taxable income. In addition, investment income would be taxed as earned. In contrast, under current law certain contributions to defined benefit pension plans are excluded from an employee's gross income even though employers can deduct their contributions. In addition, the tax on the investment income earned by defined benefit pension plans is deferred until the money is withdrawn.

141. ***Defined contribution employer plans.***—Under the baseline tax system, all compensation, including deferred and dedicated payments, should be included in taxable income. In addition, investment income would be taxed as earned. In contrast, under current law individual taxpayers and employers can make tax-preferred contributions to employer-provided 401(k) and similar plans (e.g. 403(b) plans and the Federal Government's Thrift Savings Plan). In 2020, an employee could exclude up to $19,500 of wages from AGI under a qualified arrangement with an employer's 401(k) plan. Employees age 50 or over could exclude up to $26,000 in contributions. The defined contribution plan limit, including both employee and employer contributions, is $57,000 in 2020. The tax on contributions made by both employees and employers and the investment income earned by these plans is deferred until withdrawn.

142. ***Individual Retirement Accounts (IRAs).***—Under the baseline tax system, all compensation, including deferred and dedicated payments, should be included in taxable income. In addition, investment income would be taxed as earned. In contrast, under current law individual taxpayers can take advantage of traditional and Roth IRAs to defer or otherwise reduce the tax on the return to their retirement savings. The IRA contribution limit is $6,000 in 2020; taxpayers age 50 or over are allowed to make additional "catch-up" contributions of $1,000. Contributions to a traditional IRA are generally deductible but the deduction is phased out for workers with incomes above certain levels if the workers or their spouses are active participants in an employer-provided retirement plan. Contributions and account earnings are includible in income when withdrawn from traditional IRAs. Roth IRA contributions are not deductible, but earnings and withdrawals are exempt from taxation. Income limits also apply to Roth IRA contributions.

143. ***Low- and moderate-income savers' credit.***—The baseline tax system would not allow credits for particular activities or targeted at specific groups. In contrast, the Tax Code provides an additional incentive for lower-income taxpayers to save through a nonrefundable credit of up to 50 percent on IRA and other retirement contributions of up to $2,000. This credit is in addition to any deduction or exclusion. The credit is completely phased out by $65,000 for joint filers, $48,750 for head of household filers, and $32,500 for other filers in 2020.

144. ***Self-employed plans.***—Under the baseline tax system, all compensation, including deferred and dedicated payments, should be included in taxable income. In addition, investment income would be taxed as earned. In contrast, under current law self-employed individuals can make deductible contributions to their own retirement plans equal to 25 percent of their income, up to a maximum of $57,000 in 2020. Total plan contributions

are limited to 25 percent of a firm's total wages. The tax on the investment income earned by self-employed SEP, SIMPLE, and qualified plans is deferred until withdrawn.

145. ***Premiums on group term life insurance.***—Under the baseline tax system, all compensation, including deferred and dedicated payments, should be included in taxable income. In contrast, under current law employer-provided life insurance benefits are excluded from an employee's gross income (to the extent that the employer's share of the total costs does not exceed the cost of $50,000 of such insurance) even though the employer's costs for the insurance are a deductible business expense.

146. ***Premiums on accident and disability insurance.***—Under the baseline tax system, all compensation, including dedicated payments and in-kind benefits, should be included in taxable income. In contrast, under current law employer-provided accident and disability benefits are excluded from an employee's gross income even though the employer's costs for the benefits are a deductible business expense.

147. ***Exclusion of investment income from Supplementary Unemployment Benefit Trusts.***—Under the baseline tax system, all compensation, including dedicated payments and in-kind benefits, should be included in taxable income. In addition, investment income would be taxed as earned. Under current law, employers may establish trusts to pay supplemental unemployment benefits to employees separated from employment. Investment income earned by such trusts is exempt from taxation.

148. ***Exclusion of investment income from Voluntary Employee Benefit Associations trusts.***—Under the baseline tax system, all compensation, including dedicated payments and in-kind benefits, should be included in taxable income. Under current law, employers may establish associations, or VEBAs, to pay employee benefits, which may include health benefit plans, life insurance, and disability insurance, among other employee benefits. Investment income earned by such trusts is exempt from taxation.

149. ***Special Employee Stock Ownership Plan (ESOP) rules.***— Under the baseline tax system, all compensation, including dedicated payments and in-kind benefits, should be included in taxable income. In addition, investment income would be taxed as earned. In contrast, employer-paid contributions (the value of stock issued to the ESOP) are deductible by the employer as part of employee compensation costs. They are not included in the employees' gross income for tax purposes, however, until they are paid out as benefits. In addition, the following special income tax provisions for ESOPs are intended to increase ownership of corporations by their employees: (1) annual employer contributions are subject to less restrictive limitations than other qualified retirement plans; (2) ESOPs may borrow to purchase employer stock, guaranteed by their agreement with the employer that the debt will be serviced by the payment (deductible by firm) of a portion of wages (excludable by the employees) to service the loan; (3) employees who sell appreciated company stock to the ESOP may defer any taxes due until they withdraw benefits; (4) dividends paid to ESOP-held stock are deductible by the employer; and (5) earnings are not taxed as they accrue.

150. ***Additional deduction for the blind.***—Under the baseline tax system, the standard deduction is allowed. An additional standard deduction for a targeted group within a given filing status would not be allowed. In contrast, the Tax Code allows taxpayers who are blind to claim an additional $1,700 standard deduction if single, or $1,350 if married in 2021.

151. ***Additional deduction for the elderly.***—Under the baseline tax system, the standard deduction is allowed. An additional standard deduction for a targeted group within a given filing status would not be allowed. In contrast, the Tax Code allows taxpayers who are 65 years or older to claim an additional $1,700 standard deduction if single, or $1,350 if married in 2021.

152. ***Deductibility of casualty losses.***—Under the baseline tax system, neither the purchase of property nor insurance premiums to protect the property's value are deductible as costs of earning income. Therefore, reimbursement for insured loss of such property is not included as a part of gross income, and uninsured losses are not deductible. In contrast, the Tax Code provides a deduction for uninsured casualty and theft losses of more than $100 each, to the extent that total losses during the year exceed 10 percent of the taxpayer's adjusted gross income. In the case of taxable years beginning after December 31, 2017, and before January 1, 2026, personal casualty losses are deductible only to the extent they are attributable to a federally declared disaster area.

153. ***Earned income tax credit (EITC).***—The baseline tax system would not allow credits for particular activities or targeted at specific groups. In contrast, the Tax Code provides an EITC to low-income workers at a maximum rate of 45 percent of income. In 2021, for a family with one qualifying child, the credit is 34 percent of the first $10,640 of earned income. The credit is 40 percent of the first $14,950 of income for a family with two qualifying children, and it is 45 percent of the first $14,950 of income for a family with three or more qualifying children. Low-income workers with no qualifying children are eligible for a 15.3-percent credit on the first $9,820 of earned income. The credit plateaus and then phases out with the greater of AGI or earnings at income levels and rates which depend upon how many qualifying children are eligible and marital status. In 2021, the phase-down for married filers begins at incomes $5,950 ($5,940 for filers without children) greater than for otherwise similar unmarried filers. Earned income tax credits in excess of tax liabilities owed through the individual income tax system are refundable to individuals. Beginning in 2018, the parameters of the EITC are indexed by the chained CPI, which results in a smaller inflation adjustment than previously. This change is permanent.

154. ***Recovery rebate credits.***—The baseline tax system would not allow credits for particular activities or targeted at specific groups. In contrast, the Coronavirus Aid, Relief, and Economic Security Act (Public Law 116-136, "CARES Act") provided rebates of $1,200 ($2,400 for

married couples filing jointly) and $500 per child. The total rebate amount begins phasing out at adjusted gross income over $75,000 ($150,000 for married couples filing jointly, $112,500 for heads of household). This was followed by the the Consolidated Appropriations Act of 2021 (Public Law 116-260) which provided which provided rebates of $600 per eligible taxpayer ($1,200 for married couples filing jointly) plus an additional $600 per child, with phase-out features similar to those in the CARES Act. The American Rescue Plan Act of 2021 (Public Law 117-2) provided another rebate credit of $1,400 ($2,800 for married couples filing jointly) and $1,400 per dependent in 2021. The phase out begins at the same thresholds as the CARES Act, but the full credit is phased out proportionately by $80,000 of AGI ($160,000 for married couples filing jointly, $120,000 for heads of household).

155. ***Exemption of unemployment insurance benefits.***— Under the baseline tax system, all compensation, including dedicated payments and in-kind benefits, should be included in taxable income. In contrast, under current law for 2021, unemployment insurance benefits up to $10,200 are excluded from recipient gross income.

Social Security

156. ***Social Security benefits for retired and disabled workers and spouses, dependents, and survivors.***—The baseline tax system would tax Social Security benefits to the extent that contributions to Social Security were not previously taxed. Thus, the portion of Social Security benefits that is attributable to employer contributions and to earnings on employer and employee contributions (and not attributable to employee contributions which are taxed at the time of contribution) would be subject to tax. In contrast, the Tax Code may not tax all of the Social Security benefits that exceed the beneficiary's contributions from previously taxed income. Actuarially, previously taxed contributions generally do not exceed 15 percent of benefits, even for retirees receiving the highest levels of benefits. Therefore, up to 85 percent of recipients' Social Security and Railroad Social Security Equivalent retirement benefits are included in (phased into) the income tax base if the recipient's provisional income exceeds certain base amounts. (Provisional income is equal to other items included in adjusted gross income plus foreign or U.S. possession income, tax-exempt interest, and one half of Social Security and Railroad Social Security Equivalent retirement benefits.) The untaxed portion of the benefits received by taxpayers who are below the income amounts at which 85 percent of the benefits are taxable is counted as a tax expenditure. Benefits paid to disabled workers and to spouses, dependents, and survivors are treated in a similar manner. Railroad Social Security Equivalent benefits are treated like Social Security benefits. See also provision number 135, Exclusion of Railroad Social Security Equivalent Benefits.

157. ***Credit for certain employer social security contributions.***—Under the baseline tax system, employer contributions to Social Security represent labor cost and are deductible expenses. Under current law, however, certain employers are allowed a tax credit, instead of a deduction, against taxes paid on tips received from customers in connection with the providing, delivering, or serving of food or beverages for consumption. The tip credit equals the full amount of the employer's share of FICA taxes paid on the portion of tips, when added to the employee's non-tip wages, in excess of $5.15 per hour. The credit is available only with respect to FICA taxes paid on tips.

Veterans Benefits and Services

158. ***Exclusion of veterans death benefits and disability compensation.***—Under the baseline tax system, all compensation, including dedicated payments and in-kind benefits, should be included in taxable income because they represent accretions to wealth that do not materially differ from cash wages. In contrast, all compensation due to death or disability paid by the Veterans Administration is excluded from taxable income under current law.

159. ***Exclusion of veterans pensions.***—Under the baseline tax system, all compensation, including dedicated payments and in-kind benefits, should be included in taxable income because they represent accretions to wealth that do not materially differ from cash wages. Under current law, however, pension payments made by the Veterans Administration are excluded from gross income.

160. ***Exclusion of G.I. Bill benefits.***—Under the baseline tax system, all compensation, including dedicated payments and in-kind benefits, should be included in taxable income because they represent accretions to wealth that do not materially differ from cash wages. Under current law, however, G.I. Bill benefits paid by the Veterans Administration are excluded from gross income.

161. ***Exclusion of interest on veterans housing bonds.***—The baseline tax system generally would tax all income under the regular tax rate schedule. It would not allow preferentially low (or zero) tax rates to apply to certain types or sources of income. In contrast, under current law, interest earned on general obligation bonds issued by State and local governments to finance housing for veterans is excluded from taxable income.

General Government

162. ***Exclusion of interest on public purpose State and local bonds.***—The baseline tax system generally would tax all income under the regular tax rate schedule. It would not allow preferentially low (or zero) tax rates to apply to certain types or sources of income. In contrast, under current law interest earned on State and local government bonds issued to finance public-purpose construction (e.g., schools, roads, sewers), equipment acquisition, and other public purposes is tax-exempt. Interest on bonds issued by Indian tribal governments for essential governmental purposes is also tax-exempt.

163. ***Build America Bonds.***—The baseline tax system would not allow credits for particular activities or

targeted at specific groups. In contrast, the Tax Code in 2009 allowed State and local governments to issue taxable bonds through 2010 and receive a direct payment from Treasury equal to 35 percent of interest expenses. Alternatively, State and local governments could issue taxable bonds and the private lenders receive the 35-percent credit which is included in taxable income.

164. ***Deductibility of nonbusiness State and local taxes other than on owner-occupied homes.***— Under the baseline tax system, a deduction for personal consumption expenditures would not be allowed. In contrast, the Tax Code allows taxpayers who itemize their deductions to claim a deduction for State and local income taxes (or, at the taxpayer's election, State and local sales taxes) and property taxes, even though these taxes primarily pay for services that, if purchased directly by taxpayers, would not be deductible. (The estimates for this tax expenditure do not include the estimates for the deductibility of State and local property tax on owner-occupied homes. See item 56.) In the case of taxable years beginning after December 31, 2017, and before January 1, 2026, (1) the deduction for foreign real property taxes paid is disallowed and (2) the deduction for taxes paid in any taxable year, which includes the deduction for property taxes on real property, is limited to $10,000 ($5,000 in the case of a married individual filing a separate return).

Interest

165. ***Deferral of interest on U.S. savings bonds.***— The baseline tax system would uniformly tax all returns to investments and not allow an exemption or deferral for particular activities, investments, or industries. In contrast, taxpayers may defer paying tax on interest earned on U.S. savings bonds until the bonds are redeemed.

APPENDIX

Performance Measures and the Economic Effects of Tax Expenditures

The Government Performance and Results Act of 1993 (GPRA) directs Federal agencies to develop annual and strategic plans for their programs and activities. These plans set out performance objectives to be achieved over a specific time period. Most of these objectives are achieved through direct expenditure programs. Tax expenditures—spending programs implemented through the tax code by reducing tax obligations for certain activities—contribute to achieving these goals in a manner similar to direct expenditure programs.

Tax expenditures by definition work through the tax system and, particularly, the income tax. Thus, they may be relatively advantageous policy approaches when the benefit or incentive is related to income and is intended to be widely available. Because there is an existing public administrative and private compliance structure for the tax system, income-based programs that require little oversight might be efficiently run through the tax system. In addition, some tax expenditures actually simplify the operation of the tax system. Tax expenditures also implicitly subsidize certain activities in a manner similar to direct expenditures. For example, exempting employer-sponsored health insurance from income taxation is equivalent to a direct spending subsidy equal to the forgone tax obligations for this type of compensation. Spending, regulatory or tax-disincentive policies can also modify behavior, but may have different economic effects. Finally, a variety of tax expenditure tools can be used (e.g., deductions, credits, exemptions, deferrals, floors, ceilings, phase-ins, phase-outs), and these can be dependent on income, expenses, or demographic characteristics (age, number of family members, etc.). This wide range of policy instruments means that tax expenditures can be flexible and can have very different economic effects.

Tax expenditures also have limitations. In many cases they add to the complexity of the tax system, which raises both administrative and compliance costs. For example, exemptions, deductions, credits, and phase-outs can complicate filing and decision-making. The income tax system may have little or no contact with persons who have no or very low incomes, and does not require information on certain characteristics of individuals used in some spending programs, such as wealth or duration of employment. These features may reduce the effectiveness of tax expenditures for addressing socioeconomic disparities. Many tax expenditures, particularly those that are structured as deductions or exemptions, also deliver higher benefits to taxpayers in higher tax brackets, an outcome that may not be desireable or intentional in some contexts, and which could be avoided if the benefit was structured as an outlay program. Relatedly, tax expenditures generally do not enable the same degree of agency discretion as an outlay program. For example, grant or direct Federal service delivery programs can prioritize activities to be addressed with specific resources in a way that is difficult to emulate with tax expenditures.

Outlay programs have advantages where the direct provision of government services is particularly warranted, such as equipping and maintaining the armed forces, administering the system of justice, building and maintance of public infrastructure, and other provision of clear public goods. Outlay programs may also be specifically designed to meet the needs of low-income families who would not otherwise be subject to income taxes or need to file a tax return. Outlay programs may also receive more year-to-year oversight and fine tuning through the legislative and executive budget process. In addition, many different types of spending programs include direct Government provision; credit programs; and payments to State and local governments, the private sector, or individuals in the form of grants or contracts, which provide flexibility for policy design. On the other hand, certain outlay programs may rely less directly on economic incentives and private-market provision than tax incentives, which could reduce the relative efficiency of spending programs for some goals. Finally, spending programs, particularly on the discretionary side, may respond less rapidly to changing activity levels and economic conditions than tax expenditures.

Regulations may have more direct and immediate effects than outlay and tax-expenditure programs because regulations apply directly and immediately to the regulated party (i.e., the intended actor), generally in the private sector. Regulations can also be fine-tuned more quickly than tax expenditures because they can often be changed as needed by the Executive Branch without legislation. Like tax expenditures, regulations often rely largely on voluntary compliance, rather than detailed inspections and policing. As such, the public administrative costs tend to be modest relative to the private resource costs associated with modifying activities. Historically, regulations have tended to rely on proscriptive measures, as opposed to economic incentives. This reliance can diminish their economic efficiency, although this feature can also promote full compliance where (as in certain safety-related cases) policymakers believe that trade-offs with economic considerations are not of paramount importance. Also, regulations generally do not directly affect Federal outlays or receipts. Thus, like tax expenditures, they may escape the degree of scrutiny that outlay programs receive.

A Framework for Evaluating the Effectiveness of Tax Expenditures

Across all major budgetary categories—from housing and health to space, technology, agriculture, and national defense—tax expenditures make up a significant portion of Federal activity and affect every area of the economy. For these reasons, a comprehensive evaluation framework that examines incentives, direct results, and spillover effects will benefit the budgetary process by informing decisions on tax expenditure policy.

As described above, tax expenditures, like spending and regulatory programs, have a variety of objectives and economic effects. These include encouraging certain types of activities (e.g., saving for retirement or investing in certain sectors); increasing certain types of after-tax income (e.g., favorable tax treatment of Social Security income) and preferencing other types of pre-tax income (e.g. preferential rates on capital gains); and reducing private compliance costs and Government administrative costs (e.g., the exclusion for up to $500,000 of capital gains on home sales). Some of these objectives are well-suited to quantitative measurement and evaluation, while others are less well-suited.

Performance measurement is generally concerned with inputs, outputs, and outcomes. In the case of tax expenditures, the principal input is usually the revenue effect. Outputs are quantitative or qualitative measures of goods and services, or changes in income and investment, directly produced by these inputs. Outcomes, in turn, represent the changes in the economy, society, or environment that are the ultimate goals of programs. Evaluations assess whether programs are meeting intended goals, but may also encompass analyzing whether initiatives are superior to other policy alternatives.

Similar to prior years, the Administration is working towards examining the objectives and effects of the wide range of tax expenditures in the President's Budget, despite challenges related to data availability, measurement, and analysis. Evaluations include an assessment of whether tax expenditures are achieving intended policy results in an efficient manner, with minimal burdens on individual taxpayers, consumers, and firms, and an examination of possible unintended effects and their consequences.

As an illustration of how evaluations can inform budgetary decisions, consider education, and research investment credits.

Education. There are millions of individuals taking advantage of tax credits designed to help pay for educational expenses. There are a number of different credits available as well as other important forms of Federal support for higher education such as subsidized student loans and grants. An evaluation would explore the possible relationships between use of the credits and the use of student loans and grants, seeking to answer, for example, whether the use of credits reduces or increases the likelihood of students applying for loans. Such an evaluation would allow stakeholders to determine the need for programs—whether they involve tax credits, subsidized loans, or grants.

Investment. A series of tax expenditures reduce the cost of investment, both in specific activities such as research and experimentation, extractive industries, and certain financial activities, and more generally throughout the economy, through accelerated depreciation for plant and equipment. These provisions can be evaluated along a number of dimensions. For example, it is useful to consider the strength of the incentives by measuring their effects on the cost of capital (the return which investments must yield to cover their costs) and effective tax rates. The impact of these provisions on the amount of corresponding forms of investment (e.g., research spending, exploration activity, equipment) might also be estimated. In some cases, such as research, there is evidence that this private investment can provide significant positive externalities—that is, economic benefits that are not reflected in the market transactions between private parties. It could be useful to quantify these externalities and compare them with the size of tax expenditures. Measures could also indicate the effects on production from these investments such as numbers or values of patents, energy production and reserves, and industrial production. Issues to be considered include the extent to which the preferences increase production (as opposed to benefiting existing output) and their cost-effectiveness relative to other policies. Analysis could also consider objectives that are more difficult to measure but could be ultimate goals, such as promoting energy security or economic growth. Such an assessment is likely to involve tax analysis as well as consideration of non-tax matters such as market structure, scientific, and other information.

The tax proposals subject to these analyses include items that indirectly affect the estimated value of tax expenditures (such as changes in income tax rates), proposals that make reforms to improve tax compliance and administration, as well as proposals which would change, add, or delete tax expenditures.

Barriers to Evaluation. Developing a framework that is sufficiently comprehensive, accurate, and flexible is a significant challenge. Evaluations are constrained by the availability of appropriate data and challenges in economic modeling:

- Data availability—Data may not exist, or may not exist in an analytically appropriate form, to conduct rigorous evaluations of certain types of expenditures. For example, measuring the effects of tax expenditures designed to achieve tax neutrality for individuals and firms earning income abroad, and foreign firms could require data from foreign governments or firms which are not readily available.
- Analytical constraints—Evaluations of tax expenditures face analytical constraints even when data are available. For example, individuals might have access to several tax expenditures and programs aimed at improving the same outcome. Isolating the effect of a single tax credit is challenging absent a well-specified research design.
- Resources—Tax expenditure analyses are seriously constrained by staffing considerations. Evaluations typically require expert analysts who are often engaged in other areas of work related to the budget.

The Executive Branch is focused on addressing these challenges to lay the foundation for the analysis of tax expenditures comprehensively, alongside evaluations of the effectiveness of direct spending initiatives.

SPECIAL TOPICS

14. AID TO STATE AND LOCAL GOVERNMENTS

The analysis in this chapter focuses on Federal spending that is provided to State and local governments, U.S. territories, and American Indian Tribal governments to help fund programs administered by those entities. This type of Federal spending is known as Federal financial assistance, primarily administered as grants.

In 2021, the Federal Government spent roughly $1.2 trillion on aid to State, local, tribal, and territorial governments. Spending on grants was approximately 5.6 percent of GDP in 2021.

The Budget estimates $1.0 trillion in outlays for aid to State, local, tribal, and territorial governments in 2023, a decrease of roughly 16 percent from spending in 2022, which is estimated to be $1.2 trillion. Total Federal grant spending to State and local governments is estimated to be 4.1 percent of GDP in 2023.

Elevated outlays for aid to State, local, tribal, and territorial governments in 2021 and 2022 reflect significant financial assistance provided in response to the health and economic crises caused by the COVID-19 pandemic. Most recently, obligations from the American Rescue Plan Act of 2021 (Public Law 117-2, "ARPA") have included funding to provide K-12 schools and institutions of higher learning with the resources needed to reopen safely and stay open, as well as to address the academic, social, and emotional needs of students. Roughly $245 billion in obligations from the ARPA have also gone toward State and local fiscal recovery funds to mitigate the fiscal effects stemming from the public health emergency with respect to COVID–19. Other notable forms of aid provided through the ARPA include an additional $40 billion in various forms of child care support, roughly $10 billion in emergency housing assistance (including funding for the HOME Investment Partnerships and emergency housing vouchers), $21.55 billion in emergency rental assistance, and an additional $4.5 billion for the Low Income Home Energy Assistance Program (LIHEAP).

Additionally, outlays for aid to State, local, tribal, and territorial governments in the coming years will also be affected by the Infastructure Investment and Jobs Act (Public Law 117-58, "IIJA"), which was signed into law on November 15, 2021. The IIJA makes an array of transformational investments in our country's infrastructure, including transportation programs, broadband deployment, clean energy infrastucture, and drinking water and wastewater infrastructure. Examples of grant programs authorized in the IIJA include $273 billion for Federal-aid highways, $8.7 billion to make transportation infrastructure more resilient to storms, and $7.5 billion in grants over five years to expand the availability of electric vehicle charging stations and alternative fuel infrastructure.

BACKGROUND AND ANALYSIS

Federal grants are authorized by the Congress in statute, which then establishes the purpose of the grant and how it is awarded. Most often Federal grants are awarded as direct cash assistance, but Federal grants can also include in-kind assistance—non-monetary aid, such as commodities purchased for the National School Lunch Program—and Federal revenues or assets shared with State and local governments.

In its 2021 State Expenditure Report, the National Association of State Budget Officers (NASBO) reports that 40.5 percent of total State spending, which is estimated to be about $2.65 trillion[1] in State fiscal year[2] 2021, came from Federal funds. The NASBO reports that, "overall, total State expenditures (including general funds, other State funds, bonds and federal funds)…increased…5.1 percent in 2019, 8.7 percent in fiscal 2020 and are estimated to have grown 16.2 percent in fiscal 2021."[3]

Table 14-1, below, shows Federal grants spending by decade, actual spending in 2021, and estimated spending in 2022 and 2023. Table 14-2 shows the Budget's funding level for grants in every Budget account, organized by functional category, Budget Enforcement Act (BEA) category, and by Federal Agency.

The Federal Budget classifies grants by general area or function. Of the total proposed grant spending in 2023, 56 percent is for health programs, with most of the funding for Medicaid. Beyond health programs, 16 percent of Federal aid is estimated to go to income security programs; 10 percent to transportation programs; 8 percent to education, training, and social services; and 9 percent for all other functions.

The Federal Budget also classifies grant spending by BEA category—discretionary or mandatory.[4] Funding for discretionary grant programs is generally determined annually through appropriations acts. Outlays for dis-

[1] "2021 State Expenditure Report." National Association of State Budget Officers, 2021. p. 1, 3.

[2] According to "The Fiscal Survey of States" published by the National Association of State Budget Officers (Fall 2021, p. VI), "Forty-six States begin their fiscal years in July and end them in June. The exceptions are New York, which starts its fiscal year on April 1; Texas, with a September 1 start date; and Alabama and Michigan, which start their fiscal years on October 1."

[3] "2021 State Expenditure Report." National Association of State Budget Officers, 2021. p. 2.

[4] For more information on these categories, see Chapter 8, "Budget Concepts," in this volume.

Table 14–1. TRENDS IN FEDERAL GRANTS TO STATE AND LOCAL GOVERNMENTS

(Outlays in billions of dollars)

	Actual										Estimate	
	1960	1970	1980	1990	2000	2005	2010	2015	2020	2021	2022	2023
A. Distribution of grants by function:												
Natural resources and environment	0.1	0.4	5.4	3.7	4.6	5.9	9.1	7.0	7.2	6.7	8.1	13.5
Agriculture	0.2	0.6	0.6	1.1	0.7	0.9	0.8	0.7	0.8	0.9	0.9	1.3
Transportation	3.0	4.6	13.0	19.2	32.2	43.4	61.0	60.8	69.3	86.6	101.2	105.2
Community and regional development	0.1	1.8	6.5	5.0	8.7	20.2	18.9	14.4	52.5	52.3	53.5	48.2
Education, training, employment, and social services	0.5	6.4	21.9	21.8	36.7	57.2	97.6	60.5	67.9	89.9	117.2	84.2
Health	0.2	3.8	15.8	43.9	124.8	197.8	290.2	368.0	493.4	572.0	617.6	585.6
Income security	2.6	5.8	18.5	36.9	68.7	90.9	115.2	101.1	118.2	177.8	195.1	166.9
Administration of justice	....	0.0	0.5	0.6	5.3	4.8	5.1	3.7	9.4	5.5	10.1	8.4
General government	0.2	0.5	8.6	2.3	2.1	4.4	5.2	3.8	4.3	247.5	114.5	10.5
Other	0.0	0.1	0.7	0.8	2.1	2.6	5.3	4.3	6.1	6.1	10.9	13.3
Total	**7.0**	**24.1**	**91.4**	**135.3**	**285.9**	**428.0**	**608.4**	**624.4**	**829.1**	**1,245.3**	**1,229.1**	**1,037.1**
B. Distribution of grants by BEA category:												
Discretionary	N/A	10.2	53.4	63.5	116.7	182.3	247.4	189.6	259.4	316.2	349.6	326.5
Mandatory	N/A	13.9	38.0	71.9	169.2	245.7	361.0	434.7	569.7	929.0	879.5	710.6
Total	**7.0**	**24.1**	**91.4**	**135.3**	**285.9**	**428.0**	**608.4**	**624.4**	**829.1**	**1,245.3**	**1,229.1**	**1,037.1**
C. Composition:												
Current dollars:												
Payments for individuals [1]	2.6	9.1	33.1	77.4	186.5	278.8	391.4	463.4	608.6	689.8	759.4	735.5
Physical capital [1]	3.3	7.1	22.6	27.2	48.7	60.8	93.3	77.2	85.3	104.2	129.3	145.1
Other grants	1.1	7.9	35.8	30.7	50.7	88.4	123.7	83.7	135.2	451.3	340.4	156.6
Total	**7.0**	**24.1**	**91.4**	**135.3**	**285.9**	**428.0**	**608.4**	**624.4**	**829.1**	**1,245.3**	**1,229.1**	**1,037.1**
Percentage of total grants:												
Payments for individuals [1]	37.4%	37.7%	36.2%	57.2%	65.3%	65.1%	64.3%	74.2%	73.4%	55.4%	61.8%	70.9%
Physical capital [1]	47.3%	29.3%	24.7%	20.1%	17.0%	14.2%	15.3%	12.4%	10.3%	8.4%	10.5%	14.0%
Other grants	15.3%	33.0%	39.1%	22.7%	17.7%	20.7%	20.3%	13.4%	16.3%	36.2%	27.7%	15.1%
Total	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**
Constant (FY 2012) dollars:												
Payments for individuals [1]	16.0	44.1	82.0	123.7	240.1	322.5	408.5	447.6	546.3	602.3	626.0	591.4
Physical capital [1]	25.1	40.1	57.6	48.0	71.9	77.8	98.5	73.4	73.3	86.4	102.2	111.2
Other grants	13.7	67.6	144.4	67.5	77.6	111.1	130.5	78.4	115.2	372.0	267.6	119.3
Total	**54.8**	**151.8**	**283.9**	**239.1**	**389.6**	**511.4**	**637.5**	**599.4**	**734.8**	**1,060.6**	**995.8**	**821.8**
D. Total grants as a percent of:												
Federal outlays:												
Total	7.6%	12.3%	15.5%	10.8%	16.0%	17.3%	17.6%	16.9%	12.7%	18.3%	21.0%	17.9%
Domestic programs [2]	18.0%	23.2%	22.2%	17.1%	22.0%	23.5%	23.4%	21.2%	15.0%	21.5%	25.2%	22.3%
State and local expenditures	14.2%	19.4%	26.4%	18.0%	21.0%	22.9%	25.6%	23.9%	27.0%	38.5%	N/A	N/A
Gross domestic product	1.3%	2.3%	3.3%	2.3%	2.8%	3.3%	4.1%	3.5%	4.0%	5.6%	5.1%	4.1%
E. As a share of total State and local gross investments:												
Federal capital grants	24.1%	24.6%	34.5%	21.0%	21.3%	21.2%	26.8%	21.9%	19.6%	23.9%	N/A	N/A
State and local own-source financing	75.9%	75.4%	65.5%	79.0%	78.7%	78.8%	73.2%	78.1%	80.4%	76.1%	N/A	N/A
Total	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**		

N/A: Not available at publishing.

[1] Grants that are both payments for individuals and capital investment are shown under capital investment.

[2] Excludes national defense, international affairs, net interest, and undistributed offsetting receipts.

cretionary grant programs are estimated to account for 31 percent of total grant spending in 2023. Funding for mandatory programs is provided directly in authorizing legislation that establishes eligibility criteria or benefit formulas; funding for mandatory programs usually is not limited by the annual appropriations process. Outlays for mandatory grant programs are estimated to account for 69 percent of total grant spending in 2023. Section B of Table 14-1 shows the distribution of grants between mandatory and discretionary spending.

In 2023, grants provided from discretionary funding are estimated to have outlays of $327 billion, a decrease of roughly 6.6 percent from 2022. The three largest discretionary programs in 2023 are estimated to be Federal-aid Highways programs, with outlays of $52 billion; Tenant Based Rental Assistance, with outlays of $31 billion; and Education for the Disadvantaged (Title I), with outlays of $17 billion.[5]

In 2023, outlays for mandatory grant programs are estimated to be $711 billion, a decrease of 19 percent from spending in 2022, which is estimated to be $880 billion. This estimated decline reflects the winding down of pandemic-related aid programs, as discussed above. Medicaid is by far the largest mandatory grant program with estimated outlays of $536 billion in 2023. After Medicaid, the three largest mandatory grant programs by outlays in 2023 are: Child Nutrition programs, which include the School Breakfast Program, the National School Lunch Program and others, $28 billion; the Temporary Assistance for Needy Families program, $17 billion; and the Children's Health Insurance Program, $16 billion.[6]

Federal spending by State for major grants, including the programs mentioned above, may be found in supplemental material available on the OMB website at *www.whitehouse.gov/omb/Analytical-Perspectives/*. This material includes two tables that summarize State-by-State spending for major grant programs, one summarizing obligations for each program by agency and bureau, and another summarizing total obligations across all programs for each State, followed by 57 individual tables showing State-by-State obligation data for each grant program. The programs shown in these State-by-State tables cover the majority of total grants to State and local governments. The sections that follow include highlights of grant proposals from the Budget listed by function.

[5] Obligation data by State for programs in each of these budget accounts may be found in the State-by-State tables included with other Budget materials on the OMB website.

[6] Obligation data by State for programs in each of these budget accounts may be found in the State-by-State tables included with other budget materials on the OMB web site.

HIGHLIGHTS

Grants Management

This Administration remains committed to supporting the effective implementation and strong stewardship of the increased outlays to combat the COVID-19 pandemic discussed above, including the continued execution of the ARPA as described in OMB memorandum M-21-20, "Promoting Public Trust in the Federal Government through the Effective Implementation of the American Rescue Plan and Stewardship of the Taxpayer Resources." Additionally, the Administration issued M-22-04, "Promoting Accountability through Cooperation among Agencies and Inspectors General," to strengthen agencies' relations with the Offices of Inspectors General to improve accountability. Similarly, this Administration is committed to the successful execution of the IIJA, which represents a once-in-a-generation investment in our Nation's infrastructure and competitiveness. To support this effort, on November 15, 2021, President Biden signed E.O. 14052 on "Implementation of the Infrastructure Investment and Jobs Act" to support the effective stewardship of taxpayer resources and equitable outcomes for grant programs in the Act. As outlined in the President's Management Agenda, the Administration will continue to take proactive steps to foster accountability, performance, and public trust in the administration of grant programs while implementing sound financial management of these resources.

Energy

The Administration is committed to creating jobs through support for State and community action to deploy clean energy infrastructure. The Budget includes more than $502 million to weatherize and decarbonize low-income homes through efficiency and electrification retrofits, such as a $100 million Low Income Housing Energy Assistance Program (LIHEAP) Advantage pilot to retrofit low-income homes with efficient electric appliances and systems. It also includes over $105 million to States and communities to incubate novel approaches to clean energy technology deployment, prioritizing investments that benefit disadvantaged communities that have been marginalized or overburdened. In addition, the Budget provides $150 million to electrify Tribal homes and transition Tribal colleges and universities to renewable energy.

Natural Resources and Environment

The Budget commits to tackling the climate crisis with urgency by investing $100 million in Environmental Protection Agency (EPA) grants to States and Tribes that will support the implementation of on-the-ground efforts in communities across the Nation, such as reducing methane emissions.

The Budget invests over $675 million in Western water resource infrastructure and to provide potable water to rural areas. It also provides funding to address the ongoing drought in the western United States and makes robust investments in the Federal Emergency Management Agency's hazard mitigation grant programs, including the Building Resilient Infrastructure and Communities grant program, which helps disadvantaged communities build resilience against natural disasters.

To protect communities from hazardous waste and environmental damage, the Budget also provides $215 million for EPA's Brownfields program to provide technical assistance and grants to communities, including disadvantaged communities, so they can safely clean up and reuse contaminated properties.

Agriculture

To support Tribal communities, the Budget invests $62 million for agriculture research, education and extension grants to Tribal institutions and $7 million to support Native American farmers and ranchers through the Intertribal Assistance Network.

Transportation

The Budget provides robust support for transportation projects that cut commute times, improve safety, reduce freight bottlenecks, better connect communities, and reduce transportation-related greenhouse gas emissions. Investments include $4.0 billion, $3.0 billion above the FY2021 enacted levels pursuant to the Consolidated Appropriations Act, 2021 (Public Law 116-260, "FY2021 enacted"), for National Infrastructure Investments grant programs to support transportation projects with significant benefits across multiple modes, and $1.64 billion, a $640 million increase above the FY2021 enacted level, for the Infrastructure for Rebuilding America grants program, which focuses on reducing freight and highway bottlenecks.

The Budget modernizes and upgrades roads and bridges by providing $68.9 billion for the Federal-aid Highway program, $19.8 billion above the FY2021 enacted level. This includes $9.4 billion provided by the IIJA for 2023 and which also supports: $8 billion for new competitive and formula grant programs to rebuild the Nation's bridges; $1.4 billion to deploy a nationwide, publicly-accessible network of electric vehicle chargers and other alternative fueling infrastructure; $1.3 billion for a new carbon reduction grant program; and $1.7 billion for a new resiliency grant program to enchance the resiliance of surface transportation infrastructure to hazards and climate change.

The Budget continues support for the historic levels of Federal investment to modernize America's port and waterway infrastructure initiated under the IIJA by including $230 million for the Port Infrastructure Development Program to strengthen maritime freight capacity. The Budget also includes $10.1 billion for existing and new competitive grant programs to support passenger rail modernization and expansion and $4.5 billion for the Capital Investment Grant program, which will advance the construction of new, high-quality transit corridors to reduce travel time and increase economic development.

Community and Regional Development

The Budget invests in underserved communities by providing $3.8 billion for the Community Development Block Grant program to help communities modernize infrastructure, invest in economic development, create parks and other public amenities, and provide social services.

The President is committed to ensuring that every American has access to broadband. Building on the $2 billion for U.S. Department of Agriculture (USDA) broadband programs provided in the IIJA, the Budget provides $600 million for the ReConnect program, which provides grants and loans to deploy broadband to unserved areas, especially tribal areas. High-speed internet strengthens rural economies, and the work of installing broadband creates high-paying union jobs.

Additionally, to foster investment and economic revitalization in communities impacted by the transition from fossil fuels to a clean energy economy, the Budget provides more than $70 million in new funding to the Economic Development Administration (EDA) to create jobs and drive growth in economically distressed communities. This funding would allow EDA to more than double its Assistance to Coal Communities (ACC) initiative. The Budget also provides $50 million for an EDA pilot program to address structural prime-age employment gaps and boost competitiveness in persistently distressed communities through innovative, flexible, and locally-led grants.

Education, Training, Employment, and Social Services

Disruptions caused by the COVID-19 pandemic continue to take a toll on the physical and mental health of students, teachers, and school staff. Recognizing the profound effect of physical and mental health on academic achievement, the Budget includes a $1 billion investment to increase the number of counselors, nurses, and mental health professionals in schools.

To advance the goal of providing a high-quality education to every student, the Budget includes $36.5 billion for Title I, more than doubling the program's funding compared to the 2021 enacted level, through a combination of discretionary and mandatory funding. Title I helps schools provide students from low-income families the learning opportunities they need to succeed. This substantial new support for the program, which serves 25 million students in nearly 90 percent of school districts across the Nation, would be a major step toward fulfilling the President's commitment to address long-standing funding disparities between under-resourced schools—which disproportionately serve students of color—and their wealthier counterparts.

The President is also committed to ensuring that children with disabilities receive the services and support they need to thrive. The Budget provides an additional $3.3 billion over FY2021 enacted levels—the largest two-year increase ever—for Individuals with Disabilities Education Act (IDEA) Grants to States, with a total of $16.3 billion to support special education and related services for students in grades Pre-K through 12. The Budget also doubles funding to $932 million for IDEA Part C grants, which support early intervention services for infants and families with disabilities that have a proven record of improving academic and developmental outcomes.

To increase institutional capacity at Historically Black Colleges and Universities (HBCUs), Tribally Controlled Colleges and Universities (TCCUs), Minority-Serving Institutions (MSIs), and low-resourced institutions, including community colleges, the Budget provides an increase of $752 million over the FY2021 enacted level for these programs. This funding includes $450 million to 4-year HBCUs, TCCUs, and MSIs to increase research and development infrastructure at these institutions.

The Budget also provides $100 million in competitive grants for States and localities to advance reforms that would reduce the overrepresentation of children and families of color in the child welfare system and address the disparate experiences and outcomes of these families, as well as $215 million for States and community-based organizations to respond to and prevent child abuse.

Health

The Budget includes increased discretionary funding to build public health capacity at the State and local government level. These resources will expand public health infrastructure in States and Territories. Mental health is essential to overall health, and the United States faces a mental health crisis that has been exacerbated by the COVID-19 pandemic. The Budget provides sustained and increased funding for community-based mental and behavioral health centers and clinics, including a State option to receive enhanced Medicaid reimbursement on a permanent basis. In addition, the Budget makes historic investments in youth mental health and suicide prevention programs, and in training, educational loan repayment, and scholarships that help address the shortage of behavioral health providers, especially in underserved communities. The Budget also strengthens access to crisis services by building out the National Suicide Prevention Lifeline, which will transition from a ten-digit number to 988 in July 2022.

The National HIV/AIDS Strategy (2022–2025) commits to a 75 percent reduction in HIV infection by 2025. To meet this ambitious target and ultimately end the HIV/AIDS epidemic in the United States, the Budget includes $850 million across the Department of Health and Human Services (HHS) to aggressively reduce new HIV cases by increasing access to HIV prevention programs and ensure equitable access to services and supports. This includes increasing access to pre-exposure prophylaxis (also known as PrEP) among Medicaid beneficiaries, which is expected to improve health and lower Medicaid costs for HIV treatment. The Budget also proposes a new mandatory program to guarantee PrEP at no cost for all uninsured and underinsured individuals, provide essential wrap-around services through States and localities, and establish a network of community providers to reach underserved areas and populations.

To address racial health disparities and reduce maternal mortality and morbidity rates, the Budget provides funding to create pregnancy medical home projects, expand maternal health initiatives in rural communities, implement implicit bias training for healthcare providers, and address the highest rates of perinatal health disparities, including by supporting the perinatal health workforce. The Budget also extends and increases funding for the Maternal, Infant, and Early Childhood Home Visiting (MIECHV) Program, which serves approximately 71,000 families at risk for poor maternal and child health outcomes each year, and is proven to reduce disparities in infant mortality. To address the lack of data on health disparities and further improve access to care, the Budget strengthens collection and evaluation of health equity data. Recognizing that maternal mental health conditions are the most common complications of pregnancy and childbirth, the Budget continues to support the maternal mental health hotline and the screening and treatment for maternal mental depression and related behavioral disorders.

The Budget also provides $400 million, an increase of $40 million above the FY2021 enacted level, within the Department of Housing and Urban Development (HUD), for States, local governments, and nonprofits to reduce lead-based paint and other health hazards in the homes of low-income families with young children.

Income Security

The Budget increases affordable housing supply and addresses the critical shortage of affordable housing in communities throughout the Nation by providing $1.95 billion for the HOME Investment Partnerships Program, an increase of $600 million over the FY2021 enacted level, to construct and rehabilitate affordable rental housing and provide homeownership opportunities. If enacted, this would be the highest funding level for HOME in nearly 15 years. In addition, the Budget provides $35 billion in mandatory HUD funding for State and local housing finance agencies and their partners to provide grants, revolving loan funds, and other streamlined financing tools that reduce transactional cost and increase housing supply, as well as grants to advance State and local jurisdictions' efforts to remove barriers to affordable housing development.

The Budget also provides $32.1 billion, an increase of $6.4 billion (including emergency funding) over the FY2021 enacted level, for the Housing Choice Voucher program to maintain services for all currently assisted families and to expand assistance to an additional 200,000 households, particularly those who are experiencing homelessness or fleeing, or attempting to flee, domestic violence or other forms of gender-based violence. To advance efforts to end homelessness, the Budget provides $3.6 billion, an increase of $580 million over the FY2021 enacted level, for Homeless Assistance Grants to meet renewal needs and support survivors of domestic violence and homeless youth. Additionally, the Budget also helps address the poor housing conditions in Tribal areas by providing $1 billion to fund Tribal efforts to expand affordable housing, improve housing conditions and infrastructure, and increase economic opportunities for low-income families.

To support families struggling with home energy and water bills, the Budget provides $4 billion, a $225 million increase over the FY2021 enacted level, for LIHEAP. Since the Low Income Household Water Assistance Program expires at the end of 2023, the Budget proposes to expand LIHEAP to advance the goals of both programs by increasing LIHEAP funding and giving States the option to use a portion of their LIHEAP funds to provide water bill assistance to low-income households.

The Budget also provides $7.6 billion for the Child Care and Development Block Grant, an increase of $1.7 billion over the FY2021 enacted level to expand access to quality, affordable child care for families across the Nation.

The Budget supports a strong nutrition safety net by providing $6.8 billion for critical nutrition programs, including $6 billion for the Special Supplemental Nutrition Program for Women, Infants, and Children, to help vulnerable families put healthy food on the table and address racial disparities in maternal and child health outcomes.

Additionally, the Budget includes several investments aimed at tackling fraud in the Unemployment Insurance (UI) program, including funding to support more robust identity verification for UI applicants, help States develop and test fraud-prevention tools and strategies, and allow the Department of Labor (DOL) Office of Inspector General to increase its investigations into fraud rings targeting the UI program. To allow States to serve claimants more quickly and effectively while strengthening program integrity, the Budget also updates the formula for determining the amount States receive to administer UI, the first comprehensive update in decades. The Budget also proposes principles to guide future efforts to reform the UI system, including improving benefit levels and access, scaling UI benefits automatically during recessions, expanding eligibility to reflect the modern labor force, improving State and Federal solvency through more equitable and progressive financing, expanding reemployment services, and safeguarding the program from fraud.

Administration of Justice

The Budget provides $3.2 billion in discretionary resources for State and local grants and $30 billion in mandatory resources to support law enforcement, crime prevention, and community violence intervention. In addition, the Budget proposes $760 million for juvenile justice programs, an increase of $414 million over the FY2021 enacted level, to bolster decarcerative juvenile justice strategies.

OTHER SOURCES OF INFORMATION ON FEDERAL GRANTS

A number of other sources provide State-by-State spending data and other information on Federal grants but may use a broader definition of grants beyond what is included in this chapter.

The website *Grants.gov* is a primary source of information for communities wishing to apply for grants and other financial assistance. *Grants.gov* hosts all competitive open notices of opportunities to apply for Federal grants.

The *System for Award Management* hosted by the General Services Administration contains detailed Assistance Listings (formerly known as the Catalog of Federal Domestic Assistance) of grant and other assistance programs; discussions of eligibility criteria, application procedures, and estimated obligations; and related information. The *Assistance Listings* are available on the internet at *sam.gov*.

Current and updated grant receipt information by State and local governments and other non-Federal entities can be found on *USASpending.gov*. This public website includes additional detail on Federal spending, including contract and loan information.

The Federal Audit Clearinghouse maintains an online database *(https://harvester.census.gov/facweb/)* that provides public access to audit reports conducted under OMB guidance located at 2 CFR part 200, Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards. Information is available for each audited entity, including the amount of Federal money expended by program and whether there were audit findings.

The Bureau of Economic Analysis, in the Department of Commerce, produces the monthly *Survey of Current Business*, which provides data on the National income and product accounts, a broad statistical concept encompassing the entire economy. These accounts, which are available at *bea.gov/national*, include data on Federal grants to State and local governments.

In addition, information on grants and awards can be found through individual Federal Agencies' websites:[7]

[7] *https://www.cfo.gov/wp-content/uploads/2021/Managing-for-Results-Performance-Management-Playbook-for-Federal-Awarding-Agencies.pdf*.

- USDA Current Research Information System, *https://cris.nifa.usda.gov/*
- Department of Defense Medical Research Programs, *https://cdmrp.army.mil/search.aspx*
- Department of Education, Institute of Education Sciences, Funded Research Grants and Contracts, *https://www2.ed.gov/fund/grants-apply.html*
- HHS Grants, *https://www.hhs.gov/grants/grants/index.html*
- HHS Tracking Accountability in Government Grants System, *https://taggs.hhs.gov/AdvancedSearch.cfm*
- National Institutes of Health Grants and Funding, *https://grants.nih.gov/funding/index.htm*
- HUD Grants, *https://www.hud.gov/program_offices/spm/gmomgmt/grantsinfo*
- DOJ Grants, *https://www.justice.gov/grants*
- DOL Employment and Training Administration, Grants Awarded, *https://www.doleta.gov/grants/grants_awarded.cfm*
- Department of Transportation Grants, *https://www.transportation.gov/grants*
- *EPA Grants*, *https://www.epa.gov/grants*
- National Science Foundation Awards, *https://www.nsf.gov/awardsearch/*
- Small Business Innovation Research and Small Business Technology Transfer Awards, *https://www.sbir.gov/sbirsearch/award/all*

Table 14–2. FEDERAL GRANTS TO STATE AND LOCAL GOVERNMENTS—BUDGET AUTHORITY AND OUTLAYS
(In millions of dollars)

Function, Category, Agency and Program	Budget Authority			Outlays		
	2021 Actual	2022 Estimate	2023 Estimate	2021 Actual	2022 Estimate	2023 Estimate
Energy						
Discretionary:						
Department of Energy:						
Energy Programs:						
Energy Efficiency and Renewable Energy	404	5,178	....	327	597	2,148
Office of State and Community Energy Programs	....	....	702	....	....	214
Total, discretionary	404	5,178	702	327	597	2,362
Mandatory:						
Tennessee Valley Authority:						
Tennessee Valley Authority Fund	514	514	512	514	514	512
Total, Energy	918	5,692	1,214	841	1,111	2,874
Natural Resources and Environment						
Discretionary:						
Department of Agriculture:						
Farm Service Agency:						
Grassroots Source Water Protection Program	7	7	7	7	7	7
Natural Resources Conservation Service:						
Emergency Watershed Protection	....	70	18	....	18	41
Watershed Rehabilitation Program	29	79	36	29	51	55
Watershed and Flood Prevention Operations	235	650	549	139	169	433
Forest Service:						
State and Private Forestry	224	417	368	218	792	386
Department of Commerce:						
National Oceanic and Atmospheric Administration:						
Operations, Research, and Facilities	111	107	151	109	156	232
Pacific Coastal Salmon Recovery	65	99	99	58	98	107
Department of the Interior:						
Office of Surface Mining Reclamation and Enforcement:						
Regulation and Technology	43	43	65	60	60	63
Abandoned Mine Reclamation Fund	115	11,013	115	54	109	237
United States Geological Survey:						
Surveys, Investigations, and Research	8	8	11	7	6	11
United States Fish and Wildlife Service:						
Cooperative Endangered Species Conservation Fund	31	31	24	47	49	53
State Wildlife Grants	72	72	82	61	70	76
National Park Service:						
National Recreation and Preservation	74	74	75	66	80	77
Land Acquisition and State Assistance	–23	–21	....	49	139	124
Historic Preservation Fund	144	144	152	85	185	185
Department-Wide Programs:						
Energy Community Revitalization Program	....	4,402	65	....	44	466
Environmental Protection Agency:						
State and Tribal Assistance Grants	4,340	14,385	16,501	3,714	3,693	8,290
Hazardous Substance Superfund	250	250	250	244	254	263
Leaking Underground Storage Tank Trust Fund	84	83	83	76	79	81
Total, discretionary	5,809	31,913	18,651	5,023	6,059	11,187
Mandatory:						
Department of Commerce:						
National Oceanic and Atmospheric Administration:						
Gulf Coast Ecosystem Restoration Science, Observation, Monitoring, and Technology	6	6	8	6	6	8

Table 14–2. FEDERAL GRANTS TO STATE AND LOCAL GOVERNMENTS—BUDGET AUTHORITY AND OUTLAYS—Continued
(In millions of dollars)

Function, Category, Agency and Program	Budget Authority			Outlays		
	2021 Actual	2022 Estimate	2023 Estimate	2021 Actual	2022 Estimate	2023 Estimate
Department of the Interior:						
Bureau of Land Management:						
Miscellaneous Permanent Payment Accounts	28	38	34	28	32	27
Office of Surface Mining Reclamation and Enforcement:						
Abandoned Mine Reclamation Fund	115	109	95	131	128	115
United States Fish and Wildlife Service:						
Federal Aid in Wildlife Restoration	726	1,161	938	713	832	959
Cooperative Endangered Species Conservation Fund	86	106	112	75	100	96
Coastal Impact Assistance	....	....	....	....	1	1
Sport Fish Restoration	513	494	493	416	453	481
National Park Service:						
Land Acquisition and State Assistance	507	402	447	24	149	184
Departmental Offices:						
National Forests Fund, Payment to States	5	8	8	5	8	8
Leases of Lands Acquired for Flood Control, Navigation, and Allied Purpos es	41	43	40	41	43	40
States Share from Certain Gulf of Mexico Leases	249	253	355	249	253	355
Corps of Engineers--Civil Works:						
South Dakota Terrestrial Wildlife Habitat Restoration Trust Fund	2	1	1	1	1	1
Environmental Protection Agency:						
Environmental Programs and Management	43	....	....	3	12	15
Total, mandatory	2,321	2,621	2,531	1,692	2,018	2,290
Total, Natural Resources and Environment	8,130	34,534	21,182	6,715	8,077	13,477
Agriculture						
Discretionary:						
Department of Agriculture:						
National Institute of Food and Agriculture:						
Extension Activities	450	450	....	495	377	335
National Institute of Food and Agriculture	....	....	864	....	....	496
Research and Education Activities	370	372	....	311	421	367
Agricultural Marketing Service:						
Payments to States and Possessions	6	....	....	6	....	....
Farm Service Agency:						
State Mediation Grants	7	7	7	5	7	7
Total, discretionary	833	829	871	817	805	1,205
Mandatory:						
Department of Agriculture:						
Agricultural Marketing Service:						
Payments to States and Possessions	185	85	85	92	85	83
Total, Agriculture	1,018	914	956	909	890	1,288
Commerce and Housing Credit						
Discretionary:						
Department of Commerce:						
National Oceanic and Atmospheric Administration:						
Fisheries Disaster Assistance	300	200	....	263	398	240
National Telecommunications and Information Administration:						
Broadband Connectivity Fund	....	2,000	....	....	....	200
Broadband Equity, Access, and Deployment Program	....	41,601	....	....	1,604	2,453
Digital Equity	....	539	539	....	....	5
Middle Mile Deployment	....	980	....	....	....	235
Total, discretionary	300	45,320	539	263	2,002	3,133

Table 14–2. FEDERAL GRANTS TO STATE AND LOCAL GOVERNMENTS—BUDGET AUTHORITY AND OUTLAYS—Continued
(In millions of dollars)

Function, Category, Agency and Program	Budget Authority			Outlays		
	2021 Actual	2022 Estimate	2023 Estimate	2021 Actual	2022 Estimate	2023 Estimate
Mandatory:						
Department of Commerce:						
National Telecommunications and Information Administration:						
State and Local Implementation Fund	....	....	....	4	5	2
Broadband Connectivity Fund	1,268	....	....	....	227	541
Department of the Treasury:						
Departmental Offices:						
State Small Business Credit Initiative	10,000	....	....	2	2,928	1,327
Federal Communications Commission:						
Universal Service Fund	2,340	2,415	2,371	2,123	2,124	2,141
Total, mandatory	13,608	2,415	2,371	2,129	5,284	4,011
Total, Commerce and Housing Credit	13,908	47,735	2,910	2,392	7,286	7,144
Transportation						
Discretionary:						
Department of Transportation:						
Office of the Secretary:						
National Infrastructure Investments	980	3,450	3,950	692	1,145	1,188
National Culvert Removal, Replacement, and Restoration Grant Program	....	198	198	....	....	5
Strengthening Mobility and Revolutionizing Transportation Grant Program	....	99	99	....	....	10
Safe Streets and Roads for All	....	980	980	....	9	198
Federal Aviation Administration:						
Airport Terminal Program	....	994	990	....	36	631
Airport Infrastructure Grants	....	2,984	2,972	....	108	1,894
Grants-in-aid for Airports (Airport and Airway Trust Fund)	2,400	400	....	8,663	5,823	4,565
Grants-in-aid for Airports (Airport and Airway Trust Fund) (non-add obligati on limitations) [1]	*3,350*	*3,350*	*3,350*	....	....	....
Federal Highway Administration:						
Emergency Relief Program	....	2,600	....	635	1,285	1,315
Highway Infrastructure Programs	12,000	11,434	9,434	3,219	4,006	7,055
Appalachian Development Highway System	....	....	....	12	9	7
Federal-aid Highways	....	....	....	42,652	45,743	51,678
Federal-aid Highways (non-add obligation limitations) [1]	*45,403*	*55,513*	*57,430*	....	....	....
Miscellaneous Appropriations	....	....	....	14	10	9
Miscellaneous Highway Trust Funds	....	....	....	7	9	8
Federal Motor Carrier Safety Administration:						
Motor Carrier Safety Grants, General Fund	....	125	125	....	19	81
Motor Carrier Safety Grants	....	....	....	332	411	486
Motor Carrier Safety Grants (non-add obligation limitations) [1]	*420*	*496*	*506*	....	....	....
National Highway Traffic Safety Administration:						
Crash Data	....	65	65	....	32	64
Supplemental Highway Traffic Safety Programs	....	42	42	....	6	30
Highway Traffic Safety Grants	....	....	....	626	790	788
Highway Traffic Safety Grants (non-add obligation limitations) [1]	*728*	*900*	*795*	....	....	....
Federal Railroad Administration:						
Northeast Corridor Improvement Program	....	....	....	5	9	3
Restoration and Enhancement Grants	5	5	50	....	....	1
Magnetic Levitation Technology Deployment Program	2	2	....	....	....	....
Rail Safety Technology Program	–1	....	....	....	1	....
Railroad Safety Grants	....	....	....	6	14	3
Grants to the National Railroad Passenger Corporation	....	....	....	....	8	13
Intercity Passenger Rail Grant Program	–10	....	....	3	5	2
Rail Line Relocation and Improvement Program	–13	–3	....	....	....	....

Table 14–2. FEDERAL GRANTS TO STATE AND LOCAL GOVERNMENTS—BUDGET AUTHORITY AND OUTLAYS—Continued

(In millions of dollars)

Function, Category, Agency and Program	Budget Authority			Outlays		
	2021 Actual	2022 Estimate	2023 Estimate	2021 Actual	2022 Estimate	2023 Estimate
Capital Assistance for High Speed Rail Corridors and Intercity Passenger Rail Service	....	....	....	12	41	56
Next Generation High-speed Rail	–3	....	....	....	1	....
Railroad Crossing Elimination Program	....	588	828	....	....	....
Northeast Corridor Grants to the National Railroad Passenger Corporation	1,351	1,890	2,388	1,352	1,883	2,378
National Network Grants to the National Railroad Passenger Corporation	1,636	4,478	4,975	1,636	4,471	4,973
Federal-State Partnership for Intercity Passenger Rail Grants	198	7,254	7,600	....	38	186
Consolidated Rail Infrastructure and Safety Improvements	371	1,351	1,470	60	206	222
Federal Transit Administration:						
Job Access and Reverse Commute Grants	....	....	....	....	1	....
Washington Metropolitan Area Transit Authority	150	150	150	130	136	138
Formula Grants	–2	–2	....	9	9	9
Capital Investment Grants	2,014	3,614	4,450	1,897	2,918	2,778
Public Transportation Emergency Relief Program	....	....	....	874	785	780
Transit Infrastructure Grants	44,977	2,566	2,250	13,369	21,257	12,100
Discretionary Grants (Highway Trust Fund, Mass Transit Account)	....	....	....	....	15	....
Transit Formula Grants	....	....	....	7,941	9,009	10,354
Transit Formula Grants (non-add obligation limitations) [1]	*11,450*	*14,655*	*14,934*	....	....	....
Pipeline and Hazardous Materials Safety Administration:						
Natural Gas Distribution Infrastructure Safety and Modernization Grant Program	....	196	196	....	....	79
Pipeline Safety	58	58	55	56	68	66
Trust Fund Share of Pipeline Safety	9	9	11	8	9	11
Maritime Administration:						
Port Infrastructure Development Program	230	680	680	1	120	198
Total, discretionary	66,352	46,207	43,958	84,211	100,445	104,362
Total, obligation limitations (non-add) [1]	*61,351*	*74,914*	*77,015*	....	....	....
Mandatory:						
Department of Homeland Security:						
United States Coast Guard:						
Boat Safety	125	119	119	94	134	119
Department of Transportation:						
Federal Aviation Administration:						
Grants-in-aid for Airports (Airport and Airway Trust Fund)	3,175	3,175	3,157	....	....	....
Federal Highway Administration:						
Federal-aid Highways	45,697	56,244	57,639	600	646	744
Federal Motor Carrier Safety Administration:						
Motor Carrier Safety Grants	388	496	506	....	....	....
National Highway Traffic Safety Administration:						
Highway Traffic Safety Grants	665	826	718	....	....	....
Federal Railroad Administration:						
Northeast Corridor Grants to the National Railroad Passenger Corporation	969	....	....	969	....	....
National Network Grants to the National Railroad Passenger Corporation	729	....	....	729	....	....
Federal Transit Administration:						
Transit Formula Grants	10,970	14,627	14,906	....	....	....
Total, mandatory	62,718	75,487	77,045	2,392	780	863
Total, Transportation	129,070	121,694	121,003	86,603	101,225	105,225
Community and Regional Development						
Discretionary:						
Department of Agriculture:						
Rural Utilities Service:						
Distance Learning, Telemedicine, and Broadband Program	555	2,378	627	69	482	1,458

Table 14–2. FEDERAL GRANTS TO STATE AND LOCAL GOVERNMENTS—BUDGET AUTHORITY AND OUTLAYS—Continued

(In millions of dollars)

Function, Category, Agency and Program	Budget Authority			Outlays		
	2021 Actual	2022 Estimate	2023 Estimate	2021 Actual	2022 Estimate	2023 Estimate
Rural Water and Waste Disposal Program Account	617	617	717	494	707	800
Rural Housing Service:						
Rural Community Facilities Program Account	60	60	60	65	53	61
Rural Business-Cooperative Service:						
Rural Business Program Account	61	61	83	73	60	72
Department of Commerce:						
Economic Development Administration:						
Economic Development Assistance Programs	296	296	423	720	906	1,123
Department of Homeland Security:						
Federal Emergency Management Agency:						
Federal Assistance	2,915	3,995	3,588	2,228	2,947	2,991
State and Local Programs	....	....	....	62	50	....
Disaster Relief Fund	19,109	17,275	19,939	32,684	20,703	17,870
National Flood Insurance Fund	....	698	698	....	7	77
Department of Housing and Urban Development:						
Community Planning and Development:						
Community Development Fund	3,475	8,469	3,770	6,759	10,768	10,942
Brownfields Redevelopment	....	....	....	....	1	1
Office of Lead Hazard Control and Healthy Homes:						
Lead Hazard Reduction	360	360	400	90	279	347
Department of the Interior:						
Bureau of Indian Affairs:						
Operation of Indian Programs	178	178	178	180	176	191
Indian Guaranteed Loan Program Account	12	12	14	11	6	5
Delta Regional Authority	15	145	15	16	31	22
Denali Commission	15	90	15	12	21	44
Northern Border Regional Commission	27	162	32	8	28	56
Total, discretionary	27,695	34,796	30,559	43,471	37,225	36,060
Mandatory:						
Department of Commerce:						
Economic Development Administration:						
Economic Development Assistance Programs	3,000	....	....	1	512	539
Department of Homeland Security:						
Federal Emergency Management Agency:						
Federal Assistance	400	....	....	....	69	156
Disaster Relief Fund	50,000	....	....	8,650	15,510	11,203
Department of Housing and Urban Development:						
Community Planning and Development:						
Community Development Loan Guarantees Program Account	2	....	....	2	....	....
Neighborhood Stabilization Program	....	....	....	15	17	16
Department of the Interior:						
Bureau of Indian Affairs:						
Indian Guaranteed Loan Program Account	4	4	....	4	4	....
Department of the Treasury:						
Fiscal Service:						
Gulf Coast Restoration Trust Fund	315	308	309	144	186	231
Total, mandatory	53,721	312	309	8,816	16,298	12,145
Total, Community and Regional Development	81,416	35,108	30,868	52,287	53,523	48,205

Table 14–2. FEDERAL GRANTS TO STATE AND LOCAL GOVERNMENTS— BUDGET AUTHORITY AND OUTLAYS—Continued

(In millions of dollars)

Function, Category, Agency and Program	Budget Authority			Outlays		
	2021 Actual	2022 Estimate	2023 Estimate	2021 Actual	2022 Estimate	2023 Estimate
Education, Training, Employment, and Social Services						
Discretionary:						
Department of Education:						
Office of Elementary and Secondary Education:						
Indian Education	196	176	181	159	222	182
Impact Aid	1,496	1,496	1,536	1,479	1,522	1,423
Safe Schools and Citizenship Education	212	212	693	179	224	260
Education Stabilization Fund	185,149	–353	....	24,663	34,229	10,875
Education for the Disadvantaged	17,176	17,176	21,171	16,084	19,623	17,244
School Improvement Programs	5,296	5,299	6,380	4,622	6,802	5,131
Office of Innovation and Improvement:						
Innovation and Improvement	1,006	992	1,438	774	1,180	1,076
Office of English Language Acquisition:						
English Language Acquisition	742	742	979	628	822	744
Office of Special Education and Rehabilitative Services:						
Special Education	13,840	13,845	17,905	12,533	15,650	14,081
Rehabilitation Services	86	86	109	86	126	85
Office of Career, Technical, and Adult Education:						
Career, Technical and Adult Education	2,009	2,009	2,055	1,807	2,319	2,000
Office of Postsecondary Education:						
Higher Education	368	369	408	428	160	107
Institute of Education Sciences	28	27	27	23	28	24
Disaster Education Recovery	....	....	....	295	550	493
Department of Health and Human Services:						
Administration for Children and Families:						
Promoting Safe and Stable Families	83	83	106	87	83	98
Children and Families Services Programs	13,744	12,864	15,127	12,964	14,054	14,520
Administration for Community Living:						
Aging and Disability Services Programs	2,384	1,897	2,581	2,062	1,571	1,744
Department of the Interior:						
Bureau of Indian Education:						
Operation of Indian Education Programs	94	94	94	66	93	122
Department of Labor:						
Employment and Training Administration:						
Training and Employment Services	3,123	3,121	3,546	2,882	3,887	3,182
State Unemployment Insurance and Employment Service Operations	84	84	107	66	62	79
Unemployment Trust Fund	970	970	1,007	1,552	980	978
Corporation for National and Community Service:						
VISTA Advance Payments Revolving Fund	....	....	....	–1	1	....
Operating Expenses	15	15	15	133	66	58
Corporation for Public Broadcasting	465	485	535	465	485	535
District of Columbia:						
District of Columbia General and Special Payments:						
Federal Payment for Resident Tuition Support	40	40	20	40	40	20
Federal Payment for School Improvement	53	53	53	53	53	53
Institute of Museum and Library Services:						
Office of Museum and Library Services: Grants and Administration	236	236	258	247	323	337
National Endowment for the Arts:						
Grants and Administration	54	53	64	68	66	80
National Endowment for the Humanities:						
Grants and Administration	60	60	63	81	88	68
Total, discretionary	249,009	62,131	76,458	84,525	105,309	75,599

Table 14–2. FEDERAL GRANTS TO STATE AND LOCAL GOVERNMENTS—BUDGET AUTHORITY AND OUTLAYS—Continued

(In millions of dollars)

Function, Category, Agency and Program	Budget Authority			Outlays		
	2021 Actual	2022 Estimate	2023 Estimate	2021 Actual	2022 Estimate	2023 Estimate
Mandatory:						
Department of Education:						
Office of Elementary and Secondary Education:						
Education for the Disadvantaged	....	....	16,000	....	....	640
School Improvement Programs	170	....	....	....	101	52
Office of Special Education and Rehabilitative Services:						
Special Education	3,030	....	....	....	2,710	255
Rehabilitation Services	3,466	3,507	3,725	2,748	4,530	3,660
Department of Health and Human Services:						
Administration for Children and Families:						
Promoting Safe and Stable Families	560	467	767	446	689	782
Social Services Block Grant	1,621	1,603	1,603	1,655	1,636	1,627
Children and Families Services Programs	2,320	....	....	57	570	580
Administration for Community Living:						
Aging and Disability Services Programs	1,474	35	52	50	1,286	888
Department of Labor:						
Employment and Training Administration:						
Federal Unemployment Benefits and Allowances	370	224	238	175	149	143
Corporation for Public Broadcasting	175	....	....	175	....	....
Institute of Museum and Library Services:						
Office of Museum and Library Services: Grants and Administration	200	....	....	21	177	....
National Endowment for the Arts:						
Grants and Administration	52	....	....	3	30	19
National Endowment for the Humanities:						
Grants and Administration	52	....	....	50	6	1
Total, mandatory	13,490	5,836	22,385	5,380	11,884	8,647
Total, Education, Training, Employment, and Social Services	262,499	67,967	98,843	89,905	117,193	84,246
Health						
Discretionary:						
Department of Agriculture:						
Food Safety and Inspection Service:						
Salaries and Expenses	57	58	58	57	58	58
Department of Health and Human Services:						
Health Resources and Services Administration:						
Health Resources and Services	3,054	3,005	3,310	2,872	2,631	2,957
Indian Health Service:						
Payments for Tribal Leases	139	150	....	110	163	....
Contract Support Costs	1,182	1,142	....	1,033	1,463	....
Centers for Disease Control and Prevention:						
CDC-wide Activities and Program Support	9,023	4,276	4,351	2,214	1,694	1,928
Substance use and Mental Health Services Administration	12,622	5,130	8,757	4,892	6,597	8,563
Departmental Management:						
Public Health and Social Services Emergency Fund	31,354	302	318	14,130	9,868	58
Department of Labor:						
Occupational Safety and Health Administration:						
Salaries and Expenses	183	170	170	183	171	178
Mine Safety and Health Administration:						
Salaries and Expenses	11	11	12	11	11	12
Total, discretionary	57,625	14,244	16,976	25,502	22,656	13,754

Table 14–2. FEDERAL GRANTS TO STATE AND LOCAL GOVERNMENTS—BUDGET AUTHORITY AND OUTLAYS—Continued

(In millions of dollars)

Function, Category, Agency and Program	Budget Authority			Outlays		
	2021 Actual	2022 Estimate	2023 Estimate	2021 Actual	2022 Estimate	2023 Estimate
Mandatory:						
Department of Health and Human Services:						
Health Resources and Services Administration:						
Maternal, Infant, and Early Childhood Home Visiting Programs	527	377	467	370	446	469
Indian Health Service:						
Payments for Tribal Leases	....	....	150	....	....	150
Contract Support Costs	....	....	1,142	....	....	1,142
Centers for Disease Control and Prevention:						
CDC-wide Activities and Program Support	....	....	21,629	....	....	5,234
Substance use and Mental Health Services Administration	....	....	413	....	....	124
Centers for Medicare and Medicaid Services:						
Rate Review Grants	....	....	....	3	6	5
Affordable Insurance Exchange Grants	20	....	....	....	10	10
Cost-sharing Reductions	....	1,307	1,307	....	1,326	1,167
Grants to States for Medicaid	519,484	558,655	533,195	520,588	561,838	535,893
Children's Health Insurance Fund	21,800	19,900	17,585	16,093	16,613	15,938
State Grants and Demonstrations	526	512	1,060	359	364	1,076
Mental Health Parity Enforcement Grants	....	....	125	....	....	10
Child Enrollment Contingency Fund	1,980	5,201	–3,851	....	....	....
Departmental Management:						
Pregnancy Assistance Fund	....	....	....	3	1	....
Public Health and Social Services Emergency Fund	10,078	....	....	722	3,742	2,016
Department of the Treasury:						
Internal Revenue Service:						
Refundable Premium Tax Credit	8,773	10,573	8,573	8,327	10,573	8,573
Total, mandatory	563,188	596,525	581,795	546,465	594,919	571,807
Total, Health	620,813	610,769	598,771	571,967	617,575	585,561
Income Security						
Discretionary:						
Department of Agriculture:						
Food and Nutrition Service:						
Commodity Assistance Program	841	428	464	1,031	780	458
Special Supplemental Nutrition Program for Women, Infants, and Children (WIC)	4,750	4,750	5,750	4,911	4,617	5,793
Department of Health and Human Services:						
Administration for Children and Families:						
Low Income Home Energy Assistance	3,708	3,846	4,054	4,154	4,084	3,934
Refugee and Entrant Assistance	535	1,500	1,500	2,000	1,925	2,448
Payments to States for the Child Care and Development Block Grant	15,866	5,899	7,550	10,608	9,529	9,624
Department of Homeland Security:						
Federal Emergency Management Agency:						
Federal Assistance	130	130	154	259	131	130
Emergency Food and Shelter	....	....	....	2	....	....
Department of Housing and Urban Development:						
Public and Indian Housing Programs:						
Public Housing Operating Fund	....	....	....	1,620	207	3
Revitalization of Severely Distressed Public Housing (HOPE VI)	....	....	....	1	5	5
Native Hawaiian Housing Block Grant	2	2	10	4	5	5
Tenant Based Rental Assistance	25,840	25,832	32,178	25,022	25,951	31,042
Public Housing Capital Fund	....	....	....	2,085	1,822	942
Native American Programs	825	825	1,000	822	877	971

Table 14–2. FEDERAL GRANTS TO STATE AND LOCAL GOVERNMENTS— BUDGET AUTHORITY AND OUTLAYS—Continued
(In millions of dollars)

Function, Category, Agency and Program	Budget Authority			Outlays		
	2021 Actual	2022 Estimate	2023 Estimate	2021 Actual	2022 Estimate	2023 Estimate
Housing Certificate Fund	....	....	....	21	25	22
Choice Neighborhoods Initiative	200	200	250	72	144	155
Self-Sufficiency Programs	155	155	175	81	144	160
Public Housing Fund	7,687	7,723	8,685	3,573	5,743	6,902
Community Planning and Development:						
Homeless Assistance Grants	3,000	3,000	3,576	3,215	5,460	3,319
Home Investment Partnership Program	1,350	1,350	1,950	863	1,323	1,438
Housing Opportunities for Persons with AIDS	430	430	455	375	457	427
Permanent Supportive Housing	....	....	....	....	5	....
Housing Programs:						
Project-based Rental Assistance	350	350	375	344	271	377
Department of Labor:						
Employment and Training Administration:						
Unemployment Trust Fund	4,059	2,630	3,353	5,287	4,573	3,391
Total, discretionary	69,728	59,050	71,479	66,350	68,078	71,546
Mandatory:						
Department of Agriculture:						
Agricultural Marketing Service:						
Funds for Strengthening Markets, Income, and Supply (section 32)	1,149	1,188	1,303	1,500	1,172	1,253
Food and Nutrition Service:						
Supplemental Nutrition Assistance Program	14,865	12,263	11,590	12,268	10,717	10,848
Commodity Assistance Program	60	24	24	35	92	24
Special Supplemental Nutrition Program for Women, Infants, and Children (WIC)	881	1	1	115	177	79
Child Nutrition Programs	28,081	26,955	28,703	25,744	30,771	28,265
Department of Health and Human Services:						
Administration for Children and Families:						
Payments to States for Child Support Enforcement and Family Support Programs	4,439	4,194	4,182	4,158	4,116	4,122
Low Income Home Energy Assistance	4,500	....	....	259	1,572	2,362
Payments to States for the Child Care and Development Block Grant	39,000	....	....	1,501	14,330	14,414
Contingency Fund	608	608	608	590	606	604
Payments for Foster Care and Permanency	10,415	10,699	11,250	9,713	10,851	10,650
Child Care Entitlement to States	3,550	3,550	3,550	3,151	3,238	3,415
Temporary Assistance for Needy Families	17,736	16,736	16,736	15,380	17,034	16,514
Department of Homeland Security:						
Federal Emergency Management Agency:						
Federal Assistance	510	....	....	81	323	138
Department of Housing and Urban Development:						
Public and Indian Housing Programs:						
Native Hawaiian Housing Block Grant	5	....	....	4	1	....
Tenant Based Rental Assistance	4,980	....	....	368	692	577
Native American Programs	740	....	....	8	481	148
Community Planning and Development:						
Home Investment Partnership Program	4,950	....	....	....	644	1,337
Department of Labor:						
Employment and Training Administration:						
Unemployment Trust Fund	2,985	850	....	2,332	2,801	651
Department of the Treasury:						
Departmental Offices:						
Homeowner Assistance Fund	9,918	....	....	964	8,955	....
Emergency Rental Assistance	46,502	....	....	33,299	18,457	....
Total, mandatory	195,874	77,068	77,947	111,470	127,030	95,401
Total, Income Security	265,602	136,118	149,426	177,820	195,108	166,947

Table 14–2. FEDERAL GRANTS TO STATE AND LOCAL GOVERNMENTS—BUDGET AUTHORITY AND OUTLAYS—Continued

(In millions of dollars)

Function, Category, Agency and Program	Budget Authority			Outlays		
	2021 Actual	2022 Estimate	2023 Estimate	2021 Actual	2022 Estimate	2023 Estimate
Social Security						
Mandatory:						
Social Security Administration:						
Federal Disability Insurance Trust Fund	4	2	....	12	7	....
Veterans Benefits and Services						
Discretionary:						
Department of Veterans Affairs:						
Veterans Health Administration:						
Medical Community Care	1,551	1,456	1,504	1,550	1,456	1,504
Medical Services	861	906	1,351	995	815	1,216
Departmental Administration:						
Grants for Construction of State Extended Care Facilities	90	90	150	306	19	108
Grants for Construction of Veterans Cemeteries	45	45	50	45	89	43
Total, discretionary	2,547	2,497	3,055	2,896	2,379	2,871
Mandatory:						
Department of Veterans Affairs:						
Veterans Health Administration:						
Veterans Medical Care and Health Fund	369	....	....	....	65	243
Departmental Administration:						
Grants for Construction of State Extended Care Facilities	500	....	....	....	68	194
Total, mandatory	869	....	....	....	133	437
Total, Veterans Benefits and Services	3,416	2,497	3,055	2,896	2,512	3,308
Administration of Justice						
Discretionary:						
Department of Housing and Urban Development:						
Fair Housing and Equal Opportunity:						
Fair Housing Activities	73	73	86	66	85	77
Department of Justice:						
Legal Activities and U.S. Marshals:						
Assets Forfeiture Fund	21	21	–79	19	20	20
Office of Justice Programs:						
Research, Evaluation, and Statistics	17	17	17	4	4	4
State and Local Law Enforcement Assistance	605	605	540	1,305	1,269	1,254
Juvenile Justice Programs	336	343	734	234	418	424
Community Oriented Policing Services	331	331	596	178	369	536
Violence against Women Prevention and Prosecution Programs	510	511	981	389	484	490
Equal Employment Opportunity Commission:						
Salaries and Expenses	32	32	32	40	62	59
Federal Drug Control Programs:						
High Intensity Drug Trafficking Areas Program	269	290	294	252	307	328
State Justice Institute:						
Salaries and Expenses	7	7	8	8	12	7
Total, discretionary	2,201	2,230	3,209	2,495	3,030	3,199
Mandatory:						
Department of Housing and Urban Development:						
Fair Housing and Equal Opportunity:						
Fair Housing Activities	19	....	....	....	....	8

Table 14–2. FEDERAL GRANTS TO STATE AND LOCAL GOVERNMENTS—BUDGET AUTHORITY AND OUTLAYS—Continued

(In millions of dollars)

Function, Category, Agency and Program	Budget Authority			Outlays		
	2021 Actual	2022 Estimate	2023 Estimate	2021 Actual	2022 Estimate	2023 Estimate
Department of Justice:						
Legal Activities and U.S. Marshals:						
Assets Forfeiture Fund	280	357	280	312	219	310
Office of Justice Programs:						
Community Oriented Policing Services	....	....	2,175	....	....	870
Gun Crime Prevention Strategic Fund	....	....	884	....	....	194
Crime Victims Fund	1,565	4,421	4,146	2,589	6,610	3,555
Department of the Treasury:						
Departmental Offices:						
Treasury Forfeiture Fund	278	202	231	71	204	214
Total, mandatory	2,142	4,980	7,716	2,972	7,033	5,151
Total, Administration of Justice	4,343	7,210	10,925	5,467	10,063	8,350
General Government						
Discretionary:						
Department of the Interior:						
United States Fish and Wildlife Service:						
National Wildlife Refuge Fund	13	13	....	13	13	....
Insular Affairs:						
Assistance to Territories	79	79	89	77	125	107
Department-Wide Programs:						
Payments in Lieu of Taxes	....	525	535	....	525	535
District of Columbia:						
District of Columbia Courts:						
Federal Payment to the District of Columbia Courts	250	250	296	268	252	285
Federal Payment for Defender Services in District of Columbia Courts	46	46	24	28	52	43
District of Columbia General and Special Payments:						
Federal Support for Economic Development and Management Reforms in the District	7	7	9	7	7	9
Election Assistance Commission:						
Election Security Grants	....	....	250	–37	3	247
Total, discretionary	395	920	1,203	356	977	1,226
Mandatory:						
Department of Agriculture:						
Forest Service:						
Forest Service Permanent Appropriations	242	256	256	232	231	258
Department of Energy:						
Energy Programs:						
Payments to States under Federal Power Act	6	5	6	9	5	6
Department of the Interior:						
Office of Surface Mining Reclamation and Enforcement:						
Payments to States in Lieu of Coal Fee Receipts	38	36	27	85	111	84
United States Fish and Wildlife Service:						
National Wildlife Refuge Fund	7	8	8	7	7	8
Departmental Offices:						
Mineral Leasing and Associated Payments	1,858	2,582	2,439	1,858	2,582	2,439
National Petroleum Reserve, Alaska	14	21	25	14	21	25
Payment to Alaska, Arctic National Wildlife Refuge	8	2	10	8	2	10
Geothermal Lease Revenues, Payment to Counties	5	5	5	5	5	5
Insular Affairs:						
Assistance to Territories	28	28	28	18	26	27
Payments to the United States Territories, Fiscal Assistance	370	380	380	370	380	380

Table 14–2. FEDERAL GRANTS TO STATE AND LOCAL GOVERNMENTS— BUDGET AUTHORITY AND OUTLAYS—Continued
(In millions of dollars)

Function, Category, Agency and Program	Budget Authority			Outlays		
	2021 Actual	2022 Estimate	2023 Estimate	2021 Actual	2022 Estimate	2023 Estimate
Department-Wide Programs:						
Payments in Lieu of Taxes	530	....	....	530	....	....
Department of the Treasury:						
Departmental Offices:						
Coronavirus Relief Fund	362,000	....	....	243,448	109,645	3,519
Alcohol and Tobacco Tax and Trade Bureau:						
Internal Revenue Collections for Puerto Rico	520	524	451	520	524	451
District of Columbia:						
District of Columbia Courts:						
District of Columbia Crime Victims Compensation Fund	5	6	6	6	6	6
Election Assistance Commission:						
Election Security Grants	....	....	10,000	....	....	2,040
Total, mandatory	365,631	3,853	13,641	247,110	113,545	9,258
Total, General Government	366,026	4,773	14,844	247,466	114,522	10,484
Total, Grants	1,757,163	1,075,013	1,053,997	1,245,280	1,229,092	1,037,109
Discretionary	482,898	305,315	267,660	316,236	349,562	326,504
Transportation obligation limitations (non-add) [1]	*61,351*	*74,914*	*77,015*	....	....	....
Mandatory	1,274,265	769,698	786,337	929,044	879,530	710,605

[1] Mandatory contract authority provides budget authority for these programs, but program levels are set by discretionary obligation limitations in appropriations bills and outlays are recorded as discretionary. This table shows the obligation limitations as non-additive items to avoid double counting.

15. LEVERAGING FEDERAL STATISTICS TO STRENGTHEN EVIDENCE-BASED DECISION-MAKING

Federal statistics have informed decision-making in the United States since its founding. The first constitutionally mandated census of population and housing in 1790 originated from "the desire of the colonists to find some equitable plan for the distribution of the burdens of the war, which proved to be one of the most perplexing questions which entered into the deliberations of the Continental Congress."[1] This 1790 Census planted the seeds for what we refer to today as the Federal statistical system. Over the 19th century, the system continued to blossom into a specialized, decentralized, interconnected network to address emerging information demands, including tax, agriculture, education, and labor, for the growing Nation. The 20th century presented new and evolving policy needs leading to further expansion of the Federal statistical system to include commerce, public health, energy, justice, transportation, and more. More than two decades into the 21st century, the Federal statistical system continues to provide the gold-standard for impartial, trusted Federal statistics foundational to informing decisions across the public and private sectors.

As the challenges facing the Nation continue to evolve and become more complex, so does the information required to inform decisions. Addressing these new information needs efficiently and effectively will require greater coordination and collaboration than ever across the Federal statistical system, as well as with a broad set of data partners and users. Traditionally, the coordination of the decentralized system has relied heavily on the Office of the Chief Statistician and the good-faith efforts of the individual Federal statistical agencies, units, and programs. As new challenges present themselves, such as long-term downward trends in survey response,[2] increased risk of re-identification of confidential information,[3] and short-term coronavirus pandemic-related challenges,[4] it becomes increasingly difficult for Federal statistical agencies, units, and programs to meet their individual missions and serve their many stakeholders, including Federal, State, local, territorial, and tribal governments; businesses; and individuals. While each of the Federal statistical agencies, units, and programs have found innovative ways to address challenges individually, this individual approach is proving more and more difficult, and a successful future for the whole Federal statistical system will rely on increased collaboration.

The Office of the Chief Statistician, leaders across the Federal statistical system, the Administration, and the Congress have all sought ways to require, encourage, and expand coordination and collaboration across the system, recognizing the efficiencies and advancements possible when taking advantage of the whole system's statistical infrastructure and expertise. Of particular note are the requirements to adopt a common framework for protecting statistical data, acquiring administrative and program data, and disseminating statistical data securely, in accordance with the Confidential Information Protection and Statistical Efficiency Act of 2018 (CIPSEA 2018)[5] and other provisions within the Foundations for Evidence-based Policymaking Act of 2018 (Evidence Act).[6] In addition, the Administration understands the value of relying upon the Federal statistical system to advance key priorities, including racial equity, climate change, and scientific integrity. For example, in support of USDA's climate goals, the National Agricultural Statistics Service (NASS) established a high-performance cloud computing environment and began automating the collection and integration of several diverse data sets, allowing for new data layers for climate analysis across USDA. The Office of the Chief Statistician and leaders of the system are working together to provide strategic vision for and robust implementation of common frameworks and expanded responsibilities in support of evidence-building. It is no longer sufficient for individual statistical agencies or units (and statistical programs through the role of Statistical Officials) to focus solely on their individual missions.

Operating efficiently as a system requires clearly delineated roles. CIPSEA 2018 assigned expanded responsibilities to Federal statistical agencies and units, which serve as trusted intermediaries between data providers and evidence builders, to implement new policies and procedures for accessing, sharing, generating, protecting, and disseminating data in coordination with one another. The Evidence Act also provides for the designation of Statistical Officials, who facilitate coordination of statistical activities within and across departments and participate on the Interagency Council on Statistical Policy (ICSP).

Enhanced support for the work of the Federal statistical system is needed now more than ever to ensure that Federal statistical agencies, units, and programs can meet their individual and new, collective missions. The remainder of this chapter provides an overview of the Federal statistical system, discusses individual and collective

[1] https://www.census.gov/history/pdf/wright-hunt.pdf (p. 11)

[2] https://nces.ed.gov/fcsm/pdf/A_Systematic_Review_of_Nonresponse_Bias_Studies_Federally_Sponsored_SurveysFCSM_20_02_032920.pdf

[3] https://nces.ed.gov/fcsm/dpt

[4] https://www.bea.gov/system/files/2021-01/ICSP-COVID-19-Report_011521.pdf

[5] Title III of Pub. L. 115-435. Available at: https://www.congress.gov/115/plaws/publ435/PLAW-115publ435.pdf.

[6] Pub. L. 115-435. Available at: https://www.congress.gov/115/plaws/publ435/PLAW-115publ435.pdf.

ways to build toward the future and the importance of trust in enabling that future, and provides budget highlights and figures for the 13 principal statistical agencies and units.

The Federal Statistical System. The Federal statistical system collects and transforms data into useful, objective information and makes it readily and equitably available to stakeholders while protecting the responses of individual data providers. Federal, State, local, territorial, and tribal governments; businesses; and the public all trust this information to be credible and reliable and use it to make informed decisions. The decentralized, interconnected network includes:

- *Office of the Chief Statistician.* Led by the Chief Statistician of the United States, the Office of the Chief Statistician at OMB has the statutory responsibility[7] of coordinating the Federal statistical system to ensure its efficiency and effectiveness, as well as the integrity, objectivity, impartiality, utility, and confidentiality of information collected for statistical purposes. This office accomplishes this by promulgating regulations, developing and maintaining statistical policies and standards, identifying priorities for improving programs, assessing statistical agency budgets, reviewing and approving collections of information from statistical agencies and units, and coordinating U.S. participation in international statistical activities, among other functions.

- *Thirteen principal statistical agencies and units.* These 13 principal statistical agencies and units are agencies or organizational units of the Executive Branch whose missions are predominantly the collection, compilation, processing, or analysis of information for statistical purposes,[8] covering such topics as the economy, workforce, energy, agriculture, foreign trade, education, housing, crime, transportation, and health.

- *Approximately 100 other statistical programs.* These statistical programs produce and disseminate statistics in support of other mission areas and conduct a variety of evidence-building functions, including program evaluation, scientific research, data collection, policy and program analysis, and the provision of funding and other support for external research.

- *Twenty-four Statistical Officials.* Pursuant to the Evidence Act, each CFO Act Agency has designated a senior staff person in the Agency to be the Statistical Official with the authority and responsibility to advise on statistical policy, techniques, and procedures, and to champion statistical data quality and confidentiality. At the 11 CFO Act Agencies that contain a statistical agency or unit, the head of that statistical agency or unit has been designated the Statistical Official, as required by the Evidence Act.

- *Interagency Council on Statistical Policy (ICSP).* Chaired by the Chief Statistician of the United States, the ICSP[9] advises and assists the Chief Statistician of the United States in the coordination of the Federal statistical system; the implementation of statistical policies, principles, standards, and guidelines; and the assessment of statistical program performance. ICSP currently includes 26 members. Pursuant to the Paperwork Reduction Act of 1995 (PRA), all 13 heads of the principal statistical agencies and units are members. Pursuant to the Evidence Act, all 24 Statistical Officials are also members; however, 11 of the Statistical Officials are also heads of principal statistical agencies or units. The ICSP is a forum for collaboration, coordination, and information-sharing among the principal statistical agencies and units and additional statistical programs across its member agencies, including on issues such as ensuring data quality and confidentiality, attaining and providing data access, and playing an effective role in agency-wide data governance.

Chart 15-1 below depicts each of these entities as part of the decentralized, interconnected network that is the Federal statistical system. Each is a critical piece of the system, providing value by advancing its specific mission and set of responsibilities. Coordination and collaboration enhance the value of each entity and the system as a whole.

Building toward the future. Individual and collective contributions are necessary to strengthen both the system and the data landscape available to inform decisions by policymakers, businesses, and the public.

Investing in statistical infrastructure. Statistical infrastructure supports mission delivery, enables modernization, and promotes reliability. However, like bridges and roads, statistical infrastructure requires ongoing maintenance and updating. Individually, Federal statistical agencies, units, and programs regularly assess their work and advance the methods used for collection, analysis, protection, and dissemination of their statistical products. They also ensure robust security and IT infrastructure is in place to facilitate their work. For example, recently the Bureau of Labor Statistics (BLS) and the Occupational Safety and Health Administration (OSHA) collaboratively developed an Application Programming Interface (API) to securely and seamlessly transfer data from OSHA to BLS in support of the Survey of Occupational Injuries and Illnesses collection. That API reduces duplication and burden for thousands of respondents and improves the quality and consistency of data.

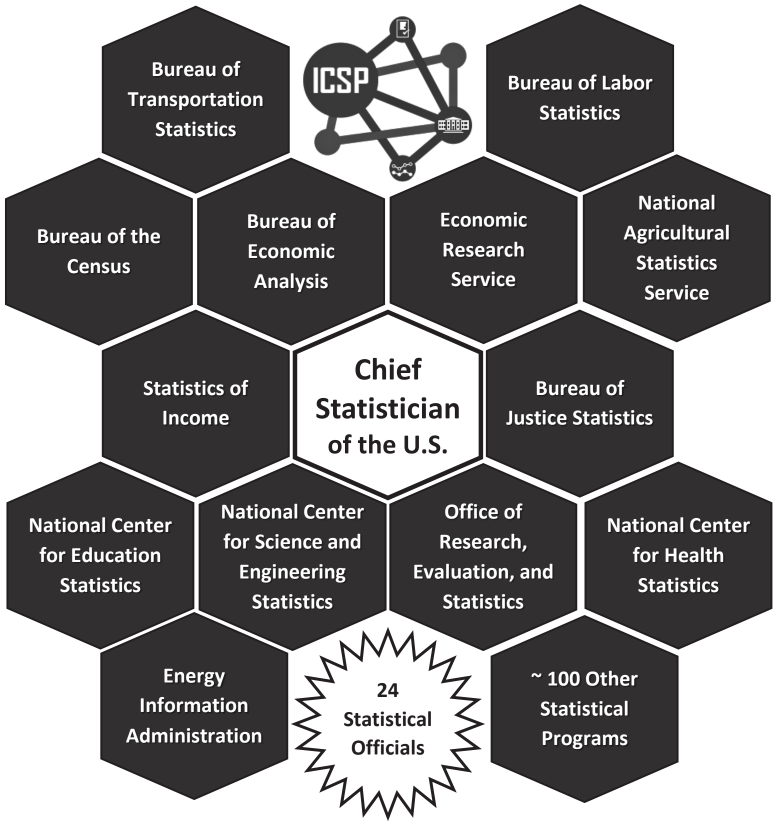
Collectively, members across the system participate in reviews and updates of statistical standards and best practices to promote comparability and consistency in Federal statistics. Pursuant to the PRA, the Office of the Chief Statistician reviews and revises statistical standards periodically to ensure their relevance through

[7] 44 U.S.C. 3504(e)

[8] Statistical purpose (44 U.S.C. 3561(12)) (A) means the description, estimation, or analysis of the characteristics of groups, without identifying the individuals or organizations that comprise such groups; and (B) includes the development, implementation, or maintenance of methods, technical or administrative procedures, or information resources that support the purposes described in subparagraph (A).

[9] 44 U.S.C. 3504(e)

Chart 15-1. THE DECENTRALIZED FEDERAL STATISTICAL SYSTEM



leading interagency coordination and public engagement on emerging issues. In the last year, the Office of the Chief Statistician issued final decisions for the revisions to the Core-Based Statistical Area Standards[10] and the North American Industry Classification System.[11]

In 2014, OMB Statistical Policy Directive No. 1 identified four fundamental responsibilities of recognized statistical agencies and units.[12] CIPSEA 2018 incorporated those responsibilities into statute and imposed a new requirement for the heads of all agencies to enable, support, and facilitate recognized statistical agencies or units in carrying out these responsibilities. This dual set of responsibilities acknowledges that recognized statistical agencies and units cannot meet their responsibilities alone, while also emphasizing the importance of their ability to conduct their statistical activities autonomously. The codification of the four fundamental responsibilities also signifies their criticality to the statistical infrastructure; by upholding these core responsibilities, agencies ensure the trustworthiness of the system—a necessity if the system is to take on an expanded role in the generation of evidence to support policymaking. As required by CIPSEA 2018, OMB is developing the “Trust” regulation to further guide and support agencies’ fulfillment of the four fundamental responsibilities.[13]

Without ongoing investments in the statistical infrastructure, the quality and relevance of Federal statistics begins to deteriorate.

Blueprint for the future. Building from the trusted statistical infrastructure in place, the Congress, the Administration, the Chief Statistician of the United States, and leaders from across the Federal statistical system have coalesced around a blueprint for the future of the Federal statistical system. This blueprint relies heavily on the statutory framework provided by CIPSEA 2018 and operating as a seamless system. CIPSEA 2018 contemplates a common framework for protecting statistical data, acquiring administrative/program data, and disseminating statistical data securely. Executing a common framework requires increased interagency engagement when developing new policies and procedures. One example is the Standard Application Process (SAP), which is intended to simplify the process of evidence-building by providing users with a centralized, secure means of applying for access to the restricted data they need from statistical agencies. The ICSP worked diligently on and delivered to OMB a consensus version of a proposed SAP policy,[14] and regularly engages on the implementation of

[10] *https://www.govinfo.gov/content/pkg/FR-2021-07-16/pdf/2021-15159.pdf*

[11] *https://www.govinfo.gov/content/pkg/FR-2021-12-21/pdf/2021-27536.pdf*

[12] *http://www.gpo.gov/fdsys/pkg/FR-2014-12-02/pdf/2014-28326.pdf*

[13] 44 U.S.C. 3563(c)

[14] This proposed policy went out for public comment on January 14, 2022. Available at: *https://www.govinfo.gov/content/pkg/FR-2022-01-14/pdf/2022-00620.pdf*.

the standard application portal, for which the National Center for Science and Engineering Statistics (NCSES), as the designated program management office, provides leadership and support. Other CIPSEA 2018 initiatives remain under development, including two regulations: (1) to make more Federal data assets accessible to statistcal agencies and units for the purposes of developing evidence,[15] and (2) to safely and securely expand access to data assets of statistical agencies and units acquired or accessed under (1) while protecting such assets from inappropriate access and use.[16] All of these initiatives have benefited to date from substantial interagency engagement, with more engagement expected prior to finalization. Getting such policies and regulations right is important to the longevity and success of the Federal statistical system.

The future success of the system will also require expansion. Understanding this, CIPSEA 2018 requires OMB to develop and issue guidance outlining the process by which an agency may be designated a statistical agency or unit. Clearer guidance is expected to encourage additional units across the Federal Government to adopt the requirements of CIPSEA 2018 and to seek designation as statistical agencies and units, thereby increasing resources and breadth of the system. With the 2023 President's Budget, the Department of Homeland Security (DHS) requests resources to develop a path, which would include commissioning a report from the Committee on National Statistics at the National Academy of Sciences, to create a statistical unit meeting the requirements of CIPSEA 2018 within DHS.

Effective expansion will also require increasing the capacity of Statistical Officials to serve their agencies. The Social Security Administration (SSA), for example, continues to expand its investment in its Disclosure Review Board (DRB). Led by SSA's Office of Research, Evaluation, and Statistics, the DRB reviews statistical tables and public use files prior to public release to ensure compliance with statutes, regulations, and policies requiring SSA to not disclose personally identifiable information to the public. SSA has recently bolstered the DRB by adding members from across SSA components to better socialize its practices and has also revised documentation of its disclosure protocols.

Collaboration with external and internal partners is also critical to the system's future success. OMB Memorandum M-19-23[17] recognizes the importance of drawing upon the varied expertise of the wide range of Federal data partners, such as the Chief Data Officer, Evaluation Officer, senior agency official for privacy, and Chief Information Officer, to yield improved Federal data policies and practices; the Memorandum requires the establishment of Data Governance Bodies within CFO Act Agencies to bring together and harness the strengths of such officials. The Evidence Act required establishment of another body, the Advisory Committee on Data for Evidence Building (ACDEB),[18] which is made up of partners across Federal, State and local governments, as well as non-governmental experts in privacy, technology, research and more. The ACDEB, charged with providing recommendations concerning access to data and providing recommendations on how to facilitate data sharing, data linkage, and privacy enhancing techniques, issued their Year 1 report, including recommendations to OMB and ICSP, in October 2021.[19] The Office of the Chief Statistician and ICSP provided an initial response to the Year 1 report during the January 2022 public ACDEB meeting and plan to continue iterative engagement throughout the remainder of the committee's work. The ACDEB will finalize its work with a set of recommendations to OMB in October 2022. Finally, the system will continue to rely on its traditional means of engagement, such as Federal Advisory Committees (Federal Economic Statistics Advisory Committee,[20] Bureau of Labor Statistics Technical Advisory Committee,[21] National Center for Health Statistics Board of Scientific Counselors,[22] etc.), public comment opportunities, focus groups or listening sessions, and more.

Trust as an enabler. Trust in Federal statistics underpins their value and enables future improvements. Each entity within the Federal statistical system must be diligent in upholding this trust. Data providers must trust the system to protect the confidentiality and exclusively statistical use of the information they provide. Meanwhile, data users must trust that the resulting statistics are free from political bias, generated with quality inputs, available equitably, and reliable. Any doubts or uncertainty could introduce negative effects on markets, investments, economic growth, job creation, and more.

Operation as a seamless system will not come easily. But, given the system's role as the trusted steward of the public's most sensitive data and a font of evidence, it must happen. Achieving this interconnectivity will require development and implementation of new policies; making strategic investments; collaboration with data partners, including Chief Data Officers, Evaluation Officers, senior agency officials for privacy, and Chief Information Officers; and ongoing engagement with other stakeholders, including State, territorial, local, and tribal governments, businesses, and the public. For more information on the Budget's related investments in evidence-building capacity and program evaluation, see Chapter 6, "Building and Using Evidence to Improve Government Effectiveness."

Highlights of 2023 Principal Statistical Agency and Unit Budget Proposals. Each of the 13 principal statistical agencies and units has an important role to play, and the collective priorities reflected in the 2023 President's Budget demonstrate the commitment of those statistical agencies and units to advancing not only their

[15] 44 U.S.C. 3581(c)

[16] 44 U.S.C. 3582(b)

[17] *https://www.whitehouse.gov/wp-content/uploads/2019/07/M-19-23.pdf*

[18] More information on the ACDEB and its work is available at: *www.bea.gov/evidence*.

[19] *https://www.bea.gov/system/files/2021-10/acdeb-year-1-report.pdf*

[20] *https://apps.bea.gov/fesac/*

[21] *https://www.bls.gov/advisory/tac.htm*

[22] *https://www.cdc.gov/nchs/about/bsc.htm*

own missions, but also the more coordinated future of the Federal statistical system.

- *Bureau of the Census (Census Bureau), Department of Commerce.* Funding is requested to support ongoing, core programs and to: (1) continue a multiyear transformation from a survey-centric model to a data-centric model centered on blending different sources of data to benefit all Census Bureau programs and provide timelier and more relevant data; (2) conduct the major data collection operations for the 2022 Economic Census; (3) continue development of new enterprise IT systems; (4) continue to improve data products and statistical methodologies; (5) collaborate with other Federal partners to develop intersectional analysis and sampling frames to support study of historically underserved communities; (6) provide a streamlined process for social safety-net programs to collaborate with the Census Bureau to characterize the demographics of their program participants; (7) support scholars studying marginalized populations by alleviating costs and bolstering institutional research, including through the provision of virtual access to Federal Statistical Research Data Centers; (8) support research, development, and field testing for measuring sexual orientation and gender identity in population surveys; (9) support closing out of the 2020 Census operations; and (9) support research, design, and testing efforts for the 2030 Census.
- *Bureau of Economic Analysis (BEA), Department of Commerce.* Funding is requested to support core programs, including the production of some of the Nation's most critical economic statistics—such as Gross Domestic Product—and to: (1) improve and expand new distributional measures to support economic activity, including support to move the Annual National and Annual State Distribution of Personal Income measures to production quality; (2) develop nuanced measures of U.S. participation in global supply and distribution chains; (3) develop a Space Economy Satellite Account that details the contribution of space-related activities to U.S. economic growth; and (4) accelerate and expand BEA's Healthcare Satellite Account, which provides cutting-edge data on U.S. health care spending by disease.
- *Bureau of Justice Statistics (BJS), Department of Justice.* Funding is requested to support ongoing BJS data collections and to: (1) redesign the National Crime Victimization Survey (NCVS) instrument and employ a split-sample design during implementation to ensure comparability of estimates between the current and redesigned instruments; (2) collect new data on the maternal health of incarcerated women; (3) increase understanding of crime victimization in historically underserved communities through investment in the volume, quality, and analysis of data collected by the National Incident Based Reporting System; (4) develop a new data collection on access to justice; (5) increase the frequency of the Law Enforcement Management and Administrative Statistics data collection; (6) enhance data collection on human trafficking; and (7) continue efforts to modernize and enhance dissemination of data and analysis.
- *Bureau of Labor Statistics (BLS), Department of Labor.* Funding is requested to support core programs, including for the production of principal Federal economic indicators, and to: (1) launch activities in the International Price Program to integrate administrative trade data for homogeneous product areas into its news releases; (2) improve the collection of the Consumer Price Index (CPI) program's Housing Survey; (3) continue collecting detailed days away from work or days of job transfer or restriction case data for the Occupational Safety and Health Statistics program; (4) continue development of a new National Longitudinal Survey of Youth cohort; (5) support timelier release and expanded data collection for the Job Openings and Labor Turnover Survey; (6) restore agricultural industries to the Occupational Employment and Wage Statistics; (7) support moving the BLS-produced thresholds for the Supplemental Poverty Measure from research to production quality; (8) support research and development toward the construction of a consumption-based poverty measure; and (9) continue research for developing a chained Consumer Price Index for low-income households. In addition, should funding not be included in the final FY 2022 appropriation, funding is requested to cover the costs associated with the physical move of the BLS headquarters to the Suitland Federal Center.
- *Bureau of Transportation Statistics (BTS), Department of Transportation.* Funding is requested for the Transportation Vulnerability and Resilience Data Program (TVRDP) and for data to support evaluation research under the Evidence Act. TVRDP data identify portions of the transportation network that are vulnerable to flooding and other disruptions and the ability of the network to recover from the disruptions. Support of evaluation research includes collection of small-area, equity-related data and development of outcome measures for use in the Department's Learning Agenda and completion of the National Transit Geospatial Database, which identifies the location of intercity, urban, and rural transit services that are essential for meeting the mobility needs of underserved communities.
- *Economic Research Service (ERS), Department of Agriculture.* Funding is requested to support core programs and to, jointly with the Food and Nutrition Service, conduct a second round of the National Household Food Purchase and Acquisition Survey (FoodAPS-2), which follows the FoodAPS-1, fielded in 2012, that produced previously unavailable data on food purchase patterns of Americans, of households participating in the Supplemental Nutrition Assis-

tance Program, other poor and low-income households, and the factors that influence their choices.

- *Energy Information Administration (EIA), Department of Energy.* Funding is requested to continue delivering critical data, analysis, forecasts, and long-term energy outlooks on which EIA's stakeholders rely, and to: (1) explore the collection and publication of new and highly relevant electricity information, such as regional hourly data on wind and solar generation, data on the hybrid operation of solar and battery projects, data on sales of electricity to power electric vehicles, and regional estimates of emissions related to electricity generation; (2) begin modernizing the National Energy Modeling System to more fully address the transitional nature of the energy sector, including through the ability to model deep decarbonization scenarios; and (3) provide near real-time information to support the Federal response to unforeseen energy disruptions and natural disasters, including short-term emergency data collections and expanded use of third-party data and analysis.
- *National Agricultural Statistics Service (NASS), Department of Agriculture.* Funding is requested to support core programs and to conduct the 2022 Census of Agriculture, which occurs on a five-year cycle and is critical to measuring agricultural production down to the county level.
- *National Center for Education Statistics (NCES), Department of Education.* Funding is requested to provide support for NCES ongoing activities and to: (1) support the continued development and implementation of the National Assessment of Educational Progress research and development for innovations; and (2) build out the Early Childhood Longitudinal Study-Kindergarten to address pandemic effect questions raised by the Senate without starting entirely new cohort studies.
- *National Center for Health Statistics (NCHS), Department of Health and Human Services.* Funding is requested to support ongoing programs and activities and to: (1) promote greater accessibility and interoperability of health data, while protecting confidential information; (2) develop innovative methods and new technologies for data collection and analysis, including real-time surveys that increase policy relevance and expanded integration of data from electronic health records; (3) enhance the value of health data to communities through improved visualization and presentation tools; (4) expand the NCHS Data Linkage Program, which connects health-related data sources to enable scientists and policymakers to answer complex health questions; (5) accelerate provision of high-quality mortality data; (6) increase data available for understanding the health and health care status of historically underserved communities through increased sample sizes and evaluation of electronic health records; and (7) expand availability of restricted data through the Virtual Data Enclave.
- *National Center for Science and Engineering Statistics (NCSES), National Science Foundation.* Funding is requested to provide support for ongoing NCSES activities and to: (1) lead Government-wide development of evidence-building infrastructure such as the Standard Application Process, America's DataHub, and early work on a National Secure Data Service; (2) improve data and understanding regarding racial equity and participation, including by reimagining the congressionally-mandated Women, Minorities, and Persons with Disabilities in Science and Engineering report; (3) further the Nation's understanding of the impact of research and development funding on the U.S. and global scientific enterprises; (4) inform U.S. policy on the foreign-trained science and engineering workforce by filling important gaps in knowledge of foreign-born and foreign-degreed scientists and engineers; (5) improve the Government's classification systems for defining and measuring cybersecurity, bioeconomy, and data science occupations; and (6) study the skilled technical workforce's future and relevance to economic recovery and industries of the future.
- *Office of Research, Evaluation, and Statistics (ORES), Social Security Administration.* Funding is requested to (1) conduct research on Social Security programs and their beneficiaries, including publishing papers in the Social Security Bulletin; (2) provide policymakers and the public with objective, scientific, and methodologically sound information and analysis; (3) automate and modernize the production of statistical publications; (4) draw on the expertise of researchers around the country, such as the Retirement and Disability Research Consortium, through grants and contracts; and (5) provide objective, secure data and statistics while protecting privacy through strict adherence to disclosure review policies.
- *Statistics of Income Division (SOI), Department of the Treasury.* Funding is requested to provide support for ongoing SOI programs and to: (1) implement the Evidence Act, including implementation of the Department's and Internal Revenue Service's (IRS) data governance processes, cross-agency work on privacy-preserving new data access models, and support for innovative research with the potential to improve tax administration through the Standard Application Process; (2) fully incorporate tax law provisions in the Tax Cuts and Jobs Act, Taxpayer First Act, and three separate pandemic relief acts into SOI programs and products; (3) establish new interagency research and data production collaborations that enhance tax administration and policy evaluation; (4) develop new data products and visualizations suitable for dissemination through multiple channels, and implement a comprehensive taxonomy to improve the function of SOI's web pages; (5)

explore new, responsible uses of machine learning, natural language processing, and optical character recognition to improve the availability and quality of IRS administrative data for statistical purposes; and (6) support Department and cross-agency initiatives implementing Executive Order 13985, "Advancing Racial Equity and Support for Underserved Communities Through the Federal Government".

Conclusion. In summary, Federal, State, territorial, local, and tribal governments; businesses; and the public alike rely upon Federal statistics to inform evidence-based decisions, to enable the development and improvement of sound policies, and to enhance the equitable delivery of services and programs. It is because of the trust placed in the Federal statistical system that users derive such enormous value from these Federal statistics. This trust is essential for the system's future, in which statistical agencies and units will not only be responsible for mission delivery and modernization, but will also serve as trusted ambassadors for Federal data and its capacity to generate evidence safely and securely, both for the Federal Government and for external researchers. CIPSEA 2018 is a critical milestone for the system, recognizing its importance and its accomplishments while providing direction for the future

Table 15–1. 2021–2023 BUDGET APPROPRIATIONS FOR PRINCIPAL STATISTICAL AGENCIES [1]

(In millions of dollars)

Agency	Actual	Estimate	
	2021	2022 [2]	2023
Bureau of the Census [3]	1,121.20	1,121.95	1,524.33
Bureau of Economic Analysis	111.86	111.86	140.88
Bureau of Justice Statistics	92.18	92.28	113.14
Bureau of Labor Statistics	655.00	655.00	741.74
Bureau of Transportation Statistics [4]	26.00	26.00	33.00
Economic Research Service	85.48	84.76	93.00
Enery Information Administration	126.80	126.80	132.60
National Agricultural Statistics Service [5]	183.92	183.92	216.08
National Center for Education Statistics	334.12	316.69	385.30
Statistics	127.06	131.39	176.08
Assessment	199.36	177.60	201.52
National Assessment Governing Board	7.70	7.70	7.70
National Center for Health Statistics	175.40	175.40	181.94
National Center for Science and Engineering Statistics, NSF [6]	66.05	72.64	87.95
Office of Research, Evaluation, and Statistics, SSA	35.66	39.38	38.14
Statistics of Income Division, IRS	37.42	40.70	40.79

[1] Reflects any rescissions and sequestration.
[2] FY 2022 estimates reflect an annualized continuing resolution, unless otherwise noted.
[3] Agency Total includes discretionary and mandatory funds.
[4] FY 2022 estimates reflects an allocation account from the Highway Trust Fund.
[5] Includes funds for the periodic Census of Agriculture of $46.3, $46.3 and $65.9 respectively.
[6] FY 2022 estimate reflects the President's Budget request.

16. INFORMATION TECHNOLOGY AND CYBERSECURITY FUNDING

Federal Information Technology (IT) provides Americans with important services and information, and is the foundation of how Government serves the public in the digital age. The Budget proposes spending $65 billion on IT at civilian agencies in fiscal year (FY) 2023,[1] which will be used to deliver critical public services, keep sensitive data and systems secure, and further the Administration's vision of an effective and efficient Government. The President's Budget also supports the implementation of Federal laws that enable agency technology planning, oversight, funding, and accountability practices, as well as Office of Management and Budget (OMB) guidance to agencies on the strategic use of IT to enable mission outcomes. It supports IT system modernization; migration to secure, cost-effective commercial cloud solutions and shared services; the recruitment, retention, and reskilling of the Federal technology and cybersecurity workforce to ensure higher value service delivery; and the reduction of cybersecurity risk across the Federal enterprise.

Cyber threats have become a top risk to delivering critical Government services, and this Administration is committed to addressing root cause issues and taking transformational steps to modernize Federal cybersecurity defenses. The President's Budget includes approximately $10.9 billion for civilian cybersecurity funding, which supports the protection of Federal IT and the Nation's most valuable information, including the personal information of the American public. These investments will, in alignment with the Administration's priorities, focus on addressing root cause structural issues, promoting stronger collaboration and coordination among Federal agencies, and addressing capability challenges that have impeded the Government's technology vision.

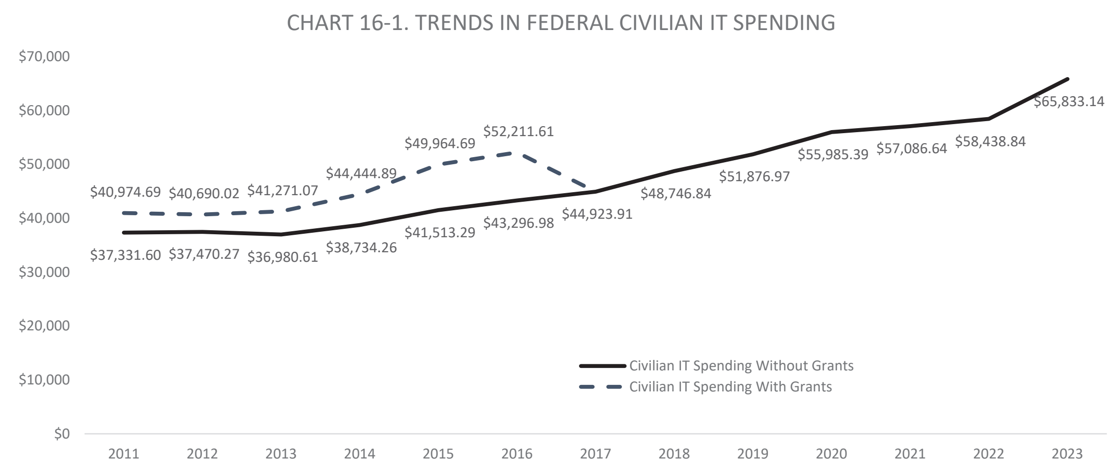
Federal Spending on IT and Cybersecurity

As shown in Table 16-1, the President's Budget for IT at civilian Federal agencies is estimated to be $65 billion in 2023. This figure is an 11 percent increase from the estimate reported for 2022. Chart 16-1 shows trending information for Federal civilian IT spending from 2021 forward.[2] The President's Budget includes funding for 4,290 investments at 24 agencies. These investments support the three IT Portfolio areas shown in Chart 16-2. Of those 4,290 IT investments, 742 are considered major IT investments. As outlined in OMB Circular A-11 and FY 2022 Capital Planning and Investment Control (CPIC) Guidance, agencies determine if an IT investment is classified as major based on whether the associated investment: has significant program or policy implications; has high executive visibility; has high development, operating, or maintenance costs; or requires special management attention because of its importance to the mission or function of the agency. For all major IT investments, agencies are required to submit Business Cases, which provide additional transparency regarding the cost, schedule, risk, and performance data related to its spending. OMB requires that agency Chief Information Officers (CIOs) provide risk ratings for all major IT investments on the IT Dashboard website on a continuous basis and assess how risks for major development efforts are being addressed and mitigated.

Cybersecurity remains a top priority for this Administration, as our adversaries continue to seek new and creative means to compromise Federal systems. The Administration has engaged top experts from across the Nation to identify leading security practices and set a bold new course to overhaul the Government's approach to securing Federal IT. The President's Budget includes approximately $10.9 billion of budget authority for civilian cybersecurity-related activities. This figure is an 11 percent increase reported for 2022. Cybersecurity budgetary priorities continue to seek to reduce the risk and impact of cyber incidents based on data-driven, risk-based assessments of the threat environment and the current Federal cybersecurity posture. Section 630 of the Consolidated Appropriations Act, 2017 (P. L. 115–31) amended 31 U.S.C. § 1105 (a)(35) to require that an analysis of Federal cybersecurity funding be incorporated into the President's Budget. The Federal spending estimates in this analysis utilize funding and programmatic information collected on the Executive Branch's cybersecurity activities that protect agency information systems, and also on activities that broadly involve cybersecurity such as the development of standards, research and development, and the investigation of cybercrimes. Agencies provide funding data at a level of detail sufficient to consolidate information to determine total governmental spending on cybersecurity. Within each agency, FY 2021 actual levels reflect the actual budgetary resources available in the prior year, FY 2022 estimates reflect the estimated budgetary resources available in the current year, and FY 2023 levels are to reflect levels consistent with the President's Budget. Table 16-2 provides an agency-level view of cybersecurity spending. Table 16-3 provides an overview of cybersecurity spending among agencies included in the Chief Financial Officers Act of 1990 (P.L. 101-576) (CFO Act agencies), as aligned to the National Institute of Standards and Technology (NIST)

[1] The scope of the analysis in this chapter refers to agencies represented on the IT Dashboard, located at *https://www.itdashboard.gov/*. This analysis excludes the Department of Defense.

[2] Note that as of the 2020 CPIC guidance, IT related grants made to State and local governments are no longer included in agency IT investment submissions.



Cybersecurity Framework functions: Identify, Protect, Detect, Respond, and Recover.

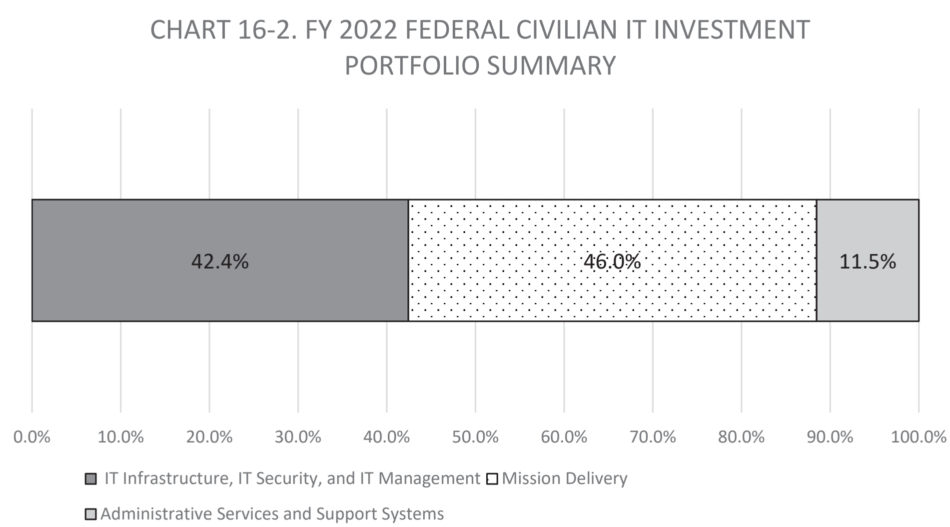
The remainder of this chapter describes important aspects of the latest initiatives undertaken with respect to Federal IT policies and projects, as well as cybersecurity policy and spending.

Cybersecurity

The President's Budget supports the Administration's commitment to transforming Federal cybersecurity by addressing root cause issues and pursuing leading security practices designed to defeat the methods of even sophisticated threat actors. In pursuit of these goals, the President signed Executive Order 14028, "Improving the Nation's Cybersecurity" in May 2021. The Executive Order places a strong emphasis on improving information-sharing between the U.S. Government and private sector, enhancing the security of Government-procured software, improving detection of cyber threats and vulnerabilities on Federal systems, and strengthening the United States' ability to respond to incidents when they occur.

A key goal of Executive Order 14028 is to modernize the Federal Government's approach to securing systems and data by adopting zero trust cybersecurity principles. To meet that goal, the Administration released guidance for agencies through OMB Memorandum M-22-09, Moving the U.S. Government Toward Zero Trust Cybersecurity Principles, in January 2022. This Memorandum established a multi-year zero trust strategy and action plan that requires agencies to meet specific cybersecurity standards and objectives by the end of FY 2024, in order to bolster the Government's defenses against increasingly sophisticated and persistent threat campaigns.

In addition to OMB Memorandum M-22-09, OMB had previously taken a series of other actions to increase the resiliency of the Federal Government's digital infrastructure, including the issuance guidance for agencies through OMB Memorandum M-21-30, Protecting Critical Software Through Enhanced Security Measures. This guidance requires agencies to inventory critical software and implement robust security requirements to ensure the security of the software supply chain and protect the use of software in agencies' operational environments. Following that, OMB released further guidance to agen-



cies through OMB Memorandum M-21-31, Improving the Federal Government's Investigative and Remediation Capabilities Related to Cybersecurity Incidents, requiring agencies to implement security logging measures that ensure greater visibility into potential threats, accelerating incident response efforts and enabling more effective defense of Federal information and Executive Branch departments and agencies. Further guidance to agencies followed in OMB Memorandum M-22-01, Improving Detection of Cybersecurity Vulnerabilities and Incidents on Federal Government Systems through Endpoint Detection and Response, which requires agencies to implement real-time continuous monitoring and response capabilities on all endpoints (e.g., phones, desktops, printers, laptops, etc.). The President's Budget shows the Administration's commitment to ensuring these requirements are implemented across the Federal Government, dedicating $10.9 billion to support and upgrade Federal civilian cybersecurity capabilities.

Finally, in the wake of the much-publicized cyber threats to Federal and civilian systems in recent years, in January 2021, the Congress established the Office of the National Cyber Director (ONCD) through the William M. (Mac) Thornberry National Defense Authorization Act for Fiscal Year 2021 (Public Law 116-283). Funded by the Infrastructure Investment and Jobs Act, ONCD serves as the principal advisor to the President on cybersecurity policy and strategy. The National Cyber Director is statutorily charged with working to ensure a cohesive and unified cyber posture across the entire Federal enterprise, and coordinating with OMB to ensure agency budgets align with the Administration's vision and priorities. The efforts around the President's Budget supports ONCD's efforts to improve national coordination in the face of escalating cyber-attacks on Government and critical infrastructure.

Supply Chain Risk Management

The Budget includes resources for agencies to invest in building agency capacity to evaluate and mitigate supply chain risk. With the passage of the Strengthening and Enhancing Cyber-capabilities by Utilizing Risk Exposure Technology Act (SECURE Technology Act) in 2018, agencies are required to assess the risks to their respective information and communications technology supply chains. In addition to agency Supply Chain Risk Management (SCRM) programs, enterprise-wide risk is evaluated through the Federal Acquisition Security Council (FASC). The FASC will make recommendations on potential exclusion and removal orders to the Secretaries of the Departments of Defense and Homeland Security, as well as the Director of National Intelligence, to address risk to each of their enterprises. These critical steps help agencies safeguard information and communi-

Table 16–1. ESTIMATED FY 2023 CIVILIAN FEDERAL IT SPENDING AND PERCENTAGE BY AGENCY

(In millions of dollars)

Agency	FY 2023	Percent of Total
Department of Homeland Security	$10,296	15.6%
Department of Veterans Affairs	$8,606	13.1%
Department of Health and Human Services	$7,824	11.9%
Department of the Treasury	$5,615	8.5%
Department of Justice	$4,102	6.2%
Department of Transportation	$4,078	6.2%
Department of Energy	$3,545	5.4%
Department of Agriculture	$3,912	5.9%
Department of State	$3,195	4.9%
Department of Commerce	$2,665	4.0%
Social Security Administration	$2,375	3.6%
National Aeronautics and Space Administration	$2,174	3.3%
Department of the Interior	$1,721	2.6%
Department of Education	$1,138	1.7%
General Services Administration	$977	1.5%
Department of Labor	$867	1.3%
Department of Housing and Urban Development	$558	0.8%
Office of Personnel Management	$423	0.6%
Environmental Protection Agency	$413	0.6%
U.S. Agency for International Development	$327	0.5%
U.S. Army Corps of Engineers	$309	0.5%
Small Business Administration	$295	0.4%
National Science Foundation	$164	0.2%
Nuclear Regulatory Commission	$142	0.2%
National Archives and Records Administration	$111	0.2%
Total	**$65,833**	**100.0%**

This analysis excludes the Department of Defense cation technology from emerging threats and support the need to establish standards for the acquisition community around SCRM. In August 2021, the FASC promulgated a rule[3] that modernizes the Council, as well as enhances information sharing and evaluation of supply chain risk.

IT Modernization

Agencies prioritize the modernization of Federal IT systems to better deliver their mission and services to the American public in an effective, efficient, and secure manner. Agencies are continuing to deploy standards-based platforms and systems, leveraging commercial capabilities that replace highly-customized Government technology. The Federal Government is focused on enhancing Federal IT and digital services, reducing cybersecurity risks to the Federal mission, and building a modern IT and cybersecurity workforce. Federal agencies' ongoing efforts to modernize their IT will enhance mission effectiveness and reduce mission risks through a series of complementary initiatives that will drive sustained change in Federal technology, deployment, security, and service delivery.

Notable IT Modernization efforts include the Technology Modernization Fund, Enterprise Infrastructure Solutions (EIS), and improving the IT and cyber workforce, among other efforts.

Technology Modernization Fund

The President's Budget includes $300 million for the Technology Modernization Fund (TMF), building on the fund's initial seed funding and the $1 billion provided in the American Rescue Plan Act of 2021 (Public Law 117-2, "ARP"). With the continuously evolving IT and cyber landscape, these investments are an important down payment on delivering modern and secure services to the American public, and continued investment in IT will be necessary to ensure the United States meets the accelerated pace of modernization. The funding provided to the TMF through the ARP recognized the critical need to address urgent IT modernization challenges, bolster cybersecurity defenses following the SolarWinds incident, and improve the delivery of COVID-19 relief. To implement the ARP funding, the TMF model was updated to accelerate agency modernization efforts to better serve the American public. The updated model includes repayment flexibilities to ensure a diverse set of project proposals, a streamlined review process to accommodate the increased volume of applications, and an evolved TMF Board to sustain the strategic evaluation of and investment in proposals. Since the release of the ARP guidance, the TMF Board has received over 120 proposals requesting more than $2.5 billion from over 40 agencies, and proposals continue to be submitted on a rolling basis. The Administration is maximizing the flexibility of the TMF to modernize high-priority systems, elevate the foundational security of Federal agencies, accelerate the growth of public-facing digital services, and scale cross-Government collaboration and shared services.

Since its start in March 2019, the TMF Board has invested 20 initiatives across 12 Federal agencies, totaling approximately $400 million.[4] Of this amount, over $320 million[5] was invested by the TMF Board, through the $1 billion provided in the ARP. This tranche of ARP-funded investments, and the seventh round of TMF investments since the fund was established, represents a set of strategic investments to improve technology at scale across all of the high priority areas. These investments reflect the Administration's strong commitment to improving the American public's interactions with Government and bolstering the security of those interactions. These investments will transform authentication for the Federal Government, and provide for multi-factor authentication across the board. They will also fund the development of an identity proofing solution that prevents fraud, ensures equitable access to government services, and protects individual privacy. This tranche is directly responsive to Executive Order 14028, protecting the data and privacy of 100 million students and borrowers, two million civilian Federal employees, millions of users of Government-wide shared services, and the security of hundreds of facilities. These investments are also directly responsive to the COVID-19 pandemic that has fundamentally changed how the Federal Government operates and interacts with the public.

The TMF is an innovative funding vehicle that gives agencies additional ways to deliver services to the American public more quickly, to better secure sensitive systems and data, and to use taxpayer dollars more efficiently.[6] The mission of the TMF is to enable agencies to accelerate transformation of the way they use technology to deliver their mission and services to the American public in an effective, efficient, and secure manner. Agencies must apply and compete for TMF funds. Investments are funded incrementally and tied to delivery of milestones, which enables more agile and dynamic IT modernization project implementation and ensures taxpayers dollars are used effectively and efficiently. To ensure successful project execution and improve program outcomes, the TMF Board and the TMF Program Management Office support project teams throughout the life of the investment. Once a project has been funded, the TMF Board meets with the agency project team on a quarterly basis to confirm projects are on schedule and milestones are being met. Technical experts from General Services Administration (GSA), as well as other entities such as the U.S. Digital Service, are also available to provide hands-on support to project teams in design, acquisition, and cybersecurity to improve team capability, troubleshoot issues, and guarantee successful execution.

Enterprise Infrastructure Solutions

The broader IT modernization effort within the Federal Government and transition to cloud services is underpinned by the modernization of Government communications networks. OMB designated the GSA Enterprise Infrastructure Solutions (EIS) contract as "Best-in-Class," or the preferred Government-wide solution to leverage

[3] https://www.govinfo.gov/app/details/FR-2021-08-26/2021-17532

[4] See *https://tmf.cio.gov/projects/* for project descriptions.

[5] This does not include funding for classified projects.

[6] See *https://tmf.cio.gov/* for more information.

Table 16–2. ESTIMATED CIVILIAN FEDERAL CYBERSECURITY SPENDING BY AGENCY

(In millions of dollars)

Organization	FY 2021	FY 2022	FY 2023
Civilian CFO Act Agencies	**$8,173**	**$9,387**	**$10,462**
Department of Agriculture	$223	$239	$248
Department of Commerce	$472	$422	$437
Department of Education	$165	$225	$231
Department of Energy	$711	$793	$722
Department of Health and Human Services	$598	$715	$818
Department of Homeland Security	$2,097	$2,409	$2,621
Department of Housing and Urban Development	$81	$76	$99
Department of Justice	$934	$1,241	$1,281
Department of Labor	$109	$105	$100
Department of State	$320	$447	$635
Department of the Interior	$124	$144	$165
Department of the Treasury	$653	$829	$970
Department of Transportation	$334	$345	$391
Department of Veterans Affairs	$472	$450	$587
Environmental Protection Agency	$28	$29	$54
General Services Administration	$80	$78	$108
National Aeronautics and Space Administration	$155	$187	$243
National Science Foundation	$244	$256	$287
Nuclear Regulatory Commission	$27	$25	$21
Office of Personnel Management	$44	$44	$45
Small Business Administration	$17	$17	$17
Social Security Administration	$243	$266	$302
U.S. Agency for International Development	$44	$43	$77
Non-CFO Act Agencies	**$468.5**	**$454.7**	**$653.1**
Access Board	$0.6	$0.6	$0
African Development Foundation	$1.0	$1.0	*
American Battle Monuments Commission	$1.3	$1.3	$0
Armed Forces Retirement Home	*	*	$0
Chemical Safety and Hazard Investigation Board	$2.7	$2.6	$1.2
Commission on Civil Rights	$0.5	$0.8	$0.6
Commodity Futures Trading Commission	$9.2	$9.6	$13.3
Consumer Product Safety Commission	$3.1	$3.2	$3.9
Corporation for National and Community Service	$4.8	$4.8	$7.7
Council of the Inspectors General on Integrity and Efficiency	$0.6	$0.6	*
Court Services and Offender Supervision Agency for the District	$4.0	$4.0	$0
Defense Nuclear Facilities Safety Board	$2.8	$2.6	$2.0
Denali Commission	*	*	$1.0
Election Assistance Commission	*	*	$2.3
Equal Employment Opportunity Commission	$5.4	$5.5	$6.1
Export-Import Bank of the United States	$4.6	$3.9	$4.6
Farm Credit Administration	$3.6	$3.8	$4.0
Federal Communications Commission	$26.0	$27.0	$18.1
Federal Deposit Insurance Corporation	$109.8	$109.8	$83.7
Federal Election Commission	$1.0	$1.0	$0
Federal Financial Institutions Examination Council	*	*	*
Federal Labor Relations Authority	*	*	*
Federal Maritime Commission	*	$0.9	$0.7
Federal Mediation and Conciliation Service	*	*	$1.6
Federal Mine Safety and Health Review Commission	*	*	$0
Federal Retirement Thrift Investment Board	$85.5	$67.3	$30.3
Federal Trade Commission	$12.6	$12.8	$16.9
Gulf Coast Ecosystem Restoration Council	*	*	*
Institute of Museum and Library Services	*	*	$0
Inter-American Foundation	*	*	*
International Trade Commission	$5.4	$6.3	$5.5

Table 16–2. ESTIMATED CIVILIAN FEDERAL CYBERSECURITY SPENDING BY AGENCY—Continued
(In millions of dollars)

Organization	FY 2021	FY 2022	FY 2023
Marine Mammal Commission	*	*	*
Merit Systems Protection Board	$0.7	$0.6	$0.8
Millennium Challenge Corporation	$1.5	$1.5	$1.6
Morris K. Udall and Stewart L. Udall Foundation	*	*	*
National Archives and Records Administration	$7.8	$7.8	$8.4
National Council on Disability	*	*	*
National Credit Union Administration	$7.3	$7.3	$0
National Endowment for the Arts	$1.2	$1.2	$4.7
National Endowment for the Humanities	$1.2	$1.2	$1.4
National Gallery of Art	$2.1	$2.1	$2.3
National Labor Relations Board	$2.3	$3.3	$6.2
National Mediation Board	*	*	$2.1
National Transportation Safety Board	$1.7	$1.8	$5.7
Nuclear Waste Technical Review Board	*	*	$0
Occupational Safety and Health Review Commission	$1.0	$1.1	$1.1
Office of Government Ethics	*	*	*
Office of Special Counsel	*	*	$1.1
Office of the Comptroller of the Currency	*	*	$0
Overseas Private Investment Corporation	*	*	$0
Peace Corps	$9.4	$10.8	$8.0
Pension Benefit Guaranty Corporation	*	*	$26.3
Postal Regulatory Commission	*	*	$1.1
Presidio Trust	*	*	$0
Privacy and Civil Liberties Oversight Board	$1.4	$1.4	$0
Railroad Retirement Board	*	*	$7.5
Securities and Exchange Commission	$44.3	$52.1	$52.1
Selective Service System	$2.0	$5.0	*
Smithsonian Institution	$9.9	$12.8	$11.5
Surface Transportation Board	$1.5	$1.4	$1.4
Tennessee Valley Authority	$53.5	$37.8	$64.1
Trade and Development Agency	$1.3	$1.3	$1.3
U.S. Agency for Global Media	$7.8	$8.0	$7.0
U.S. Army Corps of Engineers	$20.3	$20.4	$4.0
United States Holocaust Memorial Museum	$1.7	$2.2	$2.8
Total	$8,641.7	$9,841.6	$10,890

* $500,000 or less

the Government's buying power for telecommunications and IT infrastructure requirements. As Federal agencies transition to the EIS contracts, they are taking the opportunity to develop a holistic approach towards achieving a zero-trust architecture via software defined networking that encompasses cloud infrastructure, enhanced mobility capabilities, and embedded cybersecurity and satellite communications. EIS is the only Federal network services contract to include requirements from OMB policy directives and NIST and Department of Homeland Security (DHS) cybersecurity requirements. Through aggregated Federal buying, if agencies modernize their services, EIS is projected to result in an average of 13 percent cost savings over the expiring Networx contract and an average of 30 percent less than large commercial contracts to the Federal Government once agencies finish their transition. Modern, secure, and cost-effective communications networks are enabling Federal agencies to continue to adopt a modern IT infrastructure and improve public services. As of December 31, 2021, Federal agencies have awarded more than 180 EIS task orders and are in the process of transitioning their existing legacy circuits to new solutions offered by EIS. Agencies have identified an additional 28 task orders to be awarded by FY 2023. The EIS team estimates that when all transitions are completed, agencies will have transitioned more than 9 million legacy circuits off the expiring contracts.

Improving the IT and Cybersecurity Workforce

Maintaining and securing Federal IT requires a large, highly capable IT and cybersecurity workforce. A current focus for policies guiding the strengthening of the Federal IT workforce is the direction given to Federal agencies to build a diverse workforce, representative of the population they serve, able to leverage data as a strategic asset to support economic growth, increase the effectiveness of the Federal Government, facilitate oversight, and promote transparency.

To accomplish this goal, agencies need a workforce that is highly trained and equipped with modern-day technical skills in areas such as data science, cybersecurity, machine learning, and artificial intelligence. As technology is a rapidly-changing field, the Administration is committed to investing in the Federal workforce to ensure they are equipped to adapt and develop their skills. To date, the Government has taken steps to expand the IT workforce, and provide training and other professional development opportunities to build skillsets and capacity across the Federal enterprise. Filling cybersecurity positions is a priority in the Administration's efforts to strengthen and safeguard the digital infrastructure for the public and private sectors. The Government will continue to evaluate processes and practices related to recruiting, hiring, and retention, as well as applying the lessons learned from the COVID-19 pandemic.

The President's Budget continues to invest in the IT and cybersecurity workforce to make the Government an attractive employer for top-tier talent, improve our ability to oversee and administer Government-wide programs, and better deliver services to the American people. For example, a diverse, highly skilled IT workforce is essential for the Government's ability to innovate in artificial intelligence and machine learning. Agencies need staff who understand these technologies, both to generate the foundational data needed for them to operate, as well as to manage the automated services to ensure they are accurate, fair, and aligned to the needs of the Government and the American people. Agencies also need cross-functional professionals to work in areas such as financial management, acquisition, and privacy protections, to drive value across a range of Government domains. Ultimately, a strong cadre of cybersecurity and IT professionals will allow the Government to run more efficiently and effectively, ensure Government networks and data are protected and secure, and drive more user-centric services to the American people.

Digital First Customer Experience

Americans expect and deserve their interactions with the Federal Government to be simple, seamless, and secure. The Administration is dedicated to providing the public with better digital services, streamlining agency processes, integrating access and equity into products, and saving taxpayer dollars. Technology powers an outstanding customer experience and is essential to excellent service delivery. The Federal technology environment needs to supports delivering secure, best-in-class products that actually meet the needs of their customers, the American people.

Toward this endeavor, the President's Budget reflects the needs of the Federal Government to modernize websites and digitize forms and processes which improve customer experience, and supports ongoing, multi-year implementation efforts to improve service delivery under the 21st Century Integrated Digital Experience Act (P.L. 115-336). The President's Budget also supports technology resources for high impact service providers and other Government-wide customer experience improvements under Executive Order 14058, "Transforming Federal Customer Experience and Service Delivery to Rebuild Trust in Government," including increases to Government-wide common products, platforms, and services that enable interactions that are consistent across Government. This includes products and platforms such as login.gov, U.S. Web Design System, Digital Analytics Program, Touchpoints, and Federalist; increases to the use and availability of funding vehicles (e.g., the TMF) or incubator programs (e.g., 10x); and continued efforts to bring top digital service delivery talent to the Federal Government.

Table 16–3. NIST FRAMEWORK FUNCTION CIVILIAN CFO ACT AGENCY FUNDING TOTALS
(In millions of dollars)

NIST Framework Function	FY 2022	FY 2023
Identify	$2,891	$3,046.0
Protect	$3,617	$4,741.3
Detect	$1,106	$1,483.8
Respond	$1,485	$1,208.4
Recover	$289	$410.6
Total	**$9,387**	**$10.890**

This analysis excludes Department of Defense spending.

Moreover, while the Federal Government continues efforts to provide world class digital experiences for the American people, care needs to be taken to ensure that "digital first" does not become "digital only." The goal should be to ensure that services are designed for all people of all abilities with a particular focus on those that are underserved. The President's Budget supports accessibility efforts to build and sustain an accessible Federal technology environment for all as directed in Executive Order 13985, "Advancing Racial Equity and Support for Underserved Communities Through the Federal Government," and Executive Order 14035, "Diversity, Equity, Inclusion, and Accessibility in the Federal Workforce."

Shared Services

Shared Services include the Government-wide identification and creation of centralized capabilities, shared governance, and performance expectations that are current for common functions across government. These will lead the way to transform the Federal Government by enabling the delivery of innovative, flexible, and competitive solutions and services that improve mission support service quality and decrease the total cost of services across the Federal enterprise.

Sharing Quality Services provides a framework for modernizing the Federal Government in key function areas that will improve the ability of agencies to deliver mission outcomes, provide improved services, and effectively steward taxpayer dollars. This framework includes a new governance structure where agencies and customers are responsible for driving the future of Federal service delivery. As agencies work with their customer communities to adopt and establish sharing standards, new Quality Service Management Offices (QSMOs), which are responsible for establishing marketplaces for coordinating solutions in their respective function areas, will be proposed to OMB. Since the release of OMB Memorandum M-19-16, Centralized Mission Support Capabilities for the Federal Government, OMB has formally designated four QSMOs: Cybersecurity, Core Financial Management, Civilian HR Transaction Services, and Grants Management.

In FY 2021, the Cybersecurity QSMO, led by the Department of Homeland Security, introduced two new services: Vulnerability Disclosure Policy (VDP) and Protective Domain Name System (pDNS). The VDP service[7] helps agencies streamline day-to-day operations when the public identifies and reports cyber vulnerabilities of Federal systems to the Government. The pDNS service helps agencies identify and neutralizes malicious DNS content used in cyberattacks.

The Grants Management QSMO, led by the Department of Health and Human Services, also released its initial marketplace in FY 2021, identifying a dozen systems. The Grants QSMO[8] is now working to verify that the functionality of these systems is consistent with the agreed to grants standards.

The remaining QSMOs are working to release their marketplaces as soon as possible, potentially as early as FY 2023.

Data as a Strategic Asset

OMB released the Federal Data Strategy (FDS) in 2019 as a foundational document for enabling agencies to use and manage Federal data to serve the American people. The FDS provides a consistent framework of principles and practices that are in-tended to guide agencies as they continue to leverage, utilize, and implement data as a resource and strategic asset. The FDS provides an overarching and iterative approach to data stewardship through the release of annual action plans that support the implementation of the strategy over an eight-year period.

The FDS and annual action plans continue to align with current OMB guidance, priorities, initiatives, and other relevant interagency councils on data-related equities that promote open data, equity, data sharing, accountability, and transparency. OMB promotes leveraging data as a strategic asset and efforts that align and adhere to the Open, Public, Electronic and Necessary (OPEN) Government Data Act, Administration priorities, and the President's Management Agenda, as well as promoting greater coordination and collaboration with the Chief Data Officers Council.

The Equitable Data Working Group, established through Executive Order 13985 explores ways to leverage Government data in order to measure and promote equity. The intent is to assess long-standing barriers and encourage lasting change in advancing equitable outcomes in underserved communities. Agencies will be able to use what is learned to advance their own efforts while developing and committing to ongoing initiatives to advance equity.

Administration priorities—including strengthening and empowering the Federal workforce, advancing equity and support for underserved communities, delivering excellent, equitable, and secure Federal services transforming customer experience and service delivery, improving the Nation's cybersecurity, and managing the business of Government to build back better—rely on data to improve the ability to deliver the requisite mission critical services for the American public.

[7] *https://bugcrowd.com/programs/organizations/cisa*

[8] *https://ussm.gsa.gov/fibf-gm/*

17. FEDERAL INVESTMENT

Federal investment is the portion of Federal spending of taxpayer money intended to yield long-term benefits for the economy and the Nation. This spending promises greater benefits than if that money had been allocated in the private sector. It promotes improved efficiency within Federal agencies, as well as growth in the national economy by increasing the overall stock of capital. Investment spending can take the form of direct Federal spending or grants to State, local, tribal and territorial governments.[1] It can be designated for physical capital—a tangible asset or the improvement of that asset—that increases production over a period of years or increases value to the Government. It can also be for research and development, education, or training, all of which are intangible, but can still increase income in the future or provide other long-term benefits.

Most presentations in the *Analytical Perspectives* volume combine investment spending with spending intended for current use. In contrast, this chapter focuses solely on Federal and federally financed investment, providing a comprehensive picture of Federal spending for physical capital, research and development, and education and training. Because the analysis in this chapter excludes spending for non-investment activities, it gives only a partial picture of Federal support for specific national needs, such as defense.

Total Federal investment spending was $792 billion in 2021. It is expected to increase by 1.7 percent in 2022 to $806 billion. The Budget proposes a 1.0 percent increase from 2022 for a total of $814 billion in 2023.

[1] For more information on Federal grants to State and local governments see Chapter 14, "Aid to State and Local Governments," in this volume.

DESCRIPTION OF FEDERAL INVESTMENT

The Budget uses a relatively broad definition of investment. It defines Federal investment as encompassing spending for research, development, education, and training as well as physical assets such as land, structures, infrastructure, and major equipment. It also includes spending regardless of the ultimate ownership of the resulting asset, or the purpose it serves. For the purposes of this definition, however, Federal investment does not include "social investment" items like healthcare or social services where it is difficult to separate out the degree to which the spending provides current versus future benefits. The distinction between investment spending and current outlays is a matter of judgment, but the definition used for the purposes of this analysis has remained consistent over time and is useful for historical comparisons.[2]

Investment in physical assets can be for the construction or improvement of buildings, structures, and infrastructure or for the development or acquisition of major equipment. The broader research and development category includes spending on the facilities in which these activities occur and major equipment for the conduct of research and development, as well as spending for basic and applied research, and experimental development.[3] Investment in education and training includes vocational rehabilitation, programs for veterans, funding for school systems and higher education, and agricultural extension services. This category excludes training for military personnel or other individuals in Government service.

The Budget further classifies investments as either grants to State, local, tribal and territorial governments (e.g., for highways or education), or "direct Federal programs." The "direct Federal" category consists primarily of spending for assets owned by the Federal Government, such as weapons systems and buildings, but also includes grants to private organizations and individuals for investment, such as capital grants to Amtrak, Pell Grants, and higher education loans to individuals. For grants made to State and local governments, it is the recipient jurisdiction, not the Federal Government, that ultimately determines whether the money is used to finance investment or for current use. This analysis classifies outlays based on the category in which the recipient jurisdiction is expected to spend a majority of the money. General purpose fiscal assistance is classified as current spending, although in practice, some may be spent by recipient jurisdictions on investment.

Additionally, in this analysis, Federal investment includes credit programs that are for investment purposes. When direct loans and loan guarantees are used to fund investment, the subsidy value is included as investment. The subsidies are classified according to their program purpose, such as construction, or education and training.

This discussion presents spending for gross investment, without adjusting for depreciation.

Composition of Federal Investment Outlays

Major Federal Investment

The composition of major Federal investment outlays is summarized in Table 17–1. The categories include major

[2] Historical figures on investment outlays beginning in 1940 may be found in the Budget's *Historical Tables*. The *Historical Tables* are available at *https://www.whitehouse.gov/omb/historical-tables/*.

[3] A more thorough discussion of research and development funding may be found in Chapter 18, "Research and Development," in this volume.

public physical investment, the conduct of research and development, and the conduct of education and training. Total major Federal investment outlays were $791 billion in 2021. They are estimated to increase 1.6 percent to $803 billion in 2022, and increase by 0.8 percent to $810 billion in 2023. For 2021 through 2023, defense investment outlays comprise about one-third of total major Federal investment while non-defense investment comprises around two-thirds. In 2022, defense investment outlays are expected to decrease by $0.2 billion, 0.1 percent, while non-defense investment outlays are expected to increase by $13 billion, 2.4 percent. In 2023, the Budget projects a defense investment increase of $20 billion, or 7.7 percent, over 2022 and a decrease in non-defense investment of $13.6 billion, or 2.5 percent.

Physical investment:

Outlays for major public physical capital (hereafter referred to as "physical investment outlays") were $339 billion in 2021 and are estimated to increase by 10 percent to $375 billion in 2022. In 2023, outlays for physical investment are estimated to increase by 6.4 percent to $398 billion. Physical investment outlays are for construction and renovation, the development or purchase of major equipment, and the purchase or sale of land and structures. Around 64 percent of these outlays are for direct physical investment by the Federal Government, with the remainder being grants to State and local governments for physical investment.

Direct physical investment outlays by the Federal Government are primarily for defense. Defense outlays for physical investment are estimated to be $193 billion in 2023, $5.6 billion higher than in 2022. Outlays for direct physical investment for nondefense purposes are estimated to be $60 billion in 2023, an increase of 4.3 percent from 2022. Among the sources of this increase are an estimated increase of roughly $1.4 billion in spending on medical facilities within the Department of Veterans Affairs.

Outlays for grants to State and local governments for physical investment are estimated to be $145 billion in 2023, a 12 percent increase over the 2022 estimate of $129 billion. Grants for physical investment fund transportation programs, sewage treatment plants, community and regional development, public housing, and other State and tribal assistance.[4] The increase in 2023 is mostly accounted for by a roughly $6 billion increase in Federal-aid highways grants and a roughly $3 billion increase in grants for highway infastructure programs. Much of this investment originates from funding included in the Infastructure Investment and Jobs Act (Public Law 117-58, "IIJA"), which was signed into law on November 15, 2021. The IIJA makes an array of transformational investments in our country's infrastructure.

Conduct of research and development:

Outlays for the conduct of research and development were $147 billion in 2021. Outlays are estimated to increase by 4.7 percent to $154 billion in 2022, and increase by 14 percent in 2023 to $175 billion. Roughly half of research and development outlays are for defense, a trend which has remained consistent over the past decade. Physical investment for research and development facilities and equipment is included in the physical investment category.

Non-defense outlays for the conduct of research and development are estimated to be $86 billion in 2023, 7.9 percent higher than 2022. Among the sources of this increase are a roughly $1.2 billion increase in investment in energy efficiency and renewable energy (funded partially through money from the IIJA) and a roughly $1.6 billion increase in investment within the National Institutes of Health.

A discussion of research and development funding can be found in Chapter 18, "Research and Development," in this volume.

Conduct of education and training:

Outlays for the conduct of education and training were $305 billion in 2021. Outlays are estimated to decrease by 9.7 percent to $275 billion in 2022, and decrease by 14 percent in 2023 to $237 billion.

Grants to State and local governments for this category were $86 billion in 2021. They are estimated to increase by 31 percent to $113 billion in 2022, and decrease by 29 percent to $80 billion in 2023. In 2023, grants are estimated to be one-third of total investment in education and training. This pattern of spending on grants to State and local governments for education and training is largely explained by changes in spending levels in response to the health and economic crises caused by the COVID-19 pandemic. For example through the Education Stablization Fund, which received roughly $166 billion in funding from the American Rescue Plan Act of 2021 (Public Law 117-2), the Department of Education outlayed roughly $25 billion in grants for education and training in 2021. Grants for education and training from this fund are estimated to increase to roughly $34 billion in 2022 and decrease to roughly $11 billion in 2023.

Direct Federal education and training outlays in 2021 were $219 billion. They are estimated to decrease by 26 percent to be $162 billion in 2022, and decrease by a further 3.6 percent to $156 billion in 2023. These decreases are largely explained by changes in accounting for the Federal Direct Student Loan Program. In 2021, outlays in this account totaled $130 billion, mainly due to $71 billion in upwards modifications and $54 billion in upward reestimates and interest on the reestimates. There were much smaller upward modifications and reestimates in 2022: $12 billion and $27 billion, respectively, yielding total estimated outlays for 2022 of roughly $48 billion. In 2023, outlays are estimated to be just $14 billion and are only associated with loan subsidies for the 2023 cohort; no modifications or reestimates for 2023 have been made.

Programs in this category primarily consist of aid for higher education through student financial assistance, loan subsidies, and veterans' education, training, and rehabilitation. This category does not include outlays for

[4] In the 2023 Budget, Transit Infrastructure Grant amounts are shown as grants to State and local governments (as compared with the 2022 Budget, when they were categorized as direct Federal physical investment) based on further review of program operations.

education and training of Federal civilian and military employees. Outlays for education and training that are for physical investment and for research and development are in the categories for physical investment and the conduct of research and development.

Major Federal investment outlays will comprise an estimated 14.0 percent of total Federal outlays in 2023 and 3.2 percent of the Nation's gross domestic product. Budget authority and outlays for major Federal investment by subcategory may be found in Table 17–2 at the end of this chapter.

Miscellaneous Physical Investment

In addition to the categories of major Federal investment, several miscellaneous categories of investment outlays are shown at the bottom of Table 17–1.

Outlays for commodity inventories are for the purchase or sale of agricultural products pursuant to farm price support programs and other commodities. Sales are estimated to exceed purchases by $2.0 billion in 2023. Outlays for other miscellaneous physical investment are estimated to be $5.9 billion in 2023.

Detailed Table on Investment Spending

Table 17-2 provides data on budget authority as well as outlays for major Federal investment, divided according to grants to State and local governments and direct Federal spending. Miscellaneous investment is not included in this table.

Table 17–1. COMPOSITION OF FEDERAL INVESTMENT OUTLAYS
(In billions of dollars)

Federal Investment	Actual 2021	Estimate 2022	Estimate 2023
Major public physical capital investment:			
Direct Federal:			
National defense	187.9	187.4	193.0
Nondefense	47.1	57.9	60.4
Subtotal, direct major public physical capital investment	235.0	245.2	253.4
Grants to State and local governments	104.2	129.3	145.1
Subtotal, major public physical capital investment	339.2	374.5	398.4
Conduct of research and development:			
National defense	73.9	74.3	88.8
Nondefense	73.1	79.7	86.0
Subtotal, conduct of research and development	147.1	153.9	174.9
Conduct of education and training:			
Grants to State and local governments	85.8	112.6	80.2
Direct Federal	218.8	162.3	156.4
Subtotal, conduct of education and training	304.5	274.9	236.6
Total, major Federal investment outlays	**790.8**	**803.4**	**809.8**
MEMORANDUM			
Major Federal investment outlays:			
National defense	261.8	261.6	281.8
Nondefense	528.9	541.7	528.0
Total, major Federal investment outlays	790.8	803.4	809.8
Miscellaneous physical investment:			
Commodity inventories	–1.2	–3.0	–2.0
Other physical investment (direct)	2.7	5.5	5.9
Total, miscellaneous physical investment	1.6	2.5	3.8
Total, Federal investment outlays, including miscellaneous physical investment	792.3	805.9	813.7

Table 17–2. FEDERAL INVESTMENT BUDGET AUTHORITY AND OUTLAYS: GRANT AND DIRECT FEDERAL PROGRAMS

(In millions of dollars)

Description	Budget Authority			Outlays		
	2021 Actual	2022 Estimate	2023 Estimate	2021 Actual	2022 Estimate	2023 Estimate
GRANTS TO STATE AND LOCAL GOVERNMENTS						
Major public physical investment:						
Construction and rehabilitation:						
Transportation						
Highways	57,483	70,051	66,822	47,128	51,695	60,803
Mass transportation	58,109	20,955	21,756	24,220	34,130	26,159
Rail transportation	5,229	15,560	17,261	4,772	6,677	7,836
Air and other transportation	6,785	12,861	12,927	9,356	7,241	8,679
Subtotal, transportation	127,606	119,427	118,766	85,476	99,743	103,477
Other construction and rehabilitation:						
Pollution control and abatement	3,904	13,496	15,560	3,350	3,326	7,615
Community and regional development	7,928	10,260	5,515	8,255	13,383	14,023
Housing assistance	10,996	5,292	6,888	3,976	6,249	6,951
Other	3,065	49,784	2,103	1,270	3,253	6,772
Subtotal, other construction and rehabilitation	25,893	78,832	30,066	16,851	26,211	35,361
Subtotal, construction and rehabilitation	153,499	198,259	148,832	102,327	125,954	138,838
Other physical assets	2,941	16,183	13,309	1,877	3,323	6,217
Subtotal, major public physical investment	156,440	214,442	162,141	104,204	129,277	145,055
Conduct of research and development						
Agriculture	370	372	405	311	421	605
Other	224	340	367	47	53	72
Subtotal, conduct of research and development	594	712	772	358	474	677
Conduct of education and training						
Elementary, secondary, and vocational education	230,428	41,689	68,433	63,337	86,090	54,621
Higher education	408	409	428	468	200	127
Research and general education aids	1,322	861	947	1,133	1,203	1,064
Training and employment	3,493	3,345	3,784	3,057	4,036	3,325
Social services	17,985	14,826	17,330	13,986	17,454	16,944
Agriculture	450	450	459	495	377	593
Other	2,564	3,354	3,310	3,293	3,263	3,542
Subtotal, conduct of education and training	256,650	64,934	94,691	85,769	112,623	80,216
Subtotal, grants for investment	413,684	280,088	257,604	190,331	242,374	225,948
DIRECT FEDERAL PROGRAMS						
Major public physical investment						
Construction and rehabilitation						
National defense						
Military construction and family housing	6,803	6,804	10,441	8,861	10,792	10,474
Atomic energy defense activities and other	3,142	3,147	4,015	2,292	2,491	3,050
Subtotal, national defense	9,945	9,951	14,456	11,153	13,283	13,524
Nondefense						
International affairs	1,329	1,305	1,290	1,035	1,132	1,225
General science, space, and technology	2,085	2,207	1,838	1,764	2,086	2,023
Water resources projects	4,727	22,953	4,383	3,954	6,551	5,494
Other natural resources and environment	2,766	3,417	3,000	1,210	3,095	2,937
Energy	347	4,146	5,576	2,479	3,719	3,744
Postal service	679	1,126	1,260	769	500	705
Transportation	129	677	679	94	163	223
Veterans hospitals and other health facilities	8,309	5,036	7,770	4,571	4,998	7,923
Administration of justice	2,991	3,192	1,705	2,710	2,951	3,102
GSA real property activities	807	4,253	7,229	1,135	1,593	1,845
Other construction	7,570	4,284	16,927	6,013	4,942	5,724
Subtotal, nondefense	31,739	52,596	51,657	25,734	31,730	34,945
Subtotal, construction and rehabilitation	41,684	62,547	66,113	36,887	45,013	48,469

Table 17–2. FEDERAL INVESTMENT BUDGET AUTHORITY AND OUTLAYS: GRANT AND DIRECT FEDERAL PROGRAMS—Continued

(In millions of dollars)

Description	Budget Authority			Outlays		
	2021 Actual	2022 Estimate	2023 Estimate	2021 Actual	2022 Estimate	2023 Estimate
Acquisition of major equipment						
National defense						
Department of Defense	173,224	184,010	190,291	175,798	173,229	178,568
Atomic energy defense activities	1,474	1,376	1,405	973	887	957
Subtotal, national defense	174,698	185,386	191,696	176,771	174,116	179,525
Nondefense						
General science and basic research	526	494	602	411	490	523
Postal service	1,688	7,004	2,153	1,102	1,956	2,692
Air transportation	3,788	4,889	4,773	3,486	3,853	4,310
Water transportation (Coast Guard)	2,244	2,672	1,635	1,649	2,346	2,252
Other transportation (railroads)	6	4	21	6	4	16
Hospital and medical care for veterans	4,614	5,013	4,480	3,189	5,414	4,267
Federal law enforcement activities	2,659	1,643	1,800	2,682	1,507	1,429
Department of the Treasury (fiscal operations)	895	402	501	395	515	547
National Oceanic and Atmospheric Administration	1,307	1,356	1,969	1,261	1,855	1,649
Other	5,824	5,757	7,096	6,955	8,168	7,530
Subtotal, nondefense	23,551	29,234	25,030	21,136	26,108	25,215
Subtotal, acquisition of major equipment	198,249	214,620	216,726	197,907	200,224	204,740
Purchase or sale of land and structures						
National defense	-33	-32	-33	-27	-22	-33
Natural resources and environment	463	496	520	274	349	485
General government	1	-260	-241	1	-260	-241
Other	100	157	237	-52	-68	-33
Subtotal, purchase or sale of land and structures	531	361	483	196	-1	178
Subtotal, major public physical investment	240,464	277,528	283,322	234,990	245,236	253,387
Conduct of research and development						
National defense						
Defense military	70,079	65,671	83,769	69,017	69,749	83,461
Atomic energy and other	5,284	5,355	5,828	4,930	4,509	5,345
Subtotal, national defense	75,363	71,026	89,597	73,947	74,258	88,806
Nondefense						
International affairs	230	233	228	230	233	228
General science, space, and technology						
NASA	11,512	11,593	12,670	10,517	11,585	11,794
National Science Foundation	6,942	6,543	7,902	5,546	6,107	6,371
Department of Energy	5,487	5,415	6,125	5,241	6,343	6,497
Subtotal, general science, space, and technology	23,941	23,551	26,697	21,304	24,035	24,662
Energy	4,231	7,601	9,086	3,536	3,876	6,148
Transportation						
Department of Transportation	875	977	1,170	791	924	1,083
NASA	610	629	769	572	613	691
Other transportation	40	40	41	30	43	39
Subtotal, transportation	1,525	1,646	1,980	1,393	1,580	1,813
Health						
National Institutes of Health	40,546	40,436	59,866	37,387	39,782	41,423
Other health	1,387	1,266	1,542	1,048	933	1,061
Subtotal, health	41,933	41,702	61,408	38,435	40,715	42,484
Agriculture	2,174	2,217	2,528	1,847	2,271	2,904
Natural resources and environment	2,655	2,831	3,456	2,530	2,565	3,251
National Institute of Standards and Technology	829	709	925	733	797	895
Hospital and medical care for veterans	1,445	1,436	1,655	1,390	1,603	1,550
All other research and development	1,481	1,657	1,749	1,359	1,510	1,376
Subtotal, nondefense	80,444	83,583	109,712	72,757	79,185	85,311

Table 17–2. FEDERAL INVESTMENT BUDGET AUTHORITY AND OUTLAYS: GRANT AND DIRECT FEDERAL PROGRAMS—Continued
(In millions of dollars)

Description	Budget Authority			Outlays		
	2021 Actual	2022 Estimate	2023 Estimate	2021 Actual	2022 Estimate	2023 Estimate
Subtotal, conduct of research and development	155,807	154,609	199,309	146,704	153,443	174,117
Conduct of education and training						
Elementary, secondary, and vocational education	64,939	1,414	1,942	26,300	65,420	77,711
Higher education	173,734	74,014	63,348	171,482	72,979	54,789
Research and general education aids	2,807	2,438	2,802	2,277	2,631	2,668
Training and employment	2,196	2,253	2,863	2,099	2,679	2,462
Health	2,986	2,287	2,646	2,409	2,744	2,676
Veterans education, training, and rehabilitation	13,178	15,146	9,121	12,245	12,892	12,512
General science and basic research	914	785	1,236	716	1,107	1,334
International affairs	753	752	753	552	860	760
Other	1,124	995	1,351	675	998	1,484
Subtotal, conduct of education and training	262,631	100,084	86,062	218,755	162,310	156,396
Subtotal, direct Federal investment	658,902	532,221	568,693	600,449	560,989	583,900
Total, Federal investment	1,072,586	812,309	826,297	790,780	803,363	809,848

18. RESEARCH AND DEVELOPMENT

Scientific discovery, technological breakthroughs, and innovation are engines for expanding the frontiers of human knowledge and are vital for responding to the challenges and opportunities of the 21st century. As we face unprecedented challenges and opportunities at this moment in American history, President Biden is committed to refreshing and reinvigorating our Nation's science and technology enterprise and creating good-paying jobs for American workers. Our aim is to harness the full power of science and technology on behalf of the American people.

Federal funding for research and development (R&D) is essential to maximize the benefits of science and technology to respond to COVID-19 and prevent future pandemics, end cancer as we know it, tackle the climate crisis and advance health, prosperity, security, environmental quality, equity, and justice for all Americans. Simply supporting R&D is not sufficient; Federal agencies are ensuring that R&D results are made widely available to other scientists and the public to facilitate understanding and decisions, in addition to innovators and entrepreneurs who can translate them from the lab into the businesses and products that will improve all of our lives. They also are committed to using R&D results to inform decision-making within the Federal Government to support the Administration's prioritization of evidence-based policymaking. In addition, R&D investments are helping to create more than just cutting-edge technology; they are also leading to the domestic manufacture of new products by U.S. workers.

Federally funded R&D investments are enabling control of the COVID-19 pandemic and promoting domestic manufacturing, job creation, national security, and economic prosperity in the United States. These positive impacts must be equitably distributed to ensure those investments include communities and institutions that have been historically underserved, marginalized, and adversely affected by persistent poverty and inequality.

The Biden-Harris Administration once again prioritizes investment in R&D at historic levels in the President's 2023 Budget, providing $204.9 billion for Federal R&D[1], a 28 percent increase over the 2021 enacted level. Reflecting the high priority that the President places on the longer-term investments necessary to mount a successful science-first approach to tackling societal challenges, the FY 2023 Budget also includes $81.7 billion, available over five years, at the Department of Health and Human Services (HHS) in new funding for pandemic preparedness, including significant investments in R&D, and $16.9 billion in discretionary funding for climate innovation. In addition, the Budget builds upon the Biden-Harris Administration's strong commitment to fostering Science, Technology, Engineering and Mathematics (STEM) education with an effort to broaden participation and build capacity in underserved institutions. This includes $343 million at the National Science Foundation (NSF) to broaden STEM opportunities for historically underrepresented groups and $260 million for Department of Energy (DOE) initiatives to build science and technology capacity in underserved institutions, including minority-serving institutions. Furthermore, in alignment with the Biden-Harris Administration's whole-of-government equity agenda, the Budget prioritizes R&D investments in programs with strong potential to advance equity for all. This includes $400 million at the National Institutes of Health (NIH) to expand health disparities research.

[1] This total includes the conduct of R&D and investments in R&D facilities and equipment (see Table 18–1). Detailed definitions and discussion are available in Section II below.

I. PRIORITIES FOR FEDERAL RESEARCH AND DEVELOPMENT

The 2023 Budget provides support for a broad spectrum of research and development, including multidisciplinary research and high-risk research proposals. Investing in these exploratory and transformative research areas will fundamentally improve our understanding of nature, revolutionize fields of science, and lead to the development of new technologies. Maintaining our leadership in cutting-edge research areas is key to our global standing, especially relative to competitors such as China, and to the creation of well-paying jobs right here in the United States. Federal Government funding for R&D is essential to address societal needs in areas in which the private sector does not have sufficient economic incentive to make the required investments. Key among these are basic and applied research that have been hallmarks of the American research enterprise and a powerful driver of surprising new technology. The 2023 Budget provides $110.9 billion for basic and applied research, an increase of $24.8 billion (29%) from 2021 enacted because such research is a proven source of the new knowledge that drives job creation and lasting economic growth and can contribute to shared prosperity.

To support additional transformative and, high-risk research approaches to tackling societal challenges, the Budget once again proposes funding for breakthroughs based on the unique and successful model of the Defense Advanced Research Projects Agency (DARPA). For example, the Budget provides $5 billion for the Advanced Research Projects Agency for Health (ARPA-H) to drive biomedical breakthroughs – ranging from molecular to societal – that would provide transformative solutions for all patients. The Budget also proposes $700 million for the

Advanced Research Projects Agency-Energy (ARPA-E), in the Department of Energy (DOE), while proposing legislation to expand the authority to develop new climate resilience technologies, and $3.2 million for the planning and development of the new Advanced Research Projects Agency-Infrastructure (ARPA-I) in the Department of Transportation (DOT). The DOT's ARPA-I effort will accelerate the transformative transportation goals of the Infrastructure Investment and Jobs Act (Pub. L. 117-58).

Research investments in the most promising areas for future industry, scientific discovery, and job creation are being addressed through multi-agency research activities coordinated through the National Science and Technology Council (NSTC) and other interagency forums, since some of these challenges cannot be addressed effectively by a single agency. This section highlights the Administration's R&D priorities and 2023 Budget's support of research toward those priorities.

Pandemic Preparedness and Prevention

COVID-19 has claimed more than 900,000 lives in America and cost trillions of dollars, demonstrating the devastating effects of pandemics on society. As the Nation emerges from this historic event, there is broad recognition that the risk of future pandemics is increasing. It is more important than ever to resist becoming complacent about ensuring our readiness for emergent pandemics, and to work with urgency now to accelerate transformative capabilities that will prevent future COVID-scale catastrophes. The Budget builds upon previous R&D investments in early warning systems, diagnostics, therapies, and vaccine development and manufacturing to prevent and respond to pandemic and other biological threats, both domestically and globally. Priority areas include: accelerating vaccine design, testing, production, manufacturing, distribution, and administration, with an emphasis on population-scale "programmable" technology platforms; rapidly developed, easy to use, and affordable diagnostic technologies; antiviral therapeutics, including protein inhibitors, neutralizing antibodies, and immune modulators; and data and technology investments to support real-time monitoring, including pathogen genomic sequencing, viral variant tracking, and environmental surveillance (such as through wastewater sampling).

The 2023 Budget includes proposals totaling $81.7 billion, available over five years, at HHS to address the Nation's preparedness for both the current COVID-19 pandemic and future threats. These proposals bolster pandemic preparedness across HHS public health agencies, and include several key investments in R&D. The Budget provides $40 billion to the Office of the Assistant Secretary for Preparedness and Response (ASPR), including investments in advanced development and manufacturing of vaccines, therapeutics, and diagnostics for high priority viral families. The Budget provides $28 billion for the Centers for Disease Control and Prevention (CDC), including support for domestic and global threat surveillance and public health laboratory capacity. The Budget provides $12.1 billion to the National Institutes of Health (NIH), including funding for research and development of vaccines, therapeutics, and diagnostics for high priority viral families, biosafety and biosecurity, and expansions of laboratory capacity and clinical trial infrastructure. The Budget also includes $1.6 billion for the Food and Drug Administration (FDA) including investments to expand and modernize regulatory capacity, and laboratory infrastructure to support the evaluation of medical countermeasures. In addition, the Budget provides $1.3 billion in R&D funding for Department of Defense (DOD) Chemical and Biological Defense Program (CBDP) biodefense and pandemic preparedness priorities. The Budget's enhancements for CBDP biodefense activities will expand DOD's ability to develop and manufacture targeted medical countermeasures and support expedited surveillance and pathogen characterization for a broader range of future biological threats.

In the broader health and biomedical R&D portfolio, the Budget provides $49 billion for NIH, of which $5 billion would be devoted to ARPA-H. At the Department of Veterans Affairs (VA), the medical and prosthetic research budget includes $916 million encompassing direct R&D funding to support VA's intramural research initiatives. These investments support several cutting-edge clinical priorities, including: suicide prevention; pain management and opioid use; traumatic brain injury; post-traumatic stress disorder; Gulf War illness and military toxic exposures; and cancer, with a focus on precision oncology. Further, the Budget encourages development of innovative antimicrobial drugs through advance market commitments for critical-need antimicrobial drugs, and provides $11 billion in funding for HHS to support this program.

Tackling Climate Change

The United States and the world face a profound climate crisis with a narrow moment to pursue action to avoid the most catastrophic impacts and to seize the opportunities that tackling climate change presents. President Biden has directed a whole-of-government approach to reduce climate pollution in every sector of the economy, increase resilience to the impacts of climate change, and protect public health, while creating good-paying jobs that provide a free and fair chance to join a union and bargain collectively.

The Budget prioritizes R&D investments that advance understanding of climate change and the development of mitigation and adaptation solutions. The Budget also promotes innovation to bring clean technologies to scale. Innovation will spur the technology and transformations necessary to reduce emissions and adapt to climate change at scale, while also creating new economic opportunities to build the industries of the future. The Budget provides $44.9 billion for climate change expenditures, an increase of $16.7 billion from the FY 2021 enacted level, including $16.9 for climate innovation.

The Administration is committed to advancing climate science to improve understanding of Earth's changing climate, including changes that pose the greatest risk to society. Beyond advancing understanding, we are placing increased emphasis on research needed to inform climate policies, including mitigation, adaptation, and measurement and monitoring of greenhouse gas emissions. The Budget provides $5.0 billion for climate science activities, primarily coordinated through the U.S. Global Change Research Program (USGCRP), including $913 million for NSF, which includes investments to understand the role of human actions in climate change, $383 million for climate-related research in the Biological and Environmental Research (BER) portfolio in the DOE Office of Science and $2.0 billion for climate research and space-based observations at the National Aeronautics and Space Administration (NASA). The NASA Budget includes over $300 million for development of a future land-imaging satellite mission and an Earth System Observatory that will create a 3D, holistic view of Earth. Additionally, the Budget provides $300 million for USDA climate science, including $43 million for the Forest Service's Forest and Rangeland Research program.

The Budget supports innovation, commercialization, and deployment of clean energy and climate technologies, including those to lower the cost and decrease emissions in the power, buildings, transportation, industrial, and agricultural sectors; supporting achievement of a 50-52 percent reduction from 2005 levels in economy-wide net greenhouse gas pollution in 2030 and carbon pollution free electricity by 2035. To support U.S. preeminence in developing innovative technologies that accelerate the transition to a clean energy economy, the Budget invests more than $11.9 billion in clean energy research, development, and demonstration, an increase of more than 32 percent over the 2021 enacted level. Notably, the Budget includes $700 million for ARPA-E (energy) at the Department of Energy (DOE), which will expand its activities into adaptation and mitigation, and $200 million to launch a new Solar Manufacturing Accelerator focused on research, development and demonstration that will help create a robust domestic manufacturing sector capable of meeting the Administration's solar deployment goals without relying on imported goods manufactured using unacceptable labor practices. Budget also includes $500 million for clean energy technologies research at NSF. Looking toward future clean energy solutions in the coming decades, the Budget proposes $204 million to build on DOE's Energy Earthshots with critical fundamental research in the Office of Science. The Budget also includes $723 million for the Office of Science Fusion Energy Sciences research in enabling technologies, advanced computing and simulation, materials, and new partnerships with private fusion efforts. Within this total is $240 million for the ongoing construction of ITER, the world's largest experimental fusion facility designed to demonstrate net positive energy production.

In addition to funding for climate science and clean energy, the Budget also tackles climate change through a myriad of other approaches. For example, the Budget provides $58 million for a DOE-wide Net Zero Lab Initiative, to support moving DOE national laboratories towards net zero Greenhouse Gas (GHG) emissions. The Budget also supports enhancement of greenhouse monitoring and measurement capabilities, which is needed to track the effectiveness of domestic GHG reduction policies, to inform local mitigation efforts, to support international climate engagement, and to monitor changes in emission from biotic sources such as thawing permafrost. Moreover, the Budget supports innovative mechanisms to incentivize the adoption of climate-smart agricultural practices, open new markets for climate-smart commodities, and gather data on carbon sequestration and GHG reduction benefits to quantify conservation outcomes, as exemplified in USDA's new Partnership for Climate Smart Commodities.

To manage the risks that all Americans face, the Budget continues to invest in disaster mitigation and climate adaptation and resilience. The Budget proposes major investments in hazard mitigation and adaptation at the Department of Homeland Security (DHS), including $37 million to partner with State, local, tribal, and territorial (SLTT) organizations to increase the level of national preparedness by establishing community resilience testbeds, streamlining disaster recovery tools, and enhancing the predictive models and analytical services related to flooding. The Budget also requests $86 million for Climate Adaptation Science Centers (CASCs) at the U.S. Geological Survey. The CASCs fund research projects that help understand and address the impact of climate change on the Nation's land, water, fish, wildlife, and cultural resources. In addition, the Budget includes $92 million for competitive climate research at the National Oceanic and Atmospheric Administration, which will support a range of activities including improvements to ocean ecosystem modeling and prediction, and enhancements to climate projections and their accessibility for decision-makers.

Catalyzing Research and Innovation in Critical and Emerging Technologies

The Budget promotes world-leading research and innovation boosting American industries and quality American jobs in critical and emerging technologies, including artificial intelligence (AI), quantum information science (QIS), advanced communications technologies, microelectronics, high-performance computing, biotechnology, advanced materials, robotics, and space technologies. Agencies will coordinate to leverage these technologies to ensure the sharing and use of the vast troves of Federal Government datasets to enable large-scale data analysis, and high-fidelity, high-resolution modeling and simulation to address critical challenges in public health, climate science, and disaster resilience.

The Budget provides $10.5 billion for the National Science Foundation (NSF), an increase of $2 billion from the 2021 enacted funding level. The new Directorate for Technology, Innovation, and Partnerships would receive $880 million to accelerate the transformation of research into new technologies and solutions to societal and economic challenges. The 2023 Budget will also support existing and new National Artificial Intelligence Research Institutes, which are national hubs that bring together interdisciplinary groups from universities; federal, state, and local agencies; private industry; nonprofits; and civil society to advance AI research and workforce development in order to pursue transformational advances in a range of economic sectors and science and engineering fields — from food-system security to the next-generation networks that will power advanced technologies like autonomous vehicles and virtual-reality simulators.

At the Department of Energy's Office of Science, the Budget provides $7.8 billion, an increase of 11% from the 2021 level. This includes $176 million for AI research and $293 million for QIS R&D. AI and machine learning investments alongside DOE's world-leading computing capabilities are essential in integrating computing and data and accelerating innovations in earth and environmental system modeling, extracting signals from increasingly large volumes of experimental data from the scientific research facilities, and future clean energy technologies. The Budget also supports DOE's National QIS Research Centers, quantum networking R&D, and testbeds for the research community. The Advanced Scientific Computing Research program in 2023 will begin to enable the sustainability of critical exascale computing software for these emerging technology testbeds.

At the National Institute of Standards and Technology (NIST), the Budget provides $975 million for scientific and technical research and services, an increase of $187 million above 2021 enacted. These resources will be used to develop standards to support a wide range of critical and emerging technologies with a focus on artificial intelligence, quantum science, and cybersecurity.

At NASA, the Budget will help further spur U.S. leadership in space technology with increased funding for the agency's Space Technology R&D portfolio to $1.44 billion, a $338 million increase above 2021 enacted. This investment will support new technologies to help the commercial space industry grow and create good-paying American jobs, enhance mission capabilities, and reduce costs. The Budget also provides $882 million to develop a mission to return geologic samples from Mars to Earth for analysis. This mission includes technologies that will enable the first ever launch off another planet.

Innovation for Equity

The Biden-Harris Administration has implemented a whole-of-government equity agenda. The Budget prioritizes R&D investments in programs with strong potential to advance equity for all, including people of color and others who have been historically disadvantaged, marginalized, and adversely affected by persistent poverty and inequality. As part of this focus, the Budget supports programs, including community-level capacity building and training, that expand equitable inclusion in Federal science and technology programs and the use of scientific and technological innovation to advance equitable outcomes.

The Budget provides $343 million for NSF programs that aim to broaden participation of historically underrepresented groups in STEM, including Alliances for Graduate Education and the Professoriate, Centers of Research Excellence in Science and Technology, Historically Black Colleges and Universities – Excellence in Research and Undergraduate Program, Hispanic Serving Institutions program, Louis Stokes Alliances for Minority Participation, Tribal Colleges and Universities Program, and Inclusion across the Nation of Communities of Learners of Underrepresented Discoverers in Engineering and Science (INCLUDES). The Budget also provides $50 million for a new initiative at NSF that will build administrative capacity at emerging research institutions to help them more effectively compete for research funding.

The Budget also provides $260 million for DOE initiatives to build science and technology capacity in underserved institutions, including minority-serving institutions. This includes the Minority Serving Institution (MSI) Partnership Program, doubling funding for the Reaching a New Energy Sciences Workforce, and the following new programs and projects: the Funding for Accelerated Inclusive Research grant program, a MSI Science, Technology, Engineering and Mathematics (STEM) Challenge, and a university research nuclear reactor via a MSI-focused consortium. The DOE's Office of Energy Efficiency and Renewable Energy MSI STEM Challenge will provide dedicated prizes, assistance, and research funding to minority serving institutions to leverage and build renewable energy-related research capacity among faculty and students.

In addition, the Budget provides $315 million through the Department of Agriculture in agriculture research, education and extension grants to build capacity in underserved institutions, including Historically Black Colleges and Universities, Hispanic Serving Institutions, and Tribal Colleges and Universities.

Furthermore, the Budget provides $400 million to expand health disparities research at seven NIH Institutes, including for infrastructure at the National Institute on Minority Health and Health Disparities to support clinical research in ambulatory settings within the Research Centers in Minority Institutions program.

National Security and Economic Resilience

The Budget supports the research, development, and application of technologies that protect American security and strengthen our economic resilience. Investments in security prioritize the reduction of catastrophic biological, nuclear, and cyber risks, including investments in technologies supporting: biosecurity and biosafety; nuclear nonproliferation, defense modernization, arms control and treaty verification, measures that lower the risk of nuclear accidents and miscalculation, measures that enhance strategic stability; and new capabilities for defending critical infrastructure and sensitive networks against cyberattacks and supply chain attacks, including improved authentication mechanisms, zero-trust architectures, and better intrusion detection capabilities. The Budget also emphasizes technologies that ensure safe, clean, and reliable access to critical products, materials and minerals, including new manufacturing and biomanufacturing processes that can cost-effectively produce key goods on demand.

The Budget provides over $83 billion for the Department of Defense's (DOD) R&D programs, with increases for hypersonics R&D, QIS R&D, and AI research, including security and safety. The Budget provides $4.1 billion for DOD's DARPA. To enable access to measurably secure state-of-the-art defense microelectronics, this budget provides $950 million. To strengthen and safeguard the domestic bioeconomy, this budget also provides $357 million to grow biomanufacturing capacity to support a more resilient defense manufacturing supply chain. To train the STEM-capable workforce needed for national security, the Budget provides $132 million for DOD's National Defense Education Program (NDEP). The Budget also provides more than $7 billion for National Nuclear Security Administration research programs to sustain a safe, secure, and effective nuclear deterrent; facilitate nonproliferation efforts and arms control verification; and power the U.S. Navy.

In addition, at DHS, the Budget provides $592 million for Research, Development, Technology & Evaluation activities, including continued funding for cyber data analytics to support the Cybersecurity & Infrastructure Security Agency's mission to manage and reduce the risk to the Nation's cyber infrastructure. The Budget also includes investments to counter emerging chemical, biological, radiological, and nuclear threats, most prominently through the Probabilistic Analysis of National Threats, Hazards, and Risk (PANTHR) program, which supports the Homeland Security Enterprise's programs to prevent, prepare for, and mitigate potential threats. In addition, the Budget includes $89 million for R&D infrastructure funding, an increase of $81 million, to refurbish and modernize DHS's laboratories to better support first responders and transportation security, and more effectively defend the Nation against biological threats.

Furthermore, USDA's research programs develop and transfer solutions to problems of high national priority. Building a more sustainable, resilient food system is critical to our national security; ensuring high-quality, safe food, assessing the nutritional needs of Americans, sustaining a competitive agricultural economy and enhancing the natural resource base and the environment so all Americans thrive.

STEM Education and Engagement

The Biden-Harris Administration is committed to fostering the engagement and motivation of our country's students in STEM, the instructional and institutional environments for STEM learning, and the training and talent development for our future STEM workforce. The Budget supports these values. The Budget supports strategies to promote diversity, inclusion, equity, and accessibility across all R&D focus areas, while building supportive STEM education and engagement ecosystems founded on equity.

The Budget provides significant STEM investments across a broad array of agencies, including $1,377 million for NSF's Education and Human Resources Directorate, $150 million for NASA's Office of STEM Engagement, and $106 million for USDA's STEM programs. At NSF, the Budget provides an increase of $100 million to a suite of fellowship programs across the agency. At NASA's Office of STEM Engagement, the Budget supports broadening participation in STEM and includes a more than 70% increase in NASA funding for the Global Learning and Observations to Benefit the Environment (GLOBE) program to significantly expand this international science and education program that engages the STEM professionals of tomorrow. At USDA, the Budget doubles the funding level for the Women and Minorities in STEM program compared to the FY 21 enacted level. The Budget also continues funding for USDA programs that provide support for research, education and teaching, and extension projects for historically under-resourced minority populations. Funds for these programs include but are not limited to projects at many Historically Black institutions, Land Grant Universities, Hispanic Serving Institutions, and programs in rural and insular areas.

At the Department of Education, the Budget provides $350 million for a new grant program to build the R&D infrastructure capacity at 4-year Historically Black Colleges and Universities (HBCUs), Tribal Colleges and Universities (TCUs), and Minority-Serving Institutions (MSIs). These investments will help more of these postsecondary institutions have state-of-the-art facilities that will allow them to compete for additional research funding. The Budget includes an additional $350 million, for a total of $514 million, for the Education Innovation and Research program, which the Department of Education would direct toward identifying and scaling models that improve recruitment and retention of staff in education, in particular STEM education, career and technical education, special education, and multilingual education. These new funds would enhance support for teachers and improve effectiveness through expanded access to leadership opportunities and professional learning communities so educators can address common challenges and share best practices.

INFRASTRUCTURE INVESTMENTS AND JOBS ACT

In addition to the 2023 Budget, important R&D investments are being made in the Infrastructure Investments and Jobs Act (IIJA). For example, at the Department of Energy, IIJA established a new Office of Clean Energy Demonstrations with an appropriation of $21.5 billion over five years to accelerate the transition to a clean energy economy. In partnership with industries and communities across the country, the new office will fund demonstration projects that address scale-up and commercialization risks for the breakthrough technologies that will prove a net zero emission economy is achievable by 2050. At the Department of Transportation's Federal Transit Administration, IIJA calls for transit research programs to support public transportation innovation through research, demonstrations, and deployment of new technologies and best practices on mobility as well as transportation research conducted by the National Academy of Sciences. At the Departments of the Interior and Agriculture, IIJA appropriates $20 million over 5 years for the Joint Fire Science Program, with funding split evenly between the two departments, to fund scientific research on wildland fire to aid policymakers, fire managers and practitioners in decision making. At the Department of Homeland Security (DHS), $158 million is appropriated to the Science & Technology Directorate for critical infrastructure security and cybersecurity, including for electromagnetic pulse and geo-magnetic disturbance resilience; developing tools with industry for positioning, navigation, and timing capability and resilience; and to enhance the cybersecurity of industrial control and internet of things (IoT) systems. The IIJA funding also provides DHS the ability to begin understanding, analyzing, and identifying open-source software security and private marketplace gaps to mitigate risks, informing which areas are best suited for future Federal prototype development efforts. In addition, this funding supports the interoperability, integrity, and security of critical communications systems for DHS and first responders. The aforementioned are just a couple of illustrative examples of R&D supported by IIJA and not meant to be exhaustive.

II. FEDERAL RESEARCH AND DEVELOPMENT DATA

R&D is the collection of efforts directed toward gaining greater knowledge or understanding and applying knowledge toward the production of useful materials, devices, and methods. R&D investments can be characterized as basic research, applied research, development, R&D equipment, or R&D facilities. The Office of Management and Budget (OMB) has used those or similar categories in its collection of R&D data since 1949. Please note that R&D crosscuts in specific topical areas as mandated by law will be reported separately in forthcoming Supplements to the President's 2023 Budget.

Background on Federal R&D Funding

More than 20 Federal agencies fund R&D in the United States. The character of the R&D that these agencies fund depends on the mission of each agency and on the role of R&D in accomplishing it. Table 18–1 shows agency-by-agency spending on basic research, applied research, experimental development, and R&D equipment and facilities.

Basic research is systematic study directed toward a fuller knowledge or understanding of the fundamental aspects of phenomena and of observable facts without specific applications toward processes or products in mind. Basic research, however, may include activities with broad applications in mind.

Applied research is systematic study to gain knowledge or understanding necessary to determine the means by which a recognized and specific need may be met.

Experimental development is creative and systematic work, drawing on knowledge gained from research and practical experience, which is directed at producing new products or processes or improving existing products or processes. Like research, experimental development will result in gaining additional knowledge.

Research and development equipment includes acquisition or design and production of movable equipment, such as spectrometers, research satellites, detectors, and other instruments. At a minimum, this category includes programs devoted to the purchase or construction of R&D equipment.

Research and development facilities include the acquisition, design, and construction of, or major repairs or alterations to, all physical facilities for use in R&D activities. Facilities include land, buildings, and fixed capital equipment, regardless of whether the facilities are to be used by the Government or by a private organization, and regardless of where title to the property may rest. This category includes such fixed facilities as reactors, wind tunnels, and particle accelerators.

Comprehensive Government-wide efforts are currently underway to increase the accuracy and consistency of the R&D budget via a collaborative community of practice of Federal agencies, which have been working to identify best practices and standards for the most accurate classification and reporting of R&D activities.

Table 18–1. FEDERAL RESEARCH AND DEVELOPMENT SPENDING
(Mandatory and discretionary budget authority[1], Dollar amounts in millions)

	2021 Actual	2022 Estimate[2]	2023 Proposed	Dollar Change: 2022 to 2023	Percent Change: 2022 to 2023
By Agency					
Defense[3]	70,079	65,691	83,769	18,078	28%
Health and Human Services	42,226	42,023	61,816	19,793	47%
Energy	17,788	21,027	23,731	2,704	13%
NASA	12,176	12,279	13,547	1,268	10%
National Science Foundation	7,515	7,065	8,448	1,383	20%
Agriculture	3,031	3,193	3,579	386	12%
Commerce	2,099	1,994	2,918	924	46%
Veterans Affairs	1,445	1,436	1,655	219	15%
Transportation	1,070	1,281	1,498	217	17%
Interior	1,009	1,123	1,443	320	28%
Homeland Security	590	748	681	–67	–9%
Environmental Protection Agency	524	523	614	91	17%
Education	364	405	402	–3	–1%
Smithsonian Institution	324	332	355	23	7%
Other	484	493	480	–13	–3%
TOTAL	160,724	159,613	204,936	45,323	28%
Basic Research					
Defense	2,540	2,296	2,416	120	5%
Health and Human Services	21,051	20,951	31,911	10,960	52%
Energy	5,526	5,623	6,373	750	13%
NASA	5,162	5,490	6,086	596	11%
National Science Foundation	5,974	5,664	6,787	1,123	20%
Agriculture	1,195	1,218	1,381	163	13%
Commerce	260	260	334	74	28%
Veterans Affairs	566	560	645	85	15%
Transportation	16	16	16	0	0%
Interior	84	85	146	61	72%
Homeland Security	53	73	75	2	3%
Environmental Protection Agency	....	....	....	....	....
Education	51	42	42	0	....
Smithsonian Institution	290	296	319	23	8%
Other	16	18	13	–5	–28%
SUBTOTAL	42,784	42,592	56,544	13,952	33%
Applied Research					
Defense	6,438	5,625	6,028	403	7%
Health and Human Services	20,876	20,744	29,480	8,736	42%
Energy	6,360	6,130	7,129	999	16%
NASA	2,654	2,684	3,030	346	13%
National Science Foundation	968	879	1,115	236	27%
Agriculture	1,347	1,432	1,582	150	10%
Commerce	1,163	1,167	1,508	341	29%
Veterans Affairs	849	846	976	130	15%
Transportation	749	944	1,138	194	21%
Interior	753	863	1,077	214	25%
Homeland Security	178	238	157	–81	–34%
Environmental Protection Agency	406	406	477	71	17%
Education	198	257	254	–3	–1%
Smithsonian Institution	....	....	....	....	....
Other	344	342	360	18	5%
SUBTOTAL	43,283	42,557	54,311	11,754	28%
Experimental Development					
Defense[3]	61,101	57,750	75,325	17,575	30%
Health and Human Services	56	56	53	–3	–5%

Table 18–1. FEDERAL RESEARCH AND DEVELOPMENT SPENDING—Continued
(Mandatory and discretionary budget authority [1], Dollar amounts in millions)

	2021 Actual	2022 Estimate [2]	2023 Proposed	Dollar Change: 2022 to 2023	Percent Change: 2022 to 2023
Energy	3,023	6,501	7,433	932	14%
NASA	4,306	4,048	4,323	275	7%
National Science Foundation	....	....	....	....	....
Agriculture	307	348	393	45	13%
Commerce	380	210	434	224	107%
Veterans Affairs	30	30	34	4	13%
Transportation	270	282	303	21	7%
Interior	170	173	218	45	26%
Homeland Security	340	418	360	–58	–14%
Environmental Protection Agency	118	117	137	20	17%
Education	115	106	106	0	0%
Smithsonian Institution	....	....	....	....	....
Other	118	133	107	–26	–20%
SUBTOTAL	70,334	70,172	89,226	19,054	27%
Facilities and Equipment					
Defense	0	20	0	–20	....
Health and Human Services	243	272	372	100	37%
Energy	2,879	2,773	2,796	23	1%
NASA	54	57	108	51	89%
National Science Foundation	573	522	546	24	5%
Agriculture	182	195	223	28	14%
Commerce	296	357	642	285	80%
Veterans Affairs	....	....	....	....	....
Transportation	35	39	41	2	5%
Interior	2	2	2	0	0%
Homeland Security	19	19	89	70	....
Environmental Protection Agency	....	....	....	....	....
Education	....	....	....	....	....
Smithsonian Institution	34	36	36	0	0%
Other	6	0	0	0	0%
SUBTOTAL	4,323	4,292	4,855	563	13%

[1] This table shows funding levels for Departments or Independent agencies with more than $200 million in R&D activities in 2023. Funds for Facilities and Equipment reflect optimization of investments and operations, and are in addition to the funds included in the deficit neutral reserve funds that reflect the President's commitment to working with Congress to enact his plan to lower health care, child care, energy, and other costs for families.

[2] The FY 2022 Estimate column applies the main 2023 *Budget* volume approach of using annualized appropriations provided by the 2022 Continuing Resolution as well as including enacted legislation as of January 2022 (including P.L. 117–58, the Infrastructure Investment and Jobs Act).

[3] As part of the effort to refine DOD's contribution to overall Federal R&D, DOD Research, Development, Test, and Evaluation (RDT&E) Budget Activity 6.6 is now included as part of experimental development. This change is reflected across fiscal years 2021–2023 in the table and accounts for $8.3 billion in the FY 2023 Budget, which was not previously captured as R&D. Total experimental development spending includes DOD RDT&E Budget Activities 6.3 through 6.6 (Advanced Technology Development; Advanced Component Development and Prototypes; System Development and Demonstration; and Management Support).

19. CREDIT AND INSURANCE

The Federal Government offers direct loans and loan guarantees to support a wide range of activities including home ownership, student loans, small business, farming, energy, infrastructure investment, and exports. In addition, Government-sponsored enterprises (GSEs) operate under Federal charters for the purpose of enhancing credit availability for targeted sectors. Through its insurance programs, the Federal Government insures deposits at depository institutions, guarantees private-sector defined-benefit pensions, and insures against some other risks such as flood and terrorism. Additionally, these programs are exposed to climate-related financial risks, which the private sector is increasingly taking into account in the pricing of financial products. For a discussion of these risks in crop insurance, the National Flood Insurance Program, and Federal housing loans, please see Chapter 21: "Federal Budget Exposure to Climate Risk."

This chapter discusses the roles of these diverse programs. The first section discusses individual credit programs and GSEs. The second section reviews Federal deposit insurance, pension guarantees, disaster insurance, and insurance against terrorism and other security-related risks. The final section includes a brief analysis of the Troubled Asset Relief Program (TARP).

I. CREDIT IN VARIOUS SECTORS

Housing Credit Programs

Through its main housing credit programs, the Federal Government promotes homeownership among various groups that may face barriers to owning a home, including low- and moderate-income people, veterans, and rural residents. By expanding affordable homeownership opportunities for underserved borrowers, these programs can advance equity. In times of economic crisis, the Federal Government's role and target market can expand dramatically.

Coronavirus Disease 2019 (COVID-19): Impact and Federal Response

Loss of income and other hardships due to COVID-19 left many homeowners unable to meet their financial obligations, including mortgage payments. In response, Congress and Federal agencies provided relief in the form of foreclosure moratoriums, payment forbearance, credit reporting protections and enhanced loss mitigation. The Coronavirus Aid, Relief, and Economic Security (CARES) Act required a 60-day foreclosure and eviction moratorium and up to one year of payment forbearance with no additional fees for homeowners with Federally-backed mortgages. The Departments of Housing and Urban Development, Veterans Affairs, and Agirculture subsequently extended or expanded these protections administratively and implemented enhanced loss mitigation tools, such as deeper payment relief, to help struggling homeowners avoid foreclosure. In addition, the American Rescue Plan (ARP) provided approximately $10 billion for a new Homeowner Assistance Fund (HAF) at the Department of the Treasury to assist homeowners with past due mortgage payments and other housing-related expenses.

Federal Housing Administration

The Federal Housing Administration (FHA) guarantees single-family mortgages that expand access to homeownership for households who may have difficulty obtaining a conventional mortgage. In addition to traditional single-family "forward" mortgages, FHA insures "reverse" mortgages for seniors (Home Equity Conversion Mortgages, described below) and loans for the construction, rehabilitation, and refinancing of multifamily housing, hospitals and other healthcare facilities.

FHA Single-Family Forward Mortgages

FHA has been a primary facilitator of mortgage credit for first-time and minority homebuyers, a pioneer of products such as the 30-year self-amortizing mortgage, and a vehicle to enhance credit for many low- to moderate-income households. One of the major benefits of an FHA-insured mortgage is that it provides a homeownership option for borrowers who, though they can only make a modest down-payment, can show that they are creditworthy and have sufficient income to afford the house they want to buy. In 2021, 85 percent of FHA purchase mortgages were obtained by first-time homebuyers. Of all FHA loans (purchase and refinance), 33 percent served minority borrowers and 53 percent served low- to moderate-income borrowers.

FHA Home Equity Conversion Mortgages

Home Equity Conversion Mortgages (HECMs), or "reverse" mortgages, are designed to support aging in place by enabling elderly homeowners to borrow against the equity in their homes without having to make repayments during their lifetime (unless they move, refinance or fail to meet certain requirements). A HECM is known as a "reverse" mortgage because the change in home equity over time is generally the opposite of a forward mortgage. While a traditional forward mortgage starts with a small amount of equity and builds equity with amortization of the loan, a HECM starts with a large equity cushion that declines over time as the loan accrues interest and premiums. The risk of HECMs is therefore weighted toward the end of the mortgage, while forward mortgage risk is concentrated in the first 10 years.

FHA Mutual Mortgage Insurance (MMI) Fund

FHA guarantees for forward and reverse mortgages are administered under the Mutual Mortgage Insurance (MMI) Fund. At the end of 2021, the MMI Fund had $1.25 trillion in total mortgages outstanding and a capital ratio of 8.03 percent, remaining above the 2 percent statutory minimum for the sixth straight year and increasing from the 2020 level of 6.10 percent. This improvement reflects a continuation of strong home price appreciation through 2021, which eclipsed other adverse portfolio indicators such as an elevated serious delinquency rate resulting from COVID-19. For more information on the financial status of the MMI Fund, please see the Annual Report to Congress Regarding the Financial Status of the FHA Mutual Mortgage Insurance Fund, Fiscal Year 2021.[1]

FHA's new origination volume in 2021 was $344 billion for forward mortgages and $21 billion for HECMs, and the Budget projects $225 billion and $26 billion, respectively, for 2023, as well as $3.4 billion for a new Home Equity Accelerator Loan (HEAL) pilot to expand homeownership opportunities for first-generation and/or low-wealth first-time homebuyers.

FHA Multifamily and Healthcare Guarantees

In addition to the single-family mortgage insurance provided through the MMI Fund, FHA's General Insurance and Special Risk Insurance (GISRI) loan programs continue to facilitate the construction, rehabilitation, and refinancing of multifamily housing, hospitals and other healthcare facilities. The credit enhancement provided by FHA enables borrowers to obtain long-term, fixed-rate financing, which mitigates interest rate risk and facilitates lower monthly mortgage payments. This can improve the financial sustainability of multifamily housing and healthcare facilities, and may also translate into more affordable rents and lower healthcare costs for consumers.

GISRI's new origination loan volume for all programs in 2021 was $37 billion and the Budget projects $28 billion for 2023. The total amount of guarantees outstanding on mortgages in the FHA GISRI Fund were $174 billion at the end of 2021.

VA Housing Loan Program

The Department of Veterans Affairs (VA) assists veterans, members of the Selected Reserve, and active duty personnel in purchasing homes in recognition of their service to the Nation. The VA housing loan program effectively substitutes a Federal guarantee for the borrower's down payment, meaning more favorable lending terms for veterans. Under this program, VA does not guarantee the entire mortgage loan, but typically fully guarantees the first 25 percent of losses upon default. In fiscal year 2021, VA guaranteed a total of 444,050 new purchase home loans, providing approximately $152 billion in guarantees. Additionally, VA guaranteed 831,824 Interest Rate Reduction Refinance loans and veteran borrowers lowered interest rates on their home mortgages through streamlined refinancing. VA provided approximately $117 billion in guarantees for 1,441,745 VA loans in fiscal year 2021. That followed $100 billion in guarantees for 1,246,817 VA loans closed in fiscal year 2020.

VA, in cooperation with VA-guaranteed loan servicers, also assists borrowers through home retention options and alternatives to foreclosure. VA intervenes when needed to help veterans and service members avoid foreclosure through loan modifications, special forbearances, repayment plans, and acquired loans, as well as assistance to complete compromised sales or deeds-in-lieu of foreclosure. These standard efforts helped resolve over 98 percent of defaulted VA-guaranteed loans and assisted over 203,890 veterans retain homeownership or avoid foreclosure in 2021. These efforts resulted in nearly $5 billion in avoided guaranteed claim payments. As noted above, VA has responded to the COVID crisis by providing special CARES Act forbearances to support otherwise-current borrowers through the pandemic. As of September 30, 2021, 128,852 VA borrowers were participating in a special CARES Act forbearance.

Rural Housing Service

The Rural Housing Service (RHS) at the U.S. Department of Agriculture (USDA) offers direct and guaranteed loans to help very-low- to moderate-income rural residents buy and maintain adequate, affordable housing. RHS housing loans and loan guarantees differ from other Federal housing loan programs in that they are means-tested, making them more accessible to low-income, rural residents. The single family housing guaranteed loan program is designed to provide home loan guarantees for moderate-income rural residents whose incomes are between 80 percent and 115 percent (maximum for the program) of area median income.

RHS has traditionally offered both direct and guaranteed homeownership loans. The direct single family housing loans have been historically funded at $1 billion a year, while the single family housing guaranteed loan program, authorized in 1990 at $100 million, has grown into a $30 billion loan program annually. USDA also offers direct and guaranteed multifamily housing loans, as well as housing repair loans.

Education Credit Programs

The Department of Education (ED) direct student loan program is one of the largest Federal credit programs, with $1.33 trillion in Direct Loan principal outstanding at the end of 2021. The Federal student loan programs provide students and their families with the funds to help meet postsecondary education costs. Because funding for

[1] https://www.hud.gov/sites/dfiles/Housing/documents/2021FHAAnnualReportMMIFund.pdf

the loan programs is provided through mandatory budget authority, student loans are considered separately for budget purposes from other Federal student financial assistance programs (which are largely discretionary), but should be viewed as part of the overall Federal effort to expand access to higher education.

Loans for higher education were first authorized under the William D. Ford program, which was included in the Higher Education Act of 1965. The direct loan program was authorized by the Student Loan Reform Act of 1993 (subtitle A of title IV of Public Law 103–66). The enactment of the SAFRA Act (subtitle A of title II of Public Law 111–152) ended the guaranteed Federal Financial Education Loan (FFEL) program. On July 1, 2010, ED became the sole originator of Federal student loans through the Direct Loan program.

Under the current direct loan program, the Federal Government partners with over 5,500 institutions of higher education, which then disburse loan funds to students. Loans are available to students and parents of students regardless of income and only Parent and Graduate PLUS loans include a minimal credit check. There are three types of Direct Loans: Federal Direct Subsidized Stafford Loans, Federal Direct Unsubsidized Stafford Loans, and Federal Direct PLUS Loans, each with different terms.

The Direct Loan program offers a variety of repayment options including income-driven repayment ones for all student borrowers. Depending on the plan, monthly payments are capped at no more than 10 or 15 percent of borrower discretionary income with any remaining balance after 20 or 25 years forgiven. In addition, borrowers working in public service professions while making 10 years of qualifying payments are eligible for Public Service Loan Forgiveness (PSLF).

Additionally, the Department of Education operates the Historically Black College and Universities (HBCU) Capital Financing Program. Pursuant to the Consolidated Appropriations Act, 2021 (Public Law 116-260), over $1.5 billion in loans made between 1996 and 2016 have been forgiven.

Small Business and Farm Credit Programs

The Government offers direct loans and loan guarantees to small businesses and farmers, who may have difficulty obtaining credit elsewhere. It also provides guarantees of debt issued by certain investment funds that invest in small businesses. Two GSEs, the Farm Credit System and the Federal Agricultural Mortgage Corporation, increase liquidity in the agricultural lending market.

Small Business Administration

SBA ensures that small businesses across the Nation have the tools and resources needed to start, grow, and recover their business. SBA's lending programs complement credit markets by offering creditworthy small businesses access to affordable credit through private lenders when they cannot otherwise obtain financing on reasonable terms or conditions.

In 2021, SBA provided $36.5 billion in loan guarantees to assist small business owners with access to affordable capital through its largest program, the 7(a) General Business Loan Guarantee program. This program provides access to financing for general business operations, such as operating and capital expenses. In addition, through the 504 Certified Development Company (CDC) and Refinance Programs, SBA supported $8.2 billion in guaranteed loans for fixed-asset financing and provided the opportunity for small businesses to refinance existing 504 CDC loans. These programs enable small businesses to secure financing for assets such as machinery and equipment, construction, and commercial real estate, and to take advantage of current low interest rates and free up resources for expansion. Furthermore, the Small Business Investment Company (SBIC) Program supports privately-owned and operated venture capital investment firms that invest in small businesses. In 2021, SBA supported nearly $7.1 billion in SBIC venture capital investments. In addition to these guaranteed lending programs, the 7(m) Direct Microloan program supports the smallest of businesses, startups, and underserved entrepreneurs through loans of up to $50,000 made by non-profit intermediaries. In 2021, SBA recorded a record year by facilitating nearly $71.8 million in microlending.

SBA supported American communities that needed access to low-interest loans to recover quickly in the wake of disaster, especially due to the COVID-19 pandemic. By the end of 2021, the SBA had made approximately $320 billion in COVID Economic Injury Disaster Loans, providing low-interest working capital to small businesses across the country to help address the negative economic impacts of the pandemic. To further assist with COVID-19 relief, Congress created the Paycheck Protection Program (PPP) under the CARES Act to provide small businesses with funds to provide up to 8 weeks of payroll costs, including benefits. In 2021, the PPP provided 6.7 million loans worth more than $277.7 billion. In 2020 and 2021, PPP provided a total of 11.8 million loans worth more than $799.8 billion.

Community Development Financial Institutions

Since its creation in 1994, the Department of the Treasury's Community Development Financial Institutions (CDFI) Fund has, through different grant, loan, and tax credit programs, worked to expand the availability of credit, investment capital, and financial services for underserved people and communities by supporting the growth and capacity of a national network of CDFIs, investors, and financial service providers. Today, there are nearly 1,300 Certified CDFIs nationwide, including a variety of loan funds, community development banks, credit unions, and venture capital funds. CDFI certification also enables some non-depository financial institutions to apply for financing programs offered by certain Federal Home Loan Banks.

Unlike other CDFI Fund programs, the CDFI Bond Guarantee Program (BGP), enacted through the Small Business Jobs Act of 2010, does not offer grants, but is instead exclusively a Federal credit program. The BGP was designed to provide CDFIs greater access to low-cost, long-term, fixed-rate capital.

Under the BGP, Treasury provides a 100 percent guarantee on long-term bonds of at least $100 million issued to qualified CDFIs, with a maximum maturity of 30 years. To date, Treasury has issued nearly $1.8 billion in bond guarantee commitments to 25 CDFIs, over $1.3 billion of which has been disbursed to help finance affordable housing, charter schools, commercial real estate, community healthcare facilities and other eligible uses in 31 States and the District of Columbia.

Farm Service Agency

Farm operating loans were first offered in 1937 by the newly created Farm Security Administration to assist family farmers who were unable to obtain credit from a commercial source to buy equipment, livestock, or seed. Farm ownership loans were authorized in 1961 to provide family farmers with financial assistance to purchase farmland. Presently, the Farm Service Agency (FSA) assists low-income family farmers in starting and maintaining viable farming operations. Emphasis is placed on aiding beginning and socially disadvantaged farmers. Legislation mandates that a portion of appropriated funds are set-aside for exclusive use by underserved groups.

FSA offers operating loans and ownership loans, both of which may be either direct or guaranteed loans. Operating loans provide credit to farmers and ranchers for annual production expenses and purchases of livestock, machinery, and equipment, while farm ownership loans assist producers in acquiring and developing their farming or ranching operations. As a condition of eligibility for direct loans, borrowers must be unable to obtain private credit at reasonable rates and terms. As FSA is the "lender of last resort," default rates on FSA direct loans are generally higher than those on private-sector loans. FSA-guaranteed farm loans are made to more creditworthy borrowers who have access to private credit markets. Because the private loan originators must retain 10 percent of the risk, they exercise care in examining the repayment ability of borrowers. The subsidy rates for the direct programs fluctuate largely because of changes in the interest component of the subsidy rate. Since the early 1990's, the majority of FSA loan assistance has been through guarantees rather than direct lending.

In 2021, there were 29,050 direct or guaranteed loan obligations totaling $6.7 billion. The entire portfolio of outstanding debt as of September 30, 2021 was $32.3 billion, serving 127,610 farmers and ranchers. In 2021 the amount of lending declined in both dollar and volume terms, down 11 and 17 percent, respectively. While lending in dollar terms for real estate purchases was mixed among direct (increasing three percent) and guaranteed (decreasing eight percent), there were large declines in operating loans. Operating loan obligations fell in dollar terms among direct (decreasing 20 percent) and guaranteed (decreasing 34 percent). The decline in 2021 obligations was not unexpected, particularly for operating loans that provide working capital to farmers and ranchers. Rising commodity prices and Farm Program payments have contributed to an increase in farm income. Once current supply chain challenges ease, there may be pressure on farm income if commodity prices decline. This cyclicality underscores the importance of FSA's Farm Loan Programs as a safety net.

Beginning farmers received nearly 60 percent of direct and guaranteed loans in 2021. Direct and guaranteed loan programs provided assistance totaling $3.3 billion to more than 16,800 beginning farmers. A beginning farmer is an individual or entity who: has operated a farm for not more than 10 years; substantially participates in farm operation; and, for farm ownership loans, the applicant cannot own a farm greater than 30 percent of the average size farm in the county at time of application. If the applicant is an entity, all entity members must be related by blood or marriage, and all members must be eligible beginning farmers. Additionally in 2021, loans for socially disadvantaged farmers totaled $1.14 billion to 6,177 borrowers, of which $845 million was in the farm ownership program and $295 million in the farm operating program.

The FSA Microloan program increases overall direct and guaranteed lending to small niche producers and minorities. This program dramatically simplifies application procedures for small loans and implements more flexible eligibility and experience requirements. Demand for the micro-loan program continues to grow while delinquencies and defaults remain at or below those of the regular FSA operating loan program.

Energy and Infrastructure Credit Programs

The Department of Energy (DOE) administers four credit programs: Title XVII Innovative Technology Loan Guarantee Program (Title XVII), the Advanced Technology Vehicle Manufacturing (ATVM) Loan Program, the Tribal Energy Loan Guarantee Program (TELGP), and the Carbon Dioxide Transportation Infrastructure Finance and Innovation Program. Title XVII of the Energy Policy Act of 2005 (Public Law 109–58) authorizes DOE to issue loan guarantees for projects that employ innovative technologies to reduce air pollutants or man-made greenhouse gases. Most Title XVII loan authority requires borrowers to pay the credit subsidy cost, though Congress did appropriate $161 million for credit subsidy (net of subsequent rescissions in 2017) to support loan guarantees for renewable energy and efficient end-use technologies. The Budget requests $150 million in discretionary credit subsidy and an additional $5 billion in loan limitation to support eligible projects. To date, DOE has issued (and amended) three loan guarantees totaling over $11 billion to support the construction of two new commercial nuclear power reactors. DOE has two active conditional commitments totaling $3 billion to support advanced fossil energy projects. DOE has over $22.4 billion in available loan guarantee authority and is actively working with applicants proceeding to conditional commitment and financial close.

The American Recovery and Reinvestment Act of 2009 (Public Law 111–5) amended the Title XVII program's authorizing statute and appropriated credit subsidy to support loan guarantees on a temporary basis for commercial or advanced renewable energy systems, electric power transmission systems, and leading-edge biofuel projects. Authority for the temporary program to extend new loans expired September 30, 2011. Over $16 billion in loans and loan guarantees was disbursed under 24 of the loan guarantees issued prior to the program's expiration.

Section 136 of the Energy Independence and Security Act of 2007 (Public Law 110–140) authorizes DOE to issue loans to support the development of advanced technology vehicles and qualifying components. In 2009, the Congress appropriated $7.5 billion in credit subsidy to support a maximum of $25 billion in loans under ATVM. From 2009 to 2011, DOE issued five loans totaling over $8 billion to support the manufacturing of advanced technology vehicles. DOE has over $2.4 billion in credit subsidy balances available to support up to $17.7 billion in loans and is actively working with applicants proceeding to conditional commitment and financial close.

Title XXVI of the Energy Policy Act of 1992, as amended (Public Law 102-486) authorizes DOE to guarantee up to $2 billion in loans to Indian Tribes for energy development. In 2017, the Congress appropriated $8.5 million in credit subsidy to support tribal energy development. DOE issued a solicitation in 2018 and is actively working with applicants proceeding to conditional commitment and financial close.

Section 40304 of the Infrastructure Investment and Jobs Act (Public Law 117-58) amended Title IX of the Energy Policy Act of 2005 by authorizing DOE to issue loans, loan guarantees, and grants to support the development of carbon dioxide transportation infrastructure (e.g., pipelines). The law provided $3 million for program start-up costs in 2022 and an advance appropriation of $2.1 billion in 2023 budget authorty for the cost of loans, loan guarantees, and grants to elegible projects. DOE is actively working to establish the program.

Electric and Telecommunications Loans

Rural Utilities Service (RUS) programs of the USDA provide grants and loans to support the distribution of rural electrification, telecommunications, distance learning, and broadband infrastructure systems.

In 2021, RUS delivered $5.194 billion in direct electrification loans (including $4.311 billion in Federal Financing Bank Electric Loans, $750 million in electric underwriting, and $32 million rural energy savings loans), $71.104 million in direct telecommunications loans, and $74.193 million in Reconnect broadband loans. RUS also helped rural Texas electric utilities recover from the aftermath of the February 2021 winter storm. As a result, RUS made an operating loan to a local cooperative for $101 million, which will also unlock an additional $10.1 million in energy efficiency initiatives.

USDA Rural Infrastructure and Business Development Programs

USDA, through a variety of Rural Development (RD) programs, provides grants, direct loans, and loan guarantees to communities for constructing facilities such as healthcare clinics, police stations, and water systems, as well as to assist rural businesses and cooperatives in creating new community infrastructure (e.g., educational and healthcare networks) and to diversify the rural economy and employment opportunities. In 2021, RD provided $1.468 billion in Community Facility (CF) direct loans, which are for communities of 20,000 or less. The CF programs have the flexibility to finance more than 100 separate types of essential community infrastructure that ultimately improve access to healthcare, education, public safety and other critical facilities and services. RD also provided $1.4 billion in water and wastewater (W&W) direct loans, and guaranteed $2.5 billion in rural business loans, which will help create and save jobs in rural America. The Agriculture Improvement Act of 2018 (Public Law 115-334, colloquially referred to as the 2018 Farm Bill) gave CF and W&W loan guarantees new authorization to serve communities of 50,000 or less and allowed the programs to charge a fee to offset the loan subsidy cost. RD began executing the programs with the new authorities in 2020.

Water Infrastructure

The Environmental Protection Agency's (EPA) Water Infrastructure Finance and Innovation Act (WIFIA) program accelerates investment in the Nation's water infrastructure by providing long-term, low-cost supplemental loans for projects of regional or national significance. In 2021, EPA selected 39 borrowers to apply for a WIFIA loan totaling approximately $6.7 billion. Those projects will leverage $8.3 billion in private capital, in addition to other funding sources, to help finance a total of over $15 billion in water infrastructure investments. The selected projects demonstrate the broad range of project types that the WIFIA program can finance, including wastewater, drinking water, stormwater, and water reuse projects.

Transportation Infrastructure

The Department of Transportation (DOT) administers credit programs that fund critical transportation infrastructure projects, often using innovative financing methods. The two predominant programs are the Transportation Infrastructure Finance and Innovation Act (TIFIA) and the Railroad Rehabilitation and Improvement Financing (RRIF) loan programs. DOT's Build America Bureau administers these programs, as well as Private Activity Bonds, all under one roof. The Bureau serves as the single point of contact for States, municipalities, and other project sponsors looking to utilize Federal transportation innovative financing expertise, apply for Federal transportation credit programs, and explore ways to access private capital in public-private partnerships. The Budget reflects the TIFIA and RRIF programs' accounts in the Office of the Secretary, where the Bureau is housed.

Transportation Infrastructure Finance and Innovation Act (TIFIA)

Established by the Transportation Equity Act for the 21st Century (TEA–21) (Public Law 105–178) in 1998, the TIFIA program is designed to fill market gaps and leverage substantial private co-investment by providing supplemental and subordinate capital to projects of national or regional significance. Through TIFIA, DOT provides three types of Federal credit assistance to highway, transit, rail, intermodal, airport, and transit-oriented development projects: direct loans, loan guarantees, and lines of credit. TIFIA can help advance qualified, large-scale projects that otherwise might be delayed or deferred because of size, complexity, or uncertainty over the timing of revenues at a relatively low budgetary cost. Congress authorized $250 million for TIFIA in 2023.

Railroad Rehabilitation and Improvement Financing (RRIF)

Also established by TEA–21 in 1998, the RRIF program provides loans or loan guarantees with an interest rate equal to the Treasury rate for similar-term securities. The RRIF program has $26 million in available credit subsidy budget authority. In addition, the RRIF program allows borrowers to pay the subsidy cost of a loan (a "Credit Risk Premium") using non-Federal sources, thereby allowing the program to operate without Federal subsidy appropriations. The RRIF program assists projects that improve rail safety, enhance the environment, promote economic development, or enhance the capacity of the national rail network. While refinancing existing debt is an eligible use of RRIF proceeds, capital investment projects that would not occur without a RRIF loan are prioritized.

International Credit Programs

Through 2021, seven unique Federal agencies provide direct loans, loan guarantees, and insurance to a variety of private and sovereign borrowers: USDA, the Department of Defense, the Department of State, the Department of the Treasury, the U.S. Agency for International Development (USAID), the Export-Import Bank (ExIm), and the U.S. International Development Finance Corporation (DFC). These programs are intended to level the playing field for U.S. exporters, deliver robust support for U.S. goods and services, stabilize international financial markets, enhance security, and promote sustainable development.

Federal export credit programs counter official financing that foreign governments around the world, largely in Europe and Japan, but also increasingly in emerging markets such as China and Brazil, provide their exporters, usually through export credit agencies (ECAs). The U.S. Government has worked since the 1970's to constrain official credit support through a multilateral agreement in the Organization for Economic Cooperation and Development (OECD). This agreement has established standards for Government-backed financing of exports. In addition to ongoing work in keeping these OECD standards up-to-date, the U.S. Government established the International Working Group (IWG) on Export Credits to set up a new framework that will include China and other non-OECD countries, which until now have not been subject to export credit standards. The process of establishing these new standards, which is not yet complete, advances a Congressional mandate to reduce subsidized export financing programs.

Export Support Programs

When the private sector is unable or unwilling to provide financing, the Export-Import Bank, the U.S. Export Credit Agency (ECA), fills the gap for American businesses by equipping them with the financing support necessary to level the playing field against foreign competitors. ExIm support includes direct loans and loan guarantees for creditworthy foreign buyers to help secure export sales from U.S. exporters. It also includes working capital guarantees and export credit insurance to help U.S. exporters secure financing for overseas sales. USDA's Export Credit Guarantee Programs (also known as GSM programs) similarly help to level the playing field. Like programs of other agricultural exporting nations, GSM programs guarantee payment from countries and entities that want to import U.S. agricultural products but cannot easily obtain credit. The GSM 102 program provides guarantees for credit extended with short-term repayment terms not to exceed 18 months.

Exchange Stabilization Fund

Consistent with U.S. obligations in the International Monetary Fund regarding global financial stability, the Exchange Stabilization Fund (ESF) managed by the Department of the Treasury may provide loans or credits to a foreign entity or government of a foreign country. A loan or credit may not be made for more than six months in any 12-month period unless the President gives the Congress a written statement that unique or emergency circumstances require that the loan or credit be for more than six months. The CARES Act established within the ESF an Economic Stabilization Program with $500 billion in appropriations with temporary authority for up to $500 billion in lending and other eligible investments for: 1) airlines and certain airline industry-related businesses; 2) businesses critical to maintaining national security; and 3) programs or facilities established by the Board of Governors of the Federal Reserve System for the purpose of providing liquidity to the financial system pursuant to Section 13(3) of the Federal Reserve Act. The Consolidated Appropriations Act, 2021 (Public Law 116-260) rescinded this authority, though any loans and investments already made will remain active until obligations are fully liquidated.

Sovereign Lending and Guarantees

The U.S. Government can extend short-to-medium-term loan guarantees that cover potential losses that might be incurred by lenders if a country defaults on its borrowings; for example, the U.S. may guarantee another country's sovereign bond issuance. The purpose of this tool is to provide the Nation's sovereign international partners access to necessary, urgent, and relatively affordable financing during temporary periods of strain when they cannot access such financing in international financial markets, and to support critical reforms that will enhance long-term fiscal sustainability, often in concert with support from international financial institutions such as the International Monetary Fund. The goal of sovereign loan guarantees is to help lay the economic groundwork for the Nation's international partners to graduate to an unenhanced bond issuance in the international capital markets. For example, as part of the U.S. response to fiscal crises, the U.S. Government has extended sovereign loan guarantees to Jordan and Iraq to enhance their access to capital markets while promoting economic policy adjustment.

Development Programs

Credit is an important tool in U.S. bilateral assistance to promote sustainable development. The DFC provides loans, guarantees, and other investment tools such as equity and political risk insurance to facilitate and incentivize private-sector investment in emerging markets that will have positive developmental impact, and meet national security objectives.

The Government-Sponsored Enterprises (GSEs)

Fannie Mae and Freddie Mac

The Federal National Mortgage Association, or Fannie Mae, created in 1938, and the Federal Home Loan Mortgage Corporation, or Freddie Mac, created in 1970, were established to support the stability and liquidity of a secondary market for residential mortgage loans. Fannie Mae's and Freddie Mac's public missions were later broadened to promote affordable housing. The Federal Home Loan Bank (FHLB) System, created in 1932, is comprised of eleven individual banks with shared liabilities. Together they lend money to financial institutions, mainly banks and thrifts, that are involved in mortgage financing to varying degrees, and they also finance some mortgages using their own funds. The mission of the FHLB System is broadly defined as promoting housing finance, and the System also has specific requirements to support affordable housing.

Together these three GSEs currently are involved, in one form or another, with approximately half of residential mortgages outstanding in the U.S. today.

History of the Conservatorship of Fannie Mae and Freddie Mac and Budgetary Effects

Growing stress and losses in the mortgage markets in 2007 and 2008 seriously eroded the capital of Fannie Mae and Freddie Mac. Legislation enacted in July 2008 strengthened regulation of the housing GSEs through the creation of the Federal Housing Finance Agency (FHFA), a new independent regulator of housing GSEs, and provided the Department of the Treasury with authorities to purchase securities from Fannie Mae and Freddie Mac.

On September 6, 2008, FHFA placed Fannie Mae and Freddie Mac under Federal conservatorship. The next day, the Treasury launched various programs to provide temporary financial support to Fannie Mae and Freddie Mac under the temporary authority to purchase securities. Treasury entered into agreements with Fannie Mae and Freddie Mac to make investments in senior preferred stock in each GSE in order to ensure that each company maintains a positive net worth. The cumulative funding commitment through these Preferred Stock Purchase Agreements (PSPAs) with Fannie Mae and Freddie Mac was set at $445.5 billion. In total, as of December 31, 2021, $191.5 billion has been invested in Fannie Mae and Freddie Mac. The remaining commitment amount is $254.1 billion.

The PSPAs also generally require that Fannie Mae and Freddie Mac pay quarterly dividends to Treasury, though the terms governing the amount of those dividends have changed several times pursuant to agreements between Treasury and Fannie Mae and Freddie Mac. The most recent changes, announced on January 14, 2021, permit the GSEs to suspend dividend payments until they achieve minimum capital levels established by FHFA through a regulatory framework published in 2020. The Budget projects those levels will not be reached during the Budget window and accordingly reflects no dividends through 2032. Through December 31, 2021, the GSEs have paid a total of $301.0 billion in dividend payments to Treasury on the senior preferred stock.

The Temporary Payroll Tax Cut Continuation Act of 2011 (Public Law 112–78) amended the Housing and Community Development Act of 1992 (Public Law 102-550) by requiring that Fannie Mae and Freddie Mac increase their annual credit guarantee fees on single-family mortgage acquisitions between 2012 and 2021 by an average of at least 0.10 percentage point. This sunset was extended through 2032 by the Infrastructure Investment and Jobs Act (Public Law 117-58). The Budget estimates these fees, which are remitted directly to the Treasury and are not included in the PSPA amounts, will result in deficit reduction of $65.8 billion from 2023 through 2032.

In addition, effective January 1, 2015 FHFA directed Fannie Mae and Freddie Mac to set aside 0.042 percentage points for each dollar of the unpaid principal balance of new business purchases (including but not limited to mortgages purchased for securitization) in each year to fund several Federal affordable housing programs created by Housing and Economic Recovery act of 2008, including the Housing Trust Fund and the Capital Magnet Fund. The 2023 Budget projects these assessments will generate $4.9 billion for the affordable housing funds from 2023 through 2032.

Future of the Housing Finance System

Fannie Mae and Freddie Mac are in their thirteenth year of conservatorship, and Congress has not yet enacted legislation to define the GSEs' long-term role in the housing finance system. The Administration is committed to housing finance policy that increases the supply of housing that is affordable for low- and moderate-income households, expands fair and equitable access to homeownership and affordable rental opportunities, protects taxpayers, and promotes financial stability. The Administration has a key role in shaping, and a key interest in the outcome of, housing finance reform, and stands ready to work with Congress in support of these goals.

The Farm Credit System (Banks and Associations)

The Farm Credit System (FCS or System) is a GSE composed of a nationwide network of borrower-owned cooperative lending institutions originally authorized by the Congress in 1916. The FCS's mission is to provide sound and dependable credit to American farmers, ranchers, producers or harvesters of aquatic products, their cooperatives, and farm-related businesses. The institutions serve rural America by providing financing for rural residential real estate; rural communication, energy, and water infrastructure; and agricultural exports. In addition, maintaining special policies and programs for the extension of credit to young, beginning, and small farmers (YBS) and ranchers is a legislative mandate for the System.

The financial condition of the System's banks and associations remains fundamentally sound. The ratio of capital to assets remained stable at 16.9 percent on December 31, 2021, compared with 17.1 percent on December 31, 2020. Capital consisted of $63.7 billion that is available to absorb losses. For the first nine months of calendar year 2021, net income equaled $5.2 billion compared with $4.4 billion for the same period of the previous year.

Over the 12-month period ending September 30, 2021, System assets grew 6.7 percent, primarily due to higher cash and investment balances and increased real estate mortgage loans from continued demand by new and existing customers. During the same period, nonperforming assets as a percentage of loans and other property owned was 0.55 percent on September 30, 2021, compared with 0.77 percent on September 30, 2020.

The number of FCS institutions continues to decrease due to consolidation. As of December 31, 2021, the System consisted of four banks and 67 associations, compared with five banks and 84 associations in September 2011. Of the 71 FCS banks and associations rated under the Financial Institution Rating System (FIRS), 68 had one of the top two examination ratings (1 or 2 on a 1 to 5 scale) and accounted for over 99.1 percent of gross Systems assets. Four FCS institutions had a rating of 3.

The System, while continuing to record strong earnings and capital growth, remains exposed to a variety of risks associated with its portfolio concentration in agriculture and rural America. Among those risks include ongoing moderate to exceptional drought conditions in almost half of the United States, increasing severe weather events both in number and magnitude, increases in input costs, rising interest rates, and variability in government policies supporting U.S. producers. In addition, trade, rising inflation, labor issues, global agricultural product production levels, and fluctuating COVID-19 infection rates continue to keep agricultural market volatility elevated. Amid this challenging economic environment, the combination of farm commodity programs, disaster assistance, and crop insurance continued to help mitigate the agricultual market volatility. Given that, in fall 2021 producers experienced improved commodity prices and higher farm incomes, despite incurring higher cash expenses.

FCS Performance and YBS Portfolio

Both the dollar volume of the System's total loans outstanding and the dollar volume of YBS loans outstanding increased in 2020. While young, beginning, and small farmers are not mutually exclusive groups, and thus cannot be added across categories, it is important to note the growth of activity within each group. For example, total System loan dollar volume outstanding increased by 11.3 percent, and loan dollar volume outstanding to young farmers increased by 8.1 percent, to beginning farmers by 12.5 percent, and to small farmers by 12.9 percent.

The number of total System loans outstanding and YBS loans outstanding increased in 2020. The number of total System loans outstanding increased by 3.5 percent. The number of loans outstanding to young farmers increased by 2.1 percent, to beginning farmers by 4.1 percent, and to small farmers by 2.4 percent. Young, beginning, and small farmers are not mutually exclusive groups and, thus, cannot be added across categories. From December 31, 2019, to December 31, 2020, the System's overall new loan dollar volume increased by 30.2 percent. New loan dollar volume to young farmers increased by 36.9 percent, to beginning farmers by 57.4 percent, and to small farmers by 62.5 percent.

The number of loans made during the year also increased in 2020 for both total System lending and for all YBS categories. The total number of System loans made during the year increased by 37.4 percent. The number of loans to young farmers increased by 34.0 percent, to beginning farmers by 40.6 percent, and to small farmers by 34.4 percent. The loans to young farmers in 2020 represented 17.7 percent of all loans the System made during the year and 11.5 percent of the dollar volume of loans made. The loans made to beginning farmers in 2020 represented 25.4 percent of all System loans made during the year and 18.8 percent of the dollar volume of loans made. The loans in 2020 to small farmers represented 44.8 percent of all loans made during the year and 19.6 percent of the dollar volume of loans made. In 2020, the System reported making a total of 370,943 new loans, totaling $120.0 billion.

Federal Agricultural Mortgage Corporation (Farmer Mac)

Farmer Mac was established in 1988 by the Agricultural Credit Act of 1987 (Public Law 100-233) as a federally chartered instrumentality of the United States and an institution of the System to facilitate a secondary market for farm real estate and rural housing loans. Farmer Mac is not liable for any debt or obligation of the other System institutions, and no other System institutions are liable for any debt or obligation of Farmer Mac. The Farm Credit System Reform Act of 1996 (Public Law 104-105) expanded Farmer Mac's role from a guarantor of securities backed by loan pools to a direct purchaser of mortgages, enabling it to form pools to securitize. The Food, Conservation, and Energy Act of 2008 (Public Law 110-246) expanded Farmer Mac's program authorities by allowing it to purchase and guarantee securities backed by rural utility loans made by cooperatives.

Farmer Mac continues to meet core capital and regulatory risk-based capital requirements. As of September 30, 2021, Farmer Mac's total outstanding program volume (loans purchased and guaranteed, standby loan purchase commitments, and AgVantage bonds purchased and guaranteed) amounted to $23.1 billion, which represents an increase of 5.14 percent from the level a year ago. Of total program activity, $19.6 billion were on-balance sheet loans and guaranteed securities, and $3.5 billion were off-balance-sheet obligations. Total assets were $24.7 billion, with non-program investments (including cash and cash equivalents) accounting for $4.6 billion of those assets. Farmer Mac's net income attributable to common stockholders ("net income") for the first three quarters of calendar year 2010 was $77.7 million. Net income increased compared to the same period in 2020 during which Farmer Mac reported net income of $59.7 million.

II. INSURANCE PROGRAMS

Deposit Insurance

Federal deposit insurance promotes stability in the U.S. financial system. Prior to the establishment of Federal deposit insurance, depository institution failures often caused depositors to lose confidence in the banking system and rush to withdraw deposits. Such sudden withdrawals caused serious disruption to the economy. In 1933, in the midst of the Great Depression, a system of Federal deposit insurance was established to protect depositors and to prevent bank failures from causing widespread disruption in financial markets.

Today, the Federal Deposit Insurance Corporation (FDIC) insures deposits in banks and savings associations (thrifts) using the resources available in its Deposit Insurance Fund (DIF). The National Credit Union Administration (NCUA) insures deposits (shares) in most credit unions through the National Credit Union Share Insurance Fund (SIF). (Some credit unions are privately insured.) As of September 30, 2021, the FDIC insured $9.6 trillion of deposits at 4,914 commercial banks and thrifts, and as of December 30, 2021, the NCUA insured nearly $1.6 trillion of shares at 4,953 credit unions.

Since its creation, the Federal deposit insurance system has undergone many reforms. As a result of the 2008 financial crisis, several reforms were enacted to protect both the immediate and longer-term integrity of the Federal deposit insurance system. The Helping Families Save Their Homes Act of 2009 (division A of Public Law 111–22) provided NCUA with tools to protect the SIF and the financial stability of the credit union system. Notably, the Act established the Temporary Corporate Credit Union Stabilization Fund (TCCUSF), which has now been closed with its assets and liabilities distributed into the SIF. In addition, the Act:

- Provided flexibility to the NCUA Board by permitting use of a restoration plan to spread insurance premium assessments over a period of up to eight years, or longer in extraordinary circumstances, if the SIF equity ratio fell below 1.2 percent; and
- Permanently increased the Share Insurance Fund's borrowing authority to $6 billion.

The Dodd-Frank Wall Street Reform and Consumer Protection (Dodd-Frank) Act of 2010 (P.L. 111–203) established new DIF reserve ratio requirements. The Act requires the FDIC to achieve a minimum DIF reserve ratio (ratio of the deposit insurance fund balance to total estimated insured deposits) of 1.35 percent by 2020, up from 1.15 percent in 2016. On September 30, 2018, the DIF reserve ratio reached 1.36 percent. In addition to raising the minimum reserve ratio, the Dodd-Frank Act also:

- Eliminated the FDIC's requirement to rebate premiums when the DIF reserve ratio is between 1.35 and 1.5 percent;
- Gave the FDIC discretion to suspend or limit rebates when the DIF reserve ratio is 1.5 percent or higher, effectively removing the 1.5 percent cap on the DIF; and
- Required the FDIC to offset the effect on small insured depository institutions (defined as banks with assets less than $10 billion) when setting assessments to raise the reserve ratio from 1.15 to 1.35 percent. In implementing the Dodd-Frank Act, the FDIC issued a final rule setting a long-term (i.e., beyond 2028) reserve ratio target of 2 percent, a goal that FDIC considers necessary to maintain a positive fund balance during economic crises while permitting steady long-term assessment rates that provide transparency and predictability to the banking sector.

The Dodd-Frank Act also permanently increased the insured deposit level to $250,000 per account at banks or credit unions insured by the FDIC or NCUA.

Recent Fund Performance

As of September 30, 2021, the FDIC DIF balance stood at $121.9 billion, a one-year increase of $5.5 billion. The growth in the DIF balance is primarily a result of assessment revenue inflows. The reserve ratio on September 30, 2021, was 1.27 percent.

As of September 30, 2021, the number of insured institutions on the FDIC's "problem list" (institutions with the highest risk ratings) totaled 46, which represented a decrease of 95 percent from December 2010, the peak year for bank failures during the financial crisis. Furthermore, the assets held by problem institutions were nearly 87 percent below the level in December 2009, the peak year for assets held by problem institutions.

The NCUA-administered SIF ended December 2021 with assets of $20.8 billion and an equity ratio of 1.26 percent. In December 2021, NCUA lowered the normal operating level of the SIF equity ratio from 1.38 percent to 1.33 percent of insured shares. If the ratio exceeds the normal operating level, a distribution is normally paid to insured credit unions to reduce the equity ratio.

The health of the credit union industry has markedly improved since the financial crisis. As of December 31, 2021, NCUA reserved $162 million in the SIF to cover potential losses, a modest decrease of 9.4 percent from the $177 million reserved as of December 31, 2021. The ratio of insured shares in troubled institutions to total insured shares decreased slightly from 0.6 percent in December 2020 to 0.5 percent in December 2021. This is a significant reduction from a high of 5.7 percent in December 2009.

Restoring the Deposit Insurance Funds

As of June 30, 2020, the DIF reserve ratio fell to 1.30 percent, below the statutory minimum of 1.35 percent. The decline was a result of strong one-time growth in insured deposits. On September 15, 2020, FDIC adopted a Restoration Plan to restore the DIF reserve ratio to at least 1.35 percent within 8 years.

Budget Outlook

The Budget estimates DIF net outlays of -$77.0 billion over the current 10-year budget window (2023–2032). This $77.0 billion in net inflows to the DIF is a $14.3 billion increase of net inflows over the previous 10-year window (2022–2031) for the 2022 President's Budget. The fall in the reserve ratio and public data on the banking industry accounted for most of this change, which reflects both projections of resolution outlays, and premiums necessary to reach the historic long-run DIF target of 1.5 percent. Although the FDIC has authority to borrow up to $100 billion from Treasury to maintain sufficient DIF balances, the Budget does not anticipate FDIC utilizing its borrowing authority because the DIF is projected to maintain positive operating cash flows over the entire 10-year budget horizon.

Pension Guarantees

The Pension Benefit Guaranty Corporation (PBGC) insures the pension benefits of workers and retirees in covered defined-benefit pension plans. PBGC operates two legally and financially separate insurance programs: single-employer plans and multiemployer plans.

Single-Employer Insurance Program

When an underfunded single-employer plan terminates, PBGC becomes the trustee and pays benefits, up to a guaranteed level. This typically happens when the employer sponsoring an underfunded plan goes bankrupt, ceases operation, or can no loner afford to keep the plan going. PBGC's claims exposure is the amount by which guaranteed benefits exceed assets in insured plans. In the near term, the risk of loss stems from financially distressed firms with underfunded plans. In the longer term, loss exposure results from the possibility that well-funded plans become underfunded due to inadequate contributions, poor investment results, or increased liabilities, and that the healthy firms sponsoring those plans become distressed.

PBGC monitors companies with large underfunded plans and acts to protect the interests of the pension insurance program's stakeholders where possible. Under its Early Warning Program, PBGC works with companies to mitigate risks to pension plans posed by corporate transactions or otherwise protect the insurance program from avoidable losses. However, PBGC's authority to manage risks to the insurance program is limited. Most private insurers can diversify or reinsure their catastrophic risks as well as flexibly price these risks. Unlike private insurers, federal law does not allow PBGC to deny insurance coverage to a defined-benefit plan or adjust premiums according to risk. Both types of PBGC premiums, the flat rate (a per person charge paid by all plans) and the variable rate (paid by underfunded plans), are set in statute.

Claims against PBGC's insurance programs are highly variable. One large pension plan termination may result in a larger claim against PBGC than the termination of many smaller plans. The future financial health of the PBGC will continue to depend largely on the termination of a limited number of very large plans.

Single-employer plans generally provide benefits to the employees of one employer. When an underfunded single-employer plan terminates, PBGC becomes trustee of the plan, applies legal limits on payouts, and pays benefits. To determine the amount to pay each participant, PBGC takes into account (a) the benefit that a participant had accrued in the terminated plan, (b) the availability of assets from the terminated plan to cover benefits, and (c) how much PBGC recovers from employers for plan underfunding, and (d) the legal maximum benefit level set in statute. The guarantee limits are indexed (i.e., they increase in proportion to increases in a specified Social Security wage index) and vary based on the participant's age and elected form of payment. For plans terminating in 2022, the maximum guaranteed annual benefit payable under the single-employer program is $74,455 for a retiree aged 65.

Multiemployer Insurance Program

Multiemployer plans are collectively bargained pension plans maintained by one or more labor unions and more than one unrelated employer, usually within the same or related industries. PBGC does not trustee multiemployer plans. In the Multiemployer Program, the event triggering PBGC's guarantee is plan insolvency (the inability to pay guaranteed benefits when due), whether or not the plan has terminated. PBGC provides insolvent multiemployer plans with financial assistance in the statutorily required form of loans sufficient to pay PBGC guaranteed benefits and reasonable administrative expenses. Since multiemployer plans generally do not receive PBGC assistance until their assets are fully depleted, financial assistance is almost never repaid. Benefits under the multiemployer program are calculated based on (a) the benefit a participant would have received under the insolvent plan, subject to (b) the legal multiemployer maximum set in statute. The maximum guaranteed amount depends on the participant's years of service and the level of the benefit accruals. For example, for a participant with 30 years of service, PBGC guarantees 100 percent of the pension benefit up to a yearly amount of $3,960. If the pension exceeds that amount, PBGC guarantees 75 percent of the rest of the pension benefit up to a total maximum guarantee of $12,870 per year for a participant with 30 years of service. This limit has been in place since 2001 and is not adjusted for inflation or cost-of-living increases.

PBGC's FY 2020 Projections Report shows significant improvements in the projected solvency of the Multiemployer Pro-gram, with a median project insolvency in 2055. The net financial position of the Multiemployer Program significantly im-proved during FY 2021. Prior to the enactment of the American Rescue Plan Act of 2021 (ARPA) (Public Law 117–2), PBGC's Multiemployer Program was projected to become insolvent in FY 2026. ARPA amended the Employee Retirement and Income Security Act of 1974 (Public Law 93-406, "ERISA") and established a new Special Financial Assistance program which provides funding from the U.S. Treasury's General Fund for lump-sum payments to eligible multiemployer plans. By providing special financial assistance to the most financially troubled multiemployer plans, ARPA significantly extends the solvency of PBGC's Multiemployer Program. Additionally, ARPA assists plans by providing funds to reinstate previously suspended benefits.

Disaster Insurance

Flood Insurance

The Federal Government provides flood insurance through the National Flood Insurance Program (NFIP), which is administered by the Department of Homeland Security (DHS) Federal Emergency Management Agency (FEMA). Flood insurance is available to homeowners, renters, businesses, and State and local governments in communities that have adopted and enforce minimum floodplain management measures. Coverage is limited to buildings and their contents. At the end of 2021, the program had over five million policies worth $1.3 trillion in force in nearly 22,500 communities. The program is currently authorized until February 18, 2022.

Congress established the NFIP in 1968 via the National Flood Insurance Act of 1968 (Title XIII of Public Law 90-448) to make flood insurance coverage widely available, to combine a program of insurance with flood mitigation measures to reduce the Nation's risk of loss from floods, and to reduce Federal disaster-assistance expenditures on flood losses. The NFIP requires participating communities to adopt certain land use ordinances consistent with FEMA's floodplain management regulations and take other mitigation efforts to reduce flood-related losses in high flood hazard areas ("Special Flood Hazard Areas") identified through partnership with FEMA, States, and local communities. These efforts have resulted in substantial reductions in the risk of flood-related losses nationwide. Since the 1970's, flood insurance rates have been based on static measurements using the Flood Insurance Rate Map.

Technology has evolved, and so has FEMA's understanding of flood risk. To ensure policyholders make informed decisions on the purchase of adequate insurance and on mitigation actions to protect against flood risk, in FY 2021 FEMA introduced a new pricing methodology (known as Risk Rating 2.0-Equity in Action). The new pricing methodology builds on flood hazard information and incorporates private sector data sets, catastrophe models, and evolving actuarial science. The system includes additional flood risk variables such as flood frequency, multiple flood types (riverine, storm surge, coastal, pluvial), and distance to water along with individual property characteristics. The new methodology also addresses premium inequities by taking into account the cost to rebuild as a factor in the premium, so that policyholders with low-valued home are no longer subsidizing higher-valued homes. New policies effective on or after October 1, 2021 will be subject to the new pricing methodology, and existing policyholders will be able to take advantage of immediate decreases in their premiums upon renewal. All remaining existing policyholders will be subject to the new methodology beginning April 1, 2022 upon policy renewal.

FEMA's Community Rating System offers discounts on policy premiums in communities that adopt and enforce more stringent floodplain land use ordinances than those identified in FEMA's regulations and/or engage in mitigation activities beyond those required by the NFIP. The discounts provide an incentive for communities to implement new flood protection activities that can help save lives and property when a flood occurs. Further, NFIP offers flood mitigation assistance grants for planning and carrying out activities to reduce the risk of flood damage to structures covered by NFIP, which may include demolition or relocation of a structure, elevation or flood-proofing a structure, and community-wide mitigation efforts that will reduce future flood claims for the NFIP. In particular, flood mitigation assistance grants targeted toward repetitive and severe repetitive loss properties not only help owners of high-risk property, but also reduce the disproportionate drain these properties cause on the National Flood Insurance Fund.

Due to the catastrophic nature of flooding, with hurricanes Harvey, Katrina, and Sandy as notable examples, insured flood damages can far exceed premium revenue and deplete the program's reserves. On those occasions, the NFIP exercises its borrowing authority through the Treasury to meet flood insurance claim obligations. While the program needed appropriations in the early 1980s to repay the funds borrowed during the 1970's, it was able to repay all borrowed funds with interest using only premium dollars between 1986 and 2004. In 2005, however, Hurricanes Katrina, Rita, and Wilma generated more flood insurance claims than the cumulative number of claims paid from 1968 to 2004. Hurricane Sandy in 2012 generated $8.8 billion in flood insurance claims. As a result, in 2013 the Congress increased the borrowing authority for the fund to $30.425 billion. After the estimated $2.4 billion and $670 million in flood insurance claims generated by the Louisiana flooding of August 2016 and Hurricane Matthew in October 2016, respectively, the NFIP used its borrowing authority again, bringing the total outstanding debt to Treasury to $24.6 billion.

In the fall 2017, Hurricanes Harvey and Irma struck the southern coast of the United States, resulting in catastrophic flood damage across Texas, Louisiana, and Florida. To pay claims, NFIP exhausted all borrowing authority. The Congress provided $16 billion in debt cancellation to the NFIP, bringing its debt to $20.525 billion. To pay Hurricane Harvey flood claims, NFIP also received more than $1 billion in reinsurance payments as a result of transferring risk to the private reinsurance market at the beginning of 2017. FEMA continues to mature its reinsurance program and transfer additional risk to the private market.

In July 2012, resulting largely from experiences during Hurricanes Katrina, Rita, and Wilma in 2005, the Biggert Waters Flood Insurance Reform Act of 2012 (subtitle A of title II of Public Law 112–141; BW–12) was signed into law. In addition to reauthorizing the NFIP for five years, the bill required the NFIP generally to move to full risk-based premium rates and strengthened the NFIP financially and operationally. In 2013, the NFIP began phasing in risk-based premiums for certain properties, as required by the law, and began collecting a policyholder Reserve Fund assessment that is available to meet the expected future obligations of the flood insurance program.

In March 2014, largely in reaction to premium increases initiated by BW–12, the Homeowner Flood Insurance Affordability Act of 2014 (HFIAA) (Public Law 113–89) was signed into law, further reforming the NFIP and revising many sections of BW–12. Notably, HFIAA repealed and adjusted many of the major premium increases introduced by BW–12 and required retroactive refunds of collected BW–12 premium increases, introduced a phase-in to higher full-risk premiums for structures newly mapped into the Special Flood Hazard Area until full-risk rates are achieved, and created an Office of the Flood Insurance Advocate. HFIAA also introduced a fixed annual surcharge of $25 for primary residents and $250 for all other policies to be deposited into the Reserve Fund.

The 2022-2026 FEMA Strategic Plan creates a shared vision for the NFIP and other FEMA programs to build a more prepared and resilient Nation. The Strategic Plan outlines a bold vision and three ambitious goals designed to address key challenges the agency faces during a pivotal moment in the field of emergency management: Instill Equity as a Foundation of Emergency Management, Lead Whole of Community in Climate Resilience, and Promote and Sustain a Ready FEMA and Prepared Nation. While the NFIP supports all three goals, it is central to leading whole of community in climate resilience. To that end, FEMA is pursuing initiatives including:

1. Providing products that clearly and accurately communicate flood risk;

2. Helping individuals, businesses, and communities understand their risks and the available options like the NFIP to best manage those risks;

3. Transforming the NFIP into a simpler, customer-focused program that policyholders value and trust; and

4. Increasing the number of properties covered by flood insurance (either through the NFIP or private insurance) by 2022.

Crop Insurance

Subsidized Federal crop insurance, administered by USDA's Risk Management Agency (RMA) on behalf of the Federal Crop Insurance Corporation (FCIC), assists farmers in managing yield and revenue shortfalls due to bad weather or other natural disasters. The program is a cooperative partnership between the Federal Government and the private insurance industry. Private insurance companies sell and service crop insurance policies. The Federal Government, in turn, pays private companies an administrative and operating expense subsidy to cover expenses associated with selling and servicing these policies. The Federal Government also provides reinsurance through the Standard Reinsurance Agreement (SRA) and pays companies an "underwriting gain" if they have a profitable year. For the 2023 Budget, the payments to the companies are projected to be $3.57 billion in combined subsidies. The Federal Government also subsidizes premiums for farmers as a way to encourage farmers to participate in the program.

The most basic type of crop insurance is catastrophic coverage (CAT), which compensates the farmer for losses in excess of 50 percent of the individual's average yield at 55 percent of the expected market price. The CAT premium is entirely subsidized, and farmers pay only an administrative fee. Higher levels of coverage, called "buy-up," are also available. A portion of the premium for buy-up coverage is paid by FCIC on behalf of producers and varies by coverage level – generally, the higher the coverage level, the lower the percent of premium subsidized. The remaining (unsubsidized) premium amount is owed by the producer and represents an out-of-pocket expense.

For 2021, the four principal crops (corn, soybeans, wheat, and cotton) accounted for over 73 percent of total liability, and approximately 87 percent of the total U.S. planted acres of the 10 principal row crops (also including barley, peanuts, potatoes, rice, sorghum, and tobacco) were covered by crop insurance. Producers can purchase both yield and revenue-based insurance products which are underwritten on the basis of a producer's actual production history (APH). Revenue insurance programs protect against loss of revenue resulting from low prices, low yields, or a combination of both. Revenue insurance has enhanced traditional yield insurance by adding price as an insurable component.

In addition to price and revenue insurance, FCIC has made available other plans of insurance to provide protection for a variety of crops grown across the United States. For example, "area plans" of insurance offer protection based on a geographic area (most commonly, a county), and do not directly insure an individual farm. Often, the loss trigger is based on an index, such as a rainfall or vegetative index, which is established by a Government entity (for example, the National Oceanic and Atmospheric Administration or United States Geological Survey). One such plan is the pilot Rainfall and Vegetation Index plan, which insures against a decline in an index value covering Pasture, Rangeland, and Forage. These pilot programs meet the needs of livestock producers who purchase insurance for protection from losses of forage produced for grazing or harvested for hay. In 2021, there were over 39 thousand Rainfall Index policies earning premiums, covering over 202 million acres of pasture, rangeland and forage. In 2021, there was over $2.8 billion in liability for those producers who purchased livestock coverage and $11.4 billion in liability for those producers who purchased coverage for milk.

A crop insurance policy also contains coverage compensating farmers when they are prevented from planting their crops due to weather and other perils. When an insured farmer is unable to plant the planned crop within the planting time period because of excessive drought or moisture, the farmer may file a prevented planting claim, which pays the farmer a portion of the full coverage level. It is optional for the farmer to plant a second crop on the acreage. If the farmer does, the prevented planting claim on the first crop is reduced and the farmer's APH is recorded for that year. If the farmer does not plant a second crop, the farmer gets the full prevented planting claim, and the farmer's APH is held harmless for premium calculation purposes the following year. Buy-up coverage for prevented planting is limited to 5 percent.

RMA is continuously working to develop new products and to expand or improve existing products in order to cover more agricultural commodities. RMA issued the Pandemic Cover Crop Program, providing $5 per acre of additional premium subsidy for producers who maintained a cover cropping system and subsequently planted and insured a cash crop on the same ground. The program covered more than 12 million net acres for about $60 million. Additionally, RMA continued to allow relief to producers impacted by the pandemic and other disasters, including delaying interest accumulation on premium bills and promoting more remote interactions between policyholder's and their agents. Major program changes in 2021 included allowing haying, grazing, chopping of cover crops following prevented planting at any time without a reduction in prevented planting indemnity, as well as, numerous new improvements to livestock products. For more information and additional crop insurance program detailsplease reference RMA's website *www.rma.usda.gov*.

Farm Credit System Insurance Corporation (FCSIC)

Although not specifically disaster-related, FCSIC, an independent Government-controlled corporation, ensures the timely payment of principal and interest on FCS obligations on which the System banks are jointly and severally liable. If the Corporation does not have sufficient funds to ensure payment on insured obligations, System banks will be required to make payments under joint and several liability, as required by section 4.4(a)(2) of the Farm Credit Act (Public Law 92–181, as amended). The insurance provided by the Insurance Fund is limited to the resources in the Insurance Fund. System obligations are not guaranteed by the U.S. Government. On September 30, 2021, the assets in the Insurance Fund totaled $5.8 billion. As of September 30, 2021, the Insurance Fund as a percentage of adjusted insured debt was 2.06 percent. This was slightly above the statutory secure base amount of 2.00 percent. As of September 30, 2021, the principal amount of outstanding insured System obligations increased 6.5 percent compared with that of September 30, 2020, from $308.7 billion to $328.8 billion.

Insurance Against Security-Related Risks

Terrorism Risk Insurance

The Terrorism Risk Insurance Program (TRIP) was authorized by the Terrorism Risk Insurance Act of 2002 (Public Law 107-297) to ensure the continued availability of property and casualty insurance following the terrorist attacks of September 11, 2001. TRIP's initial three-year authorization established a system of shared public and private compensation for insured property and casualty losses arising from certified acts of foreign terrorism.

TRIP was originally intended to be temporary, but has been repeatedly extended. It is currently set to expire on December 31, 2027 and authorizes collections through 2029, after it was reauthorized by the Terrorism Risk Insurance Program Reauthorization Act of 2019 (title V of division I of Public Law 116–94). The prior reauthorization, the Terrorism Risk Insurance Program Reauthorization Act of 2015 (Public Law 114–1), made several program changes to reduce potential Federal liability. Over the five years after the 2015 extension, the loss threshold that triggers Federal assistance is increased by $20 million each year to $22 million in 2020, and the Government's share of losses above the deductible decreases from 85 to 80 percent over the same period. The 2015 extension also required Treasury to recoup 140 percent of all Federal payments made under the program up to a mandatory recoupment amount, which increased by $2 billion each year until 2019 when the threshold was set at $37.5 billion. Since January 1, 2020, the mandatory recoupment amount has been indexed to a running three-year average of the aggregate insurer deductible of 20 percent of direct-earned premiums.

The Budget baseline includes the estimated Federal cost of providing terrorism risk insurance, reflecting current law. Using market data synthesized through a proprietary model, the Budget projects annual outlays and recoupment for TRIP. While the Budget does not forecast any specific triggering events, the Budget includes estimates representing the weighted average of TRIP payments over a full range of possible scenarios, most of which include no notional terrorist attacks (and therefore no TRIP payments), and some of which include notional terrorist attacks of varying magnitudes. On this basis, the Budget projects net spending of $497 million over the 2023–2032 period.

Aviation War Risk Insurance

In December 2014, the Congress sunset the premium aviation war risk insurance program, thereby sending U.S. air carriers back to the commercial aviation insurance market for all of their war risk insurance coverage. The non-premium program is authorized through September 30, 2023. It provides aviation insurance coverage for aircraft used in connection with certain Government contract operations by a department or agency that agrees to indemnify the Secretary of Transportation for any losses covered by the insurance.

III. BUDGETARY EFFECTS OF THE TROUBLED ASSET RELIEF PROGRAM (TARP)

This section provides analysis consistent with sections 202 and 203 of the Emergency Economic Stabilization Act of 2008 (Public Law 110-343, "EESA"), including estimates of the cost to taxpayers and the budgetary effects of TARP transactions as reflected in the Budget. This section also explains the changes in TARP costs, and includes alternative estimates as prescribed under EESA. Under EESA, Treasury has purchased different types of financial instruments with varying terms and conditions.[2] The Budget reflects the costs of these instruments using the methodology as provided by section 123 of EESA.

The estimated costs of each transaction reflect the underlying structure of the instrument. TARP financial instruments have included direct loans, structured loans, equity, loan guarantees, and direct incentive payments. The costs of equity purchases, loans, guarantees, and loss sharing are the net present value of cash flows to and from the Government over the life of the instrument, per the Federal Credit Reform Act of 1990 (FCRA); as amended (title V of Public Law 93-344, 2 U.S.C. 661 et seq.), with an EESA-required adjustment to the discount rate for market risks. Costs for the incentive payments under TARP housing programs, other than loss sharing under the FHA Refinance program, involve financial instruments without any provision for future returns and are recorded on a cash basis.[3]

Tables 19–10 through 19–16 are available online. Table 19–10 summarizes the cumulative and anticipated activity under TARP, and the estimated lifetime budgetary cost reflected in the Budget, compared to estimates from the 2022 Budget. The direct impact of TARP on the deficit is projected to be $31.7 billion, up $0.1 billion from the $31.6 billion estimate in the 2022 Budget. The total programmatic cost represents the lifetime net present value cost of TARP obligations from the date of disbursement, which is now estimated to be $50.4 billion, a figure that excludes interest on reestimates.[4]

Table 19–11 shows the current value of TARP assets through the actual balances of TARP financing accounts as of the end of each fiscal year through 2021, and projected balances for each subsequent year through 2032.[5] Based on actual net balances in financing accounts at the end of 2009, the value of TARP assets totaled $129.9 billion. As of December 31, 2021, total TARP net asset value has decreased to $13 million. The overall balance of the financing accounts is estimated to continue falling as TARP investments continue to wind down.

Table 19-12 shows the estimated impact of TARP activity on the deficit, debt held by the public and gross Federal debt following the methodology required by EESA. Direct activity under TARP is expected to increase the 2022 deficit by $0.6 billion, the major components being:

- Outlays for TARP housing programs are estimated at $0.5 billion in 2022.
- Administrative expense outlays for TARP are estimated at $33 million in 2022.
- Outlays for the Special Inspector General for TARP are estimated at $20 million in 2022.
- TARP reestimates and interest on reestimates will increase the deficit by $8 million in 2022.
- Debt service is estimated at $70 million for 2022 and then expected to increase to $1.1 billion by 2032, largely due to outlays for TARP housing programs. Total debt service will continue over time after TARP winds down, due to the financing of past TARP costs.

Debt net of financial assets due to TARP is estimated to be $36 billion as of the end of 2022. This is $0.2 billion

[2] For a more detailed analysis of the assets purchased through TARP and its budgetary effects, please see the "Budgetary Effect of the Troubled Asset Relief Program" chapter included in the *Analytical Perspectives* volume of prior budgets.

[3] Section 123 of EESA provides Treasury the authority to record TARP equity purchases pursuant to FCRA, with required adjustments to the discount rate for market risks. The Hardest Hit Fund (HHF) and Making Home Affordable (MHA) program involve the purchase of financial instruments that have no provision for repayment or other return on investment, and do not constitute direct loans or guarantees under FCRA. Therefore these purchases are recorded on a cash basis. Administrative expenses for TARP are recorded under the Office of Financial Stability and the Special Inspector General for TARP on a cash basis, consistent with other Federal administrative costs, but are recorded separately from TARP program costs.

[4] With the exception of MHA and HHF, all the other TARP investments are reflected on a present value basis pursuant to FCRA and EESA.

[5] Reestimates for TARP are calculated using actual data through September 30, 2021, and updated projections of future activity. Thus, the full impacts of TARP reestimates are reflected in the 2021 financing account balances.

lower than the projected debt held net of financial assets for 2022 that was reflected in the 2022 Budget.

Table 19-13 reflects the estimated effects of TARP transactions on the deficit and debt, as calculated on a cash basis. Under cash basis reporting, the 2022 deficit would be $14 million lower than the $0.6 billion estimate now reflected in the Budget. However, the impact of TARP on the Federal debt, and on debt held net of financial assets, is the same on a cash basis as under FCRA and therefore these data are not repeated in Table 19-13.

Table 19-14 shows detailed information on upward and downward reestimates to program costs. The current reestimate of $8.8 million reflects an increase in estimated TARP costs from the 2022 Budget. This increase was due in large part to interest effects and continued progress winding down TARP investments over the past year.

The 2023 Budget, as shown in Table 19–15, reflects a total TARP deficit impact of $31.7 billion. This is an increase of $0.1 billion from the 2022 Budget projection of $31.6 billion. The estimated 2022 TARP deficit impact reflected in Table 15-15 differs from the programmatic cost of $50.4 billion in the Budget because the deficit impact includes $18.8 billion in cumulative downward adjustments for interest on subsidy reestimates. See footnote 2 in Table 15-15.

Table 19-16 compares the OMB estimate for TARP's deficit impact to the deficit impact estimated by CBO in its "Report on the Troubled Asset Relief Program—July 2021."[6]

CBO estimates the total cost of TARP at $30.7 billion, based on estimated lifetime TARP disbursements of $444 billion. The Budget reflects a total deficit cost of $31.7 billion, based estimated disbursements of $449 billion. CBO and OMB cost estimates for TARP have generally converged over time as TARP equity programs have wound down.

[6] Available at: https://www.cbo.gov/publication/57256.

Chart 19-1. Face Value of Federal Credit Outstanding

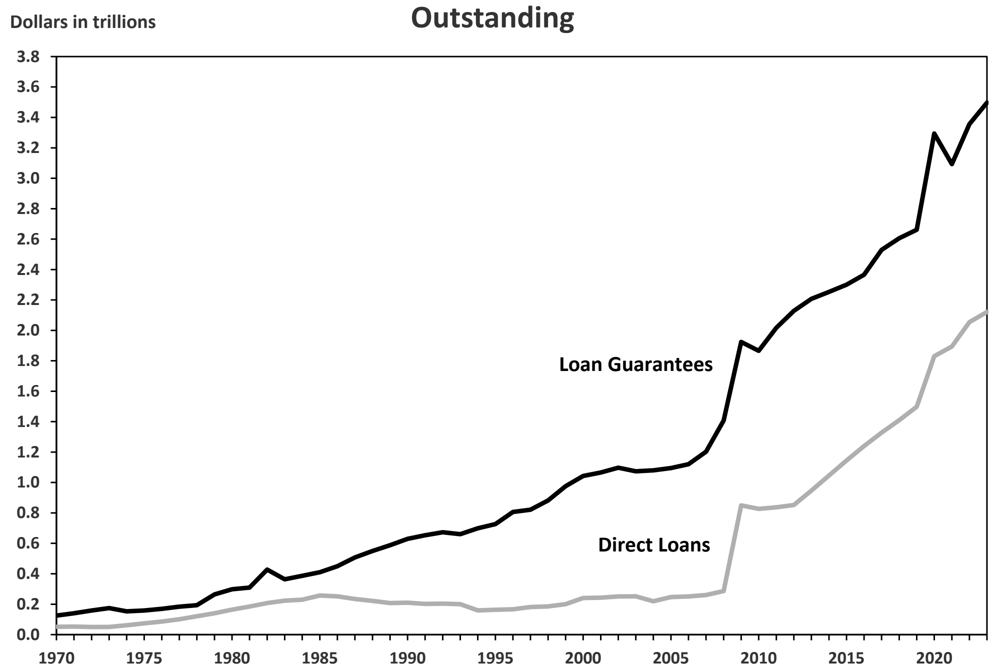


Table 19–1. ESTIMATED FUTURE COST OF OUTSTANDING FEDERAL CREDIT PROGRAMS [1]
(In billions of dollars)

Program	Outstanding 2020	Estimated Future Costs of 2020 Outstanding [2]	Outstanding 2021	Estimated Future Costs of 2021 Outstanding [2]
Direct Loans: [2]				
Federal Student Loans	1,262	247	1,329	309
Disaster Assistance	188	6	258	13
Farm Service Agency, Rural Development, Rural Housing	62	4	63	3
Treasury Economic Stabilization Program [3]	104	–*	28	*
Rural Utilities Service and Rural Telephone Bank	50	1	52	1
Education Temporary Student Loan Purchase Authority	48	11	46	13
Housing and Urban Development	43	17	47	18
Transportation Infrastructure Finance and Innovation Act Loans	15	*	14	*
Advanced Technology Vehicle Manufacturing, Title 17 Loans	16	1	17	1
Export-Import Bank	13	2	14	2
International Assistance	9	5	10	4
Other direct loan programs [3]	21	6	17	5
Total direct loans	1,830	300	1,894	369
Guaranteed Loans: [2]				
FHA Mutual Mortgage Insurance Fund	1,311	–9	1,252	–18
Department of Veterans Affairs (VA) Mortgages	817	7	863	11
Small Business Administration (SBA) Business Loan Guarantees [4]	646	513	460	228
FHA General and Special Risk Insurance Fund	168	3	174	*
Farm Service Agency, Rural Development, Rural Housing	156	1	163	–1
Federal Student Loan Guarantees	128	1	118	7
Export-Import Bank	24	1	19	1
International Assistance	30	2	32	2
Other guaranteed loan programs [3]	13	1	12	1
Total guaranteed loans [4]	3,294	520	3,093	231
Total Federal credit	**5,125**	**820**	**4,987**	**599**

* $500 million or less.

[1] Future costs represent balance sheet estimates of allowance for subsidy cost, liabilities for loan guarantees, and estimated uncollectible principal and interest.

[2] Excludes loans and guarantees by deposit insurance agencies and programs not included under credit reform, such as Tennessee Valley Authority loan guarantees. Defaulted guaranteed loans that result in loans receivable are included in direct loan amounts.

[3] As authorized by the statute, table includes TARP and SBLF equity purchases and loans made to Federal Reserve 13(3) facilities authorized under the CARES Act in 2020. Future costs for TARP are calculated using the discount rate required by the Federal Credit Reform Act adjusted for market risks, as directed in legislation.

[4] To avoid double-counting, outstandings for GNMA and SBA secondary market guarantees and TARP FHA Letter of Credit program are excluded from the totals.

Table 19–2. DIRECT LOAN SUBSIDY RATES, BUDGET AUTHORITY, AND LOAN LEVELS, 2021–2023

(Dollar amounts in millions)

Agency and Program	2021 Actual			2022 CR			2023 Proposed		
	Subsidy rate [1]	Subsidy budget authority	Loan levels	Subsidy rate [1]	Subsidy budget authority	Loan levels	Subsidy rate [1]	Subsidy budget authority	Loan levels
Agriculture:									
Agricultural Credit Insurance Fund Program Account	–3.16	–100	3,157	–5.43	–260	4,791	–3.14	–161	5,144
Farm Storage Facility Loans Program Account	–0.91	–4	453	–1.77	–10	569	–1.50	–9	569
Rural Electrification and Telecommunications Loans Program Account	–4.12	–217	5,265	–6.16	–350	5,669	–3.42	–217	6,364
Distance Learning, Telemedicine, and Broadband Program	24.63	18	74	22.43	178	794	11.75	370	3,150
Rural Water and Waste Disposal Program Account	–1.53	–21	1,400	–5.16	–72	1,400	–0.27	–4	1,540
Rural Community Facilities Program Account	–3.67	–54	1,468	–5.81	–98	1,684	–7.46	–122	1,648
Multifamily Housing Revitalization Program Account	23.88	21	89	18.57	16	91	....	....	....
Rural Housing Insurance Fund Program Account	6.01	63	1,057	2.17	29	1,329	9.32	195	2,093
Rural Microentrepreneur Assistance Program	3.14	*	4	–4.10	–1	25	5.34	1	10
Intermediary Relending Program Fund Account	15.56	3	14	8.07	2	19	17.54	3	19
Rural Economic Development Loans Program Account	9.55	2	22	4.68	3	51	9.87	7	75
Commerce:									
Fisheries Finance Program Account	–9.01	–9	87	–11.72	–29	244	–9.33	–19	201
Defense:									
Defense Production Act Program Account	–2.12	–13	590	[2] 0.00	....	906	....	....	....
Education:									
College Housing and Academic Facilities Loans Program Account	7.67	23	300	7.35	18	241	2.68	8	270
TEACH Grant Program Account	31.72	27	86	42.57	35	82	44.50	39	88
Federal Direct Student Loan Program Account	0.34	413	122,085	4.92	6,044	122,937	10.18	12,733	125,085
Energy:									
Title 17 Innovative Technology Loan Guarantee Program	....	....	....	[2] 2.67	161	6,025	[2] 0.66	30	4,510
Advanced Technology Vehicles Manufacturing Loan Program Account	....	....	....	[2] 4.83	236	4,890	[2] 15.21	1,951	12,829
Homeland Security:									
Disaster Assistance Direct Loan Program Account	80.39	122	151	77.74	30	38	78.94	42	54
Housing and Urban Development:									
FHA-General and Special Risk Program Account	....	....	....	–9.23	–185	2,000	–8.13	–122	1,496
Green and Resilient Retrofit Program for Multifamily Housing	....	....	....	....	....	....	[2] 35.96	68	188
State:									
Repatriation Loans Program Account	55.45	2	3	46.58	1	3	48.39	1	3
Transportation:									
Railroad Rehabilitation and Improvement Program	–1.61	–15	908	[2] –1.71	-10	600	[2] –0.79	–5	600
TIFIA Highway Trust Fund Program Account	–0.71	–63	8,959	[2] –1.21	-72	10,987	[2] 0.17	19	10,987
Maritime Guaranteed Loan (Title XI) Program Account	....	....	....	[2] –0.27	*	53	[2] 3.73	9	239
Treasury:									
Community Development Financial Institutions Fund Program Account	–4.62	–5	100	0.60	3	525	[2] 0.43	2	525
Economic Stabilization Program Account	2.21	9	403	....	....	....	....	....	....
Veterans Affairs:									
Veterans Housing Benefit Program Fund	–22.54	–2	5	–23.49	–46	196	–21.01	–44	212
Native American Veteran Housing Loan Program Account	–18.59	–3	13	–14.88	–2	13	–15.66	–2	12
Environmental Protection Agency:									
Water Infrastructure Finance and Innovation Program Account	0.83	51	5,459	[2] 1.07	59	5,550	[2] 1.01	72	7,143

Table 19–2. DIRECT LOAN SUBSIDY RATES, BUDGET AUTHORITY, AND LOAN LEVELS, 2021–2023—Continued

(Dollar amounts in millions)

Agency and Program	2021 Actual			2022 CR			2023 Proposed		
	Subsidy rate [1]	Subsidy budget authority	Loan levels	Subsidy rate [1]	Subsidy budget authority	Loan levels	Subsidy rate [1]	Subsidy budget authority	Loan levels
International Assistance Programs:									
Foreign Military Financing Loan Program Account	....	....	....	0.00	....	4,000	0.00	....	4,000
Clean Technology Fund Program Account	....	....	....	....	....	....	[2] 16.15	520	3,220
United States International Development Finance Corporation	–7.42	–237	3,194	–4.51	–138	3,067	–5.66	–177	3,125
Contributions to IMF Facilities and Trust Funds	....	....	....	....	....	....	0.08	11	14,000
Small Business Administration:									
Disaster Loans Program Account	8.95	7,180	80,219	11.57	15,208	131,480	12.91	191	1,479
Business Loans Program Account	8.99	4	49	6.28	7	110	8.18	9	110
Export-Import Bank of the United States:									
Export-Import Bank Loans Program Account	–4.94	–3	70	....	....	....	....	....	....
Total	**N/A**	**7,192**	**235,684**	**N/A**	**20,757**	**310,369**	**N/A**	**15,399**	**210,988**

N/A = Not applicable

* $500,000 or less

[1] Additional information on credit subsidy rates is contained in the Federal Credit Supplement.

[2] Rate reflects notional estimate. Estimates will be determined at the time of execution and will reflect the terms of the contracts and other characteristics.

Table 19–3. LOAN GUARANTEE SUBSIDY RATES, BUDGET AUTHORITY, AND LOAN LEVELS, 2021–2023 [1]
(In millions of dollars)

Agency and Program	2021 Actual			2022 CR			2023 Proposed		
	Subsidy rate [1]	Subsidy budget authority	Loan levels	Subsidy rate [1]	Subsidy budget authority	Loan levels	Subsidy rate [1]	Subsidy budget authority	Loan levels
Agriculture									
Food Supply Chain and Agriculture Pandemic Response Program Account	....	....	....	7.30	60	828	6.91	28	400
Agricultural Credit Insurance Fund Program Account	0.06	2	3,514	0.18	11	6,718	–0.02	–1	6,400
Commodity Credit Corporation Export Loans Program Account	–0.24	–5	2,130	–0.45	–24	5,500	–0.40	–22	5,500
Rural Water and Waste Disposal Program Account	0.12	*	35	0.09	*	35	–0.02	–*	50
Rural Community Facilities Program Account	–0.36	–1	242	–0.29	–*	153	–0.66	–1	155
Rural Housing Insurance Fund Program Account	–0.74	–170	22,956	–1.43	–345	24,230	–0.79	–240	30,400
Rural Business Program Account	1.42	36	2,543	2.01	10	521	2.14	38	1,758
Rural Energy for America Program	1.96	12	635	0.84	5	635	0.09	1	635
Biorefinery Assistance Program Account	32.96	35	105	32.96	47	144	32.96	49	150
Energy									
Tribal Energy Loan Guarantee Program	....	....	....	0.56	4	735	0.31	1	465
Health and Human Services									
Health Resources and Services	2.78	1	27	2.93	2	72	2.89	2	72
Housing and Urban Development									
Indian Housing Loan Guarantee Fund Program Account	0.30	3	863	0.33	3	823	0.50	4	840
Native Hawaiian Housing Loan Guarantee Fund Program Account	–0.15	–*	19	–0.19	–*	19	–0.35	–*	20
Native American Programs	6.39	1	19	5.55	1	12	5.63	1	12
Community Development Loan Guarantees Program Account	0.00	....	81	0.00	....	200	0.00	....	300
FHA-Mutual Mortgage Insurance Program Account	–3.30	–12,084	365,794	–2.68	–9,376	349,900	–3.12	–7,955	254,839
FHA-General and Special Risk Program Account	–2.40	–899	37,418	–2.78	–902	32,429	–2.17	–581	26,749
Interior									
Indian Guaranteed Loan Program Account	12.33	11	83	9.86	10	103	7.46	10	103
Veterans Affairs									
Veterans Housing Benefit Program Fund	–0.50	–2,114	422,798	–0.08	–236	305,293	0.08	246	314,709
International Assistance Programs									
Ukraine Loan Program Account	....	....	....	28.50	285	1,000	....	....	....
Foreign Military Financing Loan Program Account	....	....	....	0.00	....	4,000	0.00	....	4,000
Loan Guarantees to Israel Program Account	....	....	....	....	....	500	....	....	500
Development Credit Authority Program Account	–0.17	–2	1,418	....	....	....	....	....	....
U.S. International Development Finance Corporation	–1.00	–4	1,418	[2] –3.7	-34	933	[2] –3.9	–50	1,300
Small Business Administration									
Business Loans Program Account	86.52	283,624	318,831	0.00	....	49,000	0.00	....	56,500
Export-Import Bank of the United States									
Export-Import Bank Loans Program Account	–1.63	–92	5,661	–3.68	–352	9,580	–3.89	–604	15,510
Total	**N/A**	**268,354**	**1,185,597**	**N/A**	**–10,831**	**793,363**	**N/A**	**–9,074**	**721,367**
ADDENDUM: SECONDARY GUARANTEED LOAN COMMITMENT LIMITATIONS									
Government National Mortgage Association:									
Guarantees of Mortgage-backed Securities	–0.31	–2,893	933,213	–0.38	–2,699	710,206	–0.34	–2,090	614,659
Small Business Administration:									
Secondary Market Guarantee Program	88.96	....	8,931	0.00	....	13,000	0.00	....	15,000
Total, secondary guarantee loan commitments	**N/A**	**–2,893**	**942,194**	**N/A**	**–2,699**	**723,206**	**N/A**	**–2,090**	**629,659**

N/A = Not applicable
* $500,000 or less
[1] Additional information on credit subsidy rates is contained in the Federal Credit Supplement.
[2] Rate reflects notional estimate. Estimates will be determined at the time of execution and will reflect the terms of the contracts and other characteristics.

Table 19–4. SUMMARY OF FEDERAL DIRECT LOANS AND LOAN GUARANTEES [1]
(In billions of dollars)

	Actual								Estimate	
	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Direct Loans:										
Obligations	174.0	181.3	175.6	180.0	169.7	173.6	558.9	235.7	310.4	211.0
Disbursements	155.4	161.4	158.5	164.4	151.9	150.8	418.4	198.8	253.7	189.2
Budget authority:										
New subsidy budget authority [2,3]	–22.4	4.9	–9.0	–1.0	–2.4	–1.2	103.4	83.3	24.7	15.4
Reestimated subsidy budget authority [2,4]	–0.8	10.1	8.0	32.5	–10.3	29.9	67.1	21.7	9.0	....
Total subsidy budget authority	**–23.2**	**15.1**	**–1.1**	**31.5**	**–12.8**	**28.7**	**170.5**	**105.0**	**33.7**	**15.4**
Loan guarantees:										
Commitments [5]	350.8	478.3	537.6	530.2	461.7	491.1	1,305.5	1,185.6	793.4	721.4
Lender disbursements [5]	335.6	461.6	517.6	520.6	465.1	482.7	1,287.9	1,176.9	794.3	720.7
Budget authority:										
New subsidy budget authority [2, 3]	–13.7	–11.9	–7.5	–8.8	–5.4	–9.6	531.1	278.6	–9.3	–9.1
Reestimated subsidy budget authority [2, 4]	1.2	–1.1	–13.6	16.8	9.4	–20.2	–15.9	–17.9	–12.8	....
Total subsidy budget authority	**–12.5**	**–13.1**	**–21.1**	**8.0**	**4.0**	**–29.8**	**515.2**	**260.7**	**–22.2**	**–9.1**

[1] As authorized by statute, this table includes TARP and SBLF equity purchases, International Monetary Fund (IMF) transactions resulting from the 2009 Supplemental Appropriations Act, and activity with Federal Reserve 13(3) lending facilities authorized by the 2020 CARES Act.
[2] Credit subsidy costs for TARP and IMF transactions are calculated using the discount rate required by the Federal Credit Reform Act adjusted for market risks, as directed in legislation.
[3] Includes budget authority for executing loan modifications.
[4] Includes interest on reestimate.
[5] To avoid double-counting, the face value of GNMA and SBA secondary market guarantees are excluded from the totals.

20. FEDERAL DRUG CONTROL FUNDING

The 2023 Budget supports $42.5 billion for National Drug Control Program agencies to implement the Administration's drug control policies. The funding requested by each Department and agency in the National Drug Control Program is included in the table below.

Table 20–1. DRUG CONTROL FUNDING FY 2021–FY 2023
(Dollars in millions)

Department/Agency	FY 2021 Final	FY 2022 CR	FY 2023 President's Budget
AmeriCorps	**40.900**	**40.900**	**40.900**
Department of Agriculture:			
U.S. Forest Service	13.000	8.600	9.900
Office of Rural Development	11.400	11.400	11.400
Total USDA	**24.400**	**20.000**	**21.300**
Court Services and Offender Supervision Agency for D.C.	**60.264**	**62.476**	**69.298**
Department of Defense:			
Defense Security Cooperation Agency	54.897	30.952	61.567
Drug Interdiction and Counterdrug Activities (incl. OPTEMPO)[1]	992.701	1,000.790	926.736
Defense Health Program	87.190	71.738	74.371
Total DOD	**1,134.788**	**1,103.480**	**1,062.674**
Department of Education:			
Office of Elementary and Secondary Education	**56.032**	**59.718**	**48.644**
Federal Judiciary[1]:	**1,153.817**	**1,208.609**	**1,286.731**
Department of Health and Human Services:			
Administration for Children and Families	20.000	20.000	67.000
Centers for Disease Control and Prevention	487.079	488.579	732.869
Centers for Medicare and Medicaid Services	10,630.000	11,640.000	11,220.000
Food and Drug Administration	64.500	64.500	100.500
Health Resources and Services Administration	796.900	795.000	922.000
Indian Health Service	135.178	135.514	140.514
National Institute on Alcohol Effects and Alcohol-Associated Disorders	65.116	65.319	66.708
National Institute on Drugs and Addiction	1,475.867	1,479.660	1,843.326
Substance use And Mental Health Services Administration[2]	4,163.060	4,174.040	5,996.430
Total HHS	**17,837.700**	**18,862.612**	**21,089.347**
Department of Homeland Security:			
Customs and Border Protection	3,040.308	3,020.076	3,313.477
Federal Emergency Management Agency	13.500	13.162	13.162
Federal Law Enforcement Training Center	58.050	58.050	55.940
Immigration and Customs Enforcement	627.194	627.194	685.053
Science and Technology Directorate	6.000	6.000	4.000
U.S. Coast Guard	2,076.060	2,076.060	2,085.310
Total DHS	**5,821.112**	**5,800.542**	**6,156.942**
Department of Housing and Urban Development:	**627.769**	**627.769**	**756.217**
Department of the Interior:			
Bureau of Indian Affairs	14.919	14.919	14.919
Bureau of Land Management	5.100	5.100	5.100
National Park Service	3.392	3.392	3.392
Total DOI	**23.411**	**23.411**	**23.411**
Department of Justice:			

Table 20–1. DRUG CONTROL FUNDING FY 2021–FY 2023—Continued
(Dollars in millions)

Department/Agency	FY 2021 Final	FY 2022 CR	FY 2023 President's Budget
Assets Forfeiture Program	206.336	240.552	254.689
Bureau of Alcohol, Tobacco, Firearms, and Explosives	39.188	39.188	46.150
Bureau of Prisons	3,882.809	3,882.809	3,810.586
Criminal Division	45.081	45.081	46.861
Drug Enforcement Administration	2,769.132	2,769.132	3,104.603
Federal Bureau of Investigation	147.718	147.718	161.114
Organized Crime and Drug Enforcement Task Forces Program	550.458	550.458	550.458
Office of Justice Programs	587.092	587.092	633.854
U.S. Attorneys	105.984	105.984	105.984
United States Marshals Service	1,201.057	1,006.276	1,046.593
Total DOJ	**9,534.855**	**9,374.290**	**9,760.892**
Department of Labor:			
Employment and Training Administration	6.000	6.000	6.000
Office of Inspector General	1.800	1.800	1.800
Office of Workers' Compensation Programs	7.769	7.769	7.769
Total DOL	**15.569**	**15.569**	**15.569**
Office of National Drug Control Policy:			
Operations	18.400	18.400	22.340
High Intensity Drug Trafficking Areas Program	290.000	290.000	293.500
Other Federal Drug Control Programs	128.182	128.182	134.670
Total ONDCP	**436.582**	**436.582**	**450.510**
Department of State:			
Bureau of International Narcotics and Law Enforcement Affairs[3]	420.276	406.812	374.679
United States Agency for International Development[3]	53.533	55.230	55.230
Total DOS	**473.809**	**462.042**	**429.909**
Department of the Transportation:			
Federal Aviation Administration	22.680	22.680	24.375
National Highway Traffic Safety Administration	12.880	11.700	11.700
Total Transportation	**35.560**	**34.380**	**36.075**
Department of the Treasury:			
Financial Crimes Enforcement Network	1.680	2.120	2.200
Internal Revenue Service	68.974	60.257	60.257
Office of Foreign Assets Control	0.681	0.681	0.911
Total Treasury	**71.335**	**63.058**	**63.368**
Department of Veterans Affairs:			
Veterans Health Administration	**999.067**	**1,039.132**	**1,080.633**
US Postal Inspection Service	**76.434**	**76.434**	**76.434**
Total Federal Drug Budget	$38,423.404	$39,311.004	$42,468.854

[1] FY 2022 funding levels for the Federal Judicary and the Drug Interdiction and Counterdrug Activities (incl. OPTEMPO) lines are based on enacted FY 2022 appropriations.

[2] Includes budget authority and funding through evaluation set-aside authorized by Section 241 of the Public Health Service (PHS) Act.

[3] The FY 2022 level is an estimate based on FY 2021 levels that does not reflect decisions on funding priorities. Allocations are not yet available for the enacted FY 2022 appropriation.

21. FEDERAL BUDGET EXPOSURE TO CLIMATE RISK

The climate crisis poses a serious threat to the United States economy and human welfare with a narrowing timeframe to invest in opportunities to avoid the most catastrophic impacts. Changes in the average range of climate conditions and increasingly frequent and intense extreme weather events will continue damaging the physical integrity of our infrastructure, the livable and social conditions of our communities, the health of our people and natural ecosystems, and the productivity of major economic sectors. All of these changes will increasingly and severely impact communities, businesses, and governments.

The impacts of climate change on businesses and communities are broad: escalating costs and lost revenue as a direct or indirect result of a changing climate is significant and varied. Across the United States, estimated damages from a subset of storms, floods, wildfires, and other extreme climate-related weather events have already grown to about $120 billion a year over the past five years.[1] The most severe harms from climate change fall disproportionately upon socially vulnerable populations, and racial and ethnic minority communities are particularly vulnerable to climate impacts.[2] The Federal Government plays a critical role in helping American families, businesses, and communities recover from the impacts of extreme weather events – often acting as an insurer of last resort. Communities and businesses also face impacts from other slower-moving climate hazards, such as sea-level rise. The Federal Government must ensure that Americans have access to housing and healthcare that is safe and affordable as well as access to critical transportation and communication infrastructure. Climate change increases the need for Federal support in these areas.

As broad economic damages from climate change grow, so does the impact of the climate crisis on the Federal budget. The Federal Government's budget is directly and substantially at risk from expected lost revenues and increasing expenditures due to climate change damages in coming decades, such as increasing costs from physical damages to our nation's infrastructure and healthcare expenditures, the instability of certain subsidized insurance programs, and accelerating instability that threatens global security. Although the presence of risk to the U.S. economy and to the Federal budget across a broad set of exposures is clear, significant work is needed to quantify the total potential risk to American taxpayers. However, the overall welfare risk to the economy, from impacts on putlic health to business, will be larger than the impact on our fiscal balance sheet.

Identifiable Costs

The Office of Management and Budget (OMB) assessments found that the Federal Government could spend between an additional $25 billion to $128 billion annually due to just six climate-related financial risks included in this report—disaster relief, flood insurance, crop insurance, healthcare expenditures, wildland fire suppression spending, and flood risk at Federal facilities – and considering only a limited scope of total potential damages to those programs. Table 21-1 summarizes quantified annual estimated expenditures of these assessed programs (in 2020$) in projected ranges to mid- and late-century. Many other risks to the Federal budget are apparent but have not yet been quantified, such as the risks to national security, changes to ecosystems, and infrastructure expenditures which can each have wide-ranging and diffuse effects to the budget.

Additionally, the OMB long-range budget projections found that Federal revenues could be 7.1 percent lower annually by 2100 (about $2 trillion in today's terms) under a scenario in which climate change reduced U.S. GDP by 10.0 percent compared to a no-further-warming counterfactual, as projected by the Network for Greening the Financial System as the tail risk under current policies.[3]

The following summary of select programmatic assessments is intended to provide illustrative examples of how climate change could impact future Federal expenditures. The cost assessments herein are not an estimate of the total Federal budget exposure to climate risk, but rather demonstrative ranges of potential individual programmatic costs based on climate scenarios. Future projections like these include a high degree of uncertainty caused by multiple factors, including the pathway of greenhouse gas (GHG) emissions rates, advances in adaptation and resilience technologies, unforeseen changes in relevant policy, and others. The summary of currently identifiable costs is likely underestimated, due to unmodeled impacts like those listed in the above paragraph. Thus, unmitigated climate change is expected to leave a more significant imprint on the Federal budget over the course of this century, though this summary is a useful foundational step in assessing the overall impact.

[1] National Oceanic and Atmospheric Administration, National Centers for Environmental Information. (2021, Nov. 17). U.S. Billion- Dollar Weather and Climate Disasters. *https://www.ncdc.noaa.gov/billions/*

[2] EPA. 2021. Climate Change and Social Vulnerability in the United States: A Focus on Six Impacts. U.S. Environmental Protection Agency, EPA 430-R-21-003.

[3] NGFS. (2021). NGFS Climate Scenarios for central banks and supervisors. *https://www.ngfs.net/sites/default/files/ngfs_climate_scenario_technical_documentation_final.pdf*.

Table 21–1. SUMMARY OF QUANTIFIED FEDERAL CLIMATE RISK EXPOSURE PROJECTED CHANGE IN ANNUAL EXPENDITURES OF ASSESSED PROGRAMS[1]

(Billions of 2020 dollars)

Current Expenditures	Mid-Century[5]			Late-Century		
	Mean	Lower	Higher	Mean	Lower	Higher
Crop Insurance[2]	NA	NA	NA	$1.2	$0.3	$2.1
Coastal Disasters	$14.6	$4.4	$32.5	$49.6	$21.9	$94.3
Healthcare	$1.0	$0.2	$1.8	$11.3	$.8	$21.9
Wildland fire Suppression[3]	$1.7	$0.8	$2.3	$3.7	$1.6	$9.6
TOTAL[4]	$17.3	$5.4	$36.6	$65.8	$24.6	$127.9

[1] "Lower" estimates are largely based on assessments assuming Representative Concentration Pathway (RCP) 4.5, which the NCA4 framed in 2018 as a "lower" scenario with less warming—generally associated with lower population growth, more technological innovation, and lower carbon intensity. "Higher" estimates are largely based on assessments assuming RCP8.5, which the NCA frames as a "higher" scenario—generally associated with higher population growth, less technological innovation, and higher carbon intensity.

[2] The crop insurance analysis was only conducted for late century.

[3] The median of all wildland fire suppression simulations is used in the "Mean" column, so outliers in the "Higher" scenario are not overemphasized in the results.

[4] Several Federal financial risks are not included in this table due to the nascent ability to quantify future expenditures in this field. Some other future expenditures, such as flood insurance are not expected to increase because rate-setting policies yield actuarially fair premiums with the ability to adjust as climate conditions change.

[5] The science of estimating Representative Concentration Pathways (e.g. RCP4.5 and RCP8.5) has evolved since NCA4 was released in 2018. RCP8.5, for instance has been viewed by some researchers as an extreme scenario and considered an under estimate by other researchers. Specific climate scenarios, and time periods can vary across this paper's assessments due to differences in available studies, datasets, and models. As a result, findings are comparable across risk assessments at an order-of-magnitude scale.

Crop Insurance

The Fourth National Climate Assessment[4] (NCA4) found that climate change is anticipated to shift agricultural production regions. Average crop yields for most major commodities are projected to decline, not only from climate-change induced drought intensification but also increasingly frequent natural disasters such as flooding. Particularly, crops which are planted in the spring—such as corn, soybeans, and sorghum—are more likely to experience declines in productivity due to excessive heat and dryness during summer in the Midwest.[5] However, some crops, such as winter wheat and barley, may experience increased yields from higher temperatures in the spring since these crops are planted in the fall and harvested in early summer. While there could be some benefits to climate change for production of a few individual crop types, models project a net negative impact on overall crop production.[6] Previous research has estimated that county-level temperature trends caused 19% of the national-level Federal crop insurance gross indemnities from 1991 to 2017.[7]

The Federal Crop Insurance Program (FCIP) provides subsidized insurance for losses of crops caused by natural events.[8] FCIP subsidizes the crop insurance premiums and the administrative expenses for private sector implementation, with premium subsidies being the majority of the Federal costs of the program.[9] In 2021, farmers paid 37% of the total crop insurance premium, with the remaining 63% being subsidized by the Federal Government. Over 100 agricultural commodities had crop insurance policies available and the liability for the program totaled $136.6 billion with premium subsidies totaling $8.6 billion in 2021. While a wide variety of crops are covered by crop insurance, 60% of the liability is for corn, soybeans, and wheat.[10]

The U.S. Department of Agriculture (USDA)—Economic Research Service (ERS) developed projected costs of the FCIP with a multi-stage model.[11] Given that the majority of crop insurance liability is for corn, soybeans, and wheat, the researchers focused on the three, which are also the most widely grown crops in the United States. The researchers established historical relationships between crop yield (crop production per acre) and weather variables. The models fitted to this historical data were then used to project yields out to the end of the century,

[4] USGCRP, 2018: Impacts, Risks, and Adaptation in the United States: Fourth National Climate Assessment, Volume II [Reidmiller, D.R., C.W. Avery, D.R. Easterling, K.E. Kunkel, K.L.M. Lewis, T.K. Maycock, and B.C. Stewart (eds.)]. U.S. Global Change Research Program, Washington, DC, USA, 1515 pp. *https://doi.org*.

[5] Gowda, P., J.L. Steiner, C. Olson, M. Boggess, T. Farrigan, and M.A. Grusak. (2018). Agriculture and Rural Communities. In Impacts, Risks, and Adaptation in the United States: Fourth National Climate Assessment, Volume II [Reidmiller, D.R., C.W. Avery, D.R. Easterling, K.E. Kunkel, K.L.M. Lewis, T.K. Maycock, and B.C. Stewart (eds.)]. U.S. Global Change Research Program, Washington, DC, USA, pp. 391–437. *https://doi.org/10.7930/NCA4.2018.CH10.*

[6] Ibid.

[7] Diffenbaugh, N. S., Davenport, F. V., & Burke, M. (2021). Historical warming has increased US crop insurance losses. Environmental Research Letters, 16(8), 084025.

[8] Federal Crop Insurance Act, 7 U.S.C. §§ 1501 et seq.

[9] 7 U.S.C. § 1508.

[10] Risk Management Agency, U.S. Department of Agriculture. (2021). Summary of Business. *https://www.rma.usda.gov/SummaryOfBusiness*

[11] Crane-Droesch, B. A., Marshall, E., Rosch, S., Riddle, A., Cooper, J., & Wallander, S. (2019). Climate change and agricultural risk management into the 21st century. Economic Research Report-Economic Research Service, USDA, (266). *https://www.ers.usda.gov/publications/pub-details/?pubid=93546*

using information relating to GHG emissions from two different warming scenarios: a higher emissions scenario and a moderate emissions scenario.[12] For the time period examined, the researchers compared the total expected insurance premiums in 2080 under each scenario to a baseline climate (1981-2013) scenario using a forty-year period in the climate model output (2060-2099) to capture to expect yield risk. The projected yields are then entered into an economic model were that simulates the producers' crop choice, planted acres, and crop prices under the various yields produced by the different climate scenarios. The resulting crop price and yield distributions from the economic model are then used to project crop insurance premiums and subsidies. Researchers' calculations assume the most popular form of crop insurance for corn, soybeans, and wheat, called Revenue Protection (RP), for all insured acreage in the projections. RP provides farmers with a guaranteed percent of their anticipated revenue.[13]

Federal expenditures on crop insurance premium subsidies are expected to increase 3.5 to 22 percent due to climate change-induced crop losses through the late century.[14] USDA ERS found that under the moderate emissions scenario, the subsidies for crop insurance premiums would be about 3.5 percent higher compared to a climate similar to that of the recent past—an increase of roughly $330 million per year in 2020 dollars by the late century. Under the higher emissions scenario, the projected increase in crop insurance premium subsidies is 22 percent—an approximate increase of $2.1 billion per year (2020$) by the late century.

The USDA is taking a number of actions to address the rising costs associated with climate change.[15] Most notably, USDA is advancing a Partnership for Climate-Smart Commodities initiative that is providing voluntary incentives farmers to deploy practices that sequester carbon and reduce GHGs from their operations, while developing new markets for agricultural commodities produced with climate smart practices.[16] Under this initiative, USDA has explicitly identified a suite of farming practices—such as the utilization of cover crops, low or no tillage, agroforestry, and the like— that are eligible and is applying measurement, monitoring and verification techniques to confirm the climate benefits associated with these practices.[17] Also USDA is supporting cover crops by explicitly identifying it as a good farming practice and ensuring termination guidelines for cover cropping are up to date, reflect best available science, and are flexible for new regions and practices to ensure that farmers are not inadvertently discouraged from cover cropping.[18] Lastly, USDA has modified existing programs to support climate-smart practices.[19] By better integrating climate-smart practices, such as cover cropping, into crop insurance, farmers should be able to increase soil health and potentially help mitigate climate change by sequestering GHGs.[20] The Administration looks forward to working with the Congress to address climate change through climate-smart agriculture and provide a competitive advantage for American producers of climate-smart commodities, including small and historically underserved producers and early adopters, and through voluntary incentives to reduce climate risk.

Coastal Disaster Response

According to the National Oceanic and Atmospheric Administration (NOAA), 40 percent of Americans live in counties on the coast.[21] Data from the Congressional Budget Office (CBO) shows that, from 2005-2016, the vast majority of Federal funds dedicated to federally-declared hurricanes and inland storms were spent on strong Atlantic hurricanes that hit major metropolitan areas.[22] Three disaster declarations alone[23] comprised over 80 percent of these Federal funds.[24] Further, according to NOAA's Billion Dollar Weather and Climate Disasters Database, from 1980-2020, the top 6 disasters for inflation-adjusted total (including non-Federal) damages to the United States were all major[25]Atlantic hurricanes (1992 Andrew, 2005 Katrina, 2012 Sandy,[26] 2017 Harvey,

[12] Like any projections, this analysis requires assumptions, such as the model does not include structural shifts in technology.

[13] Risk Management Agency, U.S. Department of Agriculture. Revenue Protection. *https://www.rma.usda.gov/en/Policy-and-Procedure/Insurance-Plans/Revenue-Protection*

[14] Note there are annual fluctuations in total premium subsidy due to factors, such as prices, crop choices, and acreage planted. The percentages in the analysis assume a baseline premium subsidy value of $9.4 billion (2020$).

[15] E.O. 14008. Sec 216. *https://www.federalregister.gov/d/2021-02177/p-85*

[16] U.S. Department of Agriculture. Partnerships for Climate-Smart Commodities. *https://www.usda.gov/climate-solutions/climate-smart-commodities*

[17] Ibid.

[18] 7 U.S.C. § 1508(a)(11).

[19] Risk Management Agency, U.S. Department of Agriculture. (2021). Crop Insurance Supports Environmentally Friendly Practices. *https://www.rma.usda.gov/en/About-RMA/Who-We-Are/Administrators-Message/2021-Messages/April-30*

[20] Climate Hubs, U.S. Department of Agriculture. Cover Cropping to Improve Climate Resilience. *https://www.climatehubs.usda.gov/hubs/northeast/topic/cover-cropping-improve-climate-resilience#*: *https://www.climatehubs.usda.gov/hubs/northeast/topic/cover-cropping-improve-climate-resilience*

[21] Office of Coastal Management,National Oceanic and Atmospheric Administration. (2021, Nov. 23). Economics and Demographics. *https://coast.noaa.gov/states/fast-facts/economics-and-demographics. html.*

[22] Congressional Budget Office. (2019). Expected costs of damage from hurricane winds and storm-related flooding. *https://www.cbo.gov/publication/55019*.

[23] (a) Ike, Gustav, and Fay; (b) Sandy; and (c) Rita, Wilma, Katrina, and Ophelia

[24] Congressional Budget Office. (2019). Expected costs of damage from hurricane winds and storm-related flooding. *https://www.cbo.gov/publication/55019*.

[25] A major hurricane is a hurricane that is category 3 or above. Reference for footnote: National Hurricane Center and Central Pacific Hurricane Center. "Saffir-Simpson Hurricane Wind Scale." Accessed Jan. 2, 2022. *https://www.nhc.noaa.gov/aboutsshws.php*.

[26] Hurricane Sandy, a Category 3 hurricane in Cuba, was an unusually large storm that impacted the New York Metropolitan Area, causing a large amount of damage even though it hit landfall in the United States as a Category 1 hurricane. Reference for footnote: Eric S. Blake, Todd B. Kimberlain, Robert J. Berg, John P. Cangialosi and John L. Beven II. (2013). Tropical cyclone report: Hurricane Sandy (AL182012). National Hurricane Center. *https://www.nhc.noaa.gov/data/tcr/AL182012_Sandy.pdf*.

2017 Irma, 2017 Maria).[27] Hurricane Katrina was the most expensive.[28] Damages from tropical cyclones, including hurricanes, are correlated to storm intensity. Because climate change is projected to increase the intensity of tropical cyclones,[29] damages are similarly expected to increase. Additionally, the frequency of coastal flooding is anticipated to increase over time with climate changes.[30]

The largest impact of climate change on Federal expenditures to ameliorate coastal disasters can then be approximated by the impact of climate change on Atlantic hurricanes. Literature on hurricanes in the Atlantic basin indicates that climate change has already and will likely continue to increase the severity of Atlantic hurricanes. While there is still uncertainty in how climate change will affect the frequency of tropical cyclones, with many studies suggesting a decrease in global frequency,[31] there is some evidence that the frequency of the most intense of these storms will increase in the Atlantic and North Pacific. [32]

In 2016, CBO[33] simulated hurricane frequency in a climate-changed world using information from two other studies,[34,35] and then CBO translated these simulated hurricanes to total future damages, both in 2050 and in 2075. Based on recent history, the percentage of hurricane damages covered by the Federal Government has increased along with hurricane intensity. Therefore, for Federal spending increases, CBO approximated that Federal spending would encompass 40-80 percent of damages in their simulations.[36]

Based on methodology modifications to update results from CBO (2016),[37,38] OMB estimates that annual Federal spending increases on coastal disaster response spending are projected to range from $4-$32 billion (2020 USD) annually,[39] with a mean of $15 billion, in 2050.[40] By 2075 these annual increases due to projected hurricane frequency reach $22-$94 billion (2020$), with a mean increase of $50 billion. The method for developing these estimates takes into consideration the increased frequency of hurricanes impacting U.S. coastal areas as well as growth in coastal development and real GDP.

As with other climate change-related impacts, the Administration is taking a whole-of-government approach to addressing and mitigating the severity of coastal damage. The White House has formed a Coastal Resilience Interagency Working Group that is co-lead by the Council for Environmental Quality and NOAA. Through the Interagency Working Group, agencies are sharing best practices and coordinating their investments in improving coastal resilience, including through the use of nature-based solutions such as restoring coastal wetlands, planting mangroves, and investing in other natural barriers that reduce damage from sea rise and storm surges. The Federal Emergency Management Agency (FEMA) has four "hazard mitigation assistance programs" to mitigate flood risk and build more resilient communities. The Infrastructure Investment and Jobs Act (IIJA)[41] codified the Safeguarding Tomorrow through Ongoing Risk Mitigation (STORM) Act,[42] establishing a new program at FEMA "to provide capitalization grants to States or eligible tribal governments to establish revolving loan funds to provide hazard mitigation assistance to local governments to reduce risks to disasters and natural hazards."[43] NOAA operates a "Digital Coast" platform, which provides the "data, tools, and training communities need to address

[27] National Centers for Environmental Information (NCEI) and National Hurricane Center, National Oceanic and Atmospheric Administration. (2021, Oct. 8). Costliest U.S. tropical cyclones. *https://www.ncdc.noaa.gov/billions/dcmi.pdf*.

[28] List of disaster costs from National Oceanic and Atmospheric Administration, National Centers for Environmental Information. (2021, Oct. 8). U.S. Billion-Dollar Weather and Climate Disasters. *https://www.ncdc.noaa.gov/billions/*.

[29] Kossin, J.P., T. Hall, T. Knutson, K.E. Kunkel, R.J. Trapp, D.E. Waliser, and M.F. Wehner.(2017). Extreme storms. In: Climate Science Special Report: Fourth National Climate Assessment, Volume I [Wuebbles, D.J., D.W. Fahey, K.A. Hibbard, D.J. Dokken, B.C. Stewart, and T.K. Maycock (eds.)]. U.S. Global Change Research Program, Washington, DC, USA, pp. 257-276, doi: *http://doi.org/10.7930/J07S7KXX*

[30] Fleming, E., J. Payne, W. Sweet, M. Craghan, J. Haines, J.F. Hart, H. Stiller, and A. Sutton-Grier. (2018). Coastal Effects. In Impacts, Risks, and Adaptation in the United States: Fourth National Climate Assessment, Volume II [Reidmiller, D.R., C.W. Avery, D.R. Easterling, K.E. Kunkel, K.L.M. Lewis, T.K. Maycock, and B.C. Stewart (eds.)]. U.S. Global Change Research Program, Washington, DC, USA, pp. 322–352. *https://doi.org/10.7930/NCA4.2018.CH8*

[31] Knutson, T., S.J. Camargo, J.C.L. Chan, K. Emanuel, C.H. Ho, J. Kossin, M. Mohapatra, M. Satoh, M. Sugi, K. Walsh, L. Wu. (2020). Tropical cyclones and climate change assessment: Part II: Projected response to anthropogenic warming. Bulletin of the American Meteorological Society, 101(3): E303-E322. *https://doi.org/10.1175/BAMS-D-18-0194.1*.

[32] Kossin, J.P., T. Hall, T. Knutson, K.E. Kunkel, R.J. Trapp, D.E. Waliser, and M.F. Wehner, 2017: Extreme storms. In: Climate Science Special Report: Fourth National Climate Assessment, Volume I [Wuebbles, D.J., D.W. Fahey, K.A. Hibbard, D.J. Dokken, B.C. Stewart, and T.K. Maycock (eds.)]. U.S. Global Change Research Program, Washington, DC, USA, pp. 257-276: *http://doi.org/10.7930/J07S7KXX*.

[33] Congressional Budget Office. (2016). Potential increases in hurricane damage in the United States: Implications for the federal budget. *https://www.cbo.gov/publication/51518*.

[34] Knutson, T.R., J.J. Sirutis, G.A. Vecchi, S. Garner, M. Zhao, H.S. Kim, M. Bender, R.E. Tuleya, I.M. Held, & G. Villarini. (2013). Dynamical downscaling projections of twenty-first-century Atlantic hurricane activity: CMIP3 and CMIP5 model-based scenarios. Journal of Climate, 26(17). *10.1175/JCLI-D-12-00539.1*. (As cited in CBO (2016).)

[35] Emanuel, K. A. (2013). Downscaling CMIP5 climate models shows increased tropical cyclone activity over the 21st century. Proceedings of the National Academy of Sciences, 110(30), 12219-12224. doi: *10.1073/pnas.1301293110*. (As cited in CBO (2016).)

[36] Congressional Budget Office. (2016). Potential increases in hurricane damage in the United States: Implications for the federal budget. *https://www.cbo.gov/publication/51518*.

[37] Some notable methodology changes that were incorporated, among others: (a) Removing the National Flood Insurance Program (NFIP) portion due to changes to the NFIP program, (b) Including into the cost estimate the entirety of the interaction effect between growth along the coast and climate change, further making simplifying assumptions to assign these proportions in 2050 and for boundary estimates of 2075, and (c) Using recent economic data from the Bureau of Economic Analysis [updated GDP for 2020, GDP deflators] and population projections from CBO [Congressional Budget Office. (2021, Mar). "Demographic Projections."].

[38] Congressional Budget Office. (2016). Potential increases in hurricane damage in the United States: Implications for the federal budget. *https://www.cbo.gov/publication/51518*.

[39] Ranges reflect the middle third of damage draws from CBO simulations, along with CBO assumptions regarding federal spending and new assumptions outlined in the footnote preceding the previous footnote.

[40] Note the Federal baseline spending on coastal disasters is assumed to be $20.9 billion (2020$).

[41] Infrastructure Investment and Jobs Act (Public Law 117–58).

[42] 42 U.S.C. § 5135.

[43] FEMA Press Release: Infrastructure Deal Provides FEMA Billions for Community Mitigation Investments (2021), *https://www.fema.gov/press-release/20211115/infrastructure-deal-provides-fema-billions-community-mitigation-investments*.

coastal issues."[44] Several Federal agencies and academic institutions make up the Interagency Sea Level Rise and Coastal Flood Hazard and Tool Task Force, which recently published the Sea Level Rise Technical Report, providing the Federal Government and others with sea-level rise scenarios for the United States.[45]

National Flood Insurance Program

Flooding—including flooding from hurricanes—is, "the most common and the most expensive natural disaster in the United States."[46] Yet fewer than 60% of single-family homeowners, living in areas where mandatory flood insurance applies, purchase flood insurance even though premiums are subsidized at two-thirds the actuarially fair market rate.[47] According to the NCA4 and NOAA's Global and Regional Sea Level Rise Scenarios for the United States reports, climate change will (a) cause tide and storm surge heights to increase and will lead to a shift in U.S. coastal flood regimes, (b) contribute to the increased severity of hurricanes, and (c) increase precipitation in the Midwest, with impacts on riverine flooding.[48,49] Because of climate change, North Atlantic hurricanes are anticipated to increase in intensity, likely leading to a larger number of major hurricanes but an uncertain change in the overall total number of cyclones.[50]

The National Flood Insurance Program (NFIP) is a program in which, both through private insurance companies as fiscal agents and through a direct program, the Federal Government sells flood insurance to homeowners and businesses in NFIP participating communities.[51,52] NFIP currently provides nearly $1.3 trillion of flood coverage for over five million policyholders.[53] NFIP requires premiums to be actuarially sound, with exceptions for discounts or subsidies to certain property types.[54,55,56,57] Until 2021, premiums were largely based on a structure's elevation within a regulatory flood insurance rate map (FIRM). FIRM only reflects flood hazards at the time the map is updated and do not account for potential future flood risk.[58] NFIP pays claims out of collected premiums and, if losses exceed collections, the amounts are borrowed from the U.S. Treasury, which is set by statute.[59] Because NFIP guarantees flood losses as a federal obligation, larger than anticipated long-term losses can theoretically, and have in the past, become the responsibility of the Federal Government. NFIP is not designed to support large-loss hurricanes, and as a result, Congress has extended NFIP's borrowing capacity and canceled debt in the past.[60]

[44] Federal Emergency Management Agency. (2021). Infrastructure deal provides FEMA billions for Community Mitigation Investments. FEMA.gov. *https://www.fema.gov/press-release/20211115/infrastructure-deal-provides-fema-billions-community-mitigation-investments*.

[45] Sweet, W.V., B.D. Hamlington, R.E. Kopp, C.P. Weaver, P.L. Barnard, D. Bekaert, W. Brooks, M. Craghan, G. Dusek, T. Frederikse, G. Garner, A.S. Genz, J.P. Krasting, E. Larour, D. Marcy, J.J. Marra, J. Obeysekera, M. Osler, M. Pendleton, D. Roman, L. Schmied, W. Veatch, K.D. White, & C. Zuzak. (2022). Global and regional sea-level rise scenarios for the United States: Updated mean projections and extreme weather level probabilities along U.S. coastlines. National Oceanic and Atmospheric Administration, National Ocean Service, Silver Spring, MD, 111 pp. *https://oceanservice.noaa.gov/hazards/sealevelrise/noaa-nos-techrpt01-global-regional-SLR-scenarios-US.pdf*.

[46] Includes flooding from hurricanes. Quoted from: Federal Emergency Management Agency. (2021, May 12). Defining a property's unique flood risk. Video. Retrieved December 22, 2021, from *https://youtu.be/oi2g-0GfgMk*

[47] Wagner, K. (forthcoming). Adaptation and adverse selection in markets for natural disaster insurance. American Economic Journal: Economic Policy. *https://www.aeaweb.org/articles?id=10.1257/pol.20200378&from=f*.

[48] United States Global Change Research Program. (2018). Impacts, Risks, and Adaptation in the United States: Fourth National Climate Assessment, Vol. II. (Reidmiller, D.R., C.W. Avery, D.R. Easterling, K.E. Kunkel, K.L.M. Lewis, T.K. Maycock, and B.C. Stewart, Eds.). doi:10.7930/NCA4.2018.

[49] Global and regional sea-level rise scenarios for the United States: Updated mean projections and extreme weather level probabilities along U.S. coastlines. National Oceanic and Atmospheric Administration, National Ocean Service, Silver Spring, MD, 111 pp. *https://oceanservice.noaa.gov/hazards/sealevelrise/noaa-nos-techrpt01-global-regional-SLR-scenarios-US.pdf*.

[50] Knutson, T., Camargo, S. J., Chan, J. C. L., Emanuel, K., Ho, C. H., Kossin, J., . . . Wu, L. (2021, March 1). Tropical cyclones and climate change assessment: Part II: Projected response to anthropogenic warming. Bulletin of the American Meteorological Society, 101(3), E303-322. *https://doi.org/10.1175/BAMS-D-18-0194.1*

[51] The National Flood Insurance Act of 1968, 42 U.S.C. §§ 4001 et seq.

[52] Federal Emergency Management Agency. (n.d.). Floodsmart.gov: National Flood Insurance Program. Floodsmart.gov: About. Retrieved December 22, 2021, from Floodsmart.gov: *https://www.floodsmart.gov/about*

[53] Federal Emergency Management Agency. (n.d.). Flood Insurance. FEMA.gov. Retrieved November 3, 2021, from FEMA.gov: *https://www. fema.gov/flood-insurance*

[54] 42 U.S.C. § 4014 and 42 U.S.C. § 4015.

[55] Horn, D. P., & Webel, B. (2021). Introduction to the National Flood Insurance Program. Report R44593. Washington, D.C.: Congressional Research Service. *https://crsreports. congress.gov/product/pdf/R/R44593*

[56] Congressional Budget Office. (2017). The National Flood Insurance Program: Financial soundness and affordability. Washington, D.C. Retrieved from *https://www.cbo.gov/system/files/115th-congress-2017-2018/reports/53028-nfipreport2.pdf*

[57] 42 U.S.C. § 4014(a)(1); 42 U.S.C. § 4015(c)(actuarial rates); 42 U.S.C. 4014(a)(2)(discounts for certain properties built before FEMA published its initial flood insurance rate map (FIRM) or December 31, 1974, whichever is later); 42 U.S.C. 4014(e)-(f) and 4014 Note (discounts for properties behind certain levees under construction or repair); 42 U.S.C 4015(i)(Discounts for properties newly mapped into a special flood hazard area); 42 U.S.C. 4056 (discounts for policies when a community joins the NFIP and before FEMA has published a FIRM for the community).

[58] Horn, D. P. (2021). National Flood Insurance Program: The Current Rating Structure and Risk Rating 2.0. Congressional Research Service. Retrieved February 28, 2022 from *https://crsreports.congress.gov/product/pdf/R/R45999*. Cackley, Alicia Puente (2021). National Flood Insurance Program: Congress Should Consider Updating the Mandatory Purchase Requirement. U.S. Government Accountability Office. Retrieved February 28, 2022 from *https://www.gao.gov/assets/gao-21-578.pdf*

[59] 42 U.S.C. § 4016.

[60] After the 2005 hurricane season (Katrina, Rita, and Wilma), Congress extended NFIP's borrowing limit. After Hurricane Sandy in 2012, Congress further extended the borrowing ability of the program. In 2017, Congress cancelled $16 billion in debt to allow NFIP to pay for Harvey, Irma, Maria, and other 2017 losses. Horn, D. P. (2021). A brief introduction to the National Flood Insurance Program. Washington, D.C.: Congressional Research Service. Retrieved from *https://crsreports.congress.gov/product/pdf/IF/IF10988*

FEMA has designed a new rating methodology, Risk Rating 2.0, and the first phase was rolled out in 2021. The new system considers a variety of variables to profile properties individually, in line with modern actuarial science.[61] Under Risk Rating 2.0, all NFIP premiums will be actuarially sound reflecting a single property's unique flood risk and over time this new methodology will help close the gap between premiums and losses, even as the risk changes due to climate change and other effects.[62,63,64]

To apply the two climate scenarios to the NFIP, the program utilized Katrisk: one of a few "catastrophe models" used by NFIP to analyze the flood insurance program in the face of different, currently unrealized, risk scenarios.[65] Along with a baseline scenario, NFIP focused on a lower and higher scenarios in both 2050 and 2100, leading to five scenarios.[66] NFIP ran simulations to determine typical losses (average annual loss, or "AAL"), 1-in-20 annual loss levels, and 1-in-50 annual loss levels.[67] All scenarios use NFIP's property portfolio as it currently exists;[68] the baseline scenario is a simulated expected loss in today's environment and the other four scenario simulations expose today's portfolio of properties to a potential future risk with climate change.[69] In other words, the simulation damages represent losses associated with a portfolio of today's properties in NFIP exposed to climate risk that the United States will see in the upcoming decades. Since the property portfolio does not fundamentally change, as one would expect it to between now and the end of the century, this modeling must be understood to be an illuminating risk exercise with somewhat strong assumptions.

In a baseline scenario, a Gross AAL is $3.3 billion.[70] However, under the lower climate change scenario, this increases to $3.5 billion by 2050 and $4.6 billion by 2100. Under the higher climate change scenario, the AAL scenario is $3.7 billion by 2050 and $6.1 billion by 2100. The increases in the 1-in-20-year loss event and 1-in-50-year loss event are noteworthy. The 1-in-20-year loss event is $10.3 billion in the baseline scenario, and the year 2100 losses increase to $13.9 billion (+35%) under the lower scenario and $16.9 billion (+64%) under the higher scenario. The 1-in-50-year loss event is $17.2 billion in the baseline scenario, and the year 2100 losses increase to $22.6 billion (+31%) under the lower scenario and $26.5 billion (+54%) under the higher scenario. In the higher scenario late century, the current portfolio of properties has a 1-in-50-year loss event equal to $20 billion larger than an average annual loss—a difference which is only $14 billion without climate change. Under the risk assumptions, by definition, consecutive or close in time years with 1-in-20 or 1-in-50 losses are rare, but historically, high risk years have caused the NFIP to face shortfalls. If these actuarially rare scenarios are to occur again with climate-change

61 Federal Emergency Management Agency. (2021). Risk Rating 2.0: Equity in action. FEMA.gov. Retrieved 11 Jan 2022 from *https://www.fema.gov/flood-insurance/risk-rating*

62 See (1) Federal Emergency Management Agency. (2021, April). Risk Rating 2.0 is equity in action (Fact Sheet). Retrieved December 22, 2021, from *FEMA.gov: https://www.fema.gov/sites/default/files/documents/fema_rr-2.0-equity-action_0.pdf* and (2) Federal Emergency Management Agency. (2021, April 1). FEMA updates its flood insurance rating methodology to deliver more equitable pricing (Press Release HQ-21-079). Retrieved December 22, 2021, from *Fema.gov: https://www.fema.gov/press-release/20210401/fema-updates-its-flood-insurance-rating-methodology-deliver-more-equitable*

63 Implementation of Risk Rating 2.0 will occur fully by April 1, 2022 with some statutory exceptions. A notable statutory exemption is that premiums are not allowed to rise more than 18% annually. Implementation date and footnote from: Federal Emergency Management Agency. (2021, April). Risk Rating 2.0 is equity in action (Fact Sheet). Retrieved December 22, 2021, from *FEMA.gov: https://www.fema.gov/sites/default/files/documents/fema_rr-2.0-equity-action_0.pdf*

64 While the new rating system is actuarially fair, there are still risks to the Federal Government from unprecedented large disasters. Despite the development of the Risk Rating 2.0 methodology, mandatory purchase requirements are still tied to the FIRM, which may not adequately depict flood hazards. Risk Rating 2.0 adjusts annual policies as risk changes year-to-year but it cannot account for an unprecedented disaster, even if that disaster represents a new normal because of climate change. FEMA has purchased reinsurance as a risk mitigation strategy to cover a portion of eligible losses occurring during a single large event.

65 This is one of many models used by NFIP to model climate risk; other models may have slightly different results.

66 Baseline, low 2050, high 2050, low 2100, high 2100

67 The 1-in-20 and 1-in-50 annual loss levels are annual loss levels at which the yearly losses are larger than precisely 95% and 98% of loss years.

68 Specifically, NFIP used its policy holders as of May 31, 2020.

69 The other four scenario simulations take the properties in the portfolio—as they currently are—and expose them to a simulated climate world that would exist in each of the four respective scenarios. The Katrisk model simulation considers, "losses and probability distributions from storm surge, inland flood, and tropical cyclone-induced precipitation flooding sources."

70 Figures in this paragraph are in 2020 dollars.

Table 21–2. KATRISK GROSS AAL AND OCCURRENCE EXCEEDANCE PROBABILITIES UNDER BASELINE AND CLIMATE SENSITIVITY SCENARIOS, LOWER (RCP 4.5) AND HIGHER (RCP 8.5) (2020 USD)

(In millions of dollars)

		Lower		Higher	
	Baseline	Mid-Century (2050)	Late Century (2100)	Mid-Century (2050)	Late Century (2100)
Gross AAL	$3,317	$3,539	$4,648	$3,734	$6,098
Increase over baseline	....	7%	40%	13%	84%
1–in–20 loss level	$10,315	$11,025	$13,906	$11,370	$16,896
Increase over baseline	....	7%	35%	10%	64%
1–in–50 loss level	$17,208	$18,476	$22,591	$18,996	$26,507
Increase over baseline	....	7%	31%	10%	54%

increased intensity storms, the Federal Government will face higher losses, should it need to subsidize NFIP.

The simulation in this analysis assumes the 2020 NFIP property portfolio and projects America as it is today into a climate world of the future. As such, the economic or the fundamentals may change course over the century. Long-term macroeconomic indicators may influence the housing market: property values may go up (or down) in real terms, current policyholders may choose to purchase more flood insurance, and/or non-customers may change their mind and purchase a policy. Further, climate change or the move to Risk Rating 2.0 may prompt more adaptation—or increasing incomes may further development of the coast. The floodplain may become more expansive, and more people may be at risk of flooding. These changes are not part of the simulation. Finally, Katrisk is one of many models used by NFIP to model climate risk; other models may have slightly different results. As the country sees realization of the climate change time series, and as Risk Rating 2.0 is rolled out, more work may need to be done to analyze how NFIP risk models are behaving. The full risk may hinge on whether the 2005, 2012, and 2017 hurricane seasons are simply three bad draws of a well-modeled system—or whether actuarial modeling will need to continue to change along with climate change.

FEMA's Risk Rating 2.0 helps mitigate the impact of climate change and makes FEMA programs more equitable. By incorporating more flood risk variables, such as flood frequencies and multiple flood types, Risk Rating 2.0 provides policyholders with more information they need to mitigate the impacts of future flooding.[71] The 2022 and 2023 Budgets proposed a means-tested program that would provide assistance to low- and moderate-income policyholders.

Further, FEMA runs several mitigation programs: the Building Resilient Infrastructure and Communities (BRIC) program, the Flood Mitigation Assistance (FMA) program, the Hazard Mitigation Grant Program (HMGP),[72] and the program created by the Safeguarding Tomorrow through Ongoing Risk Mitigation (STORM Act) that could help to reduce the risk of flooding on NFIP policyholders.[73]. FEMA, NOAA, USGS, and other agencies collaborate in a number of ways to develop data and mapping that support flood hazard identification, risk reduction, and risk communication. Some of this supports the NFIP, such as water levels, bathymetric, topographic, and land cover data and various types of modeling by NOAA that are used in FEMA NFIP flood studies. Multiple federal agencies (NOAA, USGS, USACE, USDA) participate on FEMA's Technical Mapping Advisory Council, providing advice to the FEMA Administrator on flood risk analysis and mapping practices in support of the NFIP. Federal agencies are also working together under the National Climate Task Force's Flood Resilience Interagency Working Group on science and decision-support services to identify and mitigate future flood hazards, including sea-level rise and other climate impacts.

Federal Property and Resource Management

Federal facilities face a number of climate change-related hazards, including increased flood risks, extreme weather events, and fire. For example, flooding damage from heavy downpours is projected to increase in various regions across the country.[74] Also, sea-level rise is expanding the coastal floodplain, causing increased frequency and magnitude of coastal flooding and compound ing damages from storm surges. This increase has led to record numbers of events that cause over $1 billion in damages.[75]

The extent of future changes in flood risk has not been estimated across the full Federal inventory. For instance, assets that were not assessed include national security-sensitive facilities, as well as several types of non-building assets such as transportation and communications infrastructure. However, using the Federal Real Property Profile Management System (FRPP MS), OMB and FEMA assessed flood risks to Federal facilities by overlaying property data with flood maps.[76] OMB and NOAA also evaluated the FRPP MS dataset using NOAA's Sea Level Rise Viewer to assess inundation risk at coastal facilities.

The assessment identified over 40,000 individual Federal buildings and structures with a total combined replacement cost of $81 billion (2020$) located in the current 100-year floodplain. Based on current FEMA floodplain maps, this represents roughly 9 percent of the subset of records and 10 percent of the subset replacement value. Approximately 160,000 structures, with a total replacement cost of $493 billion (2020$) were also identified within the current 500-year floodplain.[77]

Of over 57,000 inventory records reviewed in coastal areas, OMB and NOAA identified 10,250 individual Federal buildings and structures, with a combined replacement cost of $32.3 billion, that would be inundated or severely affected by typical high tide under an eight-foot sea-level rise scenario. Under a ten-foot 'worst case' sea-level rise scenario, over 12,195 individual Federal buildings and

[71] Risk Rating 2.0 produces premiums that are equitable and reflect the unique flood risk of a building. FEMA's legacy rating system does not consider repair costs, which means many policyholders with lower-value homes are paying more than they should and policyholders with higher-value homes are paying less than they should. Consideration of the cost to rebuild is key to an equitable distribution of premiums across all policyholders because it is based on the value of their home and the unique flood risk of their property. Also considering the cost to rebuild is not only more equitable, but is also consistent with industry standard.

[72] 42 U.S.C. §§ 5133 (BRIC), 42 U.S.C. § 4104c (FMA), 5170c (HMGP).

[73] 42 U.S.C. § 5135.

[74] AECOM, 2013. The Impact of Climate Change and Population Growth on the National Flood Insurance Program through 2100. Prepared for the Federal Emergency Management Agency.

[75] National Oceanic and Atmospheric Administration, National Centers for Environmental Information. (2021, Nov. 17). U.S. Billion-Dollar Weather and Climate Disasters. *https://www.ncdc.noaa.gov/billions/*.

[76] Exec. Order No. 13327, 69 Fed. Reg. 5897 (Feb. 6, 2004) Federal Assets Sale and Transfer Act of 2016 (FASTA); (Pub. L. 114-287).

[77] Note that 'total replacement cost' does not represent projected Federal expenditures. Expenditures on Federal facilities due to future flooding is not projected and is expected to be a subset of the summed total replacements costs.

structures would be inundated, with total combined replacement cost of over $43.7 billion.

The Biden Administration has taken several proactive steps to reduce the risk of flooding to Federal facilities. The Administration reactivated the development of a Federal Flood Risk Management Standard (FFRMS) through a Flood Resilience Interagency Working Group to ensure that agencies expand management from the current base flood level to a higher vertical elevation and corresponding horizontal floodplain for Federal actions and federally funded projects. In addition, in 2020 General Services Administration (GSA) conducted a high-level assessment of the flood vulnerabilities of assets under its jurisdiction. GSA has started the process of integrating considerations for the financial impacts of the physical and transition risks of climate change into GSA decision-making processes, including leveraging U.S. Global Change Research Program information for more resilience capital projects. OMB and the Council on Environmental Quality (CEQ) are also exploring options to integrate climate change considerations into capital planning and program management, such as how forward-looking climate information can be incorporated into major acquisitions.

Housing

In addition to the aforementioned exposure through the NFIP, the Federal Government provides mortgage insurance for both single family and multifamily housing, primarily through programs within the Federal Housing Administration (FHA), Veterans Benefits Administration (VBA), and USDA Rural Housing Service, and facilitates liquidity for home loans through secondary guarantees provided by the Government National Mortgage Association (Ginnie Mae). Through housing credit programs, the Federal Government promotes homeownership and affordable housing among various target groups, including low- and moderate-income people, veterans, and rural residents. At the end of FY 2021, the four largest single-family programs had a combined gross exposure of $2.09 trillion, accounting for approximately 17% of the total mortgage market. [78] Although the analysis below is focused on single family housing, similar risk factors affect the multifamily and rental markets.

There is a well-established and growing body of literature which highlights the increased financial risks that climate change will bring to the housing sector and to the Federal Government in its role as guarantor of mortgages and mortgage-backed securities.[79] This is likely to grow in the short-term because of market imperfections related to risk perceptions of homebuyers.[80] Increased storm severity, flooding, wildland fires, and other natural disasters are acute physical risks that severely impact communities, which in turn can lead to higher default claim payments and lower recoveries in the event of default.[81] Such increased defaults would translate into faster prepayments on underlying mortgage-backed securities, and thus could lead to a loss of guarantee fee income to Ginnie Mae or cause it to become successor to a defaulted issuer portfolio. Additionally, chronic physical risks in the form of repeated disasters may eventually lead homeowners and renters to reconsider whether a particular neighborhood or entire community is too vulnerable to natural disasters to consider rebuilding. As with acute physical risks from specific disasters, this may affect localized home values and lead to lower recoveries in the event of default. Further, adaptation costs—such as the increased cost of building new homes or retrofitting existing structures to withstand increased disaster severity or frequency—may price out already vulnerable populations from a chance at homeownership and affordable housing more generally.[82] Finally, lenders who participate in these programs are also likely to incur increased operating costs and liquidity strains based on increasingly severe and frequent effects of climate change.

Although there is still uncertainty as to how much these risks will impact the Federal housing portfolio, even small changes in default, recovery, and prepayment assumptions affect the expected cost to the Federal Government. These risks and costs will be spread unevenly over the portfolio, but recent disaster such as Hurricanes Irma and Harvey, and major wildland fires in the West, indicate the magnitude that these events may have on Federal costs. During these disasters, Federal housing agencies may be called upon to change their normal operations, such as by altering default mitigation waterfalls (i.e., the order in which lenders may offer default alternatives to borrowers), which can also increase expected costs.

Each year, agencies estimate the total size of the housing market and their likely market share based on the economic assumptions of the President's Budget. The Budget projects $614 billion in primary guarantees will be provided by the four largest single-family housing guarantee programs in 2023. On a present value basis, even a one percent relative increase in events of default would increase the expected cost of these programs by $110 million, and a one percent relative decrease in recoveries after defaults would incur an additional cost of $107 million based on sensitivity analyses conducted by FHA, VBA, and USDA. While this is not an explicit projection of damages, the impact of increasingly severe climate change could clearly induce even larger Federal costs, especially when compounded over time. Similar analysis is also applicable to the multi-family housing market, which was not included in the totals listed above. In addition

[78] Urban Institute Housing Finance Policy Center, Housing Finance at a Glance, February 2022. *https://www.urban.org/sites/default/files/publication/105511/housing-finance-at-a-glance-a-monthly-chartbookfebruary-2022_1.pdf*

[79] Reinsurance Association of America, Statement for the Record, United States House of Representatives Committee on Financial Services, (May 4, 2021).

[80] Laura A Bakkensen, Lint Barrage, Going Underwater? Flood Risk Belief Heterogeneity and Coastal Home Price Dynamics, The Review of Financial Studies, 2021, hhab122, *https://doi.org/10.1093/rfs/hhab122*

[81] Paulo Issler, Richard H. Stanton, Carles Vergara-Alert, and Nancy E. Wallace, Mortgage Markets with Climate-Change Risk: Evidence from Wildfires in California (July 1, 2020). Available at SSRN: *https://ssrn.com/abstract=3511843*

[82] Sean R. Becketti, The Impact of Climate Change on Housing ad Housing Financing (September 23, 2021). Available at SSRN: *https://ssrn.com/abstract=3929571*

to direct financial risks, increasingly severe and frequent effects of climate change may also increase the administrative cost of operating these programs.

Healthcare

Scientific literature examines health impacts from climate change in several key areas: temperature-related death and illness; changes to air quality; extreme weather events; vector-borne diseases; water-related illness; food safety, nutrition, and distribution; and mental health and well-being. For instance, more frequent, severe, prolonged extreme heat events will lead to elevated temperature exposure and increased heat-related deaths and illnesses.[83] Worsened air quality from surface ozone and higher pollen counts will elevate the risk of cardiovascular and respiratory illness.[84] Climate change is also expected to alter the risk of vector-borne disease by changing the distribution of existing disease vectors and causing new vector-borne pathogens to emerge.[85] All of these pathways can cause an increase in both premature death (mortality) as well as non-fatal health problems (morbidity). Higher morbidity rates in particular cause healthcare utilization to grow over the long-term, increasing total healthcare expenditures by private insurers as well as public programs like Medicare and Medicaid since higher morbidity rates in particular cause healthcare utilization to grow, increasing total healthcare expenditures by private insurers as well as public programs like Medicare and Medicaid.[86]

Research projects increases in premature death due to air quality and heat-related mortality by the end of the century. For instance, more than 100,000 annual premature deaths are projected in the United States from heat-related mortality under a higher emissions scenario.[87,88] Other research estimates tens of thousands of avoided deaths from air pollution in scenarios where GHG emissions are significantly reduced by the end of the century.[89]

The Environmental Protection Agency's (EPA) Framework for Evaluating Damages and Impacts (FrEDI) was used to quantify morbidity and mortality at mid- and late-century while also referencing two main GHG emission scenarios that were referenced in NCA4. FrEDI provides a method of utilizing existing climate change sectoral impact models and analyses to create estimates of the physical and economic impacts of climate change by degree of warming. Mortality estimates are available for air quality and extreme temperatures, whereas both mortality and morbidity estimates are available for valley fever, southwest dust, and wildfires. The quantified assessments presented in this chapter are limited to morbidity impacts.

Commensurate with some expected public health effects of climate change, and assuming a consistent Federal share of Medicare and Medicaid ratio of spending, OMB estimates that Federal climate-related healthcare spending in a few key areas could increase by between $824 million and $22 billion (2020$) dollars by the end of the century.[90] This increase alone would tally up to approximately 1 percent of additional national health expenditures. OMB estimates that additional Federal healthcare costs due to climate change specifically related to valley fever, southwest dust, and wildfires could range from $169 million to $353 million by the end of the century. Since morbidity estimates for ozone and particulate matter are currently unavailable under FrEDI, this assessment does not include an updated quantification of potential Federal health expenditures related to future ozone and PM2.5 scenarios. As several health-related climate impacts were not able to be quantified in this assessment, such as mental and behavioral health impacts, it is possible that total actual Federal healthcare spending increases will be significantly higher than those presented in this Chapter.

The Federal Government continues to prioritize actions that strengthen Americans' access to quality, affordable healthcare, including activities that will help address current and future health risks caused by climate change. For instance, the Department of Health and Human Services (HHS), the EPA, and NOAA co-lead an Extreme Heat Interagency Working Group that coordinates the Federal response to debilitating and often deadly extreme heat events. Among other initiatives, NOAA and HHS are increasing the availability of information about extreme heat events and their ramifications, including increased hospitalizations associated with such events. EPA is evaluating the impacts of extreme heat on disadvantaged and underserved populations and is funding a "cooling communities" initiative. The Department of Labor has initiated a heat-related worker safety standard-setting and enforcement initiative. Also, the Department of Transportation and the USDA are investing in infrastructure and urban forestry programs that will reduce urban heat island ef-

[83] USGCRP, 2018: Impacts, Risks, and Adaptation in the United States: Fourth National Climate Assessment, Volume II [Reidmiller, D.R., C.W. Avery, D.R. Easterling, K.E. Kunkel, K.L.M. Lewis, T.K. Maycock, and B.C. Stewart (eds.)]. U.S. Global Change Research Program, Washington, DC, USA, 1515 pp. doi: 10.7930/NCA4.2018.

[84] National Climate Assessment (NCA 2018): Impacts, Risks, and Adaptation in the United States: Fourth National Climate Assessment, Volume II [Reidmiller, D.R., C.W. Avery, D.R. Easterling, K.E. Kunkel, K.L.M. Lewis, T.K. Maycock, and B.C. Stewart (eds.)]. U.S. Global Change Research Program, Washington, DC, USA, 1515 pp. *https://nca2018.globalchange.gov/*

[85] Rocklöv, J., Dubrow, R. Climate change: an enduring challenge for vector-borne disease prevention and control. Nat Immunol 21, 479–483 (2020). *https://doi.org/10.1038/s41590-020-0648-y*

[86] This is an initial assessment and OMB is interested in expanding the analysis in future iterations.

[87] Shindell, D., Zhang, Y., Scott, M., Ru, M., Stark, K., & Ebi, K. L. (2020). The effects of heat exposure on human mortality throughout the United States. GeoHealth, 4, e2019GH000234. *https://doi.org/10.1029/2019GH000234*

[88] Bressler, R.D., Moore, F.C., Rennert, K. et al. Estimates of country level temperature-related mortality damage functions. Sci Rep 11, 20282 (2021). *https://doi.org/10.1038/s41598-021-99156-5*

[89] Fernando Garcia-Menendez, Rebecca K. Saari, Erwan Monier, and Noelle E. Selin Environmental Science & Technology. 2015; 49 (13), 7580-7588 *https://pubs.acs.org/doi/abs/10.1021/acs.est.5b01324*

[90] This calculation sums estimates on air quality impacts from a previous 2016 OMB assessment (adjusted for inflation), plus recent OMB morbidity impact assessments for valley fever, southwest dust, and wildfires: OMB, 2022. Climate Risk Exposure: An Assessment of the Federal Government's Financial Risks to Climate Change. Office of Management and Budget (forthcoming).

fects. To assist the Nation in preventing and preparing for the health impacts of climate change, the Department of Health and Human Services has established the Office of Climate Change and Health Equity. The office is working with each Division of the Department to identify relevant measures to assist in climate change adaptation for health, with a special emphasis on protecting communities that are experiencing the greatest burden of climate impacts and health disparities. It is also working across the Federal Government and in collaboration with the private sector to establish guidance for enhancing the resilience of health systems. HHS agencies that provide insurance coverage and services are also collaborating to protect beneficiaries from the worst impacts of climate change. These agencies are exploring updates to Centers for Medicare and Medicaid facility requirements to better anticipate climate risks and exploring flexibilities that will allow more authorized spending in response to the health challenges associated with climate change (e.g., spending on air filtration).

Wildland Fire Management

Climate change is contributing to an increase in wildland fire extent[91] across the western United States and Alaska. The NCA4 found the increasing duration of the wildland fire season in the western United States is primarily caused by higher temperatures and earlier snowmelt. While wildland fire is more commonly associated with the western United States, the NCA4 notes that the southeastern United States is projected to experience increasing wildland fire activity due to climate change. The damages associated with wildland fire have been increasing over the past several decades.

The effects of climate change on wildland fire are complex and go beyond the weather's direct impact on fire behavior: for example, climate change is also increasing the likelihood of tree mortality from drought and insect outbreaks which subsequently increases the risk of wildland fire.[92] In addition, the impacts of climate change on wildland fire behavior interact with other human impacts on the environment such as increased development that expands the wildland urban interface. The complex problem of increasing risk of damage from wildland fire will require collective action across a wide variety of agencies and jurisdictions in the coming years.

The Federal Government has developed a sophisticated, multi-agency response to wildfires that is coordinated through the National Interagency Fire Center in Boise, Idaho.[93] Through the NIFC, the USDA's Forest Service (FS) and the Department of the Interior's (DOI) land management agencies work together as a single unit in responding to wildfires, in close coordination with State and local partners. Unfortunately, due to climate change, the size and intensity of wildfires has been increasing dramatically in recent years.

Recent historical trends show a strong upward trend in acres burned by wildland fire and consequently in wildland fire suppression costs. While the number of reported wildland fires across the United States has trended downward over the last 30 years, the number of acres burned by wildland fire is rising. In 2015, 2017, and 2020, over 10 million acres burned annually. By 2020, the 10-year average of burned acres exceeded 7.5 million, almost 150% higher than the 10-year average of burned acres 26 years ago.[94] The 10-year average for federal funding of wildland fire suppression has also been trending upward for decades. The 10-year average in 1994 was $723 million (2020$) for the FS and DOI combined. Twenty-six years later, the 10-year average has climbed to $2.2 billion (2020$).[95]

Researchers at the USDA FS projected acres burned by wildland fire and wildland fire suppressions expenditures for FS and DOI during mid-century (2041-2059) and late century (2081-2099) periods. The researchers made these projections, for the FS and DOI, by first estimating historical acres burned in each of eight regions of the continental United States using the historical monthly average of daily maximum temperature and historical monthly average of daily vapor pressure deficit in each of those regions. Wildland fire suppression expenditures were then estimated as a function of acres burned. Using these estimated historical relationships, the researchers then projected acreage burned and wildland fire suppression expenditures in the future under different climate conditions. The FS researchers utilized moderate radiative forcing ("moderate emissions") and high radiative forcing ("higher emissions") scenarios, which are inputs to project changes in climate factors like temperature and precipitation through General Circulation Models (GCMs). The researchers used five different GCMs to obtain a broad band of results under differing assumptions. The results were compared to the historical period 2006-

[91] Parks, S.A., and J.T. Abatzoglou. (2020). Warmer and Drier Fire Seasons Contribute to Increases in Area Burned at High Severity in Western US Forests From 1985 to 2017. Geophysical Research Letters 47(22), e2020GL089858 *https://www.fs.fed.us/rm/pubs_journals/2020/rmrs_2020_parks_s002.pdf*.

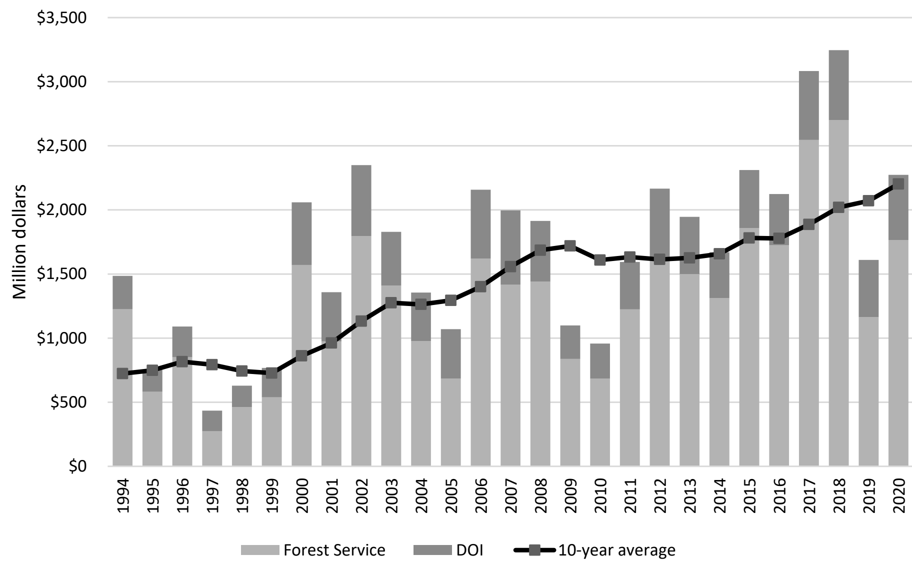
[92] Vose, J.M., D.L. Peterson, G.M. Domke, C.J. Fettig, L.A. Joyce, R.E. Keane, C.H. Luce, J.P. Prestemon, L.E. Band, J.S. Clark, N.E. Cooley, A. D'Amato, and J.E. Halofsky. (2018). Forests. In Impacts, Risks, and Adaptation in the United States: Fourth National Climate Assessment, Volume II [Reidmiller, D.R., C.W. Avery, D.R. Easterling, K.E. Kunkel, K.L.M. Lewis, T.K. Maycock, and B.C. Stewart (eds.)]. U.S. Global Change Research Program, Washington, DC, USA, pp. 232–267. *http://doi.org/10.7930/NCA4.2018.CH6*

[93] Because wildland fires do not respect jurisdictional boundaries, wildland fire suppression requires coordination across Federal agencies and various levels of government. The Department of the Interior (DOI) is responsible for wildland fire management on federal lands managed by DOI, including lands under the Bureau of Land Management and National Park Service and tribal lands. Wildland fires in the National Forest System are the responsibility of the U.S. Department of Agriculture's Forest Service. For State, local, and private lands, State agencies are responsible for wildland fire suppression. However, there is coordination among the States and Federal agencies through the National Multi-Agency Coordination Group housed at the National Interagency Fire Center in Boise, Idaho.

[94] The 10-year average is the for 2020 includes the years 2011-2020, and the 10-year average for 1994 includes the years 1985-1994.

[95] National Interagency Fire Center. (2021). Statistics. *https://www.nifc.gov/fire-information/statistics*

Chart 21-1. Wildland Fire Suppression Spending by USDA Forest Service and the Department of the Interior, 1994-2020 (2020$)



Source: National Interagency Fire Center (2021); Office of Management and Budget for the GDP-chain deflator from Table 10.1 of the President's Budget (2021)

2018, in which wildland fire suppression expenditures averaged $2.0 billion (2020$).[96]

Wildland fire suppression expenditures of FS and DOI are anticipated to increase due to climate change. For the midcentury period, the moderate emissions scenario is anticipated to increase outlays by $0.83 billion annually, while the higher emissions scenario projects an increase in outlays by $2.32 billion per year. The median projected increase (across all GCMs and emission scenarios) for expenditures by mid-century is $1.67 billion annually. For the late century period, the moderate emissions scenario is anticipated to increase outlays by $1.55 billion annually, while the higher emissions scenario is projected to increase outlays by as much as $9.60 billion annually. The median projected increase (across all GCMs and emission scenarios) for expenditures in the late century is $3.71 billion annually.[97]

Given these high costs and very troubling trends, the Federal Government is devoting significantly more attention in increasing the resilience of forests and rangelands to wildfire events by investing in landscape scale and strategically placed fuels treatments, prioritizing the areas as highest risk of wildfire. Deploying science-based thinning and prescribed fire across the landscape can be an effective and cost-efficient way to maintain fire-adapted ecosystems, making them more resilient to fire. The FS recently developed a 10-year wildfire mitigation strategy, in coordination with the Interior Department, that describes these types of pre- and post-fire mitigation and rehabilitation investments.[98] IIJA[99] has substantially increased the budgets of both the Interior Department and the USDA to engage in wildfire mitigation activities. IIJA also has established a new Wildland Fire Mitigation and Management Commission. It will work closely with the Wildfire Resilience Interagency Working Group that is co-led by the USDA, DOI, and OMB.

Other Direct and Indirect Costs

The total costs of climate change to the Federal Government are expected to be larger than those which are quantified through individual assessments. The projected expenditures in this chapter highlight examples of the impact of climate change on Federal programs and taxpayers. There are several anticipated impacts of climate change on the Federal budget that are not modeled in this assessment. For example, Federal healthcare expenditures linked to several health-related outcomes like extreme heat exposure or mental health impacts are not modeled, nor is emergency Federal assistance for tornadoes, hail, and blizzards. Congressional supplemental assistance for agriculture is not included, which has notably increased in recent years. As research advances, additional Federal programs may be incorporated into future analysis of climate-related fiscal risks. The Federal

[96] OMB, 2022. Climate Risk Exposure: An Assessment of the Federal Government's Financial Risks to Climate Change. Office of Management and Budget (forthcoming).

[97] OMB, 2022. Climate Risk Exposure: An Assessment of the Federal Government's Financial Risks to Climate Change. Office of Management and Budget (forthcoming).

[98] Forest Service, U.S. Department of Agriculture. (2022).Wildfire Crisis Strategy. FS-1187a. *https://www.fs.usda.gov/sites/default/files/Confronting-Wildfire-Crisis.pdf*

[99] Infrastructure Investment and Jobs Act (Pub. L. 117-58).

Government will also likely incur additional direct and indirect costs attributed to infrastructure, national security, and species recovery efforts as a result of climate-driven changes across sectors of the economy. However, for some of these topics, it is inherently difficult to quantify risks and expenditures that are related to climatic factors such as extreme weather and rising temperatures. A summary of the qualitative impacts of select risks is provided below.

Infrastructure Risks

Climate change poses challenges to infrastructure by potentially causing damage and disruptions in infrastructure services through climate-related events, as described in the NCA4.[100] Infrastructure built to withstand historical climate-related hazards may not be capable of enduring the more severe conditions projected for the future. Given the necessity of infrastructure for a functioning economy, service interruptions caused by weakened or damaged infrastructure could have notable impacts on the economy at large.

Climate change has both immediate and long-term effects on infrastructure. The immediate impacts could include delays on rail systems due to extreme heat causing the expansion and weakening of rail tracks as well as air travel delays because of the need for longer takeoff distances, in order to facilitate lift-off.[101] The longer-term impacts could include damage to roadways from high temperatures causing asphalt to buckle and need more frequent repairs;[102] impacts to water infrastructure due to drought and high temperatures which not only worsen ground water depletion but can also weaken earthen dams and levees;[103] negative impacts on thermoelectric power generation which requires surface water for cooling; and declines in snowpack and changes in snowmelt timing in the western United States which could affect availability of hydropower generation.[104]

Drought and high temperature are not the only climate-related threats to infrastructure. Rising frequency of heavy precipitation and strong winds presents perils for infrastructure, both in coastal and inland regions. Intense rainfall has the potential to wash away bridges and roads, cause tunnels for utilities and transportation to become inoperable, and delay air travel. Flooding can also lead to disruptions at ports due to delays of cargo on trucking and rail systems.[105] Severe flooding has the potential to deteriorate or cause breaches in dams or levees.[106] More frequent flooding and other extreme weather events including severe cold snaps such as the one that hit Texas in 2021 also can damage energy infrastructure, causing more frequent and longer power outages.[107] While the above outlines multiple severe impacts of climate change on infrastructure, this summary is by no means comprehensive of all the possible impacts. For example, sea-level rise presents additional severe risks to coastal infrastructure, due to increased risk of coastal flooding, as discussed in other sections of this chapter. Also noting climate change's impacts on infrastructure do overlap with other sections of this chapter, including the sections on coastal disasters and flooding of Federal facilities.

Climate change could impact Federal expenditures relating to infrastructure in multiple ways. For example, the Army Corps of Engineers, the Bureau of Reclamation, and the Tennessee Valley Authority maintain and repair the water resources infrastructure that they own, while the Power Marketing Administrations and the Tennessee Valley Authority maintain and repair the transmission lines that they own. A large flood can damage some of these assets, or otherwise affect the ability of these agencies to make water and power available to their customers. Similarly, a drought can increase the cost that the Bureau of Reclamation incurs in those watersheds where it purchases water for fish and wildlife. Thus, in those parts of the country where the incidence of large floods or other extreme weather events due to climate change will increase, Federal expenditures for these agencies may also increase. Additionally, State Departments of Transportation, who are the largest recipients of Federal highway formula funding, may need to use a larger amount of their fed-

[100] USGCRP, 2018: Impacts, Risks, and Adaptation in the United States: Fourth National Climate Assessment, Volume II [Reidmiller, D.R., C.W. Avery, D.R. Easterling, K.E. Kunkel, K.L.M. Lewis, T.K. Maycock, and B.C. Stewart (eds.)]. U.S. Global Change Research Program, Washington, DC, USA, 1515 pp. *https://doi.org/10.7930/NCA4.2018*

[101] Jacobs, J.M., M. Culp, L. Cattaneo, P. Chinowsky, A. Choate, S. DesRoches, S. Douglass, and R. Miller. (2018). Transportation. In Impacts, Risks, and Adaptation in the United States: Fourth National Climate Assessment, Volume II [Reidmiller, D.R., C.W. Avery, D.R. Easterling, K.E. Kunkel, K.L.M. Lewis, T.K. Maycock, and B.C. Stewart (eds.)]. U.S. Global Change Research Program, Washington, DC, USA, pp. 479–511. *https://doi.org/10.7930/NCA4.2018.CH12*

[102] Ibid.

[103] Lall, U., T. Johnson, P. Colohan, A. Aghakouchak, C. Brown, G. McCabe, R. Pulwarty, and A. Sankarasubramanian, 2018: Water. In Impacts, Risks, and Adaptation in the United States: Fourth National Climate Assessment, Volume II [Reidmiller, D.R., C.W. Avery, D.R. Easterling, K.E. Kunkel, K.L.M. Lewis, T.K. Maycock, and B.C. Stewart (eds.)]. U.S. Global Change Research Program, Washington, DC, USA, pp. 145–173. *https://doi.org/10.7930/NCA4.2018.CH3*

[104] Zamuda, C., D.E. Bilello, G. Conzelmann, E. Mecray, A. Satsangi, V. Tidwell, and B.J. Walker. (2018): Energy Supply, Delivery, and Demand. In Impacts, Risks, and Adaptation in the United States: Fourth National Climate Assessment, Volume II [Reidmiller, D.R., C.W. Avery, D.R. Easterling, K.E. Kunkel, K.L.M. Lewis, T.K. Maycock, and B.C. Stewart (eds.)]. U.S. Global Change Research Program, Washington, DC, USA, pp. 174–201. *https://doi.org/10.7930/NCA4.2018.CH4*

[105] Jacobs, J.M., M. Culp, L. Cattaneo, P. Chinowsky, A. Choate, S. DesRoches, S. Douglass, and R. Miller. (2018). Transportation. In Impacts, Risks, and Adaptation in the United States: Fourth National Climate Assessment, Volume II [Reidmiller, D.R., C.W. Avery, D.R. Easterling, K.E. Kunkel, K.L.M. Lewis, T.K. Maycock, and B.C. Stewart (eds.)]. U.S. Global Change Research Program, Washington, DC, USA, pp. 479–511. *https://doi.org/10.7930/NCA4.2018.CH12*

[106] Lall, U., T. Johnson, P. Colohan, A. Aghakouchak, C. Brown, G. McCabe, R. Pulwarty, and A. Sankarasubramanian, 2018: Water. In Impacts, Risks, and Adaptation in the United States: Fourth National Climate Assessment, Volume II [Reidmiller, D.R., C.W. Avery, D.R. Easterling, K.E. Kunkel, K.L.M. Lewis, T.K. Maycock, and B.C. Stewart (eds.)]. U.S. Global Change Research Program, Washington, DC, USA, pp. 145–173. *https://doi.org/10.7930/NCA4.2018.CH3*

[107] Zamuda, C., D.E. Bilello, G. Conzelmann, E. Mecray, A. Satsangi, V. Tidwell, and B.J. Walker. (2018): Energy Supply, Delivery, and Demand. In Impacts, Risks, and Adaptation in the United States: Fourth National Climate Assessment, Volume II [Reidmiller, D.R., C.W. Avery, D.R. Easterling, K.E. Kunkel, K.L.M. Lewis, T.K. Maycock, and B.C. Stewart (eds.)]. U.S. Global Change Research Program, Washington, DC, USA, pp. 174–201. *https://doi.org/10.7930/NCA4.2018.CH4*

eral funding to make projects resilient to climate change. This, in turn, reduces the amount of federal funding available for additional transportation projects. In addition, climate change impacts from flooding and other events may increase the number of projects eligible for the Federal Highway Administration's Emergency Relief (ER) Program, which helps States repair or reconstruct highways damaged by natural disasters or catastrophic failures. Supplementals are periodically enacted to fill in the gap between the cost of eligible ER program projects and the amount of available ER program funding, with the most recent supplemental providing $2.6 billion for the ER program. Finally, climate change presents a budgetary risk to transportation infrastructure owned by the Federal Government, such as roads on Federal lands and large equipment at airports. The Federal Government may need to provide additional expenditures to repair or reconstruct these assets when they are damaged by climate change consequences, or make them more resilient when they are originally built or purchased.

National Security

Increasing temperatures, changing precipitation patterns, and more frequent, intense, and unpredictable extreme weather conditions caused by climate change are exacerbating existing risks and creating new challenges for Department of Defense (DOD) missions, plans, and installations. Climate change is also shaping the strategic environment in which the DOD operates. Climate change impacts, when combined with other stressors, are likely to contribute to political, economic and social instability.

Responding to the Administration's *Executive Order Tackling the Climate Crisis at Home and Abroad*, DOD has elevated climate considerations to be an essential element of U.S. national security. For instance, DOD recently released the following documents to begin adapting Departmental plans, policies, and procedures to the climate challenge:

- The DOD Climate Adaptation Plan (CAP) provides a roadmap to ensuring the Department maintains the ability to operate under changing climate conditions while preserving operational capabilities and protecting systems essential to our success.
- The DOD Climate Risk Analysis (DCRA) focuses on the geo-strategic and mission implications of climate change. It is the framework for shared Department-wide understanding of climate change and its effects.
- Additionally, utilizing the Defense Climate Assessment Tool (DCAT), DOD has analyzed the exposure of military installations to a range of climate hazards and reflected outcomes in the "DOD Installation Exposure to Climate Change at Home and Abroad" report.

With the CAP and the DCRA as a foundation, DOD is integrating climate change considerations across strategic guidance and planning documents, including the National Defense Strategy. The 2023 Budget aligns investments to improve the resilience of military installations and the mission critical capabilities they support. These investments will strengthen the ability of installations to operate under adverse conditions and to rapidly recover from disruptions, whether natural or man-made. Additionally, this budget invests in initiatives to improve the energy efficiency and capability of current and future combat systems, helping to ensure their supportability and effectiveness in contested environments.

Ecosystem Services and Biodiversity

All Americans depend on the services that ecosystems provide, including clean air and water, food and resources, and support for cultural heritage and livelihoods. A large body of evidence, summarized in the Fourth National Climate Assessment, shows that climate change is impacting ecosystems in multiple ways, including: losing the capacity to buffer impacts of extreme events, altering the plant and animal life that inhabit regions of the United States, changing the timing of biological events, and reducing the ability to regulate water and air quality. These impacts are closely tied to how plant and animal species are responding to climate change—many species are unable to cope with these disturbances leading to permanent extinctions unless significant emissions of GHGs are avoided. Climate impacts, for instance, affect forest ecosystems, which in turn can affect the timber supply and the Federal Government's financial management of those resources. In addition, many ecosystems provide important resilience functions for communities. For example, healthy, intact salt marshes can buffer coastal communities from inundation. Harnessing natural and nature-based infrastructure can be an important strategy for increasing climate resilience, while providing additional benefits from ecosystems.

Financial risks to the Federal Government for programs that help support ecosystem services and species protections are very broad and difficult to monetize. In addition to financial risks caused by increased wildland fire discussed above, climate change also impacts the health and functionality of the Nation's watersheds, causing significant changes in water quantity and quality across the country. For example, the DOI, which is the largest distributor of water in the country, must increasingly alter water management to account for decreased snowpack and differences in the timing and volume of spring runoff to support wildlife, as well as water customers. Climate change is also shifting and often exacerbating the range of invasive species, which creates additional cost for land management agencies seeking to maintain native biodiversity and healthy ecosystems.

Both mitigation and adaptation actions by the Federal Government, along with State, local, tribal governments, and private organizations will be needed to curb the worst effects of climate change on ecosystems within the United States. The NCA4 notes that many adaptation initiatives generate benefits that exceed their investment costs by more than half, and benefits can exist in the near- and long-term. Some Federal programs currently promote nature-based solutions, such as the U.S. Army Corps of Engineers' Engineering with Nature Initiative or FEMA

Public Assistance grants that consider natural features for being improved,[108] but more efforts are needed to leverage the full potential of nature-based solutions. The United States needs to act quickly to continue to experience the same benefits from America's ecosystems as have been afforded to date.

Lost Revenue

Climate change is projected to reduce economic output and, in turn, revenue for the Federal Government, adding hundreds of billions of dollars to the Federal deficit. Projections by the International Panel of Climate Change (IPCC) include a warming range of about 3.3 to 5.7 degrees Celsius (5.9 to 10.3 degrees Fahrenheit) over preindustrial levels by 2100 if recent global emissions are allowed to continue along IPCC's high-end scenario.[109] Available economic assessments of warming of the low-end of this range indicate economic damages that could range from 3 to 10 percent of U.S. GDP each year by 2100.[110] In addition, there is significant variation across current models stemming from whether economic damages accrue to the level of GDP or the growth rate of GDP over time. A small change in the growth rate can accumulate into large annual damages over a longer horizon, increasing the economic impact on GDP.[111]

Estimates of GDP impacts do not tell the whole story. For example, researchers have yet to determine the economic impact of climate change on important goods and services that are more difficult to quantify and monetize, but which the Federal Government has obligations to safeguard, limit or protect, such as biodiversity loss, increased ocean acidification, and catastrophic events. The economic cost of each must be determined in light of the irreversibility of climate change impacts, tipping points leading to non-linear changes to the climate, and heightened political instability as a result of climate impacts. In an effort to capture these risks, the Federal Government has initiated an Interagency Working Group to develop the capability to measure the economic impacts of a wider range of physical risks.

The uncertainty of economic loss projections is compounded when attempting to estimate the associated potential for lost Federal revenue in the United States. Assuming the underlying economic loss projection is accurate, lost revenue could be as high as 1.9 percent of U.S. real GDP in 2100.[112] In today's dollars, a 2100 tax revenue loss of that magnitude equals $2 trillion in lost tax revenue. It should be noted that this example does not take into account the fact that a portion of the projected economic losses include non-market losses that harm American society, but may not directly translate into lost revenue.

The Need for Action

The United States and the rest of the world has a narrow moment to pursue actions to avoid the most catastrophic impacts of the climate crisis. By reducing GHG pollution from 2005 levels by 50-52% in 2030 and reaching net-zero emissions economy-wide by no later than 2050, we can do our part to avoid the worst and irreversible impacts of climate change.[113] The Administration is taking a whole-of-government approach to reduce emissions in every sector of the economy; increase resilience to the impacts of climate change; protect public health; conserve our lands, waters, and biodiversity; deliver environmental justice; and spur well-paying union jobs and economic growth, especially through innovation, commercialization, and deployment of clean energy technologies and infrastructure. With that approach is a need to advance consistent, clear, intelligible, comparable, and accurate disclosure of climate-related financial risk while taking near-term actions to reduce exposure to those risks.

Through the Bipartisan Infrastructure Law, the Administration also secured the largest investments ever in our Nation's water infrastructure, power grid, public transit, and resilience. It will make our communities safer and our infrastructure more resilient to the impacts of climate change, with an investment of over $50 billion to protect against droughts, heat, floods and wildfires, in addition to a major investment in weatherization. It invests more than $65 billion through the Department of Energy to upgrade our power infrastructure, facilitate the expansion of renewables and clean energy, and fund new programs to support the development, demonstration, and deployment of cutting-edge clean energy technologies to accelerate our transition to a zero-emission economy. And it will build out a nationwide network of electric vehicle charging stations, deliver thousands of electric school buses, and reduce emissions near ports and airports.

The *2023 Budget* highlights several near-term budgetary needs that will both help reduce the Federal Government's long-term fiscal exposure to climate-related financial risk and reduce future climate risks for all Americans. In total, the Budget invests a historic $44.9 billion in discretionary funding to tackle the climate cri-

[108] Public Assistance grants that help improve or maintain a natural feature must meet several conditions, such as improvement to natural characteristics and enhanced function of the feature.

[109] Very likely range for changes in global surface temperature under scenario SSP5-8.5 in the long term, 2081-2100. IPCC. (2021). Climate Change 2021: Summary for Policymakers. Contribution of Working Group I to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change [Core Writing Team, V. Masson-Delmotte and P. Zhai (eds.)]. IPCC, Geneva, Switzerland, 40. *https://www.ipcc.ch/report/ar6/wg1/downloads/report/IPCC_AR6_WGI_SPM_final.pdf*

[110] NGFS. (2021). NGFS Climate Scenarios for central banks and supervisors. *https://www.ngfs.net/sites/default/files/media/2021/08/27/ngfs_climate_scenarios_phase2_june2021.pdf*.

[111] Burke, M., H. Solomon, and E. Miguel. (2015). Global Non-Linear Effect of Temperature on Economic Production. Nature. 527: 235-9. *https://doi.org/10.1038/nature15725*

[112] This result uses a 10 percent impact on U.S. GDP, which represents the 95th percentile of estimated economic damages under the NGFS 'Current Policy' scenario.

[113] White House Fact Sheet: President Biden Sets 2030 Greenhouse Gas Pollution Reduction Target Aimed at Creating Good-Paying Union Jobs and Securing U.S. Leadership on Clean Energy Technologies. April 22, 2021. Received from *https://www.whitehouse.gov/briefing-room/statements-releases/2021/04/22/fact-sheet-president-biden-sets-2030-greenhouse-gas-pollution-reduction-target-aimed-at-creating-good-paying-union-jobs-and-securing-u-s-leadership-on-clean-energy-technologies/*

sis, a nearly 60 percent increase over 2021. This includes more than $15 billion to increase clean energy innovation and deployment, and further U.S. competitiveness through innovative technologies that accelerate the transition to a clean energy economy. This also includes more than $18.1 billion to strengthen climate resilience and adaptation efforts across the Federal Government—including investments to increase the resilience of ecosystems and communities to wildfires, flooding, and drought and better incorporate climate impacts into pre-disaster planning and infrastructure development to ensure that the Nation is rebuilding smarter and safer for the future.

The Administration has not only taken bold action to confront the financial risks created by the climate crisis, but turned it into an opportunity to advance environmental justice. Severe harms from climate change fall disproportionally upon socially vulnerable populations, and racial and ethnic minority communities are particularly vulnerable to climate impacts. The Budget supports communities that have been left behind by targeting investments to ensure that 40 percent of the benefits from tackling the climate crisis are directed toward addressing the disproportionately high cumulative impacts on disadvantaged communities.

Near-term Federal investments to both mitigate GHG emissions and adapt to future climate scenarios can help reduce future financial burdens, but will rely on both Congressional appropriations and Federal implementation to reduce those risks. While the Federal programs and activities mentioned in this chapter are expected to reduce the Federal Government's exposure to future climate-related financial risks, more work is needed to identify and quantify the impact of factors that can mitigate or compound climate change fiscal risk. Investments in adaptation, for instance, can significantly reduce future risk exposure. Higher up-front adaptation costs will save taxpayers and the Federal Government in the long-term. On the other hand, business as usual investments could further exacerbate future climate risks. Better understanding and analysis to quantify factors like these as they relate to Federal budget formulation is important for taking steps to mitigate the broad and urgent financial crises the Federal Government could face.

TECHNICAL BUDGET ANALYSES

22. CURRENT SERVICES ESTIMATES

Current services, or "baseline," estimates are designed to provide a benchmark against which Budget proposals can be measured. A baseline is not a prediction of the final outcome of the annual budget process, nor is it a proposed budget. However, it can still be a useful tool in budgeting. It can be used as a benchmark against which to measure the magnitude of the policy changes in the President's Budget or other budget proposals, and it can also be used to warn of future problems if policy is not changed.

Ideally, a current services baseline would provide a projection of estimated receipts, outlays, deficits or surpluses, and budget authority reflecting this year's enacted policies and programs for each year in the future. Defining this baseline is challenging because funding for many programs in operation today expires within the 10-year budget window. Most significantly, funding for discretionary programs is typically provided one year at a time in annual appropriations acts. Mandatory programs are not generally subject to annual appropriations, but many operate under multiyear authorizations that expire within the budget window. The framework used to construct the baseline must address whether and how to project forward the funding for these programs beyond their scheduled expiration dates.

Since the early 1970s, when the first requirements for the calculation of a "current services" baseline were enacted, OMB has constructed the baseline using a variety of concepts and measures. Throughout the 1990s, OMB calculated the baseline using a detailed set of rules in the Balanced Budget and Emergency Deficit Control Act of 1985 (BBEDCA), as amended by the Budget Enforcement Act of 1990 (BEA; P.L. 101-508). Although BBEDCA's baseline rules lapsed for a period when the enforcement provisions of the BEA expired in 2002, budget practitioners continued to adhere to them. The Budget Control Act of 2011 (BCA; P.L. 112-25) formally reinstated the BEA's baseline rules.

The Administration believes certain adjustments to the BBEDCA baseline are needed to better represent the deficit outlook under current policy and to serve as a more appropriate benchmark against which to measure policy changes. The baseline adjustments are discussed in more detail below. Table 22–1 shows estimates of re-

Table 22–1. CATEGORY TOTALS FOR THE ADJUSTED BASELINE
(In billions of dollars)

	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Receipts	4,047	4,431	4,509	4,601	4,782	5,142	5,442	5,712	5,972	6,250	6,545	6,826
Outlays:												
Discretionary:												
Defense	742	766	766	784	802	815	828	847	866	886	906	927
Non-defense	895	928	873	949	931	935	952	974	994	1,013	1,033	1,055
Subtotal, discretionary	1,636	1,694	1,639	1,733	1,733	1,750	1,781	1,822	1,860	1,899	1,939	1,981
Mandatory:												
Social Security	1,129	1,214	1,313	1,398	1,482	1,571	1,663	1,760	1,858	1,958	2,061	2,167
Medicare	689	753	847	853	972	1,071	1,158	1,311	1,261	1,420	1,492	1,645
Medicaid and CHIP	537	578	552	583	613	646	681	725	767	812	859	911
Other mandatory	2,479	1,255	938	835	836	851	841	907	898	946	973	1,020
Subtotal, mandatory	4,834	3,800	3,650	3,670	3,904	4,138	4,344	4,703	4,783	5,136	5,386	5,743
Net interest	352	357	396	477	567	653	736	818	891	963	1,038	1,116
Total, outlays	6,822	5,852	5,685	5,880	6,204	6,540	6,861	7,342	7,534	7,998	8,363	8,840
Unified deficit(+)/surplus(–)	2,775	1,421	1,176	1,279	1,422	1,399	1,419	1,630	1,562	1,748	1,818	2,014
(On-budget)	(2,724)	(1,381)	(1,090)	(1,164)	(1,277)	(1,224)	(1,220)	(1,406)	(1,300)	(1,456)	(1,495)	(1,656)
(Off-budget)	(52)	(41)	(86)	(115)	(145)	(174)	(198)	(225)	(262)	(292)	(323)	(357)
Memorandum:												
Adjusted baseline deficit	2,775	1,421	1,176	1,279	1,422	1,399	1,419	1,630	1,562	1,748	1,818	2,014
Extend transportation obligation limitations at CR levels	....	–3	–8	–11	–12	–13	–14	–15	–15	–16	–16	–17
Extension of certain emergency funding [1]	....	....	4	15	57	74	81	84	88	91	94	97
Related debt service	....	–*	–*	–*	*	2	3	5	7	9	11	14
BBEDCA baseline deficit	2,775	1,418	1,172	1,283	1,468	1,461	1,489	1,705	1,642	1,832	1,907	2,108

*Less than $500 million.

[1] Extends and inflates funding that was provided for only 2022 and designated as emergency funding in Division J of Public Law 117–58.

ceipts, outlays, and deficits under the Administration's baseline for 2021 through 2032.[1] The table also shows the Administration's estimates by major component of the budget. The estimates are based on the economic assumptions underlying the Budget, which, as discussed later in this chapter, were developed on the assumption that the Administration's budget proposals will be enacted. The memorandum bank on Table 22-1 provides additional detail about the effects of the adjustments made to the BBEDCA baseline to produce the adjusted baseline.

Conceptual Basis for Estimates

Receipts and outlays are divided into two categories that are important for calculating the baseline: those controlled by authorizing legislation (receipts and direct or mandatory spending) and those controlled through the annual appropriations process (discretionary spending). Different estimating rules apply to each category.

Direct spending and receipts.—Direct spending includes the major entitlement programs, such as Social Security, Medicare, Medicaid, Federal employee retirement, unemployment compensation, and the Supplemental Nutrition Assistance Program (SNAP). It also includes such programs as deposit insurance and farm price and income supports, where the Government is legally obligated to make payments under certain conditions. Taxes and other receipts are like direct spending in that they involve ongoing activities that generally operate under permanent or long-standing authority, and the underlying statutes generally specify the tax rates or benefit levels that must be collected or paid, and who must pay or who is eligible to receive benefits.

The baseline generally—but not always—assumes that receipts and direct spending programs continue in the future as specified by current law. The budgetary effects of anticipated regulatory and administrative actions that are permissible under current law are also reflected in the estimates. BBEDCA requires several exemptions to this general rule. Exceptions in BBEDCA are described below:

- Expiring excise taxes dedicated to a trust fund are assumed to be extended at the rates in effect at the time of expiration. During the projection period of 2022 through 2032, the taxes affected by this exception are:
  - taxes deposited in the Airport and Airway Trust Fund, which expire on September 30, 2023;
  - taxes deposited in the Oil Spill Liability Trust Fund, which expire on December 31, 2025;
  - taxes deposited in the Patient-Centered Outcomes Research Trust Fund, which expire on September 30, 2029;
  - taxes deposited in the Sport Fish Restoration and Boating Resources Trust Fund, which expire on September 30, 2028;
  - taxes deposited in the Highway Trust Fund and the Leaking Underground Storage Tank Trust Fund, which expire on September 30, 2028; and
  - taxes deposited in the Hazardous Substances Superfund, which expire on December 31, 2031.
- Expiring authorizations for direct spending programs that were enacted on or before the date of enactment of the Balanced Budget Act of 1997 are assumed to be extended if their current year outlays exceed $50 million. For example, even though the Environmental Quality Incentives Program, which was authorized prior to the Balanced Budget Act of 1997, continues only through 2023 under current law, the baseline estimates assume continuation of this program through the projection period, because the program's current year outlays exceed the $50 million threshold.[2]

Discretionary spending.—Discretionary programs differ in one important aspect from direct spending programs: the Congress provides spending authority for almost all discretionary programs one year at a time. The spending authority is normally provided in the form of annual appropriations. Absent appropriations of additional funds in the future, discretionary programs would cease to operate after existing balances were spent. If the baseline were intended strictly to reflect current law, then a baseline would reflect only the expenditure of remaining balances from appropriations laws already enacted. Instead, the BBEDCA baseline provides a mechanical definition to reflect the continuing costs of discretionary programs. Under BBEDCA, the baseline estimates for discretionary programs in the current year are based on that year's enacted appropriations, or on the annualized levels provided by a continuing resolution if final full-year appropriations have not been enacted. For the budget year and beyond, the spending authority in the current year is adjusted for inflation, using specified inflation rates.[3] The definition attempts to keep discretionary spending for each program roughly level in real terms.

As noted above, the Administration believes adjustments to the BBEDCA baseline are needed to serve as a more appropriate benchmark against which to measure policy changes. Adjustments to discretionary spending are described below:

- Under the BBEDCA baseline, obligation limitations for the Highway Trust Fund are inflated from the

[1] The estimates are shown on a unified budget basis; i.e., the off-budget receipts and outlays of the Social Security trust funds and the Postal Service Fund are added to the on-budget receipts and outlays to calculate the unified budget totals.

[2] If enacted after the Balanced Budget Act of 1997 (P.L. 105-33), programs that are expressly temporary in nature expire in the baseline as provided by current law, even if their current year outlays exceed the $50 million threshold.

[3] The Administration's baseline uses the inflation rates for discretionary spending required by BBEDCA. This requirement results in an overcompensation in the calculation for Federal pay as a result of the calendar-year timing of Federal pay adjustments. Updating the calculation to address this annual timing discrepancy would have only a small effect on the discretionary baseline.

annualized level in the continuing resolution (Public Law 117-43, division A, as amended by Public Law 117-70, division A; Public Law 117-86, division A; and Public Law 117-95), resulting in outlays that are below the level of contract authority provided in the Infrastructure Investment and Jobs Act (Public Law 117-58). By contrast, the Administration's adjusted baseline assumes Highway Trust Fund obligation limitations for 2022 are at the levels of contract authority provided by Public Law 117-58, and then inflated into the outyears. This presentation shows an increase in total Highway Trust Fund outlays of $138 billion over the 2023-2032 window and more closely aligns with the levels provided for in Public Law 117-58.

- Funding that was provided for only 2022 and designated as emergency funding in Division J of Public Law 117-58 has been removed from the baseline beginning in 2023. Removing the extension and inflation of this funding allows the baseline to provide a more meaningful benchmark for discretionary spending than a baseline strictly following the BBEDCA rules. Funding that was provided for years beyond 2022 and designated as emergency funding in Division J of Public Law 117-58 is extended and inflated from the final year it was provided.

Joint Committee Enforcement / BBEDCA § 251A sequestration.—The Joint Select Committee process under the BCA stipulated that, absent intervening legislation, enforcement procedures would be invoked annually through 2021 to reduce the levels of discretionary and mandatory spending to accomplish certain deficit reduction. The reductions to mandatory spending were subsequently extended through 2031.[4] The BBEDCA baseline includes the effects of the across-the-board reductions ("sequestration") already invoked by the BBEDCA § 251A sequestration orders for 2013 through 2022, the BBEDCA § 251A sequestration order for mandatory spending for 2023 issued with the transmittal of the 2023 Budget, and the extension of sequestration of mandatory spending through 2031.[5] Amounts that are sequestered in the baseline but return in the subsequent year as available (pop-up) are shown through 2032. For discretionary programs, the enforcement procedures ended in 2021 along with the discretionary caps.

Economic Assumptions

As discussed above, an important purpose of the baseline is to serve as a benchmark against which policy proposals are measured. By convention, the President's Budget constructs baseline and policy estimates under the same set of economic and technical assumptions. These assumptions are developed on the basis that the President's Budget proposals will be enacted.

Of course, the economy and the budget interact. Government tax and spending policies can influence prices, economic growth, consumption, savings, and investment. In turn, changes in economic conditions due to the enactment of proposals affect tax receipts and spending, including for unemployment benefits, entitlement payments that receive automatic cost-of-living adjustments (COLAs), income support programs for low-income individuals, and interest on the Federal debt.

Because of these interactions, it would be reasonable, from an economic perspective, to assume different economic paths for the baseline projection and the President's Budget. However, this would greatly complicate the process of producing the Budget, which normally includes a large number of proposals that could have potential economic feedback effects. Agencies would have to produce two sets of estimates for programs sensitive to economic assumptions even if those programs were not directly affected by any proposal in the Budget. Using different economic assumptions for baseline and policy estimates would also diminish the value of the baseline estimates as a benchmark for measuring proposed policy changes, because it would be difficult to separate the effects of proposed policy changes from the effects of different economic assumptions. Using the same economic assumptions for the baseline and the President's Budget eliminates this potential source of confusion.

The economic assumptions underlying the Budget and the Administration's baseline are summarized in Table 22–2. The economic outlook underlying these assumptions is discussed in greater detail in Chapter 2 of this volume.

Major Programmatic Assumptions

A number of programmatic assumptions must be made to calculate the baseline estimates. These include assumptions about annual cost-of-living adjustments in the indexed programs and the number of beneficiaries who will receive payments from the major benefit programs. Assumptions about various automatic cost-of-living-adjustments are shown in Table 22–2, and assumptions about baseline caseload projections for the major benefit programs are shown in Table 22–3. These assumptions affect baseline estimates of direct spending for each of these programs, and they also affect estimates of the discretionary baseline for a limited number of programs. For the administrative expenses for Medicare, Railroad Retirement, and unemployment insurance, the discretionary baseline is increased (or decreased) for changes in the number of beneficiaries in addition to the adjustments for inflation described earlier. It is also necessary to make assumptions about the continuation of expiring programs and provisions. As explained above, in the baseline estimates provided here, expiring excise taxes dedicated to

[4] Since enactment of the BCA, the Congress has extended sequestration of mandatory spending through a series of amendments to section 251A of BBEDCA (2 U.S.C. 901a). Most recently, the Infrastructure Investment and Jobs Act (P.L. 117-58) extended it through 2031. Subsequently, P.L. 117-71 adjusted the sequestration percentages for Medicare spending in 2030.

[5] The effects of the sequestration reductions are reflected in the detailed schedules for the affected budget accounts for all years. See Chapter 8, "Budget Concepts," of this volume for a more thorough discussion of sequestration procedures.

a trust fund are extended at current rates. In general, mandatory programs with spending of at least $50 million in the current year are also assumed to continue, unless the programs are explicitly temporary in nature. Table 22–4, available at *https://www.whitehouse.gov/omb/analytical-perspectives/*, provides a listing of mandatory programs and taxes assumed to continue in the baseline after their expiration.[6] Many other important assumptions must be made in order to calculate the baseline estimates. These include the timing and content of regulations that will be issued over the projection period, the use of administrative discretion under current law, and other assumptions about the way programs operate. Table 22–4 lists many of these assumptions and their effects on the baseline estimates. The list is not intended to be exhaustive; the variety and complexity of Government programs are too great to provide a complete list. Instead, the table shows some of the more important assumptions.

[6] All discretionary programs with enacted non-emergency appropriations in the current year, as well as emergency appropriations other than those enacted for only 2022 in Division J of Public Law 117-58, are assumed to continue, and are therefore not presented in Table 22-4.

Current Services Receipts, Outlays, and Budget Authority

Receipts.—Table 22–5 shows the Administration's baseline receipts by major source. Table 22–6 shows the scheduled increases in the Social Security taxable earnings base, which affect both payroll tax receipts for the program and the initial benefit levels for certain retirees.

Outlays.—Table 22–7 shows the growth from 2022 to 2023 and average annual growth over the five-year and ten-year periods for certain discretionary and major mandatory programs. Tables 22–8 and 22–9 show the Administration's baseline outlays by function and by agency, respectively. A more detailed presentation of these outlays (by function, category, subfunction, and program) is available on the internet as part of Table 22–12 at *https://www.whitehouse.gov/omb/analytical-perspectives/*.

Budget authority.—Tables 22–10 and 22–11 show estimates of budget authority in the Administration's baseline by function and by agency, respectively. A more detailed presentation of this budget authority with program-level estimates is also available on the internet as part of Table 22–12 at *https://www.whitehouse.gov/omb/analytical-perspectives/*.

Table 22–2. SUMMARY OF ECONOMIC ASSUMPTIONS

(Fiscal years; in billions of dollars)

	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Gross Domestic Product (GDP):												
Levels, in billions of dollars:												
Current dollars	22,358	24,256	25,567	26,694	27,787	28,912	30,080	31,307	32,615	34,018	35,498	37,041
Real, chained (2012) dollars	19,164	20,026	20,658	21,144	21,580	22,011	22,451	22,909	23,399	23,922	24,472	25,035
Percent change, year over year:												
Current dollars	6.7	8.5	5.4	4.4	4.1	4.0	4.0	4.1	4.2	4.3	4.4	4.3
Real, chained (2012) dollars	3.6	4.5	3.2	2.3	2.1	2.0	2.0	2.0	2.1	2.2	2.3	2.3
Inflation measures (percent change, year over year):												
GDP chained price index	3.1	3.9	2.2	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Consumer price index (all urban)	3.3	5.6	2.5	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
Unemployment rate, civilian (percent)	6.0	4.1	3.6	3.7	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8
Interest rates (percent):												
91-day Treasury bills	0.1	0.1	0.7	1.4	1.9	2.1	2.2	2.3	2.3	2.3	2.3	2.3
10-year Treasury notes	1.3	2.0	2.4	2.7	2.8	2.9	3.1	3.1	3.2	3.2	3.2	3.3
MEMORANDUM:												
Related program assumptions:												
Automatic benefit increases (percent):												
Social security and veterans pensions	1.3	5.9	4.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
Federal employee retirement	1.3	5.9	4.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
Supplemental Nutrition Assistance Program	....	....	....	2.3	2.2	2.3	2.3	2.3	2.3	2.3	2.3	2.3
Insured unemployment rate	3.15	1.49	1.20	1.17	1.16	1.14	1.14	1.14	1.14	1.14	1.14	1.12

Table 22–3. BASELINE BENEFICIARY PROJECTIONS FOR MAJOR BENEFIT PROGRAMS

(Annual average, in thousands)

	Actual 2021	Estimate										
		2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Farmers receiving Federal payments	1,504	1,206	1,201	1,196	1,191	1,186	1,181	1,176	1,171	1,166	1,161	1,156
Federal direct student loans	6,464	6,464	6,431	6,536	6,562	6,575	6,575	6,582	6,597	6,614	6,614	6,613
Federal Pell Grants	6,104	6,133	6,306	6,958	7,083	7,207	7,344	7,610	7,741	7,881	8,034	8,157
Medicaid/Children's Health Insurance Program	89,692	93,313	88,328	89,205	89,697	90,647	91,453	92,213	92,266	92,641	93,354	94,078
Medicare-eligible military retiree health benefits	2,501	2,525	2,547	2,572	2,596	2,622	2,645	2,665	2,679	2,684	2,683	2,676
Medicare [1]:												
Hospital insurance	63,199	64,359	65,857	67,550	69,231	70,904	72,479	73,969	75,371	76,638	77,693	78,607
Supplementary medical insurance:												
Part B	58,105	59,423	60,889	62,499	64,088	65,661	67,170	68,607	69,962	71,199	72,261	73,197
Part D	49,612	50,953	52,389	53,920	55,401	56,839	58,156	59,397	60,566	61,629	62,524	63,308
Prescription Drug Plans and Medicare:												
Advantage Prescription Drug Plans	48,543	50,016	51,554	53,155	54,676	56,108	57,408	58,633	59,788	60,837	61,720	62,494
Retiree Drug Subsidy	1,070	938	835	764	725	730	747	763	778	792	804	814
Managed Care Enrollment [2]	26,916	29,479	31,555	33,033	34,328	35,613	36,864	38,068	39,217	40,294	41,265	42,147
Railroad retirement	492	485	478	471	464	457	451	444	437	431	424	415
Federal civil service retirement	2,761	2,789	2,815	2,837	2,859	2,883	2,906	2,928	2,949	2,969	2,987	3,004
Military retirement	2,314	2,326	2,384	2,393	2,396	2,399	2,398	2,395	2,389	2,383	2,374	2,362
Unemployment insurance	8,927	6,180	5,306	5,279	5,213	5,178	5,210	5,240	5,268	5,300	5,336	5,376
Unemployment insurance - RUIA	41	30	24	23	23	22	22	22	22	21	21	21
Supplemental Nutrition Assistance Program	41,499	42,308	43,538	43,059	41,209	39,209	38,709	39,009	39,309	39,609	39,709	39,759
Child nutrition	17,725	35,685	35,976	36,271	36,570	36,872	37,179	37,489	37,804	38,122	38,445	38,772
Foster care, Adoption Assistance and Guardianship Assistance	695	815	867	922	983	1,050	1,125	1,207	1,302	1,407	1,524	1,652
Supplemental security income (SSI):												
Aged	1,076	1,077	1,085	1,093	1,106	1,121	1,135	1,150	1,167	1,184	1,202	1,217
Blind/disabled	6,666	6,496	6,384	6,346	6,390	6,449	6,528	6,614	6,680	6,723	6,755	6,783
Total, SSI	7,742	7,573	7,469	7,439	7,496	7,570	7,663	7,765	7,847	7,907	7,957	8,000
Child care and development fund [3]	2,058	2,046	2,023	2,016	2,017	1,958	1,876	1,794	1,718	1,644	1,573	1,501
Social security (OASDI):												
Old age and survivors insurance	55,344	56,461	57,713	59,059	60,408	61,742	63,038	64,442	65,784	67,048	68,231	69,306
Disability insurance	9,562	9,177	8,931	8,842	8,892	9,023	9,212	9,344	9,422	9,456	9,467	9,489
Total, OASDI	64,906	65,638	66,644	67,901	69,300	70,765	72,250	73,786	75,206	76,504	77,698	78,795
Veterans compensation:												
Veterans	5,150	5,324	5,539	5,739	5,932	6,120	6,301	6,476	6,645	6,809	6,968	7,122
Survivors (non-veterans)	453	467	483	502	523	547	573	601	631	663	697	732
Total, Veterans compensation	5,604	5,792	6,022	6,240	6,455	6,666	6,874	7,076	7,276	7,472	7,664	7,854
Veterans pensions:												
Veterans	205	184	162	143	125	109	96	84	73	64	56	49
Survivors (non-veterans)	147	126	114	106	101	96	92	88	84	80	77	74
Total, Veterans pensions	351	310	277	249	226	205	188	172	158	145	133	123

[1] Medicare figures (Hospital Insurance, Part B, and Part D) do not sum to total Medicare enrollment due to enrollment in multiple programs.

[2] Enrollment figures include only beneficiaries who receive both Part A and Part B services through managed care.

[3] These levels include children served through CCDF (including TANF transfers) and through funds spent directly on child care in the Social Services Block Grant and TANF programs.

Table 22–5. RECEIPTS BY SOURCE IN THE PROJECTION OF ADJUSTED BASELINE
(In billions of dollars)

	2021 Actual	Estimate										
		2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Individual income taxes	2,044.4	2,257.2	2,305.4	2,319.0	2,431.3	2,726.7	2,926.0	3,074.4	3,241.0	3,420.2	3,610.1	3,788.7
Corporation income taxes	371.8	382.6	411.8	447.5	453.7	437.4	445.4	467.9	465.0	457.3	454.0	454.9
Social insurance and retirement receipts	1,314.1	1,445.6	1,510.9	1,586.7	1,652.3	1,725.9	1,795.2	1,882.3	1,962.0	2,052.5	2,145.0	2,239.6
(On-budget)	(361.8)	(398.4)	(410.2)	(428.8)	(444.1)	(462.0)	(480.0)	(501.3)	(523.3)	(547.1)	(570.2)	(595.4)
(Off-budget)	(952.3)	(1,047.2)	(1,100.6)	(1,157.9)	(1,208.1)	(1,264.0)	(1,315.2)	(1,381.1)	(1,438.8)	(1,505.4)	(1,574.8)	(1,644.2)
Excise taxes	75.3	84.1	90.4	95.3	94.9	95.7	96.4	96.1	98.3	100.5	100.8	102.6
Estate and gift taxes	27.1	25.7	24.8	25.0	26.1	27.1	41.0	41.8	44.4	47.1	49.9	53.3
Customs duties	80.0	92.6	53.9	46.0	47.2	48.9	50.9	53.0	55.3	57.7	60.2	52.5
Miscellaneous receipts	134.4	142.6	112.0	81.8	76.2	80.0	87.6	96.8	105.6	114.7	124.7	134.7
Total, receipts	**4,047.1**	**4,430.5**	**4,509.4**	**4,601.2**	**4,781.7**	**5,141.7**	**5,442.4**	**5,712.3**	**5,971.6**	**6,250.0**	**6,544.7**	**6,826.2**
(On-budget)	(3,094.8)	(3,383.3)	(3,408.7)	(3,443.2)	(3,573.5)	(3,877.8)	(4,127.2)	(4,331.2)	(4,532.8)	(4,744.7)	(4,969.9)	(5,182.1)
(Off-budget)	(952.3)	(1,047.2)	(1,100.6)	(1,157.9)	(1,208.1)	(1,264.0)	(1,315.2)	(1,381.1)	(1,438.8)	(1,505.4)	(1,574.8)	(1,644.2)

Table 22–6. EFFECT ON RECEIPTS OF CHANGES IN THE SOCIAL SECURITY TAXABLE EARNINGS BASE
(In billions of dollars)

	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Social security (OASDI) taxable earnings base increases:										
$147,000 to $156,300 on Jan. 1, 2023	5.6	14.0	15.1	16.4	17.7	19.3	20.9	22.8	24.8	27.0
$156,300 to $164,700 on Jan. 1, 2024	-	4.9	12.1	13.1	14.3	15.5	16.8	18.4	20.0	21.8
$164,700 to $171,600 on Jan. 1, 2025	-	-	4.0	9.8	10.6	11.6	12.6	13.7	15.0	16.3
$171,600 to $178,200 on Jan. 1, 2026	-	-	-	3.8	9.4	10.2	11.1	12.1	13.2	14.4
$178,200 to $184,500 on Jan. 1, 2027	-	-	-	-	3.6	9.0	9.8	10.7	11.7	12.7
$184,500 to $191,400 on Jan. 1, 2028	-	-	-	-	-	4.0	10.0	10.9	11.9	13.0
$191,400 to $198,600 on Jan. 1, 2029	-	-	-	-	-	-	4.3	10.5	11.5	12.6
$198,600 to $206,400 on Jan. 1, 2030	-	-	-	-	-	-	-	4.7	11.5	12.6
$206,400 to $214,500 on Jan. 1, 2031	-	-	-	-	-	-	-	-	4.9	12.1
$214,500 to $223,500 on Jan. 1, 2032	-	-	-	-	-	-	-	-	-	5.4

Table 22–7. CHANGE IN OUTLAY ESTIMATES BY CATEGORY IN THE ADJUSTED BASELINE

(In billions of dollars)

	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	Change 2022 to 2023 Amount	Change 2022 to 2023 Percent	Change 2022 to 2027 Amount	Change 2022 to 2027 Average annual rate	Change 2022 to 2032 Amount	Change 2022 to 2032 Average annual rate
Outlays:																	
Discretionary:																	
Defense	766	766	784	802	815	828	847	866	886	906	927	–*	–0.1%	62	1.6%	160	1.9%
Non-defense	928	873	949	931	935	952	974	994	1,013	1,033	1,055	–55	–5.9%	24	0.5%	127	1.3%
Subtotal, discretionary	1,694	1,639	1,733	1,733	1,750	1,781	1,822	1,860	1,899	1,939	1,981	–55	–3.2%	87	1.0%	287	1.6%
Mandatory:																	
Farm programs	25	20	24	15	15	15	15	16	17	17	17	–5	–19.1%	–10	–9.9%	–8	–3.9%
Medicaid	562	536	566	595	627	661	703	749	796	844	896	–26	–4.6%	99	3.3%	334	4.8%
Other health care	185	135	122	126	123	129	133	136	137	137	144	–49	–26.6%	–55	–6.9%	–41	–2.5%
Medicare	753	847	853	972	1,071	1,158	1,311	1,261	1,420	1,492	1,645	94	12.5%	405	9.0%	893	8.1%
Federal employee retirement and disability	164	174	180	186	192	197	203	208	214	220	226	10	6.3%	33	3.7%	62	3.2%
Unemployment compensation	77	48	38	41	39	41	42	44	46	46	48	–29	–37.5%	–36	–12.0%	–29	–4.7%
Food and nutrition assistance	198	140	142	144	143	146	151	156	161	165	170	–58	–29.1%	–52	–5.9%	–28	–1.5%
Other income security programs	391	224	204	201	206	195	204	197	207	211	216	–167	–42.7%	–196	–13.0%	–175	–5.8%
Social Security	1,214	1,313	1,398	1,482	1,571	1,663	1,760	1,858	1,958	2,061	2,167	99	8.2%	450	6.5%	953	6.0%
Veterans programs	164	164	160	185	198	211	243	223	254	270	285	*	0.2%	48	5.2%	122	5.7%
Other mandatory programs	301	174	110	89	89	77	82	81	75	75	87	–127	–42.3%	–224	–23.8%	–214	–11.7%
Undistributed offsetting receipts	–232	–126	–129	–132	–136	–149	–143	–145	–149	–152	–157	106	–45.7%	83	–8.4%	75	–3.8%
Subtotal, mandatory	3,800	3,650	3,670	3,904	4,138	4,344	4,703	4,783	5,136	5,386	5,743	–150	–4.0%	544	2.7%	1,942	4.2%
Net interest	357	396	477	567	653	736	818	891	963	1,038	1,116	39	10.8%	379	15.6%	759	12.1%
Total, outlays	5,852	5,685	5,880	6,204	6,540	6,861	7,342	7,534	7,998	8,363	8,840	–167	–2.9%	1,010	3.2%	2,988	4.2%

*Less than $500 million.

Table 22–8. OUTLAYS BY FUNCTION IN THE ADJUSTED BASELINE

(In billions of dollars)

Function	2021 Actual	Estimate										
		2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
National Defense:												
Department of Defense—Military	717.6	741.0	740.0	758.1	774.6	786.2	799.1	817.5	835.5	854.7	873.9	895.4
Other	36.3	38.7	39.7	40.0	41.4	42.6	43.5	44.3	45.2	46.1	47.0	47.5
Total, National Defense	753.9	779.7	779.8	798.1	816.1	828.8	842.6	861.8	880.7	900.8	921.0	942.9
International Affairs	46.9	61.6	59.8	60.1	59.4	61.8	63.1	64.6	66.1	67.4	68.3	69.9
General Science, Space, and Technology	35.5	39.1	39.6	40.1	42.2	41.9	42.5	43.1	43.9	44.8	45.8	46.8
Energy	6.0	5.7	15.4	12.8	15.7	15.9	14.2	16.4	17.2	18.2	18.5	18.9
Natural Resources and Environment	44.2	50.5	57.4	71.4	74.0	76.6	79.4	79.6	80.1	80.3	80.8	82.5
Agriculture	47.4	35.3	35.3	42.5	33.8	33.5	33.5	34.5	35.6	37.1	37.5	37.7
Commerce and Housing Credit	307.8	–2.4	8.0	42.5	17.7	16.1	7.7	9.1	8.7	7.5	6.9	7.6
(On-Budget)	(310.6)	(–7.4)	(6.0)	(38.4)	(13.6)	(7.0)	(7.4)	(8.8)	(8.5)	(7.3)	(6.6)	(7.3)
(Off-Budget)	(–2.7)	(5.1)	(2.0)	(4.1)	(4.2)	(9.1)	(0.3)	(0.3)	(0.3)	(0.3)	(0.3)	(0.3)
Transportation	154.3	141.5	145.3	147.7	152.9	156.8	163.0	170.2	176.4	173.6	177.8	187.7
Community and Regional Development	44.7	81.3	56.4	54.6	48.8	49.0	46.7	47.1	44.6	43.9	44.0	44.9
Education, Training, Employment, and Social Services	298.4	265.0	219.8	169.3	144.1	146.7	150.4	153.8	156.8	159.3	162.3	161.0
Health	796.5	868.4	759.9	786.1	818.9	837.7	876.0	923.2	974.1	1,024.0	1,074.5	1,134.4
Medicare	696.5	760.9	855.1	860.7	979.7	1,078.7	1,166.6	1,319.8	1,269.7	1,429.0	1,501.6	1,654.9
Income Security	1,647.7	926.2	680.0	656.7	666.8	675.6	675.2	697.3	705.5	729.0	745.4	764.5
Social Security	1,134.6	1,219.5	1,318.7	1,404.4	1,488.2	1,577.0	1,669.7	1,766.7	1,864.8	1,965.0	2,068.3	2,174.2
(On-Budget)	(34.9)	(48.6)	(51.0)	(55.5)	(60.4)	(72.3)	(80.8)	(87.5)	(94.6)	(102.4)	(110.7)	(119.7)
(Off-Budget)	(1,099.7)	(1,171.0)	(1,267.7)	(1,349.0)	(1,427.8)	(1,504.7)	(1,588.9)	(1,679.1)	(1,770.1)	(1,862.6)	(1,957.6)	(2,054.6)
Veterans Benefits and Services	234.3	274.0	279.1	278.0	304.4	319.5	335.9	370.5	353.3	388.2	407.0	425.8
Administration of Justice	71.4	79.5	74.4	74.3	76.2	77.6	79.1	80.9	82.7	84.6	86.5	95.0
General Government	273.9	140.7	31.2	32.1	30.6	29.7	28.7	29.0	28.4	30.7	31.1	32.1
Net Interest	352.3	357.1	395.7	477.5	566.9	652.9	736.3	817.5	890.6	963.2	1,038.2	1,115.9
(On-Budget)	(425.6)	(424.5)	(457.8)	(535.5)	(622.4)	(705.0)	(787.4)	(866.0)	(934.5)	(1,002.0)	(1,071.1)	(1,141.3)
(Off-Budget)	(–73.3)	(–67.4)	(–62.1)	(–58.0)	(–55.5)	(–52.1)	(–51.1)	(–48.5)	(–43.9)	(–38.8)	(–32.9)	(–25.4)
Allowances	....	0.3	....	0.1	0.1	....	....	....	....	....	....	....
Undistributed Offsetting Receipts:												
Employer share, employee retirement (on-budget)	(–90.8)	(–97.1)	(–98.1)	(–100.5)	(–102.8)	(–105.1)	(–107.2)	(–109.5)	(–111.9)	(–114.4)	(–117.1)	(–120.6)
Employer share, employee retirement (off-budget)	(–19.9)	(–20.7)	(–21.5)	(–22.1)	(–23.0)	(–23.6)	(–24.3)	(–25.2)	(–25.6)	(–26.5)	(–27.3)	(–28.0)
Rents and royalties on the Outer Continental Shelf	–4.2	–10.7	–6.4	–6.4	–6.6	–6.8	–7.8	–7.8	–7.6	–7.8	–8.0	–8.2
Sale of major assets	....	....	....	....	....	....	....	....	....	....	....	....
Other undistributed offsetting receipts	–9.0	–103.5	–*	–*	–*	–*	–10.0	–*	–*	–*	–*	–*
Total, Undistributed Offsetting Receipts	–123.9	–232.1	–125.9	–129.1	–132.3	–135.6	–149.3	–142.5	–145.2	–148.7	–152.3	–156.9
(On-Budget)	(–104.0)	(–211.4)	(–104.4)	(–106.9)	(–109.4)	(–112.0)	(–125.0)	(–117.3)	(–119.6)	(–122.2)	(–125.1)	(–128.8)
(Off-Budget)	(–19.9)	(–20.7)	(–21.5)	(–22.1)	(–23.0)	(–23.6)	(–24.3)	(–25.2)	(–25.6)	(–26.5)	(–27.3)	(–28.0)
Total	**6,822.4**	**5,851.7**	**5,684.9**	**5,880.0**	**6,204.0**	**6,540.3**	**6,861.3**	**7,342.5**	**7,534.0**	**7,997.7**	**8,363.0**	**8,839.9**
(On-Budget)	(5,818.6)	(4,763.8)	(4,498.8)	(4,607.1)	(4,850.6)	(5,102.2)	(5,347.6)	(5,736.8)	(5,833.1)	(6,200.2)	(6,465.3)	(6,838.5)
(Off-Budget)	(1,003.8)	(1,087.9)	(1,186.2)	(1,272.9)	(1,353.5)	(1,438.1)	(1,513.7)	(1,605.7)	(1,700.9)	(1,797.5)	(1,897.7)	(2,001.4)

*Less than $500 million.

Table 22–9. OUTLAYS BY AGENCY IN THE ADJUSTED BASELINE

(In billions of dollars)

Agency	2021 Actual	Estimate										
		2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Legislative Branch	5.3	6.0	5.7	5.8	5.9	6.1	6.2	6.4	6.5	6.7	6.9	7.0
Judicial Branch	8.3	8.8	9.1	9.3	9.6	9.7	10.0	10.2	10.5	10.7	10.9	11.2
Agriculture	235.2	260.7	205.8	216.6	209.7	208.6	211.5	216.8	223.6	230.1	235.5	240.8
Commerce	13.1	16.6	15.8	45.5	20.4	11.9	12.0	12.2	12.5	12.8	13.1	13.5
Defense—Military Programs	717.6	741.0	740.0	758.1	774.6	786.2	799.1	817.5	835.5	854.7	873.9	895.4
Education	260.4	222.9	180.4	131.1	106.6	108.9	112.2	114.9	117.2	119.1	121.5	119.4
Energy	33.7	38.3	48.8	46.1	50.1	50.3	49.6	52.2	53.5	54.6	55.5	56.6
Health and Human Services	1,466.7	1,626.0	1,627.3	1,650.0	1,792.1	1,907.4	2,031.6	2,228.0	2,225.5	2,434.7	2,559.6	2,770.4
Homeland Security	91.1	89.5	80.3	80.7	76.4	79.0	77.9	81.1	82.7	84.0	85.8	94.0
Housing and Urban Development	35.1	33.4	59.7	60.5	61.5	61.4	60.5	61.0	58.5	58.1	57.7	57.9
Interior	15.8	19.9	20.9	22.6	23.3	23.4	23.1	23.0	23.1	23.5	24.0	24.8
Justice	39.3	44.2	40.7	39.6	40.5	41.1	41.7	42.7	43.6	44.6	45.7	46.9
Labor	404.8	146.0	80.7	56.8	55.9	56.9	54.5	55.5	57.8	59.9	60.3	62.6
State	35.8	35.1	34.1	35.4	36.5	37.2	37.6	38.3	39.2	40.0	40.9	41.8
Transportation	104.9	123.8	127.2	129.2	134.9	138.3	143.9	148.8	154.4	157.3	160.5	163.4
Treasury	1,633.8	942.3	701.2	785.4	874.0	953.6	1,038.7	1,125.5	1,193.5	1,262.7	1,337.4	1,421.1
Veterans Affairs	233.8	273.7	278.8	277.6	303.9	319.0	335.4	370.0	352.8	387.6	406.5	425.3
Corps of Engineers—Civil Works	7.9	7.0	7.6	13.6	13.0	14.1	16.3	15.9	15.3	14.3	13.4	13.7
Other Defense Civil Programs	58.1	63.9	72.3	74.8	77.7	82.7	82.7	84.5	87.8	90.0	92.6	92.4
Environmental Protection Agency	8.3	8.7	14.2	18.4	20.7	21.8	22.8	23.8	24.5	25.1	25.7	26.3
Executive Office of the President	0.4	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
General Services Administration	–1.3	–0.3	–1.4	–0.9	–0.7	–0.9	–1.4	–1.8	–1.8	–1.9	–1.9	–2.0
International Assistance Programs	20.0	24.6	24.6	23.8	22.3	24.0	24.9	25.7	26.3	26.8	26.8	27.4
National Aeronautics and Space Administration	22.2	23.4	23.8	24.1	25.0	25.4	26.0	26.5	27.1	27.7	28.3	28.9
National Science Foundation	7.4	8.6	8.8	9.3	10.1	9.9	9.8	9.6	9.7	9.9	10.0	10.3
Office of Personnel Management	108.6	114.5	119.1	124.0	128.4	133.4	138.2	143.3	148.1	151.2	151.9	157.0
Small Business Administration	322.7	24.1	1.5	0.8	0.8	0.8	0.8	0.9	0.9	0.9	0.9	0.9
Social Security Administration	1,192.5	1,282.6	1,379.7	1,464.2	1,555.2	1,646.7	1,742.1	1,847.0	1,937.1	2,045.0	2,150.7	2,259.0
(On-Budget)	(92.7)	(111.7)	(112.0)	(115.3)	(127.4)	(142.0)	(153.2)	(167.9)	(166.9)	(182.4)	(193.1)	(204.5)
(Off-Budget)	(1,099.7)	(1,171.0)	(1,267.7)	(1,349.0)	(1,427.8)	(1,504.7)	(1,588.9)	(1,679.1)	(1,770.1)	(1,862.6)	(1,957.6)	(2,054.6)
Other Independent Agencies	14.4	43.9	35.3	39.2	42.0	48.5	41.8	44.3	44.9	45.3	46.1	47.9
(On-Budget)	(17.2)	(38.9)	(33.3)	(35.1)	(37.8)	(39.4)	(41.5)	(44.0)	(44.6)	(45.0)	(45.8)	(47.6)
(Off-Budget)	(–2.7)	(5.1)	(2.0)	(4.1)	(4.2)	(9.1)	(0.3)	(0.3)	(0.3)	(0.3)	(0.3)	(0.3)
Allowances	....	(0.3)	....	(0.1)	(0.1)	....	....	....	....	....	....	....
Undistributed Offsetting Receipts	–273.4	–378.3	–257.5	–262.2	–266.7	–265.3	–288.5	–281.8	–276.9	–278.2	–277.7	–274.6
(On-Budget)	(–180.3)	(–290.1)	(–174.0)	(–182.0)	(–188.3)	(–189.6)	(–213.1)	(–208.1)	(–207.4)	(–212.9)	(–217.6)	(–221.1)
(Off-Budget)	(–93.1)	(–88.1)	(–83.6)	(–80.2)	(–78.5)	(–75.7)	(–75.5)	(–73.7)	(–69.5)	(–65.3)	(–60.2)	(–53.5)
Total	**6,822.4**	**5,851.7**	**5,684.9**	**5,880.0**	**6,204.0**	**6,540.3**	**6,861.3**	**7,342.5**	**7,534.0**	**7,997.7**	**8,363.0**	**8,839.9**
(On-Budget)	(5,818.6)	(4,763.8)	(4,498.8)	(4,607.1)	(4,850.6)	(5,102.2)	(5,347.6)	(5,736.8)	(5,833.1)	(6,200.2)	(6,465.3)	(6,838.5)
(Off-Budget)	(1,003.8)	(1,087.9)	(1,186.2)	(1,272.9)	(1,353.5)	(1,438.1)	(1,513.7)	(1,605.7)	(1,700.9)	(1,797.5)	(1,897.7)	(2,001.4)

Table 22–10. BUDGET AUTHORITY BY FUNCTION IN THE ADJUSTED BASELINE

(In billions of dollars)

Function	2021 Actual	Estimate										
		2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
National Defense:												
Department of Defense—Military	719.5	727.0	746.6	763.3	780.7	798.3	816.9	835.4	854.7	874.5	895.0	916.9
Other	40.1	39.6	40.5	41.4	42.3	43.2	44.1	44.9	45.9	46.8	47.7	48.2
Total, National Defense	759.6	766.6	787.1	804.7	822.9	841.5	861.0	880.3	900.6	921.3	942.7	965.1
International Affairs	77.2	61.5	65.3	82.4	84.8	91.6	96.9	99.0	101.1	103.3	104.7	107.0
General Science, Space, and Technology	38.8	38.3	39.3	40.2	41.0	41.9	42.8	43.7	44.7	45.6	46.6	47.6
Energy	6.3	26.9	19.4	18.3	16.5	14.9	14.5	16.6	17.8	18.7	19.3	19.8
Natural Resources and Environment	48.6	107.6	72.9	76.1	77.6	77.1	78.6	80.5	82.5	84.3	86.1	88.6
Agriculture	40.9	40.7	35.9	36.5	34.4	34.4	34.9	35.6	36.7	38.0	38.5	39.3
Commerce and Housing Credit	–211.6	33.4	15.5	19.4	22.7	25.8	29.2	30.7	31.7	32.6	33.6	36.0
(On-Budget)	(–221.6)	(33.1)	(15.3)	(19.2)	(22.4)	(25.5)	(28.9)	(30.5)	(31.4)	(32.3)	(33.3)	(35.7)
(Off-Budget)	(10.0)	(0.3)	(0.3)	(0.3)	(0.3)	(0.3)	(0.3)	(0.3)	(0.3)	(0.3)	(0.3)	(0.3)
Transportation	209.1	155.1	161.9	164.7	166.8	169.8	172.0	175.8	177.9	173.9	176.4	183.9
Community and Regional Development	80.8	38.8	39.0	39.7	40.3	41.1	41.9	43.4	44.4	45.2	46.0	46.9
Education, Training, Employment, and Social Services	513.3	150.4	133.2	141.4	145.6	148.7	153.0	156.3	159.4	161.9	165.0	166.7
Health	906.3	779.4	758.9	764.2	800.6	839.7	880.3	925.3	980.7	1,033.1	1,084.5	1,145.3
Medicare	745.8	818.6	932.1	861.6	980.4	1,079.2	1,167.0	1,320.2	1,270.0	1,429.4	1,502.0	1,655.3
Income Security	1,834.8	858.9	656.6	649.0	668.3	671.8	678.2	702.6	713.6	740.2	757.8	777.8
Social Security	1,137.3	1,228.1	1,327.0	1,411.4	1,495.5	1,584.7	1,677.8	1,774.8	1,873.1	1,973.5	2,077.1	2,183.2
(On-Budget)	(34.9)	(48.5)	(51.0)	(55.5)	(60.4)	(72.3)	(80.8)	(87.5)	(94.6)	(102.4)	(110.7)	(119.7)
(Off-Budget)	(1,102.5)	(1,179.6)	(1,276.1)	(1,355.9)	(1,435.1)	(1,512.4)	(1,596.9)	(1,687.3)	(1,778.4)	(1,871.0)	(1,966.4)	(2,063.5)
Veterans Benefits and Services	255.9	258.3	276.2	273.4	306.4	322.9	339.7	357.3	374.9	393.1	412.1	431.1
Administration of Justice	72.1	72.3	76.0	75.0	76.9	78.5	80.4	82.2	84.0	85.9	87.9	96.1
General Government	397.9	30.3	27.2	27.9	28.3	29.0	29.6	30.3	30.9	31.5	32.2	33.2
Net Interest	352.3	357.1	395.7	477.5	566.9	652.9	736.3	817.5	890.6	963.2	1,038.2	1,115.9
(On-Budget)	(425.6)	(424.5)	(457.7)	(535.5)	(622.4)	(705.0)	(787.4)	(866.0)	(934.5)	(1,002.0)	(1,071.1)	(1,141.3)
(Off-Budget)	(–73.3)	(–67.4)	(–62.1)	(–58.0)	(–55.5)	(–52.1)	(–51.1)	(–48.5)	(–43.9)	(–38.8)	(–32.9)	(–25.4)
Allowances	....	0.3	....	0.1	0.1	....	....	....	....	....	....	....
Undistributed Offsetting Receipts:												
Employer share, employee retirement (on-budget)	–90.8	–97.1	–98.1	–100.5	–102.8	–105.1	–107.2	–109.5	–111.9	–114.4	–117.1	–120.6
Employer share, employee retirement (off-budget)	–19.9	–20.7	–21.5	–22.1	–23.0	–23.6	–24.3	–25.2	–25.6	–26.5	–27.3	–28.0
Rents and royalties on the Outer Continental Shelf	–4.2	–10.7	–6.4	–6.4	–6.6	–6.8	–7.8	–7.8	–7.6	–7.8	–8.0	–8.2
Sale of major assets	....	....	....	....	....	....	....	....	....	....	....	....
Other undistributed offsetting receipts	–9.0	–103.5	–*	–*	–*	–*	–10.0	–*	–*	–*	–*	–*
Total, Undistributed Offsetting Receipts	–123.9	–232.1	–125.9	–129.1	–132.3	–135.6	–149.3	–142.5	–145.2	–148.7	–152.3	–156.9
(On-Budget)	(–104.0)	(–211.4)	(–104.4)	(–106.9)	(–109.4)	(–112.0)	(–125.0)	(–117.3)	(–119.6)	(–122.2)	(–125.1)	(–128.8)
(Off-Budget)	(–19.9)	(–20.7)	(–21.5)	(–22.1)	(–23.0)	(–23.6)	(–24.3)	(–25.2)	(–25.6)	(–26.5)	(–27.3)	(–28.0)
Total	**7,141.6**	**5,590.4**	**5,693.3**	**5,834.5**	**6,243.8**	**6,610.0**	**6,964.7**	**7,429.6**	**7,669.3**	**8,125.8**	**8,498.3**	**8,981.8**
(On-Budget)	(6,122.3)	(4,498.7)	(4,500.5)	(4,558.4)	(4,886.9)	(5,173.0)	(5,443.0)	(5,815.7)	(5,960.1)	(6,319.9)	(6,591.8)	(6,971.5)
(Off-Budget)	(1,019.3)	(1,091.7)	(1,192.8)	(1,276.1)	(1,356.9)	(1,436.9)	(1,521.8)	(1,613.9)	(1,709.2)	(1,806.0)	(1,906.5)	(2,010.3)

Table 22–10. BUDGET AUTHORITY BY FUNCTION IN THE ADJUSTED BASELINE—Continued
(In billions of dollars)

Function	2021 Actual	Estimate										
		2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
MEMORANDUM												
Discretionary Budget Authority:												
National Defense	741.7	753.7	773.5	791.1	809.3	827.9	846.9	866.1	886.0	906.4	927.3	948.7
International Affairs	63.4	61.4	62.9	64.2	65.5	66.9	68.3	69.8	71.2	72.7	74.3	75.8
Domestic	812.8	819.6	756.1	772.1	788.1	802.4	820.2	838.3	856.9	875.8	895.3	915.1
Total, Discretionary	1,618.0	1,634.6	1,592.4	1,627.4	1,662.9	1,697.2	1,735.4	1,774.2	1,814.1	1,855.0	1,896.8	1,939.7

*Less than $500 million.

Table 22–11. BUDGET AUTHORITY BY AGENCY IN THE ADJUSTED BASELINE

(In billions of dollars)

Agency	2021 Actual	Estimate										
		2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Legislative Branch	6.1	5.5	5.7	5.9	6.0	6.1	6.3	6.5	6.6	6.8	7.0	7.1
Judicial Branch	8.7	8.5	9.0	9.2	9.4	9.6	9.9	10.1	10.3	10.6	10.8	11.1
Agriculture	275.1	269.1	205.4	210.2	208.2	207.8	212.0	218.4	225.6	232.2	238.0	244.3
Commerce	14.3	56.4	11.3	11.6	11.8	12.0	12.3	12.6	12.9	13.2	13.5	13.8
Defense—Military Programs	719.5	727.0	746.6	763.3	780.7	798.3	816.9	835.4	854.7	874.5	895.0	916.9
Education	469.5	114.8	96.8	104.5	108.1	110.6	114.3	117.0	119.3	121.2	123.6	124.5
Energy	36.6	57.9	51.1	51.9	50.7	49.7	50.3	53.0	54.7	55.8	57.0	58.1
Health and Human Services	1,675.8	1,573.0	1,682.3	1,620.8	1,774.7	1,910.8	2,037.2	2,231.8	2,233.6	2,445.6	2,571.1	2,782.9
Homeland Security	123.2	71.4	71.1	72.8	74.3	76.0	77.8	82.0	84.0	85.8	87.7	95.5
Housing and Urban Development	69.4	61.1	65.9	67.0	68.1	69.2	70.4	71.5	72.7	73.9	75.2	76.4
Interior	20.7	40.1	21.3	21.7	21.9	20.6	20.9	21.3	21.8	22.2	22.7	23.6
Justice	38.7	38.2	41.9	39.9	40.9	41.7	42.8	43.8	44.8	45.8	46.8	48.1
Labor	460.1	130.4	75.1	52.9	55.5	49.5	52.8	55.3	59.8	64.5	64.9	67.4
State	36.4	34.4	35.2	36.0	36.7	37.5	38.4	39.2	40.1	40.9	41.9	42.8
Transportation	157.6	140.8	144.2	146.6	148.8	151.2	152.7	154.2	155.7	157.3	158.9	159.3
Treasury	1,336.3	786.1	695.0	779.8	873.1	953.6	1,040.3	1,127.0	1,196.3	1,263.9	1,339.0	1,423.0
Veterans Affairs	255.4	257.9	275.8	273.0	305.9	322.4	339.2	356.7	374.4	392.5	411.5	430.5
Corps of Engineers—Civil Works	7.3	28.3	14.8	15.1	15.4	15.8	16.1	16.5	16.8	17.2	17.6	18.0
Other Defense Civil Programs	57.9	63.8	72.6	75.0	78.0	83.0	83.1	84.9	88.1	90.4	93.0	92.8
Environmental Protection Agency	9.3	23.5	21.1	22.9	23.6	23.9	24.4	25.0	25.6	26.1	26.7	27.4
Executive Office of the President	0.6	0.4	0.4	0.4	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.6
General Services Administration	0.2	1.8	–1.6	–1.3	–1.4	–1.4	–1.4	–1.4	–1.5	–1.5	–1.5	–1.5
International Assistance Programs	37.5	25.4	28.4	44.7	46.3	52.3	56.7	58.0	59.2	60.4	61.0	62.3
National Aeronautics and Space Administration	23.3	23.6	24.2	24.7	25.2	25.7	26.3	26.9	27.4	28.0	28.6	29.2
National Science Foundation	9.2	8.6	8.9	9.0	9.2	9.4	9.6	9.8	10.0	10.2	10.4	10.6
Office of Personnel Management	109.9	115.7	121.7	126.8	131.6	136.5	141.6	146.8	152.2	155.6	157.2	162.9
Small Business Administration	208.8	–33.4	0.8	0.8	0.8	0.8	0.8	0.9	0.9	0.9	0.9	0.9
Social Security Administration	1,195.1	1,288.6	1,388.1	1,471.2	1,562.5	1,654.4	1,750.2	1,855.2	1,945.3	2,053.5	2,159.5	2,268.0
(On-Budget)	(92.6)	(109.1)	(112.0)	(115.2)	(127.4)	(142.0)	(153.2)	(167.9)	(166.9)	(182.4)	(193.1)	(204.5)
(Off-Budget)	(1,102.5)	(1,179.6)	(1,276.1)	(1,355.9)	(1,435.1)	(1,512.4)	(1,596.9)	(1,687.3)	(1,778.4)	(1,871.0)	(1,966.4)	(2,063.5)
Other Independent Agencies	52.5	49.2	38.1	40.2	44.1	47.4	50.8	52.7	54.2	56.1	57.6	60.0
(On-Budget)	(42.5)	(48.9)	(37.8)	(39.9)	(43.8)	(47.1)	(50.5)	(52.5)	(53.9)	(55.8)	(57.3)	(59.7)
(Off-Budget)	(10.0)	(0.3)	(0.3)	(0.3)	(0.3)	(0.3)	(0.3)	(0.3)	(0.3)	(0.3)	(0.3)	(0.3)
Allowances	....	(0.3)	....	(0.1)	(0.1)	....	....	....	....	....	....	....
Undistributed Offsetting Receipts	–273.4	–378.3	–257.5	–262.2	–266.7	–265.3	–288.5	–281.8	–276.9	–278.2	–277.7	–274.6
(On-Budget)	(–180.3)	(–290.1)	(–174.0)	(–182.0)	(–188.3)	(–189.6)	(–213.1)	(–208.1)	(–207.4)	(–212.9)	(–217.6)	(–221.1)
(Off-Budget)	(–93.1)	(–88.1)	(–83.6)	(–80.2)	(–78.5)	(–75.7)	(–75.5)	(–73.7)	(–69.5)	(–65.3)	(–60.2)	(–53.5)
Total	**7,141.6**	**5,590.4**	**5,693.3**	**5,834.5**	**6,243.8**	**6,610.0**	**6,964.7**	**7,429.6**	**7,669.3**	**8,125.8**	**8,498.3**	**8,981.8**
(On-Budget)	(6,122.3)	(4,498.7)	(4,500.5)	(4,558.4)	(4,886.9)	(5,173.0)	(5,443.0)	(5,815.7)	(5,960.1)	(6,319.9)	(6,591.8)	(6,971.5)
(Off-Budget)	(1,019.3)	(1,091.7)	(1,192.8)	(1,276.1)	(1,356.9)	(1,436.9)	(1,521.8)	(1,613.9)	(1,709.2)	(1,806.0)	(1,906.5)	(2,010.3)

23. TRUST FUNDS AND FEDERAL FUNDS

As is common for State and local government budgets, the budget for the Federal Government contains information about collections and expenditures for different types of funds. This chapter presents summary information about the transactions of the two major fund groups used by the Federal Government, trust funds and Federal funds. It also presents information about the income and outgo of the major trust funds and certain Federal funds that are financed by dedicated collections in a manner similar to trust funds.

The Federal Funds Group

The Federal funds group includes all financial transactions of the Government that are not required by law to be recorded in trust funds. It accounts for a larger share of the budget than the trust funds group.

The Federal funds group includes the "general fund," which is used for the general purposes of Government rather than being restricted by law to a specific program. The general fund is the largest fund in the Government and it receives all collections not dedicated for some other fund, including virtually all income taxes and many excise taxes. The general fund is used for all programs that are not supported by trust, special, or revolving funds.

The Federal funds group also includes special funds and revolving funds, both of which receive collections that are dedicated by law for specific purposes. Where the law requires that Federal fund collections be dedicated to a particular program, the collections and associated disbursements are recorded in special fund receipt and expenditure accounts.[1] An example is the portion of the Outer Continental Shelf mineral leasing receipts deposited into the Land and Water Conservation Fund. Money in special fund receipt accounts must be appropriated before it can be obligated and spent. The majority of special fund collections are derived from the Government's power to impose taxes or fines, or otherwise compel payment, as in the case of the Crime Victims Fund. In addition, a significant amount of collections credited to special funds is derived from certain types of business-like activity, such as the sale of Government land or other assets or the use of Government property. These collections include receipts from timber sales and royalties from oil and gas extraction.

Revolving funds are used to conduct continuing cycles of business-like activity. Revolving funds receive proceeds from the sale of products or services, and these proceeds finance ongoing activities that continue to provide products or services. Instead of being deposited in receipt accounts, the proceeds are recorded in revolving fund expenditure accounts. The proceeds are generally available for obligation and expenditure without further legislative action. Outlays for programs with revolving funds are reported both gross and net of these proceeds; gross outlays include the expenditures from the proceeds and net program outlays are derived by subtracting the proceeds from gross outlays. Because the proceeds of these sales are recorded as offsets to outlays within expenditure accounts rather than receipt accounts, the proceeds are known as "offsetting collections."[2] There are two classes of revolving funds in the Federal funds group. Public enterprise funds, such as the Postal Service Fund, conduct business-like operations mainly with the public. Intragovernmental funds, such as the Federal Buildings Fund, conduct business-like operations mainly within and between Government agencies.

The Trust Funds Group

The trust funds group consists of funds that are designated by law as trust funds. Like special funds and revolving funds, trust funds receive collections that are dedicated by law for specific purposes. Some of the larger trust funds are used to budget for social insurance programs, such as Social Security, Medicare, and unemployment compensation. Other large trust funds are used to budget for military and Federal civilian employees' retirement benefits, highway and transit construction and maintenance, and airport and airway development and maintenance. There are a few trust revolving funds that are credited with collections earmarked by law to carry out a cycle of business-type operations. There are also a few small trust funds that have been established to carry out the terms of a conditional gift or bequest.

There is no substantive difference between special funds in the Federal funds group and trust funds, or between revolving funds in the Federal funds group and trust revolving funds. Whether a particular fund is designated in law as a trust fund is, in many cases, arbitrary. For example, the National Service Life Insurance Fund is a trust fund, but the Servicemen's Group Life Insurance Fund is a Federal fund, even though both receive dedicated collections from veterans and both provide life insurance payments to veterans' beneficiaries.

The Federal Government uses the term "trust fund" differently than the way in which it is commonly used. In common usage, the term is used to refer to a private fund that has a beneficiary who owns the trust's income and may also own the trust's assets. A custodian or trustee

[1] There are two types of budget accounts: expenditure (or appropriation) accounts and receipt accounts. Expenditure accounts are used to record outlays and receipt accounts are used to record governmental receipts and offsetting receipts. For further detail on expenditure and receipt accounts, see Chapter 8, "Budget Concepts," in this volume.

[2] See Chapter 12 in this volume for more information on offsetting collections and offsetting receipts.

manages the assets on behalf of the beneficiary according to the terms of the trust agreement, as established by a trustor. Neither the trustee nor the beneficiary can change the terms of the trust agreement; only the trustor can change the terms of the agreement. In contrast, the Federal Government owns and manages the assets and the earnings of most Federal trust funds, and can unilaterally change the law to raise or lower future trust fund collections and payments or change the purpose for which the collections are used. Only a few small Federal trust funds are managed pursuant to a trust agreement whereby the Government acts as the trustee; even then, the Government generally owns the funds and has some ability to alter the amount deposited into or paid out of the funds.

Deposit funds, which are funds held by the Government as a custodian on behalf of individuals or a non-Federal entity, are similar to private-sector trust funds. The Government makes no decisions about the amount of money placed in deposit funds or about how the proceeds are spent. For this reason, these funds are not classified as Federal trust funds, but are instead considered to be non-budgetary and excluded from the Federal budget.[3]

The income of a Federal Government trust fund must be used for the purposes specified in law. The income of some trust funds, such as the Federal Employees Health Benefits fund, is spent almost as quickly as it is collected. In other cases, such as the military and Federal civilian employees' retirement trust funds, the trust fund income is not spent as quickly as it is collected. Currently, these funds do not use all of their annual income (which includes intragovernmental interest income). This surplus of income over outgo adds to the trust fund's balance, which is available for future expenditures. Trust fund balances are generally required by law to be invested in Federal securities issued by the Department of the Treasury.[4] The National Railroad Retirement Investment Trust is a rare example of a Government trust fund authorized to invest balances in equity markets.

A trust fund normally consists of one or more receipt accounts (to record income) and an expenditure account (to record outgo). However, a few trust funds, such as the Veterans Special Life Insurance fund, are established by law as trust revolving funds. Such a fund is similar to a revolving fund in the Federal funds group in that it may consist of a single account to record both income and outgo. Trust revolving funds are used to conduct cycle of business-type operations; offsetting collections are credited to the funds (which are also expenditure accounts) and the funds' outlays are displayed net of the offsetting collections.

[3] Deposit funds are also discussed in Chapter 9 of this volume, "Coverage of the Budget."

[4] Securities held by trust funds (and by other Government accounts), debt held by the public, and gross Federal debt are discussed in Chapter 4 of this volume, "Federal Borrowing and Debt."

Income and Outgo by Fund Group

Table 23–1 shows income, outgo, and the surplus or deficit by fund group and in the aggregate (netted to avoid double-counting) from which the total unified budget receipts, outlays, and surplus or deficit are derived. Income consists mostly of governmental receipts (derived from governmental activity, primarily income, payroll, and excise taxes). Income also includes offsetting receipts, which include proprietary receipts (derived from business-like transactions with the public), interfund collections (derived from payments from a fund in one fund group to a fund in the other fund group), and gifts. Outgo consists of payments made to the public or to a fund in the other fund group.

Two types of transactions are treated specially in the table. First, income and outgo for each fund group exclude all transactions that occur between funds within the same fund group.[5] These intrafund transactions constitute outgo and income for the individual funds that make and collect the payments, but they are offsetting within the fund group as a whole. The totals for each fund group measure only the group's transactions with the public and the other fund group. Second, outgo is calculated net of the collections from Federal sources that are credited to expenditure accounts (which, as noted above, are referred to as offsetting collections); the spending that is financed by those collections is included in outgo and the collections from Federal sources are subsequently subtracted from outgo.[6] Although it would be conceptually correct to add interfund offsetting collections from Federal sources to income for a particular fund, this cannot be done at the present time because the budget data do not provide this type of detail. As a result, both interfund and intrafund offsetting collections from Federal sources are offset against outgo in Table 23–1 and are not shown separately.

The vast majority of the interfund transactions in the table are payments by the Federal funds to the trust funds. These payments include interest payments from the general fund to the trust funds for interest earned on trust fund balances invested in interest-bearing Treasury securities. The payments also include payments by Federal agencies to Federal employee benefits trust funds and Social Security trust funds on behalf of current employees and general fund transfers to employee retirement trust funds to amortize the unfunded liabilities of these funds. In addition, the payments include general fund transfers to the Supplementary Medical Insurance trust fund for

[5] For example, the railroad retirement trust funds pay the equivalent of Social Security benefits to railroad retirees in addition to the regular railroad pension. These benefits are financed by a payment from the Federal Old-Age and Survivors Insurance trust fund to the railroad retirement trust funds. The payment and collection are not included in Table 23–1 so that the total trust fund income and outgo shown in the table reflect transactions with the public and with Federal funds.

[6] Collections from non-Federal sources are shown as income and spending that is financed by those collections is shown as outgo. For example, postage stamp fees are deposited as offsetting collections in the Postal Service Fund. As a result, the Fund's income reported in Table 23–1 includes postage stamp fees and the Fund's outgo is gross disbursements, including disbursements financed by those fees.

Table 23–1. RECEIPTS, OUTLAYS, AND SURPLUS OR DEFICIT BY FUND GROUP
(In billions of dollars)

	2021 Actual	Estimate					
		2022	2023	2024	2025	2026	2027
Receipts:							
Federal funds cash income:							
From the public	3,091.0	3,414.6	3,396.4	3,572.5	3,718.9	3,985.4	4,223.0
From trust funds	2.1	2.1	1.8	1.8	1.8	1.8	1.7
Total, Federal funds cash income	3,093.1	3,416.6	3,398.2	3,574.3	3,720.8	3,987.2	4,224.8
Trust funds cash income:							
From the public	1,665.7	1,792.0	1,845.3	1,936.9	2,017.7	2,100.5	2,187.0
From Federal funds:							
Interest	149.6	146.1	131.6	133.1	134.4	129.7	139.3
Other	933.7	909.1	838.4	885.6	928.0	1,032.4	974.5
Total, Trust funds cash income	2,749.0	2,847.2	2,815.4	2,955.6	3,080.1	3,262.6	3,300.7
Offsetting collections from the public and offsetting receipts:							
Federal funds	–420.1	–492.1	–340.5	–359.4	–369.1	–380.5	–397.8
Trust funds	–1,374.9	–1,335.2	–1,234.9	–1,296.2	–1,355.5	–1,463.6	–1,431.7
Total, offsetting collections from the public and offsetting receipts	–1,794.9	–1,827.2	–1,575.4	–1,655.5	–1,724.6	–1,844.1	–1,829.6
Unified budget receipts:							
Federal funds	2,673.0	2,924.6	3,057.7	3,214.9	3,351.7	3,606.7	3,826.9
Trust funds	1,374.1	1,512.1	1,580.5	1,659.5	1,724.6	1,799.0	1,868.9
Total, unified budget receipts	4,047.1	4,436.6	4,638.2	4,874.4	5,076.3	5,405.7	5,695.9
Outlays:							
Federal funds cash outgo	6,029.2	5,092.0	4,611.1	4,869.2	5,039.8	5,284.5	5,375.8
Trust funds cash outgo	2,588.2	2,586.8	2,756.3	2,861.5	3,090.8	3,293.4	3,501.4
Offsetting collections from the public and offsetting receipts:							
Federal funds	–420.1	–492.1	–340.5	–359.4	–369.1	–380.5	–397.8
Trust funds	–1,374.9	–1,335.2	–1,234.9	–1,296.2	–1,355.5	–1,463.6	–1,431.7
Total, offsetting collections from the public and offsetting receipts	–1,794.9	–1,827.2	–1,575.4	–1,655.5	–1,724.6	–1,844.1	–1,829.6
Unified budget outlays:							
Federal funds	5,609.2	4,600.0	4,270.6	4,509.8	4,670.7	4,904.1	4,978.0
Trust funds	1,213.3	1,251.6	1,521.5	1,565.4	1,735.3	1,829.8	2,069.6
Total, unified budget outlays	6,822.4	5,851.6	5,792.0	6,075.2	6,406.0	6,733.8	7,047.6
Surplus or deficit(–):							
Federal funds	–2,936.2	–1,675.4	–1,212.9	–1,294.9	–1,319.0	–1,297.3	–1,151.1
Trust funds	160.8	260.4	59.1	94.1	–10.7	–30.8	–200.7
Total, unified surplus/deficit(–)	–2,775.3	–1,415.0	–1,153.9	–1,200.8	–1,329.7	–1,328.2	–1,351.7

Note: Receipts include governmental, interfund, and proprietary, and exclude intrafund receipts (which are offset against intrafund payments so that cash income and cash outgo are not overstated).

the cost of Medicare Parts B (outpatient and physician benefits) and D (prescription drug benefits) that is not covered by premiums or other income from the public.

In addition to investing their balances with the Treasury, some funds in the Federal funds group and most trust funds are authorized to borrow from the general fund of the Treasury.[7] Similar to the treatment of funds invested with the Treasury, borrowed funds are not recorded as receipts of the fund or included in the income of the fund. Rather, the borrowed funds finance outlays by the fund in excess of available receipts. Subsequently, any excess fund receipts are transferred from the fund to the general fund in repayment of the borrowing. The repayment is not recorded as an outlay of the fund or included in fund outgo. This treatment is consistent with the broad principle that borrowing and debt redemption are not budgetary transactions but rather a means of financing deficits or disposing of surpluses.[8]

Some income in both Federal funds and trust funds consists of offsetting receipts.[9] Offsetting receipts are not considered governmental receipts (such as taxes), but

[7] For example, the Unemployment Trust Fund is authorized to borrow from the general fund for unemployment benefits; the Bonneville Power Administration Fund, a revolving fund in the Department of Energy, is authorized to borrow from the general fund; and the Black Lung Disability Trust Fund, a trust fund in the Department of Labor, is authorized to receive appropriations of repayable advances from the general fund, which constitute a form of borrowing.

[8] Borrowing and debt repayment are discussed in Chapter 4 of this volume, "Federal Borrowing and Debt," and Chapter 8 of this volume, "Budget Concepts."

[9] Interest on borrowed funds is an example of an intragovernmental offsetting receipt and Medicare Part B's premiums are an example of offsetting receipts from the public.

Table 23–2. COMPARISON OF TOTAL FEDERAL FUND AND TRUST FUND RECEIPTS TO UNIFIED BUDGET RECEIPTS, FISCAL YEAR 2021
(In billions of dollars)

Gross Federal fund and Trust fund cash income:	
Federal funds	3,488.7
Trust funds	2,813.7
Total, gross Federal fund and Trust fund cash income	6,302.4
Deduct: intrabudgetary offsetting collections (from funds within same fund group):	
Federal funds	–355.6
Trust funds	–57.0
Subtotal, intrabudgetary offsetting collections	–412.6
Deduct: intrafund receipts (from funds within same fund group):	
Federal funds	–40.0
Trust funds	–7.7
Subtotal, intrafund receipts	–47.7
Federal fund and Trust fund cash income net of intrabudgetary offsetting collections and intrafund receipts:	
Federal funds	3,093.1
Trust funds	2,749.0
Total, Federal fund and Trust fund cash income net of intrafund receipts	5,842.1
Deduct: offsetting collections from the public:	
Federal funds	–257.1
Trust funds	–60.5
Subtotal, offsetting collections from the public	–317.6
Deduct other offsetting receipts:	
Federal fund receipts from Trust funds	–2.1
Trust fund receipts from Federal funds:	
Interest in receipt accounts	–149.6
General fund payments to Medicare Parts B and D	–413.0
Employing agencies' payments for pensions, Social Security, and Medicare	–102.1
General fund payments for unfunded liabilities of Federal employees' retirement funds	–144.8
Transfer of taxation of Social Security and RRB benefits to OASDI, HI, and RRB	–60.6
Other receipts from Federal funds	–213.2
Subtotal, Trust fund receipts from Federal funds	–1,083.3
Proprietary receipts:	
Federal funds	–148.1
Trust funds	–226.6
Subtotal, proprietary receipts	–374.8
Offsetting governmental receipts:	
Federal funds	–12.7
Trust funds	–4.5
Subtotal, offsetting governmental receipts	–17.2
Subtotal, other offsetting receipts	–1,477.3
Unified budget receipts:	
Federal funds	2,673.0
Trust funds	1,374.1
Total, unified budget receipts	4,047.1
Memoradum:	
Gross receipts:[1]	
Federal funds	2,875.9
Trust funds	2,696.2
Total, gross receipts	5,572.1

* $50 million or less.
[1] Gross income excluding offsetting collections.

they are instead recorded on the outlay side of the budget.[10] Expenditures resulting from offsetting receipts are recorded as gross outlays and the collections of offsetting receipts are then subtracted from gross outlays to derive net outlays. Net outlays reflect the Government's net transactions with the public.

As shown in Table 23–1, 34 percent of all governmental receipts were deposited in trust funds in 2021 and the remaining 66 percent of governmental receipts were deposited in Federal funds, which, as noted above, include the general fund. As noted above, most outlays between the trust fund and Federal fund groups (interfund outlays) flow from Federal funds to trust funds, rather than from trust funds to Federal funds. As a result, while trust funds accounted for 18 percent of total 2021 outlays, they accounted for 21 percent of 2021 outlays net of interfund transactions.

Because the income for Federal funds and trust funds recorded in Table 23–1 includes offsetting receipts and offsetting collections from the public, offsetting receipts and offsetting collections from the public must be deducted from the two fund groups' combined gross income in order to reconcile to total governmental receipts in the unified budget. Similarly, because the outgo for Federal funds and trust funds in Table 23–1 consists of outlays gross of offsetting receipts and offsetting collections from the public, the amount of the offsetting receipts and offsetting collections from the public must be deducted from the sum of the Federal funds' and the trust funds' gross outgo in order to reconcile to total (net) unified budget outlays. Table 23–2 reconciles, for fiscal year 2021, the gross total of all trust fund and Federal fund receipts with the receipt total of the unified budget.

Income, Outgo, and Balances of Trust Funds

Table 23–3 shows, for the trust funds group as a whole, the funds' balance at the start of each year, income and outgo during the year, and the end-of-year balance. Income and outgo are divided between transactions with the public and transactions with Federal funds. Receipts from Federal funds are divided between interest and other interfund receipts.

The definitions of income and outgo in this table differ from those in Table 23–1 in one important way. Trust fund collections that are offset against outgo (offsetting collections from Federal sources) within expenditure accounts instead of being deposited in separate receipt accounts are classified as income in this table, but not in Table 23–1. This classification is consistent with the definitions of income and outgo for trust funds used elsewhere in the budget. It has the effect of increasing both income and outgo by the amount of the offsetting collections from Federal sources. The difference was approximately $57 billion in 2021. Table 23–3, therefore, provides a more complete summary of trust fund income and outgo.

In 2021, the trust funds group ran a surplus of $161 billion. The trust fund group is expected to run a $260

[10] For further discussion of offsetting receipts, see Chapter 12 of this volume, "Offsetting Collections and Offsetting Receipts."

billion surplus in 2022 and to continue to run surpluses over the next few years.

The size of the trust fund balances is largely the consequence of the way some trust funds are financed. Some of the larger trust funds (primarily Social Security and the Federal retirement funds) are fully or partially advance funded, with collections on behalf of individual participants received by the funds years earlier than when the associated benefits are paid. For example, under the Federal military and civilian retirement programs, Federal agencies and employees together are required to pay the retirement trust funds an amount equal to accruing retirement benefits. Since many years pass between the time when benefits are accrued and when they are paid, the trust funds accumulate substantial balances over time. [11]

Due to advance funding and economic growth (both real and nominal), trust fund balances increased from $205 billion in 1982 to $5.4 trillion in 2021. Based on the estimates in the 2023 Budget, which include the effect of the Budget's proposals, the balances are estimated to be $5.6 trillion at the end of 2027. Almost all of these balances are invested in Treasury securities and earn interest.

From the perspective of the trust fund, these balances are assets that represent the value, in today's dollars, of past taxes, fees, and other income from the public and from other Government accounts that the trust fund has received in excess of past spending. Trust fund assets held in Treasury securities are legal claims on the Treasury, similar to Treasury securities issued to the public. Like all other fund assets, these are available to the fund for future benefit payments and other expenditures. From the perspective of the Government as a whole, however, the trust fund balances do not represent net additions to the Government's balance sheet. The trust fund balances are assets of the agencies responsible for administering the trust fund programs and liabilities of the Department of the Treasury. These assets and liabilities cancel each other out in the Government-wide balance sheet. The effects of Treasury debt held by trust funds and other Government accounts are discussed further in Chapter 4 of this volume, "Federal Borrowing and Debt."

Table 23–4 shows estimates of income, outgo, surplus or deficit, and balances for 2021 through 2027 for the major trust funds. With the exception of transactions between trust funds, the data for the individual trust funds are conceptually the same as the data in Table 23–3 for

[11] Until the 1980s, most trust funds operated on a pay-as-you-go basis as distinct from a pre-funded basis. Taxes and fees were set at levels sufficient to finance current program expenditures and administrative expenses, and to maintain balances generally equal to one year's worth of expenditures (to provide for unexpected events). As a result, trust fund balances tended to grow at about the same rate as the funds' annual expenditures. In the 1980s, pay-as-you-go financing was replaced by full or partial advance funding for some of the larger trust funds. The Social Security Amendments of 1983 (P.L. 98-21) raised payroll taxes above the levels necessary to finance then-current expenditures. Legislation enacted in the mid-1980s established the requirement for full accrual basis funding of Federal military and civilian retirement benefits.

Table 23–3. INCOME, OUTGO, AND BALANCES OF TRUST FUNDS GROUP

(In billions of dollars)

	2021 Actual	Estimate					
		2022	2023	2024	2025	2026	2027
Balance, start of year	5,247.4	5,408.3	5,668.9	5,728.2	5,822.2	5,811.6	5,780.7
Adjustments to balances	–0.1	....	....	....	....	....	....
Total balance, start of year	5,247.3	5,408.3	5,668.9	5,728.2	5,822.2	5,811.6	5,780.7
Income:							
Governmental receipts	1,374.1	1,512.1	1,580.5	1,659.5	1,724.6	1,799.0	1,868.9
Offsetting governmental	4.6	*	*	*	*	*	*
Proprietary	280.2	278.1	263.6	276.2	291.9	300.4	317.0
From Federal funds:							
Interest	157.9	149.0	134.0	136.0	137.2	132.5	142.0
Other	989.1	967.4	898.3	948.3	993.3	1,100.7	1,045.8
Total income during the year	2,806.0	2,906.6	2,876.4	3,019.9	3,147.1	3,332.6	3,373.8
Outgo (–)	–2,645.1	–2,646.1	–2,817.4	–2,925.8	–3,157.8	–3,363.4	–3,574.5
Change in fund balance:							
Surplus or deficit(–):							
Excluding interest	2.9	111.4	–75.0	–41.9	–147.9	–163.3	–342.7
Interest	157.9	149.0	134.0	136.0	137.2	132.5	142.0
Subtotal, surplus or deficit (–)	160.8	260.4	59.1	94.1	–10.7	–30.8	–200.7
Borrowing, transfers, lapses, & other adjustments	0.1	0.2	0.2	....	....	....	....
Total change in fund balance	161.0	260.6	59.3	94.1	–10.7	–30.8	–200.7
Balance, end of year	5,408.3	5,668.9	5,728.2	5,822.2	5,811.6	5,780.7	5,580.1

* $50 million or less.

Note: In contrast to Table 23–1, income also includes income that is offset within expenditure accounts as offsetting collections from Federal sources, instead of being deposited in receipt accounts.

the trust funds group. As explained previously, transactions between trust funds are shown as outgo of the fund that makes the payment and as income of the fund that collects it in the data for an individual trust fund, but the collections are offset against outgo in the data for the trust fund group as a whole.

As noted above, trust funds are funded by a combination of payments from the public and payments from Federal funds, including payments directly from the general fund and payments from agency appropriations. Similarly, the fund outgo amounts in Table 23–4 represent both outflows to the public—such as for the provision of benefit payments or the purchase of goods or services—and outflows to other Government accounts—such as for reimbursement for services provided by other agencies or payment of interest on borrowing from Treasury.

Because trust funds and Federal special and revolving funds conduct transactions both with the public and with other Government accounts, the surplus or deficit of an individual fund may differ from the fund's impact on the surplus or deficit of the Federal Government. Transactions with the public affect both the surplus or deficit of an individual fund and the Federal Government surplus or deficit. Transactions with other Government accounts affect the surplus or deficit of the particular fund. However, because that same transaction is offset in another Government account, there is no net impact on the total Federal Government surplus or deficit.

A brief description of the major trust funds is given below; additional information for these and other trust funds can be found in the Status of Funds tables in the Budget *Appendix*.

- Social Security Trust Funds: The Social Security trust funds consist of the Old Age and Survivors Insurance (OASI) trust fund and the Disability Insurance (DI) trust fund. The trust funds are funded by payroll taxes from employers and employees, interest earnings on trust fund balances, Federal agency payments as employers, and a portion of the income taxes paid on Social Security benefits.

- Medicare Trust Funds: Like the Social Security trust funds, the Medicare Hospital Insurance (HI) trust fund is funded by payroll taxes from employers and employees, Federal agency payments as employers, and a portion of the income taxes paid on Social Security benefits. The HI trust fund also receives transfers from the general fund of the Treasury for certain HI benefits and premiums from certain voluntary participants. The other Medicare trust fund, Supplementary Medical Insurance (SMI), finances Part B (outpatient and physician benefits) and Part D (prescription drug benefits). SMI receives premium payments from covered individuals, transfers from States toward Part D benefits, excise taxes on manufacturers and importers of brand-name prescription drugs, and transfers from the general fund of the Treasury for the portion of Part B and Part D costs not covered by premiums or transfers from States. In addition, like other trust funds, these two trust funds receive interest earnings on their trust fund balances.

- Highway Trust Fund: The fund finances Federal highway and transit infrastructure projects, as well as highway and vehicle safety activities. The Highway Trust Fund is financed by Federal motor fuel taxes and associated fees, and, in recent years, by general fund transfers, as those taxes and fees have been inadequate to support current levels of spending.

- Unemployment Trust Fund: The Unemployment Trust Fund is funded by Federal and State taxes on employers, payments from Federal agencies, taxes on certain employees, and interest earnings on trust fund balances. Unemployment insurance is administered largely by the States, following Federal guidelines. The Unemployment Trust Fund is composed of individual accounts for each State and several Federal accounts, including accounts related to the separate unemployment insurance program for railroad employees.

- Civilian and military retirement trust funds: The Civil Service Retirement and Disability Fund is funded by employee and agency payments, general fund transfers for the unfunded portion of retirement costs, and interest earnings on trust fund balances. The Military Retirement Fund likewise is funded by payments from the Department of Defense, general fund transfers for unfunded retirement costs, and interest earnings on trust fund balances.

Table 23–5 shows income, outgo, and balances of two Federal funds that are designated as special funds. These funds are similar to trust funds in that they are financed by dedicated receipts, the excess of income over outgo is invested in Treasury securities, the interest earnings add to fund balances, and the balances remain available to cover future expenditures. The table is illustrative of the Federal funds group, which includes many revolving funds and special funds.

Table 23–4. INCOME, OUTGO, AND BALANCES OF MAJOR TRUST FUNDS
(In billions of dollars)

	2021 Actual	Estimate					
		2022	2023	2024	2025	2026	2027
Airport and Airway Trust Fund							
Balance, start of year	9.0	14.8	12.3	12.6	13.2	14.8	17.2
Adjustments to balances	....	....	....	....	....	....	....
Total balance, start of year	9.0	14.8	12.3	12.6	13.2	14.8	17.2
Income:							
Governmental receipts	8.2	14.4	17.6	18.6	19.7	20.4	21.2
Offsetting governmental	....	....	....	....	....	....	....
Proprietary	*	*	*	*	*	*	*
Intrabudgetary:							
Intrafund	....	....	....	....	....	....	....
Interest	0.3	0.2	0.2	0.2	0.2	0.3	0.4
Other intrabudgetary	14.1	*	*	*	*	*	*
Total income during the year	22.5	14.7	17.9	18.9	20.0	20.8	21.7
Outgo (–)	–16.7	–17.2	–17.6	–18.3	–18.4	–18.4	–18.5
Change in fund balance:							
Surplus or deficit(–):							
Excluding interest	5.6	–2.7	0.1	0.4	1.3	2.1	2.8
Interest	0.3	0.2	0.2	0.2	0.2	0.3	0.4
Subtotal, surplus or deficit (–)	5.8	–2.5	0.3	0.6	1.6	2.4	3.2
Borrowing, transfers, lapses, & other adjustments	....	....	....	....	....	....	....
Total change in fund balance	5.8	–2.5	0.3	0.6	1.6	2.4	3.2
Balance, end of year	14.8	12.3	12.6	13.2	14.8	17.2	20.4
Civil Service Retirement and Disability Fund							
Balance, start of year	962.1	986.4	1,008.1	1,020.4	1,030.9	1,040.4	1,049.3
Adjustments to balances	*	....	....	....	....	....	....
Total balance, start of year	962.1	986.4	1,008.1	1,020.4	1,030.9	1,040.4	1,049.3
Income:							
Governmental receipts	5.6	6.3	6.8	7.3	7.8	8.3	8.8
Offsetting governmental	....	....	....	....	....	....	....
Proprietary	....	....	....	....	....	....	....
Intrabudgetary:							
Intrafund	....	....	....	....	....	....	....
Interest	23.2	21.1	19.0	18.9	19.7	20.8	22.8
Other intrabudgetary	87.8	91.8	89.4	91.1	92.5	93.9	95.0
Total income during the year	116.6	119.2	115.2	117.4	120.0	123.0	126.5
Outgo (–)	–92.3	–97.5	–103.0	–106.9	–110.4	–114.1	–117.8
Change in fund balance:							
Surplus or deficit(–):							
Excluding interest	1.1	0.7	–6.8	–8.4	–10.2	–11.9	–14.1
Interest	23.2	21.1	19.0	18.9	19.7	20.8	22.8
Subtotal, surplus or deficit (–)	24.2	21.8	12.3	10.5	9.5	8.9	8.7
Borrowing, transfers, lapses, & other adjustments	*	....	....	....	....	....	....
Total change in fund balance	24.2	21.8	12.3	10.5	9.5	8.9	8.7
Balance, end of year	986.4	1,008.1	1,020.4	1,030.9	1,040.4	1,049.3	1,058.0

Table 23–4. INCOME, OUTGO, AND BALANCES OF MAJOR TRUST FUNDS—Continued

(In billions of dollars)

	2021 Actual	Estimate					
		2022	2023	2024	2025	2026	2027
Employees and Retired Employees Health Benefits Funds							
Balance, start of year	28.1	27.8	29.0	29.8	30.5	31.5	32.2
Adjustments to balances	....	....	....	....	....	....	....
Total balance, start of year	28.1	27.8	29.0	29.8	30.5	31.5	32.2
Income:							
Governmental receipts	....	....	....	....	....	....	....
Offsetting governmental	....	....	....	....	....	....	....
Proprietary	17.8	18.8	19.8	20.9	21.9	23.1	24.3
Intrabudgetary:							
Intrafund	....	....	....	....	....	....	....
Interest	0.4	0.4	0.5	0.5	0.6	0.6	0.6
Other intrabudgetary	40.4	42.1	43.6	46.1	48.5	51.1	53.7
Total income during the year	58.7	61.3	63.9	67.5	71.1	74.8	78.6
Outgo (–)	–59.0	–60.0	–63.1	–66.8	–70.1	–74.0	–77.9
Change in fund balance:							
Surplus or deficit(–):							
Excluding interest	–0.8	0.8	0.4	0.1	0.3	0.1	0.1
Interest	0.4	0.4	0.5	0.5	0.6	0.6	0.6
Subtotal, surplus or deficit (–)	–0.3	1.3	0.8	0.7	1.0	0.7	0.7
Borrowing, transfers, lapses, & other adjustments	–*	....	....	....	....	....	....
Total change in fund balance	–0.3	1.3	0.8	0.7	1.0	0.7	0.7
Balance, end of year	27.8	29.0	29.8	30.5	31.5	32.2	32.9
Employees Life Insurance Fund							
Balance, start of year	48.7	49.7	50.9	52.3	54.1	56.1	58.2
Adjustments to balances	....	....	....	....	....	....	....
Total balance, start of year	48.7	49.7	50.9	52.3	54.1	56.1	58.2
Income:							
Governmental receipts	....	....	....	....	....	....	....
Offsetting governmental	....	....	....	....	....	....	....
Proprietary	3.2	3.5	3.7	3.9	4.1	4.3	4.6
Intrabudgetary:							
Intrafund	....	....	....	....	....	....	....
Interest	1.0	0.7	0.7	1.1	1.0	1.0	1.1
Other intrabudgetary	0.6	0.6	0.7	0.7	0.7	0.7	0.7
Total income during the year	4.8	4.8	5.0	5.6	5.8	6.1	6.5
Outgo (–)	–3.8	–3.6	–3.7	–3.8	–3.9	–4.0	–4.1
Change in fund balance:							
Surplus or deficit(–):							
Excluding interest	*	0.5	0.7	0.8	0.9	1.1	1.3
Interest	1.0	0.7	0.7	1.1	1.0	1.0	1.1
Subtotal, surplus or deficit (–)	1.0	1.2	1.4	1.9	2.0	2.1	2.4
Borrowing, transfers, lapses, & other adjustments	....	....	....	....	....	....	....
Total change in fund balance	1.0	1.2	1.4	1.9	2.0	2.1	2.4
Balance, end of year	49.7	50.9	52.3	54.1	56.1	58.2	60.6

Table 23–4. INCOME, OUTGO, AND BALANCES OF MAJOR TRUST FUNDS—Continued

(In billions of dollars)

	2021 Actual	Estimate 2022	2023	2024	2025	2026	2027
Foreign Military Sales Trust Fund							
Balance, start of year	34.9	36.3	41.0	43.7	45.9	48.6	50.3
Adjustments to balances	....	....	....	....	....	....	....
Total balance, start of year	34.9	36.3	41.0	43.7	45.9	48.6	50.3
Income:							
Governmental receipts	....	....	....	....	....	....	....
Offsetting governmental	....	....	....	....	....	....	....
Proprietary	35.9	51.5	49.9	49.2	48.9	44.1	41.0
Intrabudgetary:							
Intrafund	....	....	....	....	....	....	....
Interest	....	....	....	....	....	....	....
Other intrabudgetary	....	....	....	....	....	....	....
Total income during the year	35.9	51.5	49.9	49.2	48.9	44.1	41.0
Outgo (–)	–34.5	–46.8	–47.2	–47.0	–46.2	–42.4	–39.5
Change in fund balance:							
Surplus or deficit(–):							
Excluding interest	1.5	4.6	2.8	2.1	2.7	1.7	1.5
Interest	....	....	....	....	....	....	....
Subtotal, surplus or deficit (–)	1.5	4.6	2.8	2.1	2.7	1.7	1.5
Borrowing, transfers, lapses, & other adjustments	*	....	....	....	....	....	....
Total change in fund balance	1.5	4.6	2.8	2.1	2.7	1.7	1.5
Balance, end of year	36.3	41.0	43.7	45.9	48.6	50.3	51.7
Foreign Service Retirement and Disability Fund							
Balance, start of year	20.0	20.3	20.6	20.9	21.2	21.5	21.8
Adjustments to balances	....	....	....	....	....	....	....
Total balance, start of year	20.0	20.3	20.6	20.9	21.2	21.5	21.8
Income:							
Governmental receipts	*	*	*	*	*	*	*
Offsetting governmental	....	....	....	....	....	....	....
Proprietary	....	....	....	....	....	....	....
Intrabudgetary:							
Intrafund	*	*	*	*	*	*	*
Interest	0.5	0.5	0.4	0.5	0.5	0.6	0.6
Other intrabudgetary	0.9	0.8	0.9	0.9	0.9	0.9	0.9
Total income during the year	1.4	1.3	1.3	1.4	1.5	1.5	1.5
Outgo (–)	–1.0	–1.1	–1.1	–1.1	–1.1	–1.2	–1.2
Change in fund balance:							
Surplus or deficit(–):							
Excluding interest	–0.1	–0.2	–0.2	–0.2	–0.2	–0.3	–0.3
Interest	0.5	0.5	0.4	0.5	0.5	0.6	0.6
Subtotal, surplus or deficit (–)	0.4	0.3	0.2	0.3	0.3	0.3	0.3
Borrowing, transfers, lapses, & other adjustments	–*	....	....	....	....	....	....
Total change in fund balance	0.4	0.3	0.2	0.3	0.3	0.3	0.3
Balance, end of year	20.3	20.6	20.9	21.2	21.5	21.8	22.1

Table 23–4. INCOME, OUTGO, AND BALANCES OF MAJOR TRUST FUNDS—Continued
(In billions of dollars)

	2021 Actual	Estimate					
		2022	2023	2024	2025	2026	2027
Highway Trust Fund							
Balance, start of year	17.8	21.0	124.2	103.2	78.6	51.4	22.1
Adjustments to balances	–0.2	....	....	....	....	....	....
Total balance, start of year	17.6	21.0	124.2	103.2	78.6	51.4	22.1
Income:							
Governmental receipts	43.5	43.1	43.5	43.5	43.4	43.3	43.1
Offsetting governmental	0.1	....	....	....	....	....	....
Proprietary	0.1	....	....	....	....	....	....
Intrabudgetary:							
Intrafund	....	....	....	....	....	....	....
Interest	*	0.2	0.7	0.9	0.7	0.3	*
Other intrabudgetary	14.0	118.4	0.4	0.4	0.4	0.4	0.4
Total income during the year	57.6	161.7	44.6	44.8	44.5	44.0	43.5
Outgo (–)	–54.2	–58.6	–65.7	–69.4	–71.6	–73.3	–75.9
Change in fund balance:							
Surplus or deficit(–):							
Excluding interest	3.4	103.0	–21.7	–25.5	–27.8	–29.6	–32.4
Interest	*	0.2	0.7	0.9	0.7	0.3	*
Subtotal, surplus or deficit (–)	3.4	103.2	–21.1	–24.6	–27.1	–29.4	–32.4
Borrowing, transfers, lapses, & other adjustments	–*	....	....	....	....	....	....
Total change in fund balance	3.4	103.2	–21.1	–24.6	–27.1	–29.4	–32.4
Balance, end of year	21.0	124.2	103.2	78.6	51.4	22.1	–10.4
Medicare: Hospital Insurance (HI) Trust Fund							
Balance, start of year	134.4	136.3	162.6	150.1	148.9	121.4	85.6
Adjustments to balances	....	....	....	....	....	....	....
Total balance, start of year	134.4	136.3	162.6	150.1	148.9	121.4	85.6
Income:							
Governmental receipts	295.2	329.2	343.0	360.5	375.4	392.1	408.3
Offsetting governmental	....	....	....	....	....	....	....
Proprietary	55.1	33.2	12.8	13.2	13.6	14.1	14.5
Intrabudgetary:							
Intrafund	....	....	....	....	....	....	....
Interest	2.5	2.9	3.3	3.5	3.3	2.9	2.1
Other intrabudgetary	31.6	38.7	41.6	45.2	49.0	56.1	64.7
Total income during the year	384.4	404.1	400.8	422.4	441.3	465.1	489.6
Outgo (–)	–382.5	–377.8	–413.2	–423.7	–468.8	–500.9	–534.8
Change in fund balance:							
Surplus or deficit(–):							
Excluding interest	–0.6	23.4	–15.8	–4.8	–30.8	–38.6	–47.2
Interest	2.5	2.9	3.3	3.5	3.3	2.9	2.1
Subtotal, surplus or deficit (–)	1.9	26.3	–12.4	–1.3	–27.5	–35.7	–45.2
Borrowing, transfers, lapses, & other adjustments	*	....	....	....	....	....	....
Total change in fund balance	1.9	26.3	–12.4	–1.3	–27.5	–35.7	–45.2
Balance, end of year	136.3	162.6	150.1	148.9	121.4	85.6	40.5

Table 23–4. INCOME, OUTGO, AND BALANCES OF MAJOR TRUST FUNDS—Continued
(In billions of dollars)

	2021 Actual	Estimate 2022	2023	2024	2025	2026	2027
Medicare: Supplementary Insurance (SMI) Trust Fund							
Balance, start of year	88.9	137.6	157.7	179.2	222.7	218.1	224.9
Adjustments to balances	....	....	....	....	....	....	....
Total balance, start of year	88.9	137.6	157.7	179.2	222.7	218.1	224.9
Income:							
Governmental receipts	2.8	2.7	1.6	4.0	2.8	2.8	2.8
Offsetting governmental	....	....	....	....	....	....	....
Proprietary	161.2	166.0	172.5	184.5	198.8	210.2	227.9
Intrabudgetary:							
Intrafund	....	....	....	....	....	....	....
Interest	2.1	3.2	3.8	4.3	4.7	5.0	5.4
Other intrabudgetary	413.0	432.2	470.2	484.6	511.5	589.9	647.1
Total income during the year	579.1	604.0	648.1	677.4	717.7	807.9	883.3
Outgo (–)	–530.4	–583.9	–626.6	–633.9	–722.4	–801.1	–873.1
Change in fund balance:							
Surplus or deficit(–):							
Excluding interest	46.6	16.9	17.7	39.1	–9.3	1.9	4.8
Interest	2.1	3.2	3.8	4.3	4.7	5.0	5.4
Subtotal, surplus or deficit (–)	48.7	20.0	21.5	43.5	–4.6	6.8	10.2
Borrowing, transfers, lapses, & other adjustments	–*	....	....	....	....	....	....
Total change in fund balance	48.7	20.0	21.5	43.5	–4.6	6.8	10.2
Balance, end of year	137.6	157.7	179.2	222.7	218.1	224.9	235.1
Military Retirement Fund							
Balance, start of year	898.1	1,014.2	1,147.1	1,275.4	1,427.8	1,585.3	1,743.1
Adjustments to balances	....	....	....	....	....	....	....
Total balance, start of year	898.1	1,014.2	1,147.1	1,275.4	1,427.8	1,585.3	1,743.1
Income:							
Governmental receipts	....	....	....	....	....	....	....
Offsetting governmental	....	....	....	....	....	....	....
Proprietary	....	....	....	....	....	....	....
Intrabudgetary:							
Intrafund	....	....	....	....	....	....	....
Interest	46.0	48.7	40.4	44.7	47.4	45.2	53.9
Other intrabudgetary	133.2	150.7	159.4	181.7	186.1	190.7	56.4
Total income during the year	179.2	199.4	199.8	226.3	233.5	235.9	110.4
Outgo (–)	–63.1	–66.5	–71.6	–74.0	–76.0	–78.0	–80.0
Change in fund balance:							
Surplus or deficit(–):							
Excluding interest	70.1	84.2	87.9	107.7	110.1	112.7	–23.6
Interest	46.0	48.7	40.4	44.7	47.4	45.2	53.9
Subtotal, surplus or deficit (–)	116.1	132.9	128.3	152.4	157.5	157.8	30.4
Borrowing, transfers, lapses, & other adjustments	....	....	....	....	....	....	....
Total change in fund balance	116.1	132.9	128.3	152.4	157.5	157.8	30.4
Balance, end of year	1,014.2	1,147.1	1,275.4	1,427.8	1,585.3	1,743.1	1,773.5

Table 23–4. INCOME, OUTGO, AND BALANCES OF MAJOR TRUST FUNDS—Continued
(In billions of dollars)

	2021 Actual	Estimate					
		2022	2023	2024	2025	2026	2027
Railroad Retirement Trust Funds							
Balance, start of year	21.3	25.6	23.7	21.7	20.1	18.4	16.8
Adjustments to balances	....	....	....	....	....	....	....
Total balance, start of year	21.3	25.6	23.7	21.7	20.1	18.4	16.8
Income:							
Governmental receipts	4.7	5.4	5.3	5.4	5.5	5.6	5.7
Offsetting governmental	....	....	....	....	....	....	....
Proprietary	*	....	....	....	....	....	....
Intrabudgetary:							
Intrafund	4.9	5.4	5.6	5.9	5.9	6.0	6.1
Interest	6.8	1.2	0.7	0.7	0.7	0.7	0.6
Other intrabudgetary	1.4	0.8	0.8	0.8	0.9	1.0	1.1
Total income during the year	17.8	12.8	12.3	12.8	13.0	13.3	13.5
Outgo (–)	–13.4	–14.8	–14.3	–14.5	–14.7	–14.9	–15.1
Change in fund balance:							
Surplus or deficit(–):							
Excluding interest	–2.5	–3.2	–2.6	–2.4	–2.4	–2.2	–2.2
Interest	6.8	1.2	0.7	0.7	0.7	0.7	0.6
Subtotal, surplus or deficit (–)	4.3	–2.0	–1.9	–1.7	–1.7	–1.6	–1.6
Borrowing, transfers, lapses, & other adjustments	–0.1	0.1	....	....	....	....	....
Total change in fund balance	4.2	–1.9	–1.9	–1.7	–1.7	–1.6	–1.6
Balance, end of year	25.6	23.7	21.7	20.1	18.4	16.8	15.2
Social Security: Disability Insurance (DI) Trust Fund							
Balance, start of year	97.1	98.1	114.3	131.0	149.3	168.5	188.0
Adjustments to balances	....	....	....	....	....	....	....
Total balance, start of year	97.1	98.1	114.3	131.0	149.3	168.5	188.0
Income:							
Governmental receipts	138.3	152.0	159.8	168.1	175.4	183.5	190.9
Offsetting governmental	....	....	....	....	....	....	....
Proprietary	*	*	*	*	*	*	*
Intrabudgetary:							
Intrafund	....	....	....	....	....	....	....
Interest	2.7	2.6	2.7	3.0	3.6	4.1	4.8
Other intrabudgetary	3.4	4.5	4.7	4.9	5.2	5.6	6.0
Total income during the year	144.4	159.2	167.2	176.0	184.2	193.3	201.8
Outgo (–)	–143.4	–143.0	–150.6	–157.7	–165.0	–173.8	–183.4
Change in fund balance:							
Surplus or deficit(–):							
Excluding interest	–1.7	13.6	13.9	15.4	15.6	15.4	13.6
Interest	2.7	2.6	2.7	3.0	3.6	4.1	4.8
Subtotal, surplus or deficit (–)	1.0	16.2	16.6	18.4	19.2	19.5	18.4
Borrowing, transfers, lapses, & other adjustments	....	0.1	*	....	....	....	....
Total change in fund balance	1.0	16.3	16.6	18.4	19.2	19.5	18.4
Balance, end of year	98.1	114.3	131.0	149.3	168.5	188.0	206.4

Table 23–4. INCOME, OUTGO, AND BALANCES OF MAJOR TRUST FUNDS—Continued
(In billions of dollars)

	2021 Actual	Estimate 2022	2023	2024	2025	2026	2027
Social Security: Old Age and Survivors Insurance (OASI) Trust Fund							
Balance, start of year	2,811.1	2,755.8	2,703.9	2,603.3	2,473.6	2,312.9	2,128.2
Adjustments to balances	0.1	....	....	....	....	....	....
Total balance, start of year	2,811.2	2,755.8	2,703.9	2,603.3	2,473.6	2,312.9	2,128.2
Income:							
Governmental receipts	814.0	895.2	940.9	989.8	1,032.8	1,080.5	1,124.3
Offsetting governmental	....	....	....	....	....	....	....
Proprietary	0.1	*	*	*	*	*	*
Intrabudgetary:							
Intrafund	....	....	....	....	....	....	....
Interest	70.5	64.7	59.4	55.0	51.9	47.9	46.3
Other intrabudgetary	51.3	64.7	67.7	72.7	78.1	90.3	99.2
Total income during the year	936.0	1,024.6	1,068.0	1,117.5	1,162.9	1,218.7	1,269.8
Outgo (–)	–991.4	–1,076.7	–1,168.5	–1,247.3	–1,323.5	–1,403.4	–1,486.2
Change in fund balance:							
Surplus or deficit(–):							
Excluding interest	–125.9	–116.8	–159.9	–184.8	–212.6	–232.6	–262.7
Interest	70.5	64.7	59.4	55.0	51.9	47.9	46.3
Subtotal, surplus or deficit (–)	–55.4	–52.0	–100.6	–129.8	–160.6	–184.7	–216.4
Borrowing, transfers, lapses, & other adjustments	....	0.1	*	....	....	....	....
Total change in fund balance	–55.4	–51.9	–100.5	–129.8	–160.6	–184.7	–216.4
Balance, end of year	2,755.8	2,703.9	2,603.3	2,473.6	2,312.9	2,128.2	1,911.9
Unemployment Trust Fund							
Balance, start of year	14.2	18.7	4.6	14.9	34.4	50.0	67.9
Adjustments to balances	–*	....	....	....	....	....	....
Total balance, start of year	14.2	18.7	4.6	14.9	34.4	50.0	67.9
Income:							
Governmental receipts	56.6	58.0	54.7	54.7	54.5	54.9	56.1
Offsetting governmental	....	....	....	....	....	....	....
Proprietary	*	*	*	*	*	*	*
Intrabudgetary:							
Intrafund	....	....	....	....	....	....	....
Interest	1.3	1.9	1.6	1.9	2.1	2.4	2.6
Other intrabudgetary	177.8	1.4	0.5	0.5	0.5	0.5	0.6
Total income during the year	235.7	61.3	56.8	57.1	57.1	57.8	59.3
Outgo (–)	–231.3	–75.2	–46.5	–37.6	–41.6	–39.9	–42.6
Change in fund balance:							
Surplus or deficit(–):							
Excluding interest	3.1	–15.8	8.7	17.6	13.5	15.5	14.1
Interest	1.3	1.9	1.6	1.9	2.1	2.4	2.6
Subtotal, surplus or deficit (–)	4.5	–13.9	10.3	19.5	15.6	17.9	16.7
Borrowing, transfers, lapses, & other adjustments	–*	–0.2	....	....	....	....	....
Total change in fund balance	4.5	–14.1	10.3	19.5	15.6	17.9	16.7
Balance, end of year	18.7	4.6	14.9	34.4	50.0	67.9	84.5

Table 23–4. INCOME, OUTGO, AND BALANCES OF MAJOR TRUST FUNDS—Continued
(In billions of dollars)

	2021 Actual	Estimate					
		2022	2023	2024	2025	2026	2027
All Other Trust Funds							
Balance, start of year	61.8	65.7	68.9	69.6	71.2	72.8	75.1
Adjustments to balances	*	....	....	....	....	....	....
Total balance, start of year	61.8	65.7	68.9	69.6	71.2	72.8	75.1
Income:							
Governmental receipts	5.2	5.7	7.2	7.3	7.3	7.5	7.7
Offsetting governmental	4.5	*	*	*	*	*	*
Proprietary	6.7	5.2	4.7	4.6	4.5	4.5	4.6
Intrabudgetary:							
Intrafund	....	....	....	....	....	....	....
Interest	0.6	0.7	0.7	0.7	0.7	0.7	0.8
Other intrabudgetary	19.7	20.4	18.4	18.8	19.0	19.5	20.0
Total income during the year	36.8	32.1	31.1	31.4	31.6	32.3	33.0
Outgo (–)	–33.1	–29.0	–30.5	–29.8	–30.0	–30.0	–30.6
Change in fund balance:							
Surplus or deficit(–):							
Excluding interest	3.0	2.4	–0.1	0.9	0.8	1.5	1.6
Interest	0.6	0.7	0.7	0.7	0.7	0.7	0.8
Subtotal, surplus or deficit (–)	3.7	3.1	0.6	1.6	1.6	2.3	2.4
Borrowing, transfers, lapses, & other adjustments	0.2	0.1	0.1	....	....	....	....
Total change in fund balance	3.9	3.2	0.7	1.6	1.6	2.3	2.4
Balance, end of year	65.7	68.9	69.6	71.2	72.8	75.1	77.5

* $50 million or less.

Table 23–5. INCOME, OUTGO, AND BALANCES OF SELECTED SPECIAL FUNDS

(In billions of dollars)

	2021 Actual	Estimate					
		2022	2023	2024	2025	2026	2027
Federal Aid in Wildlife Restoration							
Balance, start of year	2.1	2.6	2.7	2.6	2.6	2.5	2.5
Adjustments to balances	....	....	....	....	....	....	....
Total balance, start of year	2.1	2.6	2.7	2.6	2.6	2.5	2.5
Income:							
Governmental receipts	1.2	0.9	0.9	0.9	0.9	0.9	1.0
Offsetting governmental	....	....	....	....	....	....	....
Proprietary	....	....	....	....	....	....	....
Intrabudgetary:							
Intrafund	....	....	....	....	....	....	....
Interest	*	*	*	*	*	0.1	0.1
Other intrabudgetary	....	....	....	....	....	....	....
Total income during the year	1.2	0.9	0.9	0.9	1.0	1.0	1.0
Outgo (–)	–0.7	–0.8	–1.0	–1.0	–1.0	–1.0	–1.0
Change in fund balance:							
Surplus or deficit(–):							
Excluding interest	0.4	0.1	–0.1	–0.1	–0.1	–0.1	–0.1
Interest	*	*	*	*	*	0.1	0.1
Subtotal, surplus or deficit (–)	0.5	0.1	–*	–*	–0.1	–*	–*
Borrowing, transfers, lapses, & other adjustments	....	....	....	....	....	....	....
Total change in fund balance	0.5	0.1	–*	–*	–0.1	-*	-*
Balance, end of year	2.6	2.7	2.6	2.6	2.5	2.5	2.5
Department of Defense Medicare-Eligible Retiree Health Care Fund							
Balance, start of year	264.2	285.2	305.2	322.2	351.7	379.0	409.5
Adjustments to balances	–*	....	....	....	....	....	....
Total balance, start of year	264.2	285.2	305.2	322.2	351.7	379.0	409.5
Income:							
Governmental receipts	....	....	....	....	....	....	....
Offsetting governmental	....	....	....	....	....	....	....
Proprietary	....	....	....	....	....	....	....
Intrabudgetary:							
Intrafund	15.6	17.1	17.4	43.5	45.1	46.9	48.7
Interest	16.6	14.2	12.1	11.5	8.8	11.6	12.4
Other intrabudgetary	....	....	....	....	....	....	....
Total income during the year	32.2	31.3	29.6	55.0	54.0	58.4	61.1
Outgo (–)	–11.2	–11.3	–12.6	–25.5	–26.7	–27.9	–29.2
Change in fund balance:							
Surplus or deficit(–):							
Excluding interest	4.4	5.8	4.9	18.0	18.4	19.0	19.5
Interest	16.6	14.2	12.1	11.5	8.8	11.6	12.4
Subtotal, surplus or deficit (–)	21.0	20.0	17.0	29.5	27.3	30.6	31.9
Borrowing, transfers, lapses, & other adjustments	–*	....	....	....	....	....	....
Total change in fund balance	21.0	20.0	17.0	29.5	27.3	30.6	31.9
Balance, end of year	285.2	305.2	322.2	351.7	379.0	409.5	441.4

* $50 million or less.

24. COMPARISON OF ACTUAL TO ESTIMATED TOTALS

The Budget is required by statute to compare budget year estimates of receipts and outlays with the subsequent actual receipts and outlays for that year. This chapter meets that requirement by comparing the actual receipts, outlays, and deficit for 2021 with the current services estimates shown in the 2021 Budget, published in February 2020.[1] It also presents a more detailed comparison for mandatory and related programs, and reconciles the actual receipts, outlays, and deficit totals shown here with the figures for 2021 previously published by the Department of the Treasury.

Receipts

Actual receipts for 2021 were $4,047 billion, $187 billion more than the $3,860 billion current services estimate in the 2021 Budget, which was published in February 2020. As shown in Table 24-1, this increase was the net effect of legislative changes, economic conditions that differed from what had been expected, and technical factors that resulted in different tax liabilities and collection patterns than had been assumed.

[1] The current services concept is discussed in Chapter 22, "Current Services Estimates." For mandatory programs and receipts, the February 2020 current services estimate was based on laws then in place, adjusted for certain expiring provisions. For discretionary programs, the current services estimate was based on the discretionary spending limits enacted in the Budget Control Act of 2011 (Public Law 112-25, "BCA"). Spending for Overseas Contingency Operations was estimated based on annualizing the amounts provided in the Consolidated Appropriations Act, 2020 (Public Law 116-93) and Further Consolidated Appropriations Act, 2020 (Public Law 116-94) and increasing for inflation. The current services estimates also reflected the effects of discretionary and mandatory sequestration as required by the BCA following failure of the Joint Select Committee on Deficit Reduction to meet its deficit reduction target. For a detailed explanation of the 2020 estimate, see "Current Services Estimates," Chapter 21 in *Analytical Perspectives, Budget of the United States Government, Fiscal Year 2021*.

Policy differences. Legislated tax changes enacted after the February 2020 estimates were finalized reduced 2021 receipts by a net $297 billion relative to the 2021 Budget current services estimate.

The United States-Mexico-Canada Agreement Implementation Act (Public Law 116-113) authorizes the President to proclaim the reduction or elimination of tariffs consistent with U.S. commitments under the Agreement, and sets forth procedures to certify and verify the general rules-of-origin for goods from Mexico and Canada which apply for the purposes of granting preferential customs duty treatment; the Act was signed into law on January 29, 2020 and increased 2021 receipts by an estimated $2 million.

The Families First Coronavirus Response Act (Public Law 116-127) provided fully refundable credits against payroll taxes to compensate employers (including self-employed individuals) for paid sick leave and family and medical leave mandated in the Act; it was signed into law on March 18, 2020, and decreased 2021 receipts by an estimated $1 billion.

The Coronavirus Aid, Relief, and Economic Security (CARES) Act (Public Law 116-136), allowed employers and self-employed individuals to defer payment of the employer's share of Social Security taxes incurred from March 27 through December 31, 2020; provided a refundable Employee Retention Credit against payroll taxes for employers who kept employees on payroll during mandated shut-downs; permitted business to offset 100 percent of taxable income for net operating losses incurred over the three-year period from 2018 to 2020, and allowed corporations to carry back recently incurred losses for refunds of tax liabilities for the prior five years; allowed taxpayers to use their business losses to offset non-business income for tax years 2018 through 2020, or for farm losses for tax years 2018 through 2025; waived penalties for certain early withdrawals from retirement accounts in 2020; cre-

Table 24–1. COMPARISON OF ACTUAL 2021 RECEIPTS WITH THE INITIAL CURRENT SERVICES ESTIMATES
(In billions of dollars)

	Estimate (February 2020)	Changes: Policy	Changes: Economic	Changes: Technical	Total Changes	Actual
Individual income taxes	1,929	–245	–17	378	116	2,044
Corporation income taxes	284	–49	–13	149	87	372
Social insurance and retirement receipts	1,374	....	–45	–15	–60	1,314
Excise taxes	87	–3	–0	–8	–12	75
Estate and gift taxes	22	....	–5	10	5	27
Customs duties	54	0	0	26	26	80
Miscellaneous receipts	111	....	34	–10	24	134
Total receipts	3,860	–297	–47	531	187	4,047

* $500 million or less

ated a partial above-the-line deduction for taxpayers who do not itemize deductions in 2020 but make charitable contributions of up to $300 in cash; and excluded from taxation certain employer payments for employees' student loans; among other provisions. This Act was signed into law on March 27, 2020, and reduced 2021 receipts by an estimated $123 billion.

Consolidated Appropriations Act, 2021 (Public Law 116-260) included the Taxpayer Certainty and Disaster Tax Relief Act of 2020 in division EE, which made permanent the reduction in the medical expense deduction floor, the energy efficient commercial buildings deduction, and the exclusion from income for certain benefits provided to first responders; extended through 2025 the look-through rule for related controlled foreign corporations, the new markets tax credit, empowerment zone tax incentives, the employer credit for paid family and medical leave, the exclusion for certain employer payments of student loans, and the carbon oxide sequestration credit; extended through 2021 the credit for electricity produced from certain renewable resources and the credit for certain health insurance costs of eligible individuals; established a minimum rate for the low-income housing tax credit; and provided disaster-related tax relief including establishing special rules for the use of retirement funds and an employee retention credit for employers affected by qualified disasters. The Act was signed into law on December 27, 2020, and reduced 2021 receipts by an estimated $93 billion.

The American Rescue Plan Act of 2021 (Public Law 117-2) provided additional relief to address the continued impact of COVID-19 on the economy, public health, State and local governments, individuals, and businesses. Among other provisions, the Act exempted $10,200 in unemployment insurance from income for tax year 2020; provided 2021 economic recovery rebates for individuals; made child tax credit refundable and advanceable; revised the earned income tax credit in 2021 for individuals with no qualifying children; extended and modified credits for paid sick and family leave and employee retention; increased the rate of the premium tax credit in 2021 and 2022 for certain low-income taxpayers; and extended the premium tax credit to individuals receiving unemployment compensation in 2021. The Act was signed into law on March 11, 2021, and decreased 2021 receipts by an estimated $80 billion.

Economic differences. Differences between the economic assumptions upon which the current services estimates were based and actual economic performance decreased 2021 receipts by a net $47 billion below the February 2020 current services estimate. The fluctuating economic situation due to COVID-19 meant that wage and salary income was lower in 2021 than initially projected, which decreased individual income tax and social insurance receipts by $17 billion and $45 billion below the February 2020 estimate, respectively, and accounted for most of the net decrease in receipts attributable to economic differences. Different economic factors than those assumed in February 2020 had a smaller effect on other sources of receipts, increasing collections by a net $16 billion.

Technical factors. Technical factors increased receipts by a net $531 billion relative to the February 2020 current services estimate. These factors had the greatest effect on individual and corporation income tax receipts, increasing collections by $378 billion and $149 billion, respectively. The models used to prepare the February 2020 estimates of individual income taxes were based on historical economic data and then-current tax and collections data that were all subsequently revised and account for the net increase in this source of receipts attributable to technical factors. New tariffs imposed on imports accounted for the increase in customs duties.

Outlays

Outlays for 2021 were $6,822 billion, $1,948 billion more than the $4,875 billion current services estimate in the 2021 Budget. Table 24–2 distributes the $1,948 billion net increase in outlays among discretionary and mandatory programs and net interest.[2] The table also shows rough estimates according to three reasons for the chang-

[2] Discretionary programs are controlled by annual appropriations, while mandatory programs are generally controlled by authorizing legislation. Mandatory programs are primarily formula benefit or entitlement programs with permanent spending authority that depends on eligibility criteria, benefit levels, and other factors.

Table 24–2. COMPARISON OF ACTUAL 2021 OUTLAYS WITH THE INITIAL CURRENT SERVICES ESTIMATES

(In billions of dollars)

	Estimate (February 2020)	Changes			Total Changes	Actual
		Policy	Economic	Technical		
Discretionary:						
Defense	753	–2	....	–10	–11	742
Nondefense	733	91	....	71	162	895
Subtotal, discretionary	1,486	90	....	61	151	1,636
Mandatory:						
Social Security	1,151	0	–10	–12	–22	1,129
Other programs	1,858	1,145	107	594	1,847	3,705
Subtotal, mandatory	3,010	1,145	97	582	1,824	4,834
Net interest	379	0	–116	89	–27	352
Total outlays	4,875	1,234	–19	732	1,948	6,822

* $500 million or less

Table 24–3. COMPARISON OF THE ACTUAL 2021 DEFICIT WITH THE INITIAL CURRENT SERVICES ESTIMATE
(In billions of dollars)

	Estimate (February 2020)	Changes			Total Changes	Actual
		Policy	Economic	Technical		
Receipts	3,860	–297	–47	531	187	4,047
Outlays	4,875	1,234	–19	732	1,948	6,822
Deficit	1,015	1,531	28	201	1,761	2,775

* $500 million or less
Note: Deficit changes are outlays minus receipts. For these changes, a positive number indicates an increase in the deficit.

es: policy; economic conditions; and technical estimating differences, a residual.

Policy differences. Policy changes are the result of legislative actions that change spending levels, primarily through higher or lower appropriations or changes in authorizing legislation, which may themselves be in response to changed economic conditions. For 2021, policy changes increased outlays by $1,234 billion relative to the initial current services estimates, which included increased spending to counter the impacts of the COVID-19 pandemic through the American Rescue Plan Act of 2021 (Public Law 117-2), Families First Coronavirus Response Act (Public Law 116-127), Coronavirus Aid, Relief, and Economic Security Act (Public Law 116-136) and the Paycheck Protection Program and Health Care Enhancement Act (Public Law 116-139). The combined policy changes from final 2020 and 2021 appropriations increased discretionary outlays by $90 billion. Policy changes increased mandatory outlays by a net $1,145 billion above current law, largely due to legislation mentioned above which funded a broad set of programs aimed at combating the COVID-19 pandemic. Debt service costs associated with all policy changes increased outlays by less than $1 billion.

Economic and technical factors. Economic and technical estimating factors resulted in a net increase in outlays of $713 billion. Technical changes result from changes in such factors as the number of beneficiaries for entitlement programs, crop conditions, or other factors not associated with policy changes or economic conditions. Defense discretionary spending decreased relative to the current services estimate largely due to slower-than-estimated spending of both new and prior-year authority, while overall non-defense spending increased, predominantly due to spending of the COVID-19 emergency supplemental funding. The 2021 Budget assumptions for both spendout rates and prior-year outlays that were carried forward and used to estimate 2021 enacted appropriations did not take into account any of the policy changes in 2020 and 2021 that would occur as a result of pandemic response. In addition to the increases in discretionary outlays due to legislation, as discussed above, technical factors led to $61 billion in increased spending. Outlays for mandatory programs increased $680 billion due to economic and technical factors. There was a net increase in outlays of $97 billion as a result of differences between actual economic conditions versus those forecast in February 2020.

Outlays for Social Security were $22 billion lower than anticipated in the 2021 Budget, which did not reflect Covid-19 impacts, largely due to lower-than-estimated number of beneficiaries and cost-of-living adjustments. Income security programs and higher education programs were a combined $1,233 billion higher than anticipated; the remaining changes were spread throughout government programs and raised outlays by $614 billion. Outlays for net interest were approximately $27 billion lower due to economic and technical factors, primarily due to lower interest rates than originally assumed.

Deficit

The preceding two sections discussed the differences between the initial current services estimates and the actual Federal Government receipts and outlays for 2021. This section combines these effects to show the net deficit impact of these differences.

As shown in Table 24–3, the 2021 current services deficit was initially estimated to be $1,015 billion. The actual deficit was $2,775 billion, which was a $1,761 billion increase from the initial estimate. Receipts were $187 billion higher and outlays were $1,948 billion higher than the initial estimate. The table shows the distribution of the changes according to the categories in the preceding two sections. The net effect of policy changes for receipts and outlays increased the deficit by $1,531 billion. Economic conditions that differed from the initial assumptions in February 2020 increased the deficit by $28 billion. Technical factors increased the deficit by an estimated $201 billion.

Table 24–4. COMPARISON OF ACTUAL AND ESTIMATED OUTLAYS FOR MANDATORY AND RELATED PROGRAMS UNDER CURRENT LAW

(In billions of dollars)

	2021		
	Estimate	Actual	Change
Mandatory outlays:			
Human resources programs:			
Education, training, employment, and social services:			
Higher Education	13	146	133
Other	7	16	9
Total, education, training, employment, and social services	20	162	142
Health:			
Medicaid	452	521	69
Other	106	136	30
Total, health	558	656	98
Medicare	746	689	–58
Income security:			
Retirement and disability	163	162	–1
Unemployment compensation	29	391	361
Food and nutrition assistance	91	162	71
Other	183	842	659
Total, income security	466	1556	1090
Social security	1151	1129	–22
Veterans benefits and services:			
Income security for veterans	120	116	–4
Other	15	9	–6
Total, veterans benefits and services	135	125	–10
Total, mandatory human resources programs	3,077	4,318	1241
Other functions:			
Agriculture	21	37	16
International	6	–12	–18
Mortgage credit	–9	–16	–7
Deposit insurance	–3	–9	–6
Other advancement of commerce	18	342	325
Other functions	34	298	264
Total, other functions	67	640	573
Undistributed offsetting receipts:			
Employer share, employee retirement	–110	–111	–0
Rents and royalties on the outer continental shelf	–5	–4	1
Other undistributed offsetting receipts	–19	–9	10
Total, undistributed offsetting receipts	–134	–124	10
Total, mandatory	3,010	4,834	1824
Net interest:			
Interest on Treasury debt securities (gross)	577	562	–14
Interest received by trust funds	–140	–150	–9
Other interest	–57	–60	–4
Total, net interest	379	352	–27
Total, outlays for mandatory and net interest	3,389	5,186	1797

* $500 million or less

Comparison of the Actual and Estimated Outlays for Mandatory and Related Programs for 2021

This section compares the original 2021 outlay estimates for mandatory and related programs in the current services estimates of the 2021 Budget with the actual outlays. Major examples of these programs include Social Security and Medicare benefits, Medicaid and unemployment compensation payments, and deposit insurance for banks and thrift institutions. This category also includes net interest outlays and undistributed offsetting receipts.

A number of factors may cause differences between the amounts estimated in the Budget and the actual mandatory outlays. For example, legislation may change benefit rates or coverage, the actual number of beneficiaries may differ from the number estimated, or economic conditions (such as inflation or interest rates) may differ from what was assumed in making the original estimates.

Table 24–4 shows the differences between the actual outlays for these programs in 2021 and the current services estimates included in the 2021 Budget. Actual outlays for mandatory spending and net interest in 2021 were $5,186 billion, which was $1,797 billion more than the current services estimate of $3,389 billion in March 2021.

As Table 24–4 shows, actual outlays for mandatory human resources programs were $4,318 billion, $1,241 billion higher than originally estimated. This increase was the net effect of legislative action, differences between actual and assumed economic conditions, differences between the anticipated and actual number of beneficiaries, and other technical differences.

The overall increase in outlays for these programs was mainly driven by the legislative response to the COVID-19 pandemic. Income security, other advancement of commerce programs, and other functions accounted for an increase of outlays of $1,090 billion. In addition, outlays in higher education programs were $142 billion higher than estimate primarily due to loan modification costs largely related to emergency COVID-19 relief and net upward reestimates due largely to reductions in forecasted income of borrowers in income-driven repayment. Outlays for net interest were $352 billion, or $27 billion lower than the original estimate. As shown on Table 24–4, interest payments on Treasury debt securities decreased by $14 billion. Interest earnings of trust funds decreased by $9 billion, decreasing net outlays, while net outlays for other interest further decreased net outlays by $4 billion.

Reconciliation of Differences with Amounts Published by the Treasury for 2021

Table 24-5 provides a reconciliation of the receipts, outlays, and deficit totals for 2021 published by the Department of the Treasury in the September 2021 Monthly Treasury Statement (MTS) and those published in this Budget. The Department of the Treasury made adjustments to the estimates for the Combined Statement of Receipts, Outlays, and Balances that increased outlays by $71 million. Additional adjustments for the 2023 Budget increased receipts by $1,133 million and increased outlays by $4,291 million. Some of these adjustments were for financial transactions that are not reported to the Department of the Treasury but are included in the Budget, including those for the Affordable Housing Program, the Electric Reliability Organization, the Federal Financial Institutions Examination Council Appraisal Subcommittee, Federal Retirement Thrift Investment Board Program Expenses, the National Oilheat Research Alliance, the Public Company Accounting Oversight Board, the Puerto Rico Oversight Board, the Securities Investor Protection Corporation, fees and payments related to the Standard Setting Body, and the United Mine Workers of America benefit funds. There was also an adjustment for the National Railroad Retirement Investment Trust (NRRIT), which relates to a conceptual difference in reporting. NRRIT reports to the Department of the Treasury with a one-month lag so that the fiscal year total provided in the Treasury Combined Statement covers September 2020 through August 2021. The Budget has been adjusted to reflect NRRIT transactions that occurred during the actual fiscal year, which begins October 1. In addition, the Budget also reflects agency adjustments to 2021 outlays reported to Treasury after preparation of the Treasury Combined Statement. Most notably, the Department of Housing and Urban Development adjusted its reporting to reflect lower offsetting collections.

Table 24–5. RECONCILIATION OF FINAL AMOUNTS FOR 2021

(In millions of dollars)

	Receipts	Outlays	Deficit
Totals published by Treasury (September MTS)	4,045,979	6,818,158	2,772,179
Miscellaneous Treasury adjustments	....	71	71
Totals published by Treasury in Combined Statement	4,045,979	6,818,229	2,772,250
Department of Housing and Urban Development	....	3,303	3,303
Affordable Housing Program	224	224	....
Electric Reliability Organization	83	83	....
Federal Financial Institutions Examination Council Appraisal Subcommittee	15	15	....
Federal Retirement Thrift Investment Board Program Expenses	....	–49	–49
National Oilheat Research Alliance	7	7	....
National Railroad Retirement Investment Trust	....	146	146
Public Company Accounting Oversight Board	264	273	9
Puerto Rico Oversight Board	58	58	....
Securities Investor Protection Corporation	439	79	–360
Standard Setting Body	31	31	....
United Mine Workers of America benefit funds	13	13	....
Other	–1	37	38
Total adjustments, net	1,133	4,220	3,087
Totals in the Budget	4,047,112	6,822,449	2,775,337
MEMORANDUM:			
Total change since year-end statement	1,133	4,291	3,158

ISBN 978-0-16-095224-1
90000
9 780160 952241

EXECUTIVE OFFICE OF THE PRESIDENT
OFFICE OF MANAGEMENT AND BUDGET

WASHINGTON, D.C. 20503

THE WHITE HOUSE
WASHINGTON