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Analytical Perspectives

FISCAL YEAR 2020
BUDGET OF THE U.S. GOVERNMENT

THE BUDGET DOCUMENTS

Budget of the United States Government, Fiscal Year 2020 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 2020 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://www.whitehouse.gov/omb/analytical-perspectives/*.

Appendix, Budget of the United States Government, Fiscal Year 2020 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.

Major Savings and Reforms, Fiscal Year 2020, which accompanies the President's Budget, contains detailed information on major savings and reform proposals. The volume describes both major discretionary program eliminations and reductions and mandatory savings proposals.

BUDGET INFORMATION AVAILABLE ONLINE

The President's Budget and supporting materials are available online at *https://www.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 2020 or 2024. Also available are links to documents and materials from budgets of prior years.

The budget documents and other supplemental materials included at this link were previously included on the Budget CD-ROM, which is no longer made available.

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, five of the annual appropriations bills for 2019 had been enacted (the Energy and Water Development and Related Agencies Appropriations Act, 2019; the Legislative Branch Appropriations Act, 2019; the Military Construction, Veterans Affairs, and Related Agencies Appropriations Act, 2019; the Department of Defense Appropriations Act, 2019; and the Departments of Labor, Health and Human Services, and Education, and Related Agencies Appropriations Act, 2019). The programs and activities provided for in the seven remaining 2019 annual appropriations bills were operating under a continuing resolution (Public Law 115-245, as amended). For these programs, references to 2019 spending in the text and tables reflect the levels provided by the continuing resolution (except for the *Major Savings and Reforms* (MSV) volume which was written following enactment of all appropriations and reflects 2019 enacted for all programs).
3. Detail in this document may not add to the totals due to rounding.

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INTRODUCTION

1. INTRODUCTION

The *Analytical Perspectives* volume presents analyses that highlight specific subject areas or provide other significant data that place the President's 2020 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*.

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*. All of the supplemental information included at this link was previously included on the Budget CD-ROM, which is no longer made available. 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 2020 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, and shows how alternative long-term budget assumptions affect the results. 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

Social Indicators. This chapter presents a selection of statistics that offers a numerical picture of the United States and illustrates how this picture has changed over time. Included are economic, demographic and civic, socioeconomic, health, security and safety, and environmental and energy statistics.

Building and Using Evidence to Improve Government Effectiveness. This chapter discusses evidence and its role in improving Government programs and policies. It articulates important evidence-building strategies to learn and improve, including learning agendas, program evaluation, harnessing data, and promoting transparency and accountability.

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.

Reorganization. This chapter describes activities to modernize the Federal Government for today's mission needs through reorganization, including where the Administration is focusing to improve the efficiency, effectiveness, and accountability of the Executive Branch.

Payment Integrity. This chapter addresses proposals aimed at bolstering payment integrity by taking steps intended to help prevent improper payments, through initiatives such as increasing data access, providing needed authorities to correct known mistakes prior to payment, increasing use of analytics, improving pre-payment reviews, and simplifying program access to reduce complicated eligibility requirements. If adopted, the proposals will help shape a Budget that improves mission support and enhances mission accomplishment while providing better stewardship of taxpayer resources.

Federal Real Property. This chapter provides background on the Government-wide real property portfolio, summarizes recent actions taken to improve governance and management of the program, and addresses proposals to optimize the Government's real property portfolio for mission effectiveness and cost efficiency.

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 discusses proposals to improve budgeting, fiscal sustainability, and transparency within individual programs as well as across Government.

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 2020 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. The user fee information includes a description of each of the user fee proposals in the 2020 Budget. A detailed table, "Table 15–5, Offsetting Receipts by Type" is 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 this Budget. Tables showing State-by-State spending for major grant programs are available at the internet address cited above.

Strengthening Federal Statistics. This chapter discusses the vital role of the Federal Government's statistical agencies and programs in generating data that citizens, businesses, and governments need to make informed decisions. This chapter also provides examples of innovative developments and applications throughout the Federal statistical community and highlights 2020 Budget proposals for the Government's principal statistical programs.

Information Technology. This chapter addresses Federal information technology (IT), highlighting initiatives to improve IT management through modern solutions to enhance service delivery. 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 strategically reduce the Federal Government's cybersecurity risk.

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 Government-sponsored enterprises. These tables are available at the internet address cited above.

Budgetary Effects of the Troubled Asset Relief Program. This chapter provides special analyses of the Troubled Asset Relief Program (TARP) as described in Sections 202 and 203 of the Emergency Economic Stabilization Act of 2008, including information on the costs of TARP activity and its effects on the deficit and debt.

Cybersecurity Funding. This chapter displays enacted and proposed cybersecurity funding for Federal departments and agencies, and includes analysis of broad cybersecurity trends across Government.

Federal Drug Control Funding. This chapter displays enacted and proposed drug control funding for Federal departments and agencies.

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 2018 with the estimates for that year published in the 2018 Budget, published in May 2017.

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

Detailed Functional Table

Detailed Functional Table. Table 29–1, "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 health care, transportation, or national defense), category, and program.

Federal Budget by Agency and Account

Federal Budget by Agency and Account. Table 30–1, "Federal Budget by Agency and Account," displays budget authority and outlays for each account, organized by Agency, bureau, fund type, and account.

California Bay-Delta Federal Budget Crosscut

California Bay-Delta Federal Budget Crosscut. The California Bay-Delta interagency budget crosscut report includes an estimate of Federal funding by each of the participating Federal agencies to carry out its responsibilities under the California Bay-Delta Program, fulfilling the reporting requirements of section 106 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 (Public Law 114–322).

ECONOMIC ASSUMPTIONS AND OVERVIEW

2. ECONOMIC ASSUMPTIONS AND OVERVIEW

This chapter presents the economic assumptions that underlie the Administration's Fiscal Year 2020 Budget.[1] It describes the recent performance of the American economy, explains the Administration's projections for key macroeconomic variables, contrasts them with forecasts prepared by other prominent institutions and discusses the uncertainty inherent in producing an eleven-year forecast.

The economy of the United States is thriving. Unemployment has reached its lowest level in half a century. Inflation remains on target. Real wages have seen sustained growth. Investment has increased.

Yet there are head winds facing this economy, which must be navigated with care. The fiscal deficit has swollen. Labor force participation has stabilized only after a protracted period of decline. Productivity growth, despite recent improvement, remains below the post-war average. The integration of Artificial Intelligence into the economy provides both opportunities and dangers.

The United States approaches the next decade with the ability to solve the major challenges confronting it. Whether we do will define the next American century.

This chapter proceeds as follows:

- The first section provides an overview of the recent performance of the U.S. economy, examining a broad array of key economic indicators.
- The second section provides a detailed exposition of the Administration's economic assumptions for the FY 2020 Budget, discussing how key macroeconomic variables are expected to evolve over the years 2019 to 2029.
- The third section compares the forecast of the Administration with those prepared by the Congressional Budget Office, the Federal Open Market Committee of the Federal Reserve, and the Blue Chip panel of private sector forecasters.
- The fourth section discusses the sensitivity of the Administration's projections of Federal receipts and outlays to fluctuations in macroeconomic variables.
- The fifth section considers the errors and possible biases[2] in past Administration forecasts, comparing them with the errors in forecasts produced by the Congressional Budget Office and the Blue Chip panel of private 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[3]

The U.S. economy continues to exhibit vibrant growth. Real Gross Domestic Product (GDP) experienced 3.1 percent growth during the four quarters of 2018. This compares to an average of 2.1 percent between 2010 and 2016. Among the demand components of increase in real GDP, private consumption contributed 1.8 percent, private investment contributed 1.2 percent, government purchases contributed 0.3 percent, and net exports made a negative contribution of -0.3 percent. On the supply side, nonfarm business sector output per hour increased at an average pace of 1.8 percent over the first three quarters of 2018. This is elevated from an annual average of 0.7 percent growth between 2010 and 2016.

While encouraging, the U.S worker's productivity growth remains lower than it has been historically. The 1947 to 2016 long-run average was 2.3 percent. The Administration aims to raise productivity growth through cutting red tape, lowering barriers to market entry, increased business and labor dynamism, investment in deteriorating public infrastructure and a new tax structure that encourages business investment. Higher productivity growth is a top priority for Administration economic policy.

Labor Markets—Labor markets continued to improve in 2018 across a broad array of metrics. The civilian unemployment rate declined, falling from 4.7 percent at the end of 2016 to a nadir of 3.7 percent in 2018, the lowest rate since November 1969 (at that time over three million individuals were serving in the military), and well below the post-war average of 5.8 percent. There were 7.3 million job openings in December 2018, exceeding the number of unemployed. During the 12 months of 2018, the labor force participation rate averaged 62.9 percent, edging up slightly from 62.7 percent in 2015.

The participation rate has stabilized somewhat following a steep decline since 2000, but demographic forces are expected to exert continued downward pressure as the baby boom generation continues retiring in large numbers. This must be mitigated by greater opportunities for marginalized individuals to leave the sidelines of the economy. Increasing health improvements and less physically-demanding jobs may increase participation among traditional retirement-age individuals, which could be decisive in allowing the United States to cope with a greying population.

[1] Economic performance, unless otherwise specified, is generally discussed in terms of calendar years (Jan-Dec). Budget figures are discussed in terms of fiscal years (Oct-Sep).

[2] As discussed later in this chapter, "bias" here is defined in the statistical sense and refers to whether previous Administrations' forecasts have tended to make positive or negative forecast errors on average.

[3] The statistics in this section are based on information available in February 2019.

Table 2–1. ECONOMIC ASSUMPTIONS [1]

(Calendar Years, Dollar Amounts in Billions)

	Actual	Projections											
	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Gross Domestic Product (GDP)													
Levels, Dollar Amounts in Billions:													
Current Dollars	19,485	20,497	21,565	22,694	23,851	25,061	26,330	27,665	29,050	30,475	31,957	33,512	35,141
Real, Chained (2012) Dollars	18,051	18,575	19,167	19,767	20,368	20,979	21,608	22,256	22,910	23,560	24,219	24,897	25,594
Chained Price Index (2012=100), Annual Average	107.9	110.3	112.5	114.8	117.1	119.5	121.9	124.3	126.8	129.4	132.0	134.6	137.3
Percent Change, Fourth Quarter over Fourth Quarter:													
Current Dollars	4.5	5.3	5.3	5.2	5.1	5.1	5.1	5.1	5.0	4.9	4.9	4.9	4.9
Real, Chained (2012) Dollars	2.5	3.1	3.2	3.1	3.0	3.0	3.0	3.0	2.9	2.8	2.8	2.8	2.8
Chained Price Index (2012=100)	2.0	2.1	2.0	2.0	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	1650	1760	1864	1862	1846	1814	1793	1780	1783	1764	1739	1708	1670
Employee Compensation	10,407	10,878	11,364	11,945	12,588	13,296	14,041	14,830	15,657	16,516	17,416	18,366	19,349
Wages and Salaries	8,454	8,850	9,242	9,717	10,248	10,832	11,446	12,068	12,732	13,424	14,160	14,929	15,753
Nonwage Personal Income	4,863	5,104	5,426	5,902	6,248	6,548	6,833	7,073	7,327	7,594	7,895	8,149	8,427
Consumer Price Index (All Urban) [3]:													
Level (1982-1984 = 100), Annual Average	245.1	251.2	256.6	262.4	268.3	274.4	280.6	287.0	293.5	300.1	306.9	313.9	321.0
Percent Change, Fourth Quarter over Fourth Quarter	2.1	2.3	2.2	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	4.4	3.9	3.6	3.6	3.7	3.9	4.0	4.1	4.2	4.2	4.2	4.2	4.2
Interest Rates, Percent													
91-Day Treasury Bills [2]	0.9	1.9	2.7	3.1	3.2	3.2	3.1	3.0	3.0	3.0	3.0	3.0	3.0
10-Year Treasury Notes	2.3	2.9	3.4	3.6	3.8	3.8	3.7	3.7	3.7	3.7	3.7	3.7	3.7

[1] Based on information available as of mid-November 2018
[2] Average rate, secondary market (bank discount basis)
[3] Seasonally Adjusted

The portion of the labor force employed part-time for economic reasons has fallen to 2.9 percent in December 2018, well below a peak of over 6.0 percent during the Great Recession. Furthermore, the share of unemployed that have been job hunting for longer than 27 weeks has fallen to 18.4 percent, from a peak of nearly 50 percent during the Great Recession. This is the most taut labor market in more than a generation.

In spite of these encouraging indicators, several metrics suggest that the labor market has further room to improve. Compared with the last business cycle peak in 2007, the portion of the labor force working part-time for economic reasons and the portion unemployed for more than 27 weeks are both still elevated, as are the shares of the working-age population only marginally attached to the labor force or too discouraged to look for work. Labor force participation has fallen from 67.3 percent in January 2000 to 63.1 percent in December 2018. The aging of the baby boom cohorts into retirement does not explain the drop in the labor force participation rates for prime-age men and women (age 25-54) which fell 2.2 percentage points from 2000 to 2018. This suggests a need for policy alteration, removing impediments and disincentives for individuals to participate. Of special concern are NEET young adults (Not in Education, Employment or Training, age 20-24), which made up 14 percent of their cohort in 2017. Transition into the labor market is crucial to assuring their future as healthy, productive adults. Administration policies encouraging more individuals to join the labor force may cause short term increases in the unemployment rate, but these actions are beneficial to the economy.

Consumption—Consumer spending increased by an average of 2.7 percent over the four quarters ending 2018:Q4. This was driven by increased purchases of a variety of goods and services, including, recreational goods and vehicles (0.2 p.p.), food and beverages (0.1 p.p.), health care (0.3 p.p.), clothing and footwear (0.1 p.p.) and financial services and insurance (0.1 p.p.). Spending on gasoline and other energy goods was slightly negative, due to low prices generated by increased supply and the falling costs of renewable energy. The personal savings rate averaged 6.7 percent over the first 10 months of 2018, above its 20-year average of 5.9 percent, and household debt service payments have fallen to 9.8 percent of disposable income in 2018:Q3, from a peak of 13.2 in 2007:Q4. This above-average saving rate suggests that the pace of consumption is sustainable and is a positive development.

Investment—Nonresidential fixed investment increased by an average of 7.2 percent the four quarters ending 2018:Q4, 5.4 percentage points higher than in 2016. Private Investment contributed an average of 1.2

Table 2–2. COMPARISON OF ECONOMIC ASSUMPTIONS IN THE 2019 AND 2020 BUDGETS
(Calendar Years, Dollar Amounts in Billions)

	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
Real GDP (Percent Change)[1]:												
2019 Budget Assumptions	2.5	3.1	3.2	3.1	3.0	3.0	3.0	3.0	2.9	2.8	2.8	2.8
2020 Budget Assumptions	2.5	3.1	3.2	3.1	3.0	3.0	3.0	3.0	2.9	2.8	2.8	2.8
GDP Price Index (Percent Change)[1]:												
2019 Budget Assumptions	1.6	1.6	1.8	1.9	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
2020 Budget Assumptions	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Consumer Price Index (All-Urban; Percent Change)[1]:												
2019 Budget Assumptions	2.1	1.9	2.0	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
2020 Budget Assumptions	2.1	2.3	2.2	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
Civilian Unemployment Rate (Percent)[2]:												
2019 Budget Assumptions	4.4	3.9	3.7	3.8	3.9	4.0	4.2	4.3	4.5	4.7	4.8	4.8
2020 Budget Assumptions	4.4	3.9	3.6	3.6	3.7	3.9	4.0	4.1	4.2	4.2	4.2	4.2
91-Day Treasury Bill Rate (Percent)[2]:												
2019 Budget Assumptions	0.9	1.5	2.3	2.9	3.0	3.0	2.9	2.9	2.9	2.9	2.9	2.9
2020 Budget Assumptions	0.9	1.9	2.7	3.1	3.2	3.2	3.1	3.0	3.0	3.0	3.0	3.0
10-Year Treasury Note Rate (Percent)[2]:												
2019 Budget Assumptions	2.3	2.6	3.1	3.4	3.6	3.7	3.7	3.7	3.7	3.6	3.6	3.6
2020 Budget Assumptions	2.3	2.9	3.4	3.6	3.8	3.8	3.7	3.7	3.7	3.7	3.7	3.7

[1] % Change 4Q
[2] Calendar Year Average

p.p. to GDP during the four quarters of 2018. Equipment spending contributed 0.3 p.p., spending on structures 0.3 p.p., and spending on intellectual property products 0.5 p.p. Growth in overall private fixed investment (residential and nonresidential) was 7.6 percent in 2018, compared with 6.4 percent last year and 1.9 percent in 2016. The rapid growth of investment during the past year was encouraged by reductions in the cost of capital from the Tax Cut and Jobs Act, enacted in December 2017 but partially retroactive to 2017:Q4. Continued vigorous investment growth will lower the cost of capital and increase the return to labor, allowing for the American worker to make sustained gains in productivity and real wages.

Government—Real government purchases (consumption and gross investment) increased at an average rate of 1.8 percent over the four quarters ending in Q4:2018. State and local governments' purchases contributed 0.1 percent, while Federal purchases contributed 0.2 p.p., of which all was defense related, nondefense increases being negligible. The Federal deficit as a percentage of GDP increased to 3.9 percent in fiscal year 2018 from 3.5 percent in fiscal year 2017. Increasing deficits are anticipated to lead to higher interest rates and subsequent crowding out of private investment. Higher interest rates would raise the share of the budget devoted to debt servicing, creating a vicious cycle that must be avoided.

Trade—Exports of goods and services increased an average rate of 2.4 percent in the four quarters ending 2018:Q4. Imports increased 3.6 percent over the same period. While cheap imports benefit the American consumer, this level of trade imbalance is not sustainable, and the reasons for this state of affairs (foreign protectionism, savings imbalance, high government debt, etc.) are being addressed by Administration policy.

Monetary Policy—After holding the nominal federal funds rate near zero percent for seven years, the Federal Open Market Committee of the Federal Reserve began raising the federal funds rate at the end of 2015. The federal funds rate has steadily increased to 2.4 percent by January of 2019. This increase in the interest rate is meant to keep inflation low and avoid bubbles in financial markets. However, it also decreases investment and must be handled carefully to avoid adversely affecting growth. The Federal Reserve will need caution in order to walk the tightrope of its dual mandate to keep prices stable and maximize employment.

Energy Supply—Higher energy prices act as a tax on consumers and producers, since nearly all consumption and production processes require energy input. An "all of the above" energy policy that both lowers energy prices and addresses negative externalities, has greased the wheels of economic growth. Smooth economic advancement requires independence from energy commodities produced by hostile actors. After a post-financial crisis agitation, energy prices have relaxed significantly, assisting in economic recovery. Between a 2008 peak and 2018:Q3, the price of natural gas decreased 48 percent, petroleum decreased 16 percent, coal increased by 42 percent, solar decreased by 80 percent and wind decreased by 30 percent.[4] Average nuclear generation costs fell 18 percent

[4] Renewable price estimates made by the International Renewable Energy Agency.

Table 2–3. COMPARISON OF ECONOMIC ASSUMPTIONS [1]
(Calendar Years, Dollar Amounts in Billions)

	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Real GDP (Year-over-Year):												
2020 Budget	2.9	3.2	3.1	3.0	3.0	3.0	3.0	2.9	2.8	2.8	2.8	2.8
CBO	2.9	2.7	1.9	1.6	1.6	1.7	1.8	1.8	1.7	1.8	1.8	1.8
Blue Chip [2]	2.9	2.6	1.8	1.8	1.9	2.1	2.1	2.0	2.0	2.0	2.0	2.0
Real GDP (Fourth-Quarter-over-Fourth-Quarter):												
2020 Budget	3.1	3.2	3.1	3.0	3.0	3.0	3.0	2.9	2.8	2.8	2.8	2.8
Federal Reserve [3]	3.0	2.3	2.0	1.8	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9
Consumer Price Index (CPI-U):												
2020 Budget	2.5	2.1	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
CBO	2.5	2.1	2.6	2.6	2.5	2.5	2.4	2.3	2.3	2.3	2.3	2.4
Blue Chip [2]	2.5	2.3	2.3	2.2	2.2	2.3	2.2	2.2	2.2	2.2	2.2	2.2
Federal Reserve [3, 4]	1.9	1.9	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Unemployment Rate:												
2020 Budget	3.9	3.6	3.6	3.7	3.9	4.0	4.1	4.2	4.2	4.2	4.2	4.2
CBO	3.9	3.5	3.7	4.2	4.6	4.8	4.8	4.8	4.8	4.8	4.7	4.7
Blue Chip [2]	3.9	3.6	3.8	4.1	4.2	4.3	4.3	4.4	4.4	4.4	4.4	4.4
Federal Reserve [3]	3.7	3.5	3.6	3.8	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4
Interest Rates:												
91-Day Treasury Bills (discount basis):												
2020 Budget	1.9	2.7	3.1	3.2	3.2	3.1	3.0	3.0	3.0	3.0	3.0	3.0
CBO	1.9	2.8	3.2	3.2	3.2	3.0	2.8	2.7	2.7	2.8	2.8	2.8
Blue Chip [2]	2.0	2.7	3.0	2.9	2.8	2.9	3.0	3.0	3.0	3.0	3.0	3.0
10-Year Treasury Notes												
2020 Budget	2.9	3.4	3.6	3.8	3.8	3.7	3.7	3.7	3.7	3.7	3.7	3.7
CBO	2.9	3.4	3.6	3.7	3.7	3.8	3.7	3.7	3.7	3.7	3.7	3.8
Blue Chip [2]	2.9	3.3	3.6	3.5	3.6	3.7	3.7	3.7	3.7	3.7	3.7	3.7

Sources: Administration; CBO, The Budget and Economic Outlook: 2019 to 2029, January 2019; October 2018 Blue Chip Economic Indicators, Aspen Publishers, Inc.; Federal Reserve Open Market Committee, December 19, 2018

[1] Calendar Year

[2] 2025–2028 are 5 year averages

[3] Median Projection

[4] PCE Inflation

between 2012 and 2017. This plunge in energy prices was prompted by an 87 percent increase in crude oil domestic production, 39 percent increase in natural gas domestic production and a 55 percent increase in renewable energy domestic production.

Housing—2018 has been a kaleidoscopic year for the housing market. House prices, as measured by the Federal Housing Finance Agency's (FHFA) purchase-only index, were 5.8 percent higher in November 2018 than in November 2017, continuing the trend from the previous year. This rate of increase may slow as interest rates rise. The year to date number of housing starts increased from 1.08 million in November 2017 to 1.12 million in November 2018. Building permits decreased 6.0 percent over the same period, and residential investment was zero over the four quarters ending in 2018:Q3. As the largest asset class, a stable and affordable housing market is of paramount importance to economic performance.

External Sector—Internationally, economic prospects are less favorable than in the United States. According to the International Monetary Fund's World Economic Outlook, January 2019, global growth for 2017 is estimated at 3.8 percent, forecast to decrease to 3.5 percent by 2019. The Euro area is projected to grow by 1.6 percent in 2019, down from 2.4 percent in 2017. This is partially propelled by expectations of a poorly organized departure of the United Kingdom from the European Union. In Asia, annual growth is projected to decrease in Japan from 1.7 percent in 2017 to 1.1 percent in 2019 and China from 6.9 to 6.2 percent However, not all of the Indo-Pacific has a stormy outlook. India is forecast to increase annual growth from 6.7 to 7.5 percent between 2017 and 2019. In addition, despite Venezuela's economic hemorrhaging, there are bright spots throughout the American hemisphere. Latin America and the Caribbean is forecast to increase growth from 1.3 percent to 2.0 percent. Overall, any growth reversal among trading partners will depress U.S. growth and create difficulties for U.S exporters, while foreign growth will have the opposite effect.

Table 2–4. SENSITIVITY OF THE BUDGET TO ECONOMIC ASSUMPTIONS
(Fiscal Years; In Billions Of Dollars)

Budget Effect	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	Total of Budget Effects: 2019–2029
Real Growth and Employment:												
Budgetary effects of 1 percent lower real GDP growth:												
(1) For calendar year 2019 only, with real GDP recovery in 2019–2029:[1]												
Receipts	–14.9	–23.3	–11.9	–1.8	0.2	0.2	0.2	0.2	0.2	0.2	0.2	–50.7
Outlays	9.4	19.9	9.4	3.1	2.9	2.8	2.8	2.8	2.9	3.0	3.1	62.0
Increase in deficit (+)	24.3	43.2	21.3	4.9	2.7	2.6	2.6	2.7	2.7	2.8	2.9	112.8
(2) For calendar year 2019 only, with no subsequent recovery:[1]												
Receipts	–14.9	–31.0	–36.4	–38.4	–40.4	–42.6	–44.6	–47.1	–49.5	–51.7	–54.2	–450.9
Outlays	9.4	24.1	24.2	25.3	27.3	28.7	30.9	33.8	36.6	39.5	42.3	322.1
Increase in deficit (+)	24.3	55.0	60.6	63.7	67.7	71.3	75.5	80.9	86.1	91.2	96.6	773.0
(3) Sustained during 2019–2029, with no change in unemployment:												
Receipts	–14.9	–46.3	–85.0	–127.7	–174.0	–225.3	–279.3	–340.6	–405.3	–472.6	–547.1	–2,718.2
Outlays	0.1	0.9	2.7	5.6	9.1	13.2	18.3	24.9	32.9	42.2	52.6	202.4
Increase in deficit (+)	15.0	47.1	87.7	133.3	183.0	238.5	297.7	365.5	438.3	514.7	599.7	2,920.6
Inflation and Interest Rates:												
Budgetary effects of 1 percentage point higher rate of:												
(4) Inflation and interest rates during calendar year 2019 only:												
Receipts	16.0	31.2	32.9	33.3	35.1	36.8	38.7	40.9	42.9	44.9	47.0	399.6
Outlays	26.0	50.9	47.2	48.0	47.0	46.9	46.5	47.6	47.4	50.3	49.6	507.3
Increase in deficit (+)	10.0	19.7	14.3	14.7	11.9	10.1	7.8	6.7	4.5	5.4	2.6	107.7
(5) Inflation and interest rates, sustained during 2019–2029:												
Receipts	16.0	48.0	84.5	123.7	166.9	214.4	266.4	325.5	388.5	456.0	529.5	2,619.5
Outlays	24.4	75.1	125.4	180.2	233.9	288.5	350.9	414.4	480.2	558.8	613.4	3,345.1
Increase in deficit (+)	8.4	27.1	40.9	56.5	67.0	74.0	84.5	88.8	91.6	102.8	83.9	725.6
(6) Interest rates only, sustained during 2019–2029:												
Receipts	1.3	3.0	3.8	4.1	4.4	4.7	4.9	5.2	5.5	5.7	6.0	48.6
Outlays	11.3	37.7	62.9	86.0	107.6	128.5	146.6	163.6	178.2	193.0	206.7	1,322.1
Increase in deficit (+)	10.0	34.6	59.1	81.9	103.2	123.8	141.7	158.4	172.7	187.2	200.8	1,273.4
(7) Inflation only, sustained during 2019–2029:												
Receipts	14.8	45.0	80.6	119.4	162.3	209.5	261.2	319.9	382.6	449.7	522.9	2,567.8
Outlays	13.1	37.5	62.5	94.3	126.5	160.1	204.5	251.0	302.3	366.2	407.2	2,025.0
Decrease in deficit (–)	–1.6	–7.5	–18.1	–25.2	–35.9	–49.4	–56.7	–69.0	–80.3	–83.5	–115.7	–542.8
Interest Cost of Higher Federal Borrowing:												
(8) Outlay effect of 100 billion increase in borrowing in 2019	1.4	3.3	3.5	3.6	3.7	3.7	3.8	3.9	4.0	4.2	4.3	39.4

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

Risks—There are several risks for the economy that are being watched very closely. Student loan debt has reached almost 1.6 trillion, doubling from 800 billion in 2010. The price of tuition, school fees and childcare has risen 34 percent since 2010, compared with just 16 percent for all items, making the cost of raising children unaffordable for many and potentially contributing to a falling birthrate[5]. Lending has increased, which is a positive development, but care must be taken that excessive leverage and risk do not reprise the mistakes of the 2000s. The leveraged loan market recently passed $1 trillion, more than double 2010's nominal level. The cryptocurrency bubble has partially deflated without significant impact, but similar manias always pose a volatile threat to the economy. The fiscal deficit has grown to $779 billion, 3.9 percent of GDP. Bringing the deficit under control while continuing to deliver high quality services is as difficult as it is crucial to the future prosperity of the American people.

[5] Dettling and Kearney (2014) find that an increase in costs associated with child rearing (such as housing) reduces fertility.

Table 2–5. FORECAST ERRORS, 1985-PRESENT

	Administration	CBO	Blue Chip
REAL GDP ERRORS			
2-Year Average Annual Real GDP Growth	Administration	CBO	Blue Chip
Mean Error	0.1	-0.2	-0.2
Mean Absolute Error	1.1	1.0	1.0
Root Mean Square Error	1.5	1.3	1.3
6-Year Average Annual Real GDP Growth			
Mean Error	0.4	0.1	0.0
Mean Absolute Error	1.0	0.9	0.9
Root Mean Square Error	1.2	1.1	1.1
INFLATION ERRORS			
2-Year Average Annual Change in the Consumer Price Index	Administration	CBO	Blue Chip [1]
Mean Error	0.1	0.2	-0.0
Mean Absolute Error	0.7	0.7	0.6
Root Mean Square Error	0.8	0.8	0.7
6-Year Average Annual Change in the Consumer Price Index			
Mean Error	0.1	0.3	0.1
Mean Absolute Error	0.5	0.5	0.3
Root Mean Square Error	0.6	0.7	0.4
INTEREST RATE ERRORS			
2-Year Average 91-Day Treasury Bill Rate	Administration	CBO	Blue Chip
Mean Error	0.3	0.6	0.6
Mean Absolute Error	1.0	0.9	1.0
Root Mean Square Error	1.2	1.3	1.3
6-Year Average 91-Day Treasury Bill Rate			
Mean Error	0.9	1.4	1.5
Mean Absolute Error	1.4	1.5	1.6
Root Mean Square Error	1.7	1.8	1.9

[1] Since 2003

Economic Projections

The Administration's economic forecast is based on information available as of mid-November 2018. The forecast informs the Fiscal Year 2020 Budget and rests on the central assumption that all of the President's policy proposals will be enacted. The Administration's projections are reported in Table 2-1 and summarized below. The Administration forecast was finalized on November 16, with data available at that date.

Real GDP—In mid-November, when the forecast was finalized, the Administration projected that real GDP growth would achieve a four-quarter percent change of 3.1 in 2018. The pace of growth is projected to increase to 3.2 percent in 2019 before declining slightly to 2.8 at the end of the forecast window. The enactment of tax reform and the Administration's additional policies for reducing the burden of unnecessarily complex regulation, building useful and efficient infrastructure, improving health care provision, enacting criminal justice reform and increasing labor force participation are expected to improve the supply side of the U.S. economy and achieve these growth rates.

Unemployment—As of December 2018, the unemployment rate stood at 3.9 percent. The Administration expects the unemployment rate to decrease as a result of increasing business investment and higher real GDP growth, reaching a low of 3.6 percent in 2019. As technology increases and the population becomes more mobile, the rate of non-cyclical unemployment will decrease.

Interest Rates—As growth continues, the Administration expects that interest rates will begin to

Table 2–6. DIFFERENCES BETWEEN ESTIMATED AND ACTUAL SURPLUSES OR DEFICITS FOR FIVE-YEAR BUDGET ESTIMATES SINCE 1985
(As a Percent of GDP)

	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	0.6	1.4	2.0	2.4	2.7
Mean Absolute Error	1.0	1.2	2.0	2.6	3.1	3.5
Root Mean Squared Error	1.4	1.8	2.8	3.5	3.8	4.0

rise to values more consistent with historical experience. The rate on the 91-day Treasury bill is expected to rise from 1.9 percent in 2018 to 3.2 percent in 2021. As the economy grows, there is higher demand for money with which to make valuable investments. This means that the higher growth created by administration policy will lead to higher interest rates.

Inflation—After years of the inflation rate being lower than targeted, it has finally begun to rise. The Administration expects CPI-U to rise to 2.3 percent in 2018 (on a fourth quarter-over-fourth quarter basis). A small and stable amount of inflation can facilitate economic growth and avoid a deflationary spiral, in which nobody wants to spend money today because their dollar will be worth more tomorrow.

Changes in Economic Assumptions from Last Year's Budget—Table 2-2 compares the Administration's forecast for the FY 2020 Budget with that from the FY 2019 Budget. Compared with the previous forecast, the Administration expects real output growth to be unchanged. Both forecasts are predicated on the implementation of the Administration's policies designed to boost productivity and labor force participation. The Administration's expectations for inflation differ little from the previous forecast, except for slightly higher CPI inflation in the near term. The forecast for the unemployment rate is the first major deviation. The Administration now expects a lower long run rate of unemployment, reflecting technological advances that result in increased mobility and faster matching of job seekers and employers, Administration policy encouraging dynamism through opportunity zones, reduced licensing and worker training, and the rising value of labor caused by increased investment. The FY 2020 Budget predicts higher interest rates in the near term, which drop to broadly similar rates in the medium and long term.

Comparison with Other Forecasts

For some additional perspective on the Administration's forecast, this section compares it with forecasts prepared around the same time by the Congressional Budget Office (CBO), the Federal Open Market Committee of the Federal Reserve (FOMC), and the Blue Chip panel of private-sector forecasters. There are some important differences to bear in mind when making such a comparison.

The most important difference between these forecasts is that they make different assumptions about the implementation of the Administration's policies. As already noted, the Administration's forecast assumes full implementation of these proposals. At the opposite end of the spectrum, CBO produces a forecast that assumes no changes to current law. It is not clear to what extent FOMC participants and Blue Chip panelists incorporate policy implementation in their respective outlooks. The Blue Chip panel, in particular, compiles a large number of private-sector forecasts, which are marked by considerable heterogeneity across individual forecasters and their policy expectations.

A second difference is the publication dates of the various forecasts. While the forecast published by the Administration is based on data available in mid-November, the Blue Chip long-term forecast is based on their October Survey, the FOMC projections were released in June, and the CBO forecast was published in August.

In spite of these differences, the forecasts share several attributes. All of them project a further short-run decline in unemployment, followed by a rise back toward a rate consistent with stable inflation. They all forecast a rise in inflation, followed by a stable path at its long-run rate. Finally, they all foresee a gradual rise in interest rates over the course of the forecast horizon. What separates the Administration's forecast from those of the other bodies is their respective views on real output growth. See Table 2-3 for a comparison.

Real GDP—The Administration forecasts a higher path for real GDP growth compared with the CBO, FOMC, and Blue Chip forecasts throughout the forecast period, with a growth rate 0.3 percentage point faster than the next fastest forecast in 2019 and 0.8 percentage point faster than the next fastest forecast at the end of the forecast window. This reflects the Administration's expectation of full implementation of its policy proposals, while other forecasters are unlikely to be operating under the same assumption. The CBO in particular is constrained to assume a continuation of current law in its forecast.

Unemployment—On the unemployment rate, the Administration's expectations are largely aligned with those of the other forecasters. Along with the Administration, all forecasters expect further declines in unemployment in 2019. After 2019, all forecasters project a gradual uptick in the unemployment rate to their respective estimates of the long-term rate (4.2 percent for the Administration, 4.7 percent for the CBO, and 4.5 percent for the FOMC and 4.4 percent for the Blue Chip panel[6]).

Interest Rates—There are not many significant differences in the outlooks for interest rates. For both short- and long-term rates, all forecasters agree that they will tend to gradually rise, the Treasury bill rate is expected to rise to a steady-state level of around 2.9 percent and the 10-year Treasury note yield is expected to lie around 3.7 percent

Inflation—Expectations for inflation are similar across the Administration, the CBO, and the Blue Chip. The CBO expects a CPI inflation rate of 2.4 percent in the long run, while the Administration and the Blue Chip expect a 2.2 to 2.3 percent long-run rate, and the Federal Reserve predicts it will hit its target of 2.0 percent

Sensitivity of the Budget to Economic Assumptions

Federal spending and tax collections are heavily influenced by developments in the economy. Tax receipts are a function of growth in incomes for households and firms. Spending on social assistance programs may rise when

[6] As of February 2019 the CBO revised down their long run unemployment rate to 4.7 from 4.8, the F.O.M.C. to 4.4 from 4.5 and Blue Chip to 4.3 from 4.4.

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 revenues. 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 revenue categories will react to a change in a given subset of macroeconomic variables, holding almost everything else constant. These 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 revenues would decline and spending on programs such as unemployment insurance would go up. In such a situation, however, policy makers might cut tax rates to 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 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 2019 that is followed by a subsequent recovery in 2020 and 2021. The unemployment rate is assumed to be half a percentage point higher in 2019 before returning to the baseline level in 2020 and 2021.

- The next panel in the table reports the effect of a reduction of one percentage point in real GDP growth in 2019 that is not subsequently made up by faster growth in 2020 and 2021. 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 were hit by 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 1 percentage point higher nominal interest rate in 2018. Both inflation and interest rates return to their assumed levels in 2020. This would result in a permanently higher price level and level of nominal GDP over the course of the forecast horizon.

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

- The next panel reports the effect on the deficit resulting from an increase in interest rates in every year of the forecast, with no accompanying increase in inflation.

- The seventh panel in the table reports the effect on the Budget deficit of an inflation rate one percentage point higher 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 2019, 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 will not be fully accurate. It is impossible to foresee every eventuality over a one–year horizon, much less ten or more years. This section evaluates the historical accuracy of the past administration forecasts for real GDP, inflation, and short-term interest rates from 1985 to present day, especially as compared with the accuracy of forecasts produced by the CBO or Blue Chip panel. For this exercise, forecasts produced by all three entities are compared with realized values of these important 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 showing large errors. 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 term.

For real GDP growth rates, at both the 2-year and 6-year horizons, the mean forecast error suggests that all of the forecasts (the administration, the CBO, and the Blue Chip panel) have been broadly unbiased, with small average errors close to zero. The mean absolute error and the RMSE both suggest that past administration forecasts have tended to make slightly larger errors than the others. This could be due to incomplete adoption of the various administrations' proposed policies.

When it comes to inflation, the mean errors at the 2- and 6-year horizons are close to unbiased. The mean absolute error and the RMSE metrics imply that the errors in the administration's inflation forecast have tended to be of equal or smaller magnitude.

Finally, all of the forecasts have historically projected interest rates that were slightly higher than what later occurred. Across the three forecasters, the administration has generally made errors of lesser magnitude than the other two.

Uncertainty and the Deficit Projections

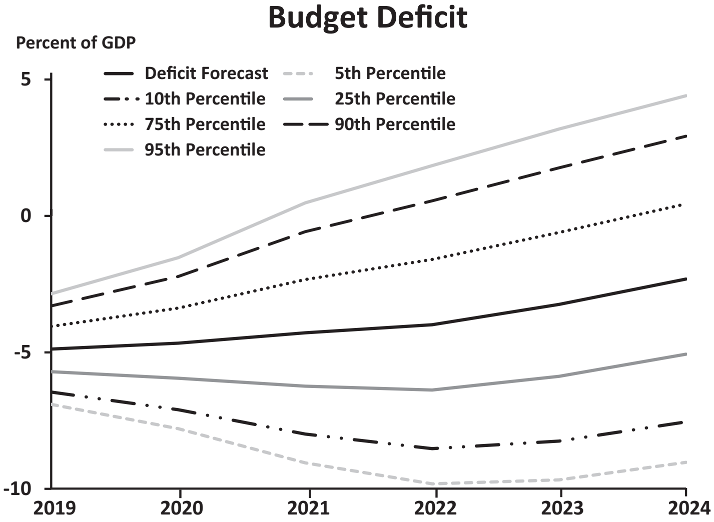
This section assesses the accuracy of past Budget forecasts for the deficit or surplus, measured at different time horizons. The results of this exercise are reported in Table 2-6, where the average error, the average absolute error, and the RMSE are reported.

In the table, a negative number means that the Federal Government ran a greater surplus 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). For every year beyond the current year, however, the historical pattern has been for the Budget deficit to be larger than the Administration expected.[7] 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.

It is possible to construct a probabilistic range of outcomes for the deficit. 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 Budget year to five years into the future. Chart 2-1 displays the projected range of possible deficits. In the chart, the middle line represents the Administration's expected Budget balance and can be interpreted as 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 2019 to 2024, 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.

[7] Additionally, CBO has on average underestimated the deficit in their forecasts.

Chart 2-1. Range of Uncertainty for the Budget Deficit



3. LONG-TERM BUDGET OUTLOOK

The 2020 President's Budget improves the Federal Government's long-term fiscal picture by responsibly controlling spending and increasing efficiencies Government-wide. This chapter demonstrates the positive impact of the Administration's policies by comparing long-term budget forecasts under current policy (baseline projections) with forecasts based on the 2020 Budget proposals (policy projections). Baseline projections indicate that the deficit and debt held by the public will continue at elevated levels beyond the 10-year window. Conversely, policy projections indicate that enacting the Budget's proposed reforms could reduce deficits and publicly held debt as a percentage of GDP.

Chart 3-1 shows the path of debt as a percent of GDP under continuation of current policy, *without* the proposed changes in the President's Budget, as well as the debt trajectory under the President's policies. Under current policy, the ratio of debt to GDP is about the same in 2019 (80.3 percent) as in 2029 (80.4 percent). In contrast, the debt ratio is projected to be 72.1 percent in 2029 under the proposed policy changes. By the end of the 25-year horizon, there is a notable difference in the debt burden—57.6 percent of GDP under current policy compared to 26.5 percent of GDP under Budget policy. The savings proposed by the administration from 2020-2029 are a significant down payment toward reducing the debt and reaching a balanced budget by 2034.

The projections in this chapter are highly uncertain. Small changes in economic or other assumptions can cause large differences to the results especially for projections over longer horizons.

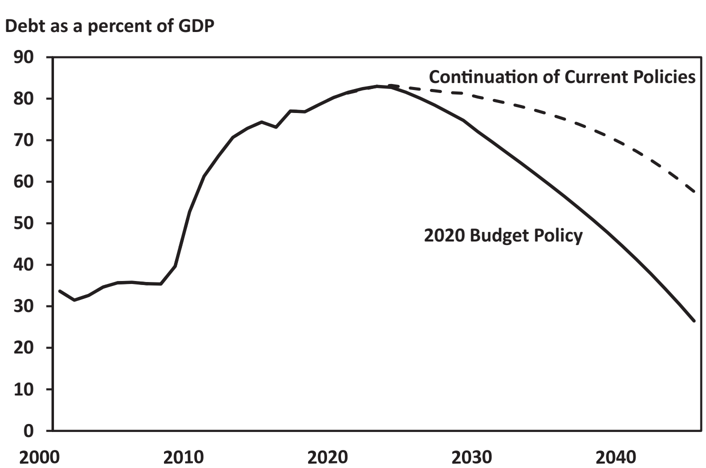
The chapter is organized as follows:

- The first section details the assumptions used to create the baseline projection and analyzes the long-term implications of leaving current policies in place. This forecast serves as a point of comparison against the proposals in the 2020 Budget in the second section.
- The second section demonstrates how the Administration's policies will alter the current trajectory of the Federal budget by reducing deficits and debt, and balancing the budget by 2034 under a long-term term extension of the Budget's policies.
- The third section discusses alternative assumptions about the evolution of key variables and uncertainties in the resulting projections.
- The fourth section discusses the actuarial projections for Social Security and Medicare.
- The appendix provides further detail on data sources, assumptions, and other methods for estimation.

Long-Run Projections under Continuation of Current Policies

For the 10-year budget window, the Administration produces both baseline projections, which show how deficits and debt would evolve under current policies, and projections showing the impact of proposed policy changes. Like the budget baseline more generally, long-term projections should provide policymakers with information about the Nation's expected fiscal trajectory in the absence of spending and tax changes. The FY 2018 and FY 2019 Budgets included separate economic assumptions for baseline and policy projections to ensure the policy projections accounted for the anticipated economic feedback resulting from proposed Administration policies. Due to the implementation of some of the major growth-enhancing policies, including the adoption of the Tax Cuts and Jobs

Chart 3-1. Comparison of Publicly Held Debt



Act (TCJA), there is less need to incorporate separate economic assumptions for baseline and policy projections. For this reason, we have returned to our previous methodology of using the same economic assumptions to underlie both the policy and baseline projections.

The baseline long-term projections assume that current policy continues for Social Security, Medicare, Medicaid, other mandatory programs, and revenues.[1] For discretionary spending, it is less clear how to project a continuation of current policy. After the expiration of the statutory caps in 2021, both the Administration's and CBO's 10-year baselines assume that discretionary funding levels generally grow slightly above the rate of inflation (about 2.5 percent per year) per statutory baseline rules. Thereafter, the baseline long-run projections assume that per-person discretionary funding remains constant, which implies an annual nominal growth rate of about 2.9 percent.

Over the next 10 years, debt in the baseline projection rises from 80.3 percent of GDP in 2019 to 82.7 percent of GDP in 2024 and then falls back to 80.4 percent of GDP in 2029. Beyond the 10-year horizon, debt continues to decrease slowly, reaching 57.6 percent of GDP by 2044, the end of the 25-year projection window. Key drivers of this decrease include the implementation of the TCJA and a slowing of the growth in the elderly as a share of the population.

Implementation of TCJA and other Administration policies.—The baseline reflects the implementation of the TCJA and other Administration policies which improve the economic outlook in the 25-year window. Reductions of regulatory burden and permanent corporate income tax cuts have promoted job creation and will help offset the effects of rapid healthcare cost growth.

Aging Population.—In the past several years, an aging population has put significant pressure on the Budget. Consistent with the demographic assumptions in the 2018 Medicare and Social Security Trustees' reports, U.S. population growth slows during 25-year window while baby boomers retire through the mid-2030s. This slowdown drove baseline projections in past Budgets, as Social Security costs relative to GDP grew. Social Security costs relative to GDP have plateaued in this year's baseline projections, and no longer contribute significantly to changes in the debt-to-GDP ratio over the 25-year window.

Health Costs.—Healthcare costs per capita have risen much faster than per-capita GDP growth for decades, thus requiring both public and private spending on healthcare to increase as a share of the economy. While in recent years spending per enrollee has grown roughly in line with, or more slowly than, per-capita GDP in both the public and private sectors, this slower per-enrollee growth is not projected to continue.

Based on projections of Medicare enrollment and expenditures included in the 2018 Medicare Trustees Report, the projections here assume that Medicare per-beneficiary spending growth will increase, with the growth rate averaging about 1.0 percentage point above the growth rate of per-capita GDP over the next 25 years. (This average growth rate is still below the historical average for the last 25 years.)

Revenues and Discretionary Spending.—The increase in revenues as a percent of GDP occurs primarily because individuals' real, inflation-adjusted incomes grow over time, and so a portion of their income falls into higher tax brackets. (Bracket thresholds are indexed for inflation but do not grow in real terms.) This restrains deficits relative to GDP, partially offsetting the pressure from increases in spending for health programs.

The Impact of 2020 Budget Policies on the Long-Term Fiscal Outlook

To show the long-term effects of implementing new policies, expenditures and revenues are extended through the 25-year timeframe. The President's 2020 Budget proposals reduce deficits by decreasing non-defense discretionary and mandatory spending over the next 10 years while protecting or increasing funding for border security, addressing the opioid crisis, law enforcement, childcare, veterans' healthcare, infrastructure, and workforce development. Beyond the 10-year window, most categories of mandatory spending grow at the same rates as under the baseline projection, discretionary spending keeps up with inflation and population, and revenues continue to rise as the result of a growing economy. Details about the assumptions are available in the appendix.

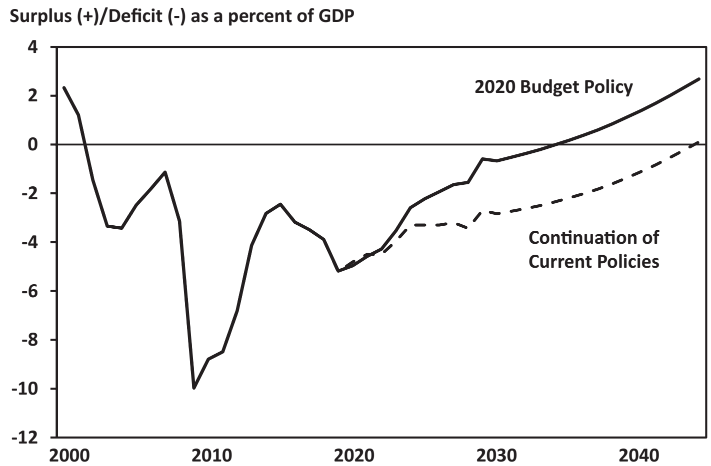
As shown in Chart 3-2, 2020 Budget policies reduce the deficit to 0.6 percent of GDP by 2029 and ultimately lead to a balanced budget by 2034. At the end of the 25-year horizon, the debt ratio would be the lowest since before 1981, representing significant progress in reducing the Federal debt burden.

One way to quantify the size of the Nation's long-term fiscal challenges is to determine the size of the increase in taxes or reduction in non-interest spending needed to reach a target debt-to-GDP ratio over a given period. There is no one optimal debt ratio, but one illustrative target is reaching the average postwar debt ratio of 45 percent. Policy adjustments of about 0.5 percent of GDP would steer the debt ratio to the postwar average by the end of the 25-year horizon. In comparison, the President's Budget policies are projected to decrease the debt ratio within the 10-year window and reduce it to the postwar average by 2039, more than satisfying the definition of fiscal sustainability.

The Budget achieves these fiscal goals through promoting economic growth and security while improving the efficiency of the Federal government. For example, the President's Budget includes a $200 billion initiative to improve the Nation's crumbling infrastructure and an

[1] The long-run baseline projections are consistent with the Budget's baseline concept, which is explained in more detail in Chapter 26, "Current Services Estimates," in this volume. The projections assume extension of the individual income tax and estate tax provisions of the Tax Cuts and Jobs Act beyond their expiration in 2025, and also 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 3-2. Comparison of Annual Surplus/Deficit



increase of $52 billion to defense outlays for 2020, while continuing reductions of regulatory burden to promote job creation and extending tax reform will allow families to keep more of their earnings. In addition, the Budget proposes streamlining Medicare to make it a better deal for seniors and the Government. Eliminating fraud, waste, and abuse from Medicare contributes to a lower debt and deficit in the long run.

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 2.6 percent of GDP, but a distribution of probable outcomes ranges from a deficit of 7.8 percent of GDP to a surplus of 2.7 percent of GDP, at the 10th and 90th percentiles, respectively.

Productivity and Interest Rates.—The rate of future productivity growth has a major effect on the long-run budget outlook (see Chart 3-3). Higher productivity growth improves the budget outlook, because it adds directly to the growth of the major tax bases while having a smaller effect on outlay growth. Productivity growth is also highly uncertain. For much of the last century, output per hour in nonfarm business grew at an average rate of around 2.2 percent per year, but there were long periods of sustained productivity growth at notably higher and lower rates than the long-term average. The base case long-run projections assume that real GDP per hour worked will grow at an average annual rate of 2.2 percent per year and assume interest rates on 10-year Treasury securities of 3.7 percent. The alternative scenarios illustrate the effect of raising and lowering the projected productivity growth rate by 0.25 percentage point and changing interest rates commensurately. At the end of the 25-year horizon, the public debt ranges from 19.6 percent of GDP in the high productivity scenario to 33.9 percent of GDP in the low productivity scenario. This variation highlights the importance of investment and smart tax policy, which can contribute to higher productivity.

Health Spending.—Healthcare cost growth represents another major source of uncertainty in the long-term budget projections. 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 per-capita GDP growth over the next 25 years. However, in the past, especially prior to 1990, healthcare costs grew even more rapidly. Over the last few years, per-enrollee healthcare costs have grown roughly in line with or more slowly than GDP per capita, with particularly slow growth in Medicare and Medicaid.

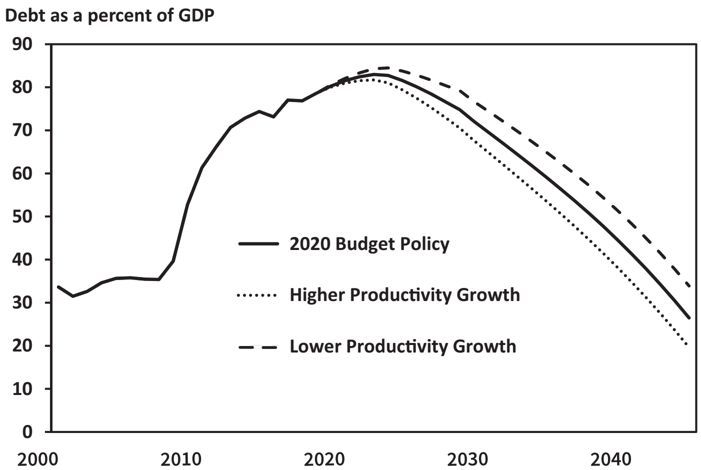
Chart 3-4 shows the large impacts that either slower or faster healthcare cost growth would have on the budget. If healthcare cost growth averaged 1.5 percentage points faster than per-capita GDP growth, the debt ratio in 25 years would increase from 25.6 percent of GDP under the

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

2019 Budget Policy	26.5
Health:	
Excess cost growth averages 1.5%	39.7
Zero excess cost growth	22.5
Discretionary Outlays:	
Grow with inflation	25.1
Grow with GDP	33.0
Revenues:	
Revenues steady as a share of GDP, with bracket creep	33.6
Productivity and Interest:[1]	
Productivity grows by 0.25 percentage point per year faster than the base case	19.6
Productivity grows by 0.25 percentage point per year slower than the base case	33.9

[1] Interest rates adjust commensurately with increases or decreases in productivity.

Chart 3-3. Alternative Productivity and Interest Assumptions



base case Budget policy to 39.7 percent of GDP. If healthcare costs grew with GDP per capita, the debt ratio in 25 years would be 22.5 percent of GDP.

Policy Assumptions.—As evident from the discussion of the 2020 Budget proposals, policy choices will also have a large impact on long-term budget deficits and debt. The base case policy projection for discretionary spending assumes that after 2029, discretionary spending grows with inflation and population (see Chart 3-5). Alternative assumptions are to grow discretionary spending with GDP or inflation only. At the end of the 25-year horizon, the debt ratio ranges from 25.1 percent of GDP if discretionary spending grows with inflation only to, 26.5 percent of GDP in the base case, and 33.0 percent of GDP if discretionary spending grows with GDP.

In the base case policy projection, revenues gradually increase with rising real incomes. Chart 3-6 shows an alternative receipts assumption in which receipts remain a constant percent of GDP after the budget window. At the end of the 25-year horizon, the debt ratio increases from 26.5 percent of GDP in the base case to 33.6 percent of GDP in the alternative case.

Finally, Chart 3-7 shows how uncertainties compound over the forecast horizon. As the chart shows, under the base case Budget policy projections, debt declines to 26.5 percent of GDP in 2044. Alternatively, assuming a combination of slower productivity growth and higher healthcare cost growth results in less debt reduction, with the debt ratio reaching 48.0 percent by the end of the window. Meanwhile, assuming a combination of higher productivity growth and slower healthcare cost growth results in the debt ratio reaching 15.9 percent in 2044.

Despite considerable uncertainties, long-term projections are helpful in highlighting some of the budget challenges on the horizon, especially the impact of healthcare costs. In addition, the wide range of the projections highlight the need for policy awareness of key drivers of future budgetary costs and potential action to address them.

Actuarial Projections for Social Security and Medicare

While the Administration's long-run projections focus on the unified budget outlook, Social Security and

Chart 3-4. Alternative Health Care Costs

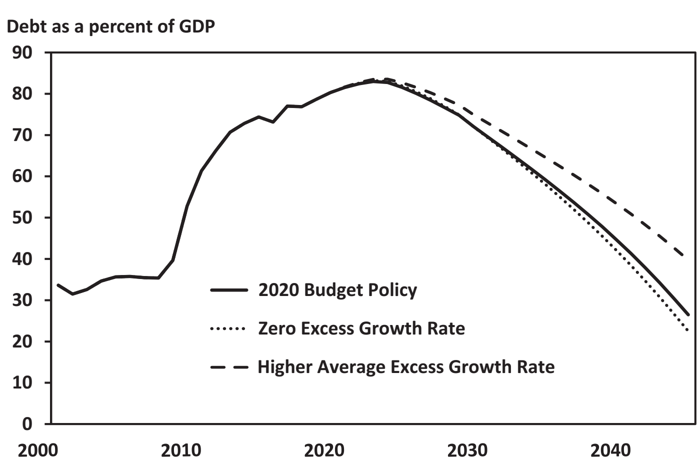
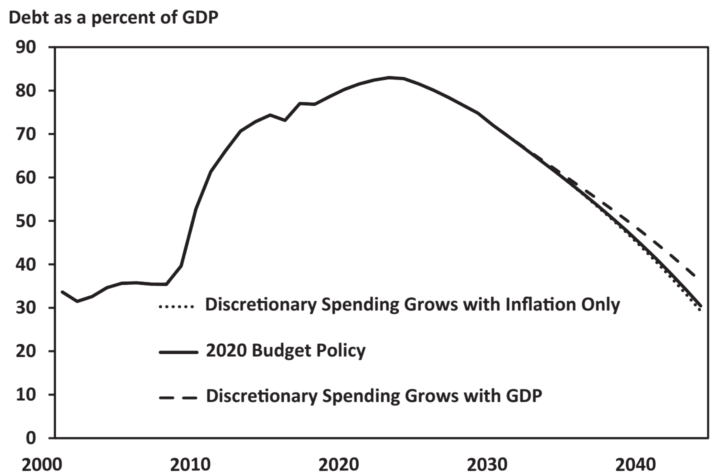


Chart 3-5. Alternative Discretionary Assumptions



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.

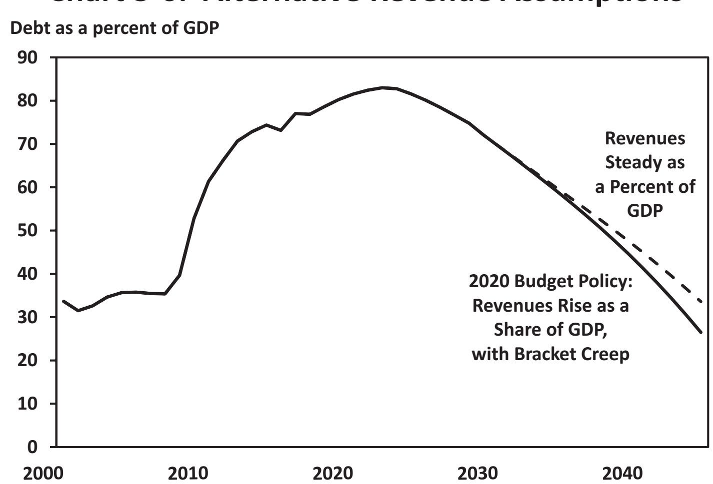
The Social Security and Medicare Trustees' reports feature the actuarial balance of the trust funds as a summary measure of their financial status. For each trust fund, the balance is calculated as the change in receipts or program benefits (expressed as a percentage of taxable payroll) that would be 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.

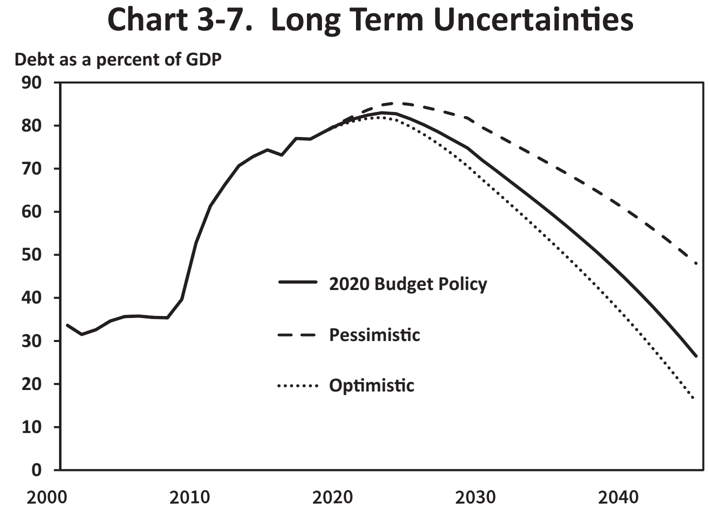
Under the Medicare Modernization Act (MMA) of 2003, the Medicare Trustees must issue a "warning" when two consecutive Trustees' reports project that the share of Medicare funded by general revenues will exceed 45 percent in the current year or any of the subsequent six years. Like the 2017 Trustees' Report, the 2018 Trustees' Report made a determination of excess revenues and therefore issued a Medicare funding warning. The MMA requires that, because a Medicare funding warning has been issued, the President submit proposed legislation responding to that warning, within 15 days of submitting the Budget. In accordance with the Recommendations Clause of the Constitution and as the Executive Branch has noted in prior years, the Executive Branch considers a requirement to propose specific legislation to be advisory.

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 2018 reports. There is a continued imbalance in the long-run projections of the HI program due to demographic trends and continued high per-person costs. The HI trust fund is projected to become insolvent in 2026.

As a result of reforms legislated in 1983, Social Security had been running a cash surplus with taxes exceeding costs up until 2009. This surplus in the Social Security trust fund helped to hold down the unified budget deficit. The cash surplus ended in 2009, when the trust fund began using a portion of its interest earnings to cover benefit payments. The 2018 Social Security Trustees' report projects that the trust fund will not return to cash surplus and that the program will start to experience an overall deficit starting in 2018. After that, Social Security will

Chart 3-6. Alternative Revenue Assumptions





begin to draw 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 slightly. In the process, the Social Security trust fund, which was built up since 1983, would be drawn down and eventually be exhausted in 2034. These projections assume that benefits would continue to be paid in full despite the projected exhaustion of the trust fund to show the long-run implications of current benefit formulas. Under current law, not all scheduled benefits could be paid after the trust funds are exhausted. However, benefits could still be partially funded from current revenues. According to the 2018 Trustees' report, beginning in 2034, 79 percent of projected Social Security scheduled benefits would be funded. This percentage would eventually decline to 74 percent by 2092.

Table 3–2. INTERMEDIATE ACTUARIAL PROJECTIONS FOR OASDI AND HI, 2018 TRUSTEES' REPORTS

	2017	2020	2030	2040	2090
	Percent of Payroll				
Medicare Hospital Insurance (HI):					
Income Rate	3.4	3.4	3.7	3.8	4.4
Cost Rate	3.5	3.5	4.3	4.9	5.2
Annual Balance	–0.1	–0.1	–0.7	–1.1	–0.8
Projection Interval:			25 years	50 years	75 years
Actuarial Balance			–0.7	–0.8	–0.8
	Percent of Payroll				
Old Age Survivors and Disability Insurance (OASDI):					
Income Rate	13.1	12.9	13.2	13.3	13.4
Cost Rate	13.7	14.1	16.0	16.8	17.6
Annual Balance	–0.6	–1.2	–2.8	–3.6	–4.2
Projection Interval:			25 years	50 years	75 years
Actuarial Balance			–1.8	–2.5	–2.8

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.

Demographic and Economic Assumptions.—For the years 2019-2029, the assumptions are drawn from the Administration's economic projections used for the 2020 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 (2029) of the budget forecast. Population growth and labor force growth are extended using the intermediate assumptions from the 2018 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 average annual rate of growth in the Budget's economic assumptions—2.2 percent per year.

Under Budget policies, the CPI inflation rate is held constant at 2.3 percent per year, the unemployment rate is held constant at 4.2 percent, the yield to maturity on 10-year Treasury notes is constant at 3.7 percent, and the 91-day Treasury bill rate is kept at 3.0 percent. Consistent with the demographic assumptions in the Trustees' reports, U.S. population growth slows from an average of just under 0.8 percent per year during the budget window to about three-quarters of that rate by 2035, and slower rates of growth beyond that point. By the end of the 25-year projection period total population growth is slightly below 0.5 percent per year. Real GDP growth is projected to be less than its historical average of around 3.3 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 between 2.7 percent and 2.8 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. This makes it easier to interpret the comparisons of alternative policies.

Budget Projections.—For the period through 2029, receipts and outlays in the baseline and policy projections follow the 2020 Budget's baseline and policy estimates respectively. Discretionary spending grows at the rate of growth in inflation and population outside the budget window. 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 2018 Medicare Trustees' report current law baseline. For the policy projections, these assumptions are adjusted based on the Budget proposal to streamline Medicare. Medicaid outlays are based on the economic and demographic projections in the model, which assume average excess cost growth of approximately 1.0 percentage point above growth in GDP per capita after 2029. For the policy projections, these assumptions are adjusted based on the Budget proposals to reform Medicaid funding. 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.

4. FEDERAL BORROWING AND DEBT

Debt is the largest legally and contractually binding obligation of the Federal Government. At the end of 2018, the Government owed $15,750 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 $371 billion of interest on this debt. At the same time, the Government also held financial assets, net of financial liabilities other than debt, of $1,840 billion. Therefore, debt held by the public net of financial assets was $13,910 billion.

In addition, at the end of 2018 the Department of the Treasury had issued $5,713 billion of debt to Government accounts. As a result, gross Federal debt, which is the sum of debt held by the public and debt held by Government accounts, was $21,462 billion. Interest on the gross Federal debt was $522 billion in 2018. Gross Federal debt is discussed in more detail later in the chapter.

The $15,750 billion debt held by the public at the end of 2018 represents an increase of $1,084 billion over the level at the end of 2017. This increase is the result of the $779 billion deficit in 2018 and other financing transactions that increased the need to borrow by $305 billion. Debt held by the public grew from 76.5 percent of Gross Domestic Product (GDP) at the end of 2017 to 77.8 percent of GDP at the end of 2018. The deficit is estimated to increase to $1,092 billion in 2019, and to $1,101 billion in 2020. After 2020, the deficit is projected to begin to decline. Debt held by the public is projected to grow to $16,919 billion at the end of 2019 and $18,087 billion at the end of 2020. Debt held by the public as a percent of GDP is projected to increase to 79.5 percent at the end of 2019 and 80.7 percent at the end of 2020. Debt held by the public as a percent of GDP is projected to begin to decline in 2023, falling to 71.3 percent of GDP in 2029. Debt held by the public net of financial assets is expected to similarly grow to 70.5 percent of GDP at the end of 2019 and to 71.8 at the end of 2020, then to begin to decline in 2023, falling to 64.1 percent of GDP at the end of 2029.

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 2029. (It is supplemented for earlier years by Tables 7.1–7.3 in the Budget's *Historical Tables*, available as supplemental budget material.[1]) 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 78.5 percent of GDP to 24.5 percent, and from 53.3 percent of credit market debt to 17.9 percent. Despite rising interest rates, 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. The nominal amount of Federal debt more than doubled, and 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, three major budget agreements were enacted in the 1990s, implementing spending cuts and revenue increases 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 1997 to 2001. Debt fell from 47.8 percent of GDP in 1993 to 31.4 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 other policy changes all contributed to increasing deficits, causing debt to rise, both in nominal terms and as a percentage of GDP. Following the most recent recession, which began in December 2007, the deficit began increasing rapidly in 2008 and 2009, as the Government acted to rescue several major corporations and financial institutions as well as enact a major stimulus bill. Since 2008, debt as a percent of GDP has more than doubled, increasing from 35.2 percent at the end of 2007 to 77.8 percent in 2018.

Under the proposals in the Budget, the deficit is projected to grow to $1,092 billion in 2019. The deficit is

[1] 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 2018 dollars [1]	GDP	Credit market debt [2]	Current dollars	FY 2018 dollars1	Total outlays	GDP
1946	241.9	2,552.9	106.1	N/A	4.2	44.1	7.6	1.8
1950	219.0	1,867.7	78.5	53.3	4.8	41.3	11.4	1.7
1955	226.6	1,698.5	55.7	42.1	5.2	38.9	7.6	1.3
1960	236.8	1,573.2	44.3	33.1	7.8	51.9	8.5	1.5
1965	260.8	1,623.4	36.7	26.4	9.6	59.6	8.1	1.3
1970	283.2	1,469.2	27.0	20.3	15.4	79.7	7.9	1.5
1975	394.7	1,508.4	24.5	17.9	25.0	95.5	7.5	1.6
1980	711.9	1,891.6	25.5	18.4	62.8	166.7	10.6	2.2
1985	1,507.3	3,052.4	35.3	22.2	152.9	309.7	16.2	3.6
1990	2,411.6	4,195.9	40.8	22.5	202.4	352.1	16.2	3.4
1995	3,604.4	5,531.2	47.5	26.3	239.2	367.1	15.8	3.2
2000	3,409.8	4,821.9	33.6	18.7	232.8	329.3	13.0	2.3
2005	4,592.2	5,811.6	35.6	17.0	191.4	242.2	7.7	1.5
2010	9,018.9	10,338.6	60.9	25.1	228.2	261.6	6.6	1.5
2011	10,128.2	11,383.5	65.9	27.3	266.0	298.9	7.4	1.7
2012	11,281.1	12,443.6	70.4	29.2	232.1	256.0	6.6	1.4
2013	11,982.7	12,978.8	72.6	29.9	259.0	280.5	7.5	1.6
2014	12,779.9	13,579.2	74.1	30.8	271.4	288.4	7.7	1.6
2015	13,116.7	13,770.5	72.9	30.4	260.6	273.6	7.1	1.4
2016	14,167.6	14,737.3	76.7	31.4	283.8	295.3	7.4	1.5
2017	14,665.4	14,984.0	76.5	31.3	309.9	316.6	7.8	1.6
2018	15,749.6	15,749.6	77.8	32.0	371.4	371.4	9.0	1.8
2019 estimate	16,918.6	16,583.3	79.5	N/A	444.2	435.4	9.8	2.1
2020 estimate	18,086.9	17,374.2	80.7	N/A	532.3	511.3	11.2	2.4
2021 estimate	19,222.1	18,102.8	81.6	N/A	603.4	568.3	12.2	2.6
2022 estimate	20,334.0	18,771.9	82.1	N/A	669.4	618.0	12.9	2.7
2023 estimate	21,303.7	19,280.6	81.9	N/A	726.4	657.4	13.6	2.8
2024 estimate	22,064.1	19,575.0	80.7	N/A	767.8	681.2	14.1	2.8
2025 estimate	22,755.8	19,791.6	79.3	N/A	801.9	697.4	14.1	2.8
2026 estimate	23,389.7	19,941.2	77.7	N/A	831.0	708.5	14.1	2.8
2027 estimate	23,957.0	20,023.2	75.9	N/A	861.4	719.9	14.1	2.7
2028 estimate	24,519.4	20,089.5	74.0	N/A	886.5	726.4	13.8	2.7
2029 estimate	24,770.1	19,895.7	71.3	N/A	901.9	724.5	13.9	2.6

N/A = Not available.

[1] Amounts in current dollars deflated by the GDP chain-type price index with fiscal year 2018 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).

projected to begin to decrease in 2021, falling to $202 billion, or 0.6 percent of GDP, in 2029. Gross Federal debt is projected to grow to 107.0 percent of GDP in 2019 and then begin to fall after 2021, to 90.7 percent of GDP in 2029. Debt held by the public as a percent of GDP is estimated to be 79.5 percent at the end of 2019, to continue to grow gradually through 2022, and then to begin to decline, falling to 71.3 percent of GDP by 2029. Debt held by the public net of financial assets as a percent of GDP is estimated to similarly grow to 70.5 percent of GDP at the end of 2019, grow gradually through 2022, and then begin to fall, reaching 64.1 percent of GDP by the end of 2029.

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.[2] 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."[3]

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. Federal borrowing thereby competes with the borrowing of other sectors of the domestic or international economy for financial resources in the credit market. Borrowing from the public thus affects the size and composition of assets held by the private sector and the amount of saving imported from abroad. It also increases the amount of future resources required to pay interest to the public on Federal debt. Borrowing from the public is therefore an important concern of 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 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 saving 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.

Furthermore, the debt held by Government accounts does not represent 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 90 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.[4]

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 con-

[2] 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.

[3] 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 22–7 in the supplemental materials to the "Credit and Insurance" chapter. (Table 22–7 is available on the Internet at: *https://www.whitehouse.gov/omb/analytical-perspectives/*.)

[4] 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.

Table 4–2. FEDERAL GOVERNMENT FINANCING AND DEBT

(In billions of dollars)

	Actual	Estimate										
	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Financing:												
Unified budget deficit	779.1	1,091.5	1,100.8	1,068.3	1,048.8	908.6	700.5	631.1	576.8	513.2	508.4	202.3
Other transactions affecting borrowing from the public:												
Changes in financial assets and liabilities:[1]												
Change in Treasury operating cash balance	225.4	0.3	....	....	....	....	....	....	....	....	....	....
Net disbursements of credit financing accounts:												
Direct loan accounts	90.6	47.7	66.7	68.0	66.0	65.5	64.6	64.9	61.2	57.9	57.7	51.9
Guaranteed loan accounts	–8.9	30.8	1.7	0.1	–1.6	–3.4	–3.6	–3.4	–3.3	–3.1	–3.1	–3.0
Troubled Asset Relief Program equity purchase accounts	–*	–*	–*	–*	–*	–*	....	....	....	....	....	....
Subtotal, net disbursements	81.6	78.5	68.4	68.1	64.3	62.1	61.0	61.5	58.0	54.8	54.7	48.9
Net purchases of non-Federal securities by the National Railroad Retirement Investment Trust	0.3	–1.0	–0.7	–0.9	–1.0	–0.7	–0.7	–0.6	–0.5	–0.4	–0.3	–0.1
Net change in other financial assets and liabilities[2]	–2.0	....	....	....	....	....	....	....	....	....	....	....
Subtotal, changes in financial assets and liabilities	305.3	77.8	67.8	67.2	63.3	61.4	60.3	60.9	57.4	54.4	54.4	48.7
Seigniorage on coins	–0.3	–0.3	–0.3	–0.3	–0.3	–0.3	–0.3	–0.3	–0.3	–0.3	–0.4	–0.4
Total, other transactions affecting borrowing from the public	305.0	77.5	67.5	66.9	63.0	61.1	60.0	60.6	57.1	54.1	54.0	48.4
Total, requirement to borrow from the public (equals change in debt held by the public)	1,084.1	1,169.0	1,168.3	1,135.2	1,111.9	969.7	760.4	691.7	633.9	567.3	562.4	250.7
Changes in Debt Subject to Statutory Limitation:												
Change in debt held by the public	1,084.1	1,169.0	1,168.3	1,135.2	1,111.9	969.7	760.4	691.7	633.9	567.3	562.4	250.7
Change in debt held by Government accounts	172.4	144.2	113.7	140.3	99.4	130.6	176.5	112.6	108.1	–*	–62.1	59.9
Less: change in debt not subject to limit and other adjustments	9.6	2.3	2.8	2.4	2.1	2.3	2.4	1.6	1.7	2.3	2.2	1.8
Total, change in debt subject to statutory limitation	1,266.2	1,315.6	1,284.7	1,277.9	1,213.4	1,102.7	939.3	805.8	743.7	569.5	502.5	312.5
Debt Subject to Statutory Limitation, End of Year:												
Debt issued by Treasury	21,437.9	22,751.9	24,035.1	25,311.8	26,523.9	27,625.4	28,563.8	29,369.6	30,113.0	30,681.7	31,183.4	31,495.2
Less: Treasury debt not subject to limitation (–)[3]	–10.8	–9.3	–7.7	–6.5	–5.3	–4.1	–3.2	–3.2	–2.8	–2.0	–1.1	–0.5
Agency debt subject to limitation	*	*	*	*	*	*	*	*	*	*	*	*
Adjustment for discount and premium[4]	47.8	47.8	47.8	47.8	47.8	47.8	47.8	47.8	47.8	47.8	47.8	47.8
Total, debt subject to statutory limitation[5]	21,474.8	22,790.4	24,075.1	25,353.1	26,566.4	27,669.1	28,608.5	29,414.3	30,158.0	30,727.5	31,230.0	31,542.5
Debt Outstanding, End of Year:												
Gross Federal debt:[6]												
Debt issued by Treasury	21,437.9	22,751.9	24,035.1	25,311.8	26,523.9	27,625.4	28,563.8	29,369.6	30,113.0	30,681.7	31,183.4	31,495.2
Debt issued by other agencies	24.4	23.6	22.4	21.3	20.3	19.2	17.7	16.1	14.8	13.4	12.0	10.8
Total, gross Federal debt	21,462.3	22,775.5	24,057.5	25,333.0	26,544.3	27,644.6	28,581.5	29,385.8	30,127.7	30,695.0	31,195.3	31,506.0
As a percent of GDP	106.1%	107.0%	107.4%	107.5%	107.2%	106.3%	104.6%	102.4%	100.0%	97.2%	94.2%	90.7%
Held by:												
Debt held by Government accounts	5,712.7	5,856.9	5,970.6	6,110.9	6,210.3	6,340.9	6,517.4	6,630.0	6,738.1	6,738.0	6,675.9	6,735.9
Debt held by the public[7]	15,749.6	16,918.6	18,086.9	19,222.1	20,334.0	21,303.7	22,064.1	22,755.8	23,389.7	23,957.0	24,519.4	24,770.1
As a percent of GDP	77.8%	79.5%	80.7%	81.6%	82.1%	81.9%	80.7%	79.3%	77.7%	75.9%	74.0%	71.3%

*$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] Legislation enacted February 9, 2018 (P.L. 115–123), temporarily suspends the debt limit through March 1, 2019.

[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 2018, the Federal Reserve Banks held $2,313.2 billion of Federal securities and the rest of the public held $13,436.4 billion. Debt held by the Federal Reserve Banks is not estimated for future years.

cept and much larger in size than the amount of Treasury securities that these programs hold.

For all 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 2018 through 2029.[5] In 2018 the Government borrowed $1,084 billion, increasing the debt held by the public from $14,665 billion at the end of 2017 to $15,750 billion at the end of 2018. The debt held by Government accounts grew by $172 billion, and gross Federal debt increased by $1,257 billion to $21,462 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.[6] 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 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 Interactions with the Budget," 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.[7] 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 2018 the deficit was $779 billion while these other factors increased the need to borrow by $305 billion, or 28 percent of total borrowing from the public. As a result, the Government borrowed $1,084 billion from the public. The other factors are estimated to increase borrowing by $77 billion (7 percent of total borrowing from the public) in 2019, and $67 billion (6 percent) in 2020. In 2021–2029, these other factors are expected to increase borrowing by annual amounts ranging from $48 billion to $67 billion.

Three specific factors presented in Table 4–2 have historically been especially important.

Change in Treasury operating cash balance.—The cash balance decreased by $194 billion in 2017, to $159 billion, and increased by $225 billion in 2018, to $385 billion. The large 2017 decrease in the cash balance was primarily due to Treasury drawing down the cash balance as it took measures to continue to finance Federal Government operations while at the debt ceiling. The large 2018 increase in the cash balance largely reflects the restoration of the cash balance after the debt limit was suspended. (The debt limit suspension is discussed in further detail elsewhere in this chapter.) For risk management purposes, Treasury seeks to maintain a cash balance roughly equal to one week of Government outflows, with a minimum balance of about $150 billion. The operating cash balance is projected to remain level at $385 billion at the end of 2019. 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), 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.[8]

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

[5] For projections of the debt beyond 2029, see Chapter 3, "Long-Term Budget Outlook."

[6] 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-indexed notes and bonds, the book value includes a periodic adjustment for inflation. Agency debt is generally recorded at par.

[7] For further explanation of the off-budget Federal entities, see Chapter 12, "Coverage of the Budget."

[8] 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 22, "Credit and Insurance," and Chapter 11, "Budget Concepts."

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 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.

Borrowing due to credit financing accounts was $82 billion in 2018. In 2019 credit financing accounts are projected to increase borrowing by $79 billion. After 2019, the credit financing accounts are expected to increase borrowing by amounts ranging from $49 billion to $68 billion over the next 10 years.

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 2019, upward reestimates for student loans are partly offset by downward reestimates for Federal Housing Administration (FHA) guarantees, resulting in a net upward reestimate of $9.6 billion. In 2018, there was a net downward reestimate of $0.9 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, 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 2018, net increases, including purchases and gains, were $0.3 billion. A $1.0 billion net decrease is projected for 2019 and net annual decreases ranging from $0.1 billion to $1.0 billion are projected for 2020 and subsequent years.[9]

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 90 percent of the total Federal debt held by Government accounts at the end of 2018. Net investment may differ from the surplus due to changes in the amount of cash assets not currently invested. In 2018, the total trust fund surplus was $154 billion, while trust fund investment in Federal securities increased by $149 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 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.

[9] The budget treatment of this fund is further discussed in Chapter 11, "Budget Concepts."

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

	Actual 2018	Estimate 2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Debt Held by the Public:												
Debt held by the public	15,749.6	16,918.6	18,086.9	19,222.1	20,334.0	21,303.7	22,064.1	22,755.8	23,389.7	23,957.0	24,519.4	24,770.1
As a percent of GDP	77.8%	79.5%	80.7%	81.6%	82.1%	81.9%	80.7%	79.3%	77.7%	75.9%	74.0%	71.3%
Financial Assets Net of Liabilities:												
Treasury operating cash balance	384.7	385.0	385.0	385.0	385.0	385.0	385.0	385.0	385.0	385.0	385.0	385.0
Credit financing account balances:												
Direct loan accounts	1,371.9	1,419.7	1,486.4	1,554.4	1,620.4	1,685.9	1,750.4	1,815.3	1,876.6	1,934.5	1,992.2	2,044.1
Guaranteed loan accounts	4.8	35.6	37.3	37.4	35.8	32.4	28.8	25.4	22.2	19.1	16.1	13.0
Troubled Asset Relief Program equity purchase accounts	*	*	*	*	–*	–*	–*	–*	–*	–*	–*	–*
Subtotal, credit financing account balances	1,376.8	1,455.3	1,523.7	1,591.8	1,656.2	1,718.2	1,779.2	1,840.7	1,898.7	1,953.6	2,008.3	2,057.1
Government-sponsored enterprise preferred stock	113.2	113.2	113.2	113.2	113.2	113.2	113.2	113.2	113.2	113.2	113.2	113.2
Non-Federal securities held by NRRIT	25.6	24.6	23.9	23.0	22.0	21.3	20.7	20.1	19.5	19.1	18.8	18.7
Other assets net of liabilities	–60.2	–60.2	–60.2	–60.2	–60.2	–60.2	–60.2	–60.2	–60.2	–60.2	–60.2	–60.2
Total, financial assets net of liabilities	1,840.1	1,917.9	1,985.6	2,052.8	2,116.2	2,177.6	2,237.9	2,298.8	2,356.2	2,410.7	2,465.1	2,513.8
Debt Held by the Public Net of Financial Assets and Liabilities:												
Debt held by the public net of financial assets	13,909.5	15,000.8	16,101.2	17,169.3	18,217.8	19,126.1	19,826.3	20,457.0	21,033.4	21,546.3	22,054.3	22,256.3
As a percent of GDP	68.7%	70.5%	71.8%	72.9%	73.6%	73.5%	72.6%	71.3%	69.8%	68.2%	66.6%	64.1%

*$50 million or less.

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 (GSE) preferred stock is measured at market value.

Due largely to the $225 billion increase in the Treasury operating cash balance, net financial assets grew by $326 billion, to $1,840 billion, in 2018. This $1,840 billion in net financial assets included a cash balance of $385 billion, net credit financing account balances of $1,377 billion, and other assets and liabilities that aggregated to a net asset of $79 billion. At the end of 2018, debt held by the public was $15,750 billion, or 77.8 percent of GDP. Therefore, debt held by the public net of financial assets was $13,910 billion, or 68.7 percent of GDP. As shown in Table 4–3, the value of the Government's net financial assets is projected to increase to $1,918 billion in 2019, principally due to the value of the credit financing accounts. While debt held by the public is expected to increase from 77.8 percent to 79.5 percent of GDP during 2019, debt held by the public net of financial assets is expected to increase from 68.7 percent to 70.5 percent of GDP.

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 the Office of Management and Budget (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 securities (SLGS).[10] 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-indexed) and inflation-indexed securities. Treasury's marketable securities include:

Treasury Bills—Treasury bills have maturities of one year or less from their issue date. In October 2018, Treasury introduced an 8-week bill, issued on a weekly basis, to complement its existing suite of 4-, 13-, and 26-week bills issued each week. 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 Government's receipts and outlays.

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.

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 69 months at the end of 2018.

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.[11] 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 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. Decreases in outstanding balances of nonmarketable debt, such as occurred in 2018, increase the need for marketable borrowing.[12]

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 $24.4 billion at the end of 2018. Agency debt is less than one-quarter of one percent of Federal debt held by the public. Primarily as a result of TVA activity, agency debt is estimated to fall to $23.6 billion at the end of 2019 and to $22.4 billion at the end of 2020.

The predominant agency borrower is TVA, which had borrowings of $24.3 billion from the public as of the end of 2018, or 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 employed 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

[10] 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.

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

[12] 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.

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

	2018 Actual		2019 Estimate		2020 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	–10	80	–11	69	–11	58
National Archives	–25	27	–27	....	....	....
Tennessee Valley Authority:						
Bonds and notes	–1,511	22,696	–595	22,101	–1,129	20,972
Lease financing obligations	–129	1,575	–124	1,451	–105	1,346
Prepayment obligations	–100	10	–10	....	....	....
Total, borrowing from the public	–1,775	24,407	–767	23,640	–1,245	22,395
Borrowing from other funds:						
Tennessee Valley Authority [1]	–1	....	....	....	....	....
Total, borrowing from other funds	–1	....	....	....	....	....
Total, agency borrowing	–1,776	24,407	–767	23,640	–1,245	22,395
Memorandum:						
Tennessee Valley Authority bonds and notes, total	–1,512	22,696	–595	22,101	–1,129	20,972

[1] Represents open market purchases by the National Railroad Retirement Investment Trust.

to ownership of the assets.[13] Under the prepayment obligations method, TVA's power distributors may 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.

OMB determined that each of these 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.[14] The budget presentation is consistent with the reporting of these obligations as liabilities on TVA's balance sheet under generally accepted accounting principles. Table 4–4 presents these alternative financing methods separately from TVA bonds and notes to distinguish between the types of borrowing. At the end of 2018, lease financing obligations were $1,575 million and obligations for prepayments were $10 million.

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 buildings for the National Archives and the Architect of the Capitol, and subsequently exercised full control over the design, construction, and operation of the buildings. These arrangements are 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.

[13] 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.

[14] 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.

Debt Held by Government Accounts

Trust funds, and some special funds and public enterprise revolving funds, accumulate cash in excess of current 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 $172 billion in 2018. Net investment by Government accounts is estimated to be $144 billion in 2019 and $114 billion in 2020, as shown in Table 4–5. The holdings of Federal securities by Government accounts are estimated to increase to $5,971 billion by the end of 2020, or 25 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 (OASI) and Disability Insurance (DI) trust funds; the Medicare Hospital Insurance (HI) and Supplementary Medical Insurance (SMI) 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 uniformed services Medicare-Eligible Retiree Health Care Fund (MERHCF) and the Postal Service Retiree Health Benefits Fund (PSRHBF). At the end of 2020, these Social Security, Medicare, and Federal employee retirement funds are estimated to own 89 percent of the total debt held by Government accounts. During 2018–2020, the Military Retirement Fund has a large surplus and is estimated to invest a total of $248 billion, 58 percent of total net investment by Government accounts. Some Government accounts are projected to have net disinvestment in Federal securities during 2018–2020.

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 account that holds zero-coupon bonds during the period of this table is the Nuclear Waste Disposal Fund in the Department of Energy. The unamortized discount on zero-coupon bonds held by the Nuclear Waste Disposal Fund was $14.5 billion at the end of 2018.

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 $13.2 billion at the end of 2018.

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.[15] Federal Reserve holdings were $2,313 billion (15 percent of debt held by the public) at the end of 2018. Over the last 10 years, the Federal Reserve holdings have averaged 15 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. The FFB issued: $14 billion of securities to the CSRDF on November 15, 2004, with maturity dates ranging from June 30, 2009, through June 30, 2019; $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 $10 billion at the end of 2018 and is projected to be $9 billion at the end of 2019.

[15] For further detail on the monetary policy activities of the Federal Reserve and the treatment of the Federal Reserve in the Budget, see Chapter 12, "Coverage of the Budget."

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

(In millions of dollars)

Description	Investment or Disinvestment (–)			Holdings, End of 2020 Estimate
	2018 Actual	2019 Estimate	2020 Estimate	
Investment in Treasury debt:				
Commerce:				
Public safety trust fund	5,909	1,257	1,000	8,500
Defense—Military:				
Host nation support fund for relocation	114	13	14	1,399
Energy:				
Nuclear waste disposal fund [1]	1,562	1,238	1,120	41,275
Uranium enrichment decontamination fund	128	–786	1,038	2,720
Health and Human Services:				
Federal hospital insurance trust fund	4,970	–7,210	–12,886	182,709
Federal supplementary medical insurance trust fund	27,609	6,793	4,738	109,728
Vaccine injury compensation fund	154	155	170	4,075
Child enrollment contingency fund	–1,145	10,236	–9,736	500
Homeland Security:				
Aquatic resources trust fund	24	7	10	1,963
Oil spill liability trust fund	885	216	562	7,335
National flood insurance reserve fund	732	513	597	1,842
Housing and Urban Development:				
Federal Housing Administration mutual mortgage insurance capital reserve	–3,904	21,585	7,267	55,827
Guarantees of mortgage-backed securities	–983	–1,080	1,415	16,628
Interior:				
Bureau of Land Management Permanent operating funds	137	136	158	1,182
Abandoned mine reclamation fund	–54	–41	–67	2,598
Federal aid in wildlife restoration fund	–38	–6	–15	2,081
Environmental improvement and restoration fund	29	39	48	1,582
Natural resource damage assessment fund	206	494	400	2,400
Justice:				
Assets forfeiture fund	–319	–1,832	100	3,200
U.S. Victims of State Sponsored Terrorism Fund	1,161	–1,120	33	74
Labor:				
Unemployment trust fund	11,865	13,124	14,300	100,000
Pension Benefit Guaranty Corporation1	3,217	4,302	3,057	39,018
State: Foreign service retirement and disability trust fund	392	384	39	19,607
Transportation:				
Airport and airway trust fund	808	503	559	15,274
Highway trust fund	–11,120	–10,207	–14,361	16,644
Aviation insurance revolving fund	40	17	154	2,421
Treasury:				
Exchange stabilization fund	221	282	417	23,010
Treasury forfeiture fund	–774	–776	–67	700
Gulf Coast Restoration trust fund	94	183	227	1,694
Comptroller of the Currency assessment fund	47	110	–28	1,919
Veterans Affairs:				
National service life insurance trust fund	–590	–639	–523	1,853
Veterans special life insurance fund	–116	–130	–115	1,242
Corps of Engineers: Harbor maintenance trust fund	113	343	857	10,344
Other Defense-Civil:				
Military retirement fund	82,451	76,501	89,200	909,122
Medicare-eligible retiree health care fund	14,335	10,607	13,591	264,381
Education benefits fund	2	–28	–58	974
Environmental Protection Agency: Hazardous substance superfund	118	73	75	5,066

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

(In millions of dollars)

Description	Investment or Disinvestment (–) 2018 Actual	2019 Estimate	2020 Estimate	Holdings, End of 2020 Estimate
General Services Administration:				
Civil service retirement and disability trust fund	....	....	956,066	956,066
Postal Service retiree health benefits fund	....	....	42,318	42,318
Employees life insurance fund	....	....	49,535	49,535
Employees and retired employees health benefits fund	....	....	29,105	29,105
International Assistance Programs:				
Overseas Private Investment Corporation	79	52	–5,869	....
Development Finance Corporation corporate capital account	....	....	5,723	5,723
Office of Personnel Management:				
Civil service retirement and disability trust fund	17,890	16,059	–939,053	....
Postal Service retiree health benefits fund	–2,346	–2,321	–44,824	....
Employees life insurance fund	936	1,656	–48,272	....
Employees and retired employees health benefits fund	1,349	1,403	–28,773	....
Social Security Administration:				
Federal old-age and survivors insurance trust fund [2]	–18,946	–5,574	–7,048	2,788,632
Federal disability insurance trust fund [2]	23,731	597	–5,869	88,129
District of Columbia: Federal pension fund	–57	24	44	3,764
Farm Credit System Insurance Corporation: Farm Credit System Insurance fund	242	273	304	5,272
Federal Communications Commission: Universal service fund	–4,213	–2,883	....	....
Federal Deposit Insurance Corporation: Deposit insurance fund	16,270	7,432	7,706	111,569
National Credit Union Administration: Share insurance fund	1,805	859	691	16,445
Postal Service fund [2]	–472	928	102	11,523
Railroad Retirement Board trust funds	179	288	–268	2,573
Securities Investor Protection Corporation [3]	215	185	60	3,410
United States Enrichment Corporation fund	50	45	–1,701	....
Other Federal funds	272	–8	227	4,731
Other trust funds	124	–27	161	4,125
Unrealized discount [1]	–2,960	....	....	–13,212
Total, investment in Treasury debt [1]	**172,428**	**144,249**	**113,655**	**5,970,595**
Investment in agency debt:				
Railroad Retirement Board:				
National Railroad Retirement Investment Trust	–1	....	....	....
Total, investment in agency debt [1]	**–1**	**.........**	**.........**	**.........**
Total, investment in Federal debt [1]	**172,426**	**144,249**	**113,655**	**5,970,595**
Memorandum:				
Investment by Federal funds (on-budget)	26,867	47,468	24,189	654,671
Investment by Federal funds (off-budget)	–472	928	102	11,523
Investment by trust funds (on-budget)	144,207	100,829	102,281	2,440,852
Investment by trust funds (off-budget)	4,785	–4,976	–12,917	2,876,761
Unrealized discount [1]	–2,960	....	....	–13,212

* $500 thousand or less.

[1] Debt held by Government accounts is measured at face value except for the Treasury zero-coupon bonds held by the Nuclear Waste Disposal Fund, which is recorded at market or redemption price; and the unrealized discount on Government account series, which is not distributed by account. Changes are not estimated in the unrealized discount. If recorded at face value, at the end of 2018 the debt figure would be $14.5 billion higher for the Nuclear Waste Disposal Fund than recorded in this table.

[2] Off-budget Federal entity.

[3] Amounts on calendar-year basis.

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 $480 million at the end of 2018 and is projected to gradually decline over time.

The sole agency debt currently subject to the general limit, $209 thousand at the end of 2018, is certain debentures issued by the Federal Housing Administration.[16]

[16] At the end of 2018, there were also $18 million of FHA debentures not subject to limit.

Table 4–6. FEDERAL FUNDS FINANCING AND CHANGE IN DEBT SUBJECT TO STATUTORY LIMIT

(In billions of dollars)

Description	Actual 2018	Estimate										
		2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Change in Gross Federal Debt:												
Federal funds deficit	933.3	1,200.9	1,205.5	1,170.0	1,110.2	1,001.6	838.6	705.7	648.9	473.0	404.9	221.6
Other transactions affecting borrowing from the public -- Federal funds [1]	304.7	78.5	68.1	67.8	64.0	61.8	60.6	61.2	57.6	54.5	54.3	48.5
Increase (+) or decrease (–) in Federal debt held by Federal funds	26.4	48.4	24.3	38.6	38.0	37.7	38.3	38.0	35.9	40.1	41.4	40.6
Adjustments for trust fund surplus/deficit not invested/ disinvested in Federal securities [2]	–4.9	–14.6	–16.0	–0.9	–1.0	–0.7	–0.7	–0.6	–0.5	–0.4	–0.3	–0.1
Change in unrealized discount on Federal debt held by Government accounts	–3.0	....	....	....	....	....	....	....	....	....	....	....
Total financing requirements	1,256.6	1,313.3	1,281.9	1,275.6	1,211.2	1,100.4	936.9	804.2	742.0	567.3	500.3	310.6
Change in Debt Subject to Limit:												
Change in gross Federal debt	1,256.6	1,313.3	1,281.9	1,275.6	1,211.2	1,100.4	936.9	804.2	742.0	567.3	500.3	310.6
Less: increase (+) or decrease (–) in Federal debt not subject to limit	–2.9	–2.3	–2.8	–2.4	–2.1	–2.3	–2.4	–1.6	–1.7	–2.3	–2.2	–1.8
Less: change in adjustment for discount and premium [3]	–6.7	....	....	....	....	....	....	....	....	....	....	....
Total, change in debt subject to limit	1,266.2	1,315.6	1,284.7	1,277.9	1,213.4	1,102.7	939.3	805.8	743.7	569.5	502.5	312.5
Memorandum:												
Debt subject to statutory limit [4]	21,474.8	22,790.4	24,075.1	25,353.1	26,566.4	27,669.1	28,608.5	29,414.3	30,158.0	30,727.5	31,230.0	31,542.5

* $50 million or less.

[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] Legislation enacted February 9, 2018 (P.L. 115-123), temporarily suspends the debt limit through March 1, 2019.

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 $48 billion at the end of 2018 compared with the total unamortized discount (less premium) of $78 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 84 separate acts to raise the limit, revise the definition, extend the duration of a temporary increase, or temporarily suspend the limit.[17]

The six most recent laws addressing the debt limit have 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. The Continuing Appropriations Act, 2018 and Supplemental Appropriations for Disaster Relief Requirements Act, 2017, suspended the $19,809 billion debt ceiling from September 8, 2017, through December 8, 2017, and then raised the debt limit on December 9, 2017, by $647 billion to $20,456 billion. The Bipartisan Budget Act of 2018 suspended the $20,456 billion debt ceiling from February 9, 2018, through March 1, 2019.

At many times in the past several decades, including 2015, 2017, and 2018, 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 Thrift Savings Plan (TSP) Government Securities Investment Fund (G-Fund).[18] 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 $256 billion at the end of January 2019. The Treasury Secretary is also authorized to suspend investments in the CSRDF and to declare a debt issuance suspension period, which allows him or her to redeem a limited amount of securi-

[17] 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/*.

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

ties held by the CSRDF. The Postal Accountability and Enhancement Act of 2006 provides that investments in the Postal Service Retiree Health Benefits Fund shall be made in the same manner as investments in the CSRDF.[19] 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 $22 billion at the end of January.

As the debt has neared the limit, including in 2018, 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 would 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 $22,790 billion by the end of 2019 and to $24,075 billion by the end of 2020. 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 results in 10 percent of the estimated total increase in debt subject to limit from 2019 through 2029.

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.[20]

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 2018 the Federal funds deficit was $933 billion, and other factors increased financing requirements by $305 billion. The change in the Treasury operating cash balance increased financing requirements by $225 billion, the net financing disbursements of credit financing accounts increased financing requirements by $82 billion, and other Federal fund factors reduced financing requirements by $2 billion. In addition, special funds and revolving funds, which are part of the Federal funds group, invested a net of $26 billion in Treasury securities. A $5 billion adjustment is 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). As a net result of all these factors, $1,257 billion in financ-

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

[20] For further discussion of the trust funds and Federal funds groups, see Chapter 27, "Trust Funds and Federal Funds."

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	4,316.0	47.9	1,474.2	745.4
2011	10,128.2	4,912.1	48.5	1,109.3	596.1
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	6,104.0	46.5	336.8	34.8
2016	14,167.6	6,155.9	43.5	1,050.9	51.9
2017	14,665.4	6,301.9	43.0	497.8	146.0
2018	15,749.6	6,225.6	39.5	1,084.1	–76.3

[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.

ing was required, increasing gross Federal debt by that amount. Since Federal debt not subject to limit fell by $3 billion and the adjustment for discount and premium changed by $7 billion, the debt subject to limit increased by $1,266 billion, while debt held by the public increased by $1,084 billion.

Debt subject to limit is estimated to increase by $1,316 billion in 2019 and by $1,285 billion in 2020. 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 $9,020 billion from the end of 2018 through 2029, debt subject to limit increases by $10,068 billion.

Foreign Holdings of Federal Debt

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 starting in the 1970s and since 2004 have represented around 40 percent or more of outstanding debt. This increase has been almost entirely due to decisions by foreign central banks, corporations, and individuals, rather than the direct marketing of these securities to foreign investors.

Foreign holdings of Federal debt are presented in Table 4–7. At the end of 2018, foreign holdings of Treasury debt were $6,226 billion, which was 40 percent of the total debt held by the public.[21] Foreign central banks and other foreign official institutions owned 64 percent of the foreign holdings of Federal debt; private investors owned nearly all the rest. At the end of 2018, the nations holding the largest shares of U.S. Federal debt were China, which held 18 percent of all foreign holdings, and Japan, which held 17 percent. All of the foreign holdings of Federal debt are denominated in dollars.

Although the amount of foreign holdings of Federal debt has grown greatly over this period, the proportion that foreign entities and individuals own, after increasing abruptly in the very early 1970s, remained about 15–20 percent until the mid-1990s. During 1995–97, however, growth in foreign holdings accelerated, reaching 33 percent by the end of 1997. Foreign holdings of Federal debt resumed growth in the following decade, increasing to 48 percent by the end of

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

2008. After 2008, foreign holdings as a percent of total Federal debt 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 2018, foreign holdings fell both in dollar terms and as a percent of total Federal debt, falling from $6,302 billion (43 percent) at the end of 2017 to $6,226 billion (40 percent) at the end of 2018. Over the last five years, the total dollar increase in foreign holdings was about 15 percent of the total increase in Federal debt held by the public.

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 22, "Credit and Insurance," in this volume. Detailed data are presented in tables accompanying that chapter.

PERFORMANCE AND MANAGEMENT

5. SOCIAL INDICATORS

The social indicators presented in this chapter illustrate in broad terms how the Nation is faring in selected areas. Indicators are drawn from six domains: economic, demographic and civic, socioeconomic, health, security and safety, and environment and energy. The indicators shown in the tables in this chapter were chosen in consultation with statistical and data experts from across the Federal Government. These indicators are only a subset of the vast array of available data on conditions in the United States. In choosing indicators for these tables, priority was given to measures that are broadly relevant to Americans and consistently available over an extended period. Such indicators provide a current snapshot while also making it easier to draw comparisons and establish trends.

The measures in these tables are influenced to varying degrees by many Government policies and programs, as well as by external factors beyond the Government's control. They do not measure the impacts of Government policies. Instead, they provide a quantitative picture of the baseline on which future policies are set and useful context for prioritizing budgetary resources.

Economic.—The 2008-2009 economic downturn produced the worst labor market since the Great Depression. The employment-population ratio dropped sharply from its pre-recession level, and real GDP per person also declined. The unemployment rate has since recovered from its high of 10 percent in October 2009, standing at 3.9 percent in December 2018, which is one of the lowest unemployment rates since 1970. Despite the recovery in the unemployment rate, the employment-population ratio remains low relative to its pre-recession levels. From 1980 to 2005, the employment-population ratio increased from 59.2 to 62.7 percent, and in 2007 it stood at 63.0 percent. After the 2008-2009 recession, it fell to 58.5 percent in 2010 and has recovered only partly to 60.4 percent in 2018.

Over the entire period since 1960, the primary pattern has been one of economic growth and rising living standards. Real GDP per person has tripled as technological advancements and accumulation of human and physical capital increased the Nation's productive capacity. The stock of physical capital including consumer durable goods, like cars and appliances, amounted to $58 trillion in 2017. However, national saving, a key determinant of future prosperity because it supports capital accumulation, remains low relative to historical standards, standing at 2.9 percent of GDP in 2017, down from 10.9 percent in 1960. Meanwhile, the labor force participation rate, also critical for growth, has generally been decreasing since 2000, with the aging of the population contributing to the decline. During the 2008-2009 recession, the labor force participation rate fell abruptly. It increased slightly from 2015 to 2017 and did not change from 2017 to 2018 despite demographic trends. Nevertheless, the labor force participation rate remains far below pre-recession levels.

In addition to the size of the economy, the structure of the economy has also changed considerably. From 2000 to 2017, goods-producing industries declined from 24.9 to 21.1 percent of total private goods and services, measured in value added as a percentage of GDP, while services-producing industries increased from 75.1 to 78.9 percent. This period coincided with a steep decline in manufacturing employment, potentially due to import competition from China and changes in technology.[1] The United States has experienced persistent trade deficits since the early 1980s, reaching $714 billion in 2005 and standing at $552 billion in 2017.

Demographic and Civic.—The U.S. population steadily increased from 1970 to 2018, growing from 204 million to 327 million. The foreign born population has rapidly increased, more than quadrupling from 9.6 million in 1970 to 44.5 million in 2017. The U.S. population is getting older, due in part to the aging of the baby boomers, improvements in medical technology, and declining birth rates. From 1970 to 2017, the share of the population aged 65 and over increased from 9.8 to 15.6 percent, and the percentage of Americans aged 85 and over increased from 0.7 to 2.0. In contrast, the proportion of the population aged 17 and younger declined from 28.0 percent in 1980 to 22.4 percent in 2018.

The composition of American households and families has evolved considerably over time. The share of Americans aged 15 and over who have ever married has declined from 78.0 percent in 1960 to 67.7 percent in 2018. Average family size has also fallen during the same period from 3.7 to 3.1 members per family household. Declining average family size is a pattern that is typical among developed countries. Births to unmarried women aged 15 to 17 and the fraction of single parent households both reached turning points in 1995 after increasing for more than three decades. From 1995 to 2017, the number of births per 1,000 unmarried women aged 15 to 17 fell from 30.1 to 7.7, the lowest level on record. Single parent households comprised 9.1 percent of all households in 1995, up from only 4.4 percent in 1960. Since 1995, the percentage stabilized then decreased to 8.3 percent in 2018.

Charitable giving among Americans, measured by the average charitable contribution per itemized tax return, has generally increased over the past 50 years.[2] The ef-

[1] Autor, David H., David Dorn, and Gordon H. Hanson (2013). The China Syndrome: Local Labor Market Effects of Import Competition in the United States, American Economic Review, 103(6).

[2] This measure includes charitable giving only among those who claim itemized deductions. It is therefore influenced by changes in tax laws and in the characteristics of those who itemize.

fects of the 2008-2009 recession are evident in the sharp drop in charitable giving from 2005 to 2010, but that decline has reversed and charitable giving reached a high in 2016.

Socioeconomic.—Education is a critical component of the Nation's economic growth and competitiveness, while also benefiting society in areas such as health, crime, and civic engagement. Between 1960 and 1980, the percentage of 25 to 34 year olds who have graduated from high school increased from 58 to 84 percent, a gain of 13 percentage points per decade. The rate of increase has slowed since then with approximately a seven percentage point gain during the past 37 years. The percentage of 25 to 34 year olds who have graduated from college continues to rise, from only 11.0 percent in 1960 to 35.6 percent in 2017. While the share of the population with a graduate degree has risen, the percentage of graduate degrees in science and engineering fell by half in the period between 1960 and 1980, from 22 percent to 11 percent. However, since 2010 this decline has partially reversed, with science and engineering degrees rising to 17 percent of all graduate degrees in 2017.

Although national prosperity has grown considerably over the past 50 years, these gains have not been shared equally. Real disposable income per capita more than tripled since 1960, while for the median household, real income increased by only 24 percent since 1970, and nearly all of those gains took place prior to 2000. After a period of decline, real median household income increased by 10.5 percent between 2010 and 2017. The median wealth of households aged 55 to 64 has declined from $321 thousand in 2005 to $187 thousand in 2016. Finally, foreign remittances increased from $32.6 billion in 2000 to $47.3 billion in 2017.

From 2000 to 2010, the poverty rate, the percentage of food-insecure households, and the percentage of Americans receiving benefits from the Supplemental Nutrition Assistance Program (SNAP) increased, with most of this increase taking place during and after the 2008-2009 economic downturn. The poverty rate has recovered to its pre-recession level, while food insecurity and the percentage of the population on SNAP have declined over the past several years but still remain elevated.

After increasing from 1990 to 2005, homeownership rates among households with children fell to a low of 59.5 percent in 2015 following the 2008 housing crisis but have increased to 61.5 in 2017. The share of families with children and severe housing cost burdens more than doubled from 8 percent in 1980 to 18 percent in 2010, before falling to 15 percent in 2016. The percentage of families with children and inadequate housing steadily decreased from a high of 9 percent in 1980 to a low of 5.3 percent in 2010. Although the share increased to 6.3 percent in 2015, it has since fallen to its low of 5.3 percent.

Health.—The United States has by far the most expensive health care system in the world. National health expenditures as a share of GDP have increased from 5 percent in 1960 to nearly 18 percent in 2017. This increase in health care spending coincides with improvements in medical technologies that have improved health. However, the level of per capita health care spending in the United States is far greater than in other Organization for Economic Cooperation and Development (OECD) countries that have experienced comparable health improvements.[3] Average private health insurance premiums paid by an individual or family with private health insurance increased by 20 percent from 2010 to 2017, after adjusting for inflation.

Some key indicators of national health have improved since 1960. Infant mortality fell from 26 per 1,000 live births in 1960 to under 6 in 2017, with a rapid decline occurring in the 1970s. Life expectancy at birth increased by nine years, from 69.7 in 1960 to 78.7 in 2010. However, life expectancy decreased to 78.6 in 2017, with increased unintentional drug overdoses contributing to this decline.[4]

Improvements in health-related behaviors among Americans have been mixed. Although the percentage of adults who smoke cigarettes in 2017 was less than half of what it was in 1970, rates of obesity have soared. In 1980, 15 percent of adults and 6 percent of children were obese; in 2016, 40 percent of adults and 19 percent of children were obese. Adult obesity continued to rise even as the share of adults engaging in regular physical activity increased from 15 percent in 2000 to 25 percent in 2017.

Security and Safety.—The last three decades have witnessed a remarkable decline in crime. From 1980 to 2017, the property crime rate dropped by 78 percent while the murder rate fell by 48 percent. However, the downward decline in the murder rate ended in 2010, with the rate rising between 2010 and 2016 then falling slightly in 2017. The prison incarceration rate increased more than five-fold from 1970 through 2010, before declining by 11 percent from 2010 through 2016. Road transportation has become safer. Safety belt use increased by 19 percentage points from 2000 to 2017, and the annual number of highway fatalities fell by 29 percent from 1970 to 2017 despite the increase in the population.

In recent years, the number of military personnel on active duty has fallen to its lowest levels since at least 1960. The highest count of active duty military personnel was 3.1 million in 1970, reached during the Vietnam War. It now stands at 1.3 million. The number of veterans has declined from 28.6 million in 1980 to 19.6 million in 2018.

Environment and Energy.—Substantial progress has been made on air quality in the United States, with the concentration of particulate matter falling 41 percent from 2000 to 2017 and ground level ozone falling by 32 percent from 1980 to 2017. Nevertheless, gross greenhouse gas emissions have remained high, peaking in the mid-2000s before decreasing slightly, and the annual mean atmospheric CO_2 concentration has increased, largely at an increasing rate, since 1960. As of 2017, 93 percent of the population served by community water systems received drinking water in compliance with ap-

[3] Squires, D. and C. Anderson (2015). U.S. Health Care from a Global Perspective: Spending, Use of Services, Prices and Health in 13 Countries, The Commonwealth Fund.

[4] National Center for Health Statistics (2018). Health, United States, 2017: With special feature on mortality. Hyattsville, MD.

plicable Federal water quality standards, which has remained relatively constant since 2000.

Technological advances and a shift in production patterns mean that Americans use less than half as much energy per real dollar of GDP as they did 50 years ago, and per capita energy consumption is at its lowest since the 1960s despite rising population and income levels. From 2005 to 2016, coal production fell by 36 percent, with most of that decrease occurring from 2014 to 2016. This decrease in coal production coincided with increases in the production of natural gas, petroleum, and renewable energy as well as new regulatory proposals and requirements. Renewable energy production has been increasing over time, and 17.1 percent of total electricity was generated from renewable sources in 2017.

Table 5–1. SOCIAL INDICATORS

	Calendar Years	1960	1970	1980	1990	1995	2000	2005	2010	2015	2016	2017	2018
	Economic												
	General Economic Conditions												
1	Real GDP per person (chained 2012 dollars)	18,035	24,142	29,681	37,435	39,875	46,498	50,381	50,352	54,110	54,560	55,373	N/A
2	Real GDP per person change, 5-year annual average (%)	0.8	2.4	2.6	2.3	1.3	3.1	1.6	0.0	1.5	1.5	1.5	N/A
3	Consumer Price Index [1]	12.3	16.2	34.3	54.5	63.5	71.7	81.4	90.9	98.8	100.0	102.1	104.6
4	Private goods producing (%)	N/A	N/A	N/A	N/A	N/A	24.9	23.9	22.3	21.8	21.0	21.1	N/A
5	Private services producing (%)	N/A	N/A	N/A	N/A	N/A	75.1	76.1	77.7	78.2	79.0	78.9	N/A
6	New business starts (thousands) [2]	N/A	N/A	452	477	513	482	544	385	414	433	N/A	N/A
7	Business failures (thousands) [3]	N/A	N/A	371	371	386	406	416	417	396	400	N/A	N/A
8	International trade balance (billions of dollars; + surplus / – deficit) [4]	3.5	2.3	–19.4	–80.9	–96.4	–372.5	–714.2	–495.2	–498.5	–502.0	–552.3	N/A
	Jobs and Unemployment												
9	Labor force participation rate (%)	59.4	60.4	63.8	66.5	66.6	67.1	66.0	64.7	62.7	62.8	62.9	62.9
10	Employment (millions)	65.8	78.7	99.3	118.8	124.9	136.9	141.7	139.1	148.8	151.4	153.3	155.8
11	Employment-population ratio (%)	56.1	57.4	59.2	62.8	62.9	64.4	62.7	58.5	59.3	59.7	60.1	60.4
12	Payroll employment change - December to December, SA (millions)	–0.4	–0.5	0.3	0.0	2.2	1.9	2.5	1.1	2.7	2.3	2.2	2.6
13	Payroll employment change - 5-year annual average, NSA (millions)	0.7	2.0	2.7	2.8	1.6	2.9	0.4	–0.7	2.3	2.5	2.5	2.5
14	Civilian unemployment rate (%)	5.5	4.9	7.1	5.6	5.6	4.0	5.1	9.6	5.3	4.9	4.4	3.9
15	Unemployment plus marginally attached and underemployed (%)	N/A	N/A	N/A	N/A	10.1	7.0	8.9	16.7	10.4	9.6	8.5	7.7
16	Receiving Social Security disabled-worker benefits (% of population) [5]	0.9	2.0	2.8	2.5	3.3	3.7	4.5	5.5	5.8	5.7	5.6	5.5
	Infrastructure, Innovation, and Capital Investment												
17	Nonfarm business output per hour (average 5 year % change) [6]	1.8	2.1	1.3	1.6	1.6	2.8	3.2	2.2	0.7	0.7	0.8	N/A
18	Corn for grain production (million bushels)	3,907	4,152	6,639	7,934	7,400	9,915	11,112	12,425	13,601	15,148	14,604	14,626
19	Real net stock of fixed assets and consumer durable goods (billions of chained 2012 dollars)	N/A	N/A	N/A	N/A	N/A	41,512	47,828	52,140	55,832	56,718	57,564	N/A
20	Population served by secondary wastewater treatment or better (%) [7]	N/A	41.6	56.4	63.7	61.1	71.4	74.3	72.0	N/A	N/A	N/A	N/A
21	Electricity net generation (kWh per capita)	4,202	7,486	10,076	12,170	12,594	13,475	13,723	13,335	12,800	12,605	12,326	N/A
22	Patents for invention, U.S. origin (per million population) [8]	N/A	231	164	190	209	301	253	348	439	444	463	N/A
23	Net national saving rate (% of GDP)	10.9	8.5	7.1	3.8	4.0	6.0	3.0	–0.5	4.1	2.6	2.9	N/A
24	R&D spending (% of GDP) [9]	2.52	2.44	2.21	2.55	2.40	2.61	2.50	2.71	2.71	2.75	2.78	N/A
	Demographic and Civic												
	Population												
25	Total population (millions) [10]	N/A	204.0	227.2	249.6	266.3	282.2	295.5	309.3	321.0	323.4	325.7	327.2
26	Foreign born population (millions) [11]	9.7	9.6	14.1	19.8	N/A	31.1	37.5	40.0	43.3	43.7	44.5	N/A
27	17 years and younger (%) [10]	N/A	N/A	28.0	25.7	26.1	25.7	24.9	24.0	22.9	22.8	22.6	22.4
28	65 years and older (%) [10]	N/A	9.8	11.3	12.5	12.7	12.4	12.4	13.1	14.9	15.2	15.6	N/A
29	85 years and older (%) [10]	N/A	0.7	1.0	1.2	1.4	1.5	1.6	1.8	2.0	2.0	2.0	N/A
	Household Composition												
30	Ever married (% of age 15 and older) [12]	78.0	75.1	74.1	73.8	72.9	71.9	70.9	69.3	68.2	67.8	68.0	67.7
31	Average family size [13]	3.7	3.6	3.3	3.2	3.2	3.2	3.1	3.2	3.1	3.1	3.1	3.1
32	Births to unmarried women age 15–17 (per 1,000 unmarried women age 15–17)	N/A	17.1	20.6	29.6	30.1	23.9	19.4	16.8	9.6	8.6	7.7	N/A
33	Single parent households (%)	4.4	5.2	7.5	8.3	9.1	8.9	8.9	9.1	8.8	8.7	8.4	8.3
	Civic and Cultural Engagement												
34	Average charitable contribution per itemized tax return (2016 dollars) [14]	2,268	2,250	2,595	3,263	3,469	4,605	4,713	4,012	4,978	5,179	N/A	N/A
35	Voting for President (% of voting age population) [15]	63.4	57.0	55.1	56.4	49.8	52.1	56.7	58.3	N/A	55.7	N/A	N/A
36	Persons volunteering (% age 16 and older) [16]	N/A	N/A	N/A	20.4	N/A	N/A	28.9	26.3	24.9	N/A	30.3	N/A
37	Attendance at visual or performing arts activity, including movie-going (% age 18 and older) [17]	N/A	N/A	71.7	72.1	N/A	70.1	N/A	63.9	66.5	N/A	66.2	N/A
38	Reading: Novels or short stories, poetry, or plays (not required for work or school; % age 18 and older) [17]	N/A	N/A	56.4	54.2	N/A	46.6	N/A	50.2	43.1	N/A	44.2	N/A

Table 5–1. SOCIAL INDICATORS—Continued

	Calendar Years	1960	1970	1980	1990	1995	2000	2005	2010	2015	2016	2017	2018
	Socioeconomic												
	Education												
39	High school graduates (% of age 25–34) [18]	58.1	71.5	84.2	84.1	N/A	83.9	86.4	87.2	89.7	90.1	90.9	N/A
40	College graduates (% of age 25–34) [19]	11.0	15.5	23.3	22.7	N/A	27.5	29.9	31.1	34.1	34.9	35.6	N/A
41	Reading achievement score (age 17) [20]	N/A	285	285	290	288	288	283	286	N/A	N/A	N/A	N/A
42	Math achievement score (age 17) [21]	N/A	304	298	305	306	308	305	306	N/A	N/A	N/A	N/A
43	Science and engineering graduate degrees (% of total graduate degrees)	22.0	17.2	11.2	14.7	14.2	12.6	12.7	12.1	15.0	16.3	17.0	N/A
44	Receiving special education services (% of age 3–21 public school students)	N/A	N/A	10.1	11.4	12.4	13.3	13.7	13.0	13.2	13.4	13.7	N/A
	Income, Savings, and Inequality												
45	Real median income: all households (2017 dollars) [22]	N/A	49,342	50,301	54,621	54,600	59,938	58,291	55,520	58,476	60,309	61,372	N/A
46	Real disposable income per capita (chained 2012 dollars)	12,629	17,734	21,542	27,250	28,954	33,568	36,527	38,161	41,598	42,003	42,791	N/A
47	Adjusted gross income share of top 1% of all taxpayers	N/A	N/A	8.5	14.0	14.6	20.8	21.2	18.9	20.7	19.7	N/A	N/A
48	Adjusted gross income share of lower 50% of all taxpayers	N/A	N/A	17.7	15.0	14.5	13.0	12.9	11.7	11.3	11.6	N/A	N/A
49	Personal saving rate (% of disposable personal income)	10.1	12.8	11.1	8.4	7.0	4.8	3.2	6.5	7.6	6.7	6.7	N/A
50	Foreign remittances (billions of 2016 dollars) [23]	N/A	N/A	N/A	N/A	N/A	32.6	38.5	40.5	44.8	46.5	47.3	N/A
51	Poverty rate (%) [24]	22.2	12.6	13.0	13.5	13.8	11.3	12.6	15.1	13.5	12.7	12.3	N/A
52	Food-insecure households (% of all households) [25]	N/A	N/A	N/A	N/A	11.9	10.5	11.0	14.5	12.7	12.3	11.8	N/A
53	Supplemental Nutrition Assistance Program (% of population on SNAP)	N/A	3.3	9.5	8.2	9.9	6.1	8.9	13.1	14.3	13.7	13.0	12.4
54	Median wealth of households, age 55–64 (in thousands of 2016 dollars) [26]	80	N/A	158	183	180	251	321	198	N/A	187	N/A	N/A
	Housing												
55	Homeownership among households with children (%) [27]	N/A	N/A	N/A	63.6	65.1	67.5	68.4	65.5	59.5	60.5	61.5	N/A
56	Families with children and severe housing cost burden (%) [28]	N/A	N/A	8	10	12	11	14.5	17.9	15.1	15.0	15.0	N/A
57	Families with children and inadequate housing (%) [29]	N/A	N/A	9	9	7	7	5.4	5.3	6.3	5.8	5.3	N/A
	Health												
	Health Status												
58	Life expectancy at birth (years)	69.7	70.8	73.7	75.4	75.8	76.8	77.6	78.7	78.7	78.7	78.6	N/A
59	Infant mortality (per 1,000 live births)	26.0	20.0	12.6	9.2	7.6	6.9	6.9	6.1	5.9	5.9	5.8	N/A
60	Low birthweight [<2,500 gms] (% of babies)	7.7	7.9	6.8	7.0	7.3	7.6	8.2	8.2	8.1	8.2	8.3	N/A
61	Activity limitation (% of age 5–17) [30]	N/A	N/A	N/A	N/A	N/A	7.0	8.0	9.2	9.8	10.6	N/A	N/A
62	Disability (% of age 18 and over) [31]	N/A	N/A	N/A	N/A	N/A	N/A	N/A	8.9	9.5	8.6	8.7	N/A
63	Disability (% of age 65 and over) [31]	N/A	N/A	N/A	N/A	N/A	N/A	N/A	22.6	21.6	18.2	19.5	N/A
	Health Behavior												
64	Engaged in regular physical activity (% of age 18 and older) [32]	N/A	N/A	N/A	N/A	N/A	15.0	16.6	20.7	21.6	22.7	24.5	N/A
65	Obesity (% of age 20–74 with BMI 30 or greater) [33]	13.4	N/A	15.0	23.2	N/A	30.9	35.1	36.1	N/A	40.0	N/A	N/A
66	Obesity (% of age 2–19) [34]	N/A	N/A	5.5	10.0	N/A	13.9	15.4	16.9	N/A	18.5	N/A	N/A
67	Cigarette smokers (% of age 18 and older)	N/A	37.1	33.1	25.3	24.6	23.1	20.8	19.3	15.3	15.7	14.1	N/A
68	Heavier drinker (% of age 18 and older) [35]	N/A	N/A	N/A	N/A	N/A	4.3	4.8	5.2	5.0	5.3	N/A	N/A
	Access to Health Care												
69	Total national health expenditures (% of GDP)	5.0	6.9	8.9	12.1	13.4	13.4	15.5	17.3	17.6	18.0	17.9	N/A
70	Average total single premium per enrolled employee at private-sector establishments (2016 dollars) [36]	N/A	N/A	N/A	N/A	N/A	3,700	4,905	5,437	6,038	6,101	N/A	N/A
71	Average health insurance premium paid by an individual or family (2016 dollars) [37]	N/A	N/A	N/A	N/A	N/A	N/A	N/A	3,062	3,547	3,657	3,680	N/A
72	Persons without health insurance (% of age 18–64) [38]	N/A	N/A	N/A	N/A	16.9	18.9	19.3	22.3	12.8	12.4	12.8	N/A
73	Persons without health insurance (% of age 17 and younger) [38]	N/A	N/A	N/A	N/A	13.0	12.6	9.3	7.8	4.5	5.1	5.0	N/A
74	Children age 19–35 months with recommended vaccinations (%) [39]	N/A	N/A	N/A	N/A	N/A	N/A	N/A	56.6	72.2	70.7	70.4	N/A
	Security and Safety												
	Crime												
75	Property crimes (per 100,000 households) [40]	N/A	N/A	49,610	34,890	31,547	19,043	15,947	12,541	11,072	11,859	10,838	N/A

Table 5–1. SOCIAL INDICATORS—Continued

	Calendar Years	1960	1970	1980	1990	1995	2000	2005	2010	2015	2016	2017	2018
76	Violent crime victimizations (per 100,000 population age 12 or older) [41]	N/A	N/A	4,940	4,410	7,068	3,749	2,842	1,928	1,858	1,967	2,060	N/A
77	Murder rate (per 100,000 persons)	5.1	7.9	10.2	9.4	8.2	5.5	5.6	4.8	4.9	5.4	5.3	N/A
78	Prison incarceration rate (state and federal institutions, rate per 100,000 persons) [42]	118.8	95.8	144.4	308.7	426.4	491.4	513.4	519.7	473.0	464.2	N/A	N/A
	National Security												
79	Military personnel on active duty (thousands) [43]	2,475	3,065	2,051	2,044	1,518	1,384	1,389	1,431	1,314	1,301	1,307	1,317
80	Veterans (thousands)	22,534	26,976	28,640	27,320	26,198	26,206	24,542	22,668	20,784	20,392	19,999	19,602
	Transportation Safety												
81	Safety belt use (%)	N/A	N/A	N/A	N/A	N/A	70.7	81.7	85.1	88.5	90.1	89.7	N/A
82	Highway fatalities	36,399	52,627	51,091	44,599	41,817	41,945	43,510	32,999	35,485	37,806	37,133	N/A
	Environment and Energy												
	Air Quality and Greenhouse Gases												
83	Ground level ozone (ppm) [44]	N/A	N/A	0.102	0.090	0.091	0.082	0.080	0.074	0.069	0.070	0.069	N/A
84	Particulate matter 2.5 (ug/m3) [45]	N/A	N/A	N/A	N/A	N/A	13.5	12.9	10.0	8.5	7.7	8.0	N/A
85	Annual mean atmospheric CO2 concentration (Mauna Loa, Hawaii; ppm)	316.9	325.7	338.7	354.4	360.8	369.5	379.8	389.9	400.8	404.2	406.6	408.5
86	Gross greenhouse gas emissions (teragrams CO2 equivalent) [46]	N/A	N/A	N/A	6,363	6,695.6	7,216.6	7,320.3	6,922.9	6,638.1	6,511.3	N/A	N/A
87	Net greenhouse gas emissions, including sinks (teragrams CO2 equivalent)	N/A	N/A	N/A	5,536.0	5,909.7	6,463.9	6,589.1	6,206.0	5,942.9	5,794.5	N/A	N/A
88	Gross greenhouse gas emissions per capita (metric tons CO2 equivalent)	N/A	N/A	N/A	25.1	24.8	25.2	24.4	22.1	20.4	19.9	N/A	N/A
89	Gross greenhouse gas emissions per 2009$ of GDP kg CO2 equivalent)	N/A	N/A	N/A	0.710	0.658	0.575	0.514	0.468	0.403	0.390	N/A	N/A
90	Population that receives drinking water in compliance with standards (%) [47]	N/A	N/A	N/A	N/A	83.8	90.8	88.5	92.2	91.1	91.2	92.8	N/A
	Energy												
91	Energy consumption per capita (million Btu)	250	331	344	338	342	350	339	315	304	302	300	N/A
92	Energy consumption per 2009$ GDP (thousand Btu per 2009$)	14.5	14.4	12.1	9.4	8.9	7.9	7.0	6.6	5.9	5.8	5.7	N/A
93	Electricity net generation from renewable sources, all sectors (% of total) [48]	19.7	16.4	12.4	11.8	11.5	9.4	8.8	10.4	13.3	14.9	17.1	N/A
94	Coal production (million short tons)	434	613	830	1,029	1,033	1,074	1,131	1,084	897	728	775	N/A
95	Natural gas production (dry) (trillion cubic feet) [49]	12.2	21.0	19.4	17.8	18.6	19.2	18.1	21.3	27.1	26.6	27.3	N/A
96	Petroleum production (million barrels per day)	8.0	11.3	10.2	8.9	8.3	7.7	6.9	7.6	12.8	12.3	13.1	N/A
97	Renewable energy production (quadrillion Btu)	2.9	4.1	5.4	6.0	6.6	6.1	6.2	8.2	9.7	10.3	11.2	N/A

N/A=Number is not available.

[1] Adjusted CPI-U. 2016=100.

[2] New business starts are defined as firms with positive employment in the current year and no paid employment in any prior year of the LBD. Employment is measured as of the payroll period including March 12th.

[3] Business failures are defined as firms with employment in the prior year that have no paid employees in the current year.

[4] Calculated as the value of U.S. exports of goods and services less the value of U.S. imports of goods and services, on a balance of payments basis. This balance is a component of the U.S. International Transactions (Balance of Payments) Accounts.

[5] Gross prevalence rate for persons receiving Social Security disabled-worker benefits among the estimated population insured in the event of disability at end of year. Gross rates do not account for changes in the age and sex composition of the insured population over time.

[6] Values for prior years have been revised from the prior version of this publication.

[7] Data correspond to years 1972, 1982, 1992, 1996, 2000, 2004, 2008, and 2012.

[8] Patent data adjusted by OMB to incorporate total population estimates from U.S. Census Bureau.

[9] The data point for 2017 is estimated and may be revised in the next report of this time series. The R&D to GDP ratio data reflect the new methodology introduced in the 2013 comprehensive revision of the GDP and other National Income and Product Accounts by the U.S. Bureau of Economic Analysis (BEA). In late July 2013, BEA reported GDP and related statistics that were revised back to 1929. The new GDP methodology treats R&D as investment in all sectors of the economy, among other methodological changes. For further details see NSF's InfoBrief "R&D Recognized as Investment in U.S. Gross Domestic Product Statistics: GDP Increase Slightly Lowers R&D-to-GDP Ratio" at http://www.nsf.gov/statistics/2015/nsf15315/nsf15315.pdf.

[10] Data source and values for 2010 to 2017 have been updated relative to the prior version of this publication.

[11] Data source for 1960 to 2000 is the decennial census; data source for 2006, 2010, 2011, 2012, 2013, 2014, 2015, 2016, and 2017 is the American Community Survey.

[12] For 1960, age 14 and older.

[13] Average size of family households. Family households are those in which there is someone present who is related to the householder by birth, marriage, or adoption.

[14] Charitable giving reported as itemized deductions on Schedule A.

[15] Data correspond to years 1964, 1972, 1980, 1992, 1996, 2000, 2004, 2008, 2012 and 2016. The voting statistics in this table are presented as ratios of official voting tallies, as reported by the U.S. Clerk of the House, to population estimates from the Current Population Survey.

[16] Refers to those who volunteered at least once during a one-year period, from September of the previous year to September of the year specified. For 1990, refers to 1989 estimate from the CPS Supplement on volunteers.

Table 5–1. SOCIAL INDICATORS—Continued

[17] The 1980, 1990, 2000, and 2010 data come from the 1982, 1992, 2002, and 2008 waves of the Survey of Public Participation in the Arts, respectively.

[18] For 1960, includes those who have completed 4 years of high school or beyond. For 1970 and 1980, includes those who have completed 12 years of school or beyond. For 1990 onward, includes those who have completed a high school diploma or the equivalent.

[19] For 1960 to 1980, includes those who have completed 4 or more years of college. From 1990 onward, includes those who have a bachelor's degree or higher.

[20] Data correspond to years 1971, 1980, 1990, 1994, 1999, 2004, 2008, and 2012.

[21] Data correspond to years 1973, 1982, 1990, 1994, 1999, 2004, 2008, and 2012.

[22] Beginning with 2013, data are based on redesigned income questions. The source of the 2013 data is a portion of the CPS ASEC sample which received the redesigned income questions, approximately 30,000 addresses. For more information, please see the report Income and Poverty in the United States: 2014, U.S. Census Bureau, Current Population Reports, P60–252.

[23] Foreign remittances, referred to as 'personal transfers' in the U.S. International Transactions (Balance of Payments) Accounts, consist of all transfers in cash or in kind sent by the foreign-born population resident in the United States to households resident abroad. Adjusted by OMB to 2016 dollars using the CPI-U.

[24] The poverty rate does not reflect noncash government transfers. Beginning with 2013, data are based on redesigned income questions. The source of the 2013 data is a portion of the CPS ASEC sample which received the redesigned income questions, approximately 30,000 addresses. For more information, please see the report Income and Poverty in the United States: 2014, U.S. Census Bureau, Current Population Reports, P60–252.

[25] Food-insecure classification is based on reports of three or more conditions that characterize households when they are having difficulty obtaining adequate food, out of a total of 10 such conditions.

[26] Data values shown are 1962, 1983, 1989, 1995, 2001, 2004, 2010, 2013, and 2016. For 1962, the data source is the SFCC; for subsequent years, the data source is the SCF.

[27] Some data interpolated.

[28] Expenditures for housing and utilities exceed 50 percent of reported income. Some data interpolated.

[29] Inadequate housing has moderate to severe problems, usually poor plumbing, or heating or upkeep problems. Some data interpolated.

[30] Total activity limitation includes receipt of special education services; assistance with personal care needs; limitations related to the child's ability to walk; difficulty remembering or periods of confusion; limitations in any activities because of physical, mental, or emotional problems.

[31] Disability is defined by level of difficulty in six domains of functioning: vision, hearing, mobility, communication, cognition, and self-care. Persons indicating "a lot of difficulty," or "cannot do at all/unable to do" in at least one domain are considered to have a "Disability."

[32] Participation in leisure-time aerobic and muscle-strengthening activities that meet 2008 Federal physical activity guidelines.

[33] BMI refers to body mass index. The 1960, 1980, 1990, 2000, 2005, 2010, 2014, 2016 data correspond to survey years 1960–1962, 1976–1980, 1988–1994, 1999–2000, 2005–2006, 2009–2010, 2013–2014, and 2015–2016, respectively.

[34] Percentage at or above the sex-and age-specific 95th percentile BMI cutoff points from the 2000 CDC growth charts. The 1980, 1990, 2000, 2005, 2010, 2014, 2016 data correspond to survey years 1976–1980, 1988–1994, 1999–2000, 2005–2006, 2009–2010, 2013–2014, and 2015–2016, respectively.

[35] Heavier drinking is based on self-reported responses to questions about average alcohol consumption and is defined as, on average, more than 14 drinks per week for men and more than 7 drinks per week for women.

[36] Includes only employees of private-sector establishments that offer health insurance. Adjusted to 2016 dollars by OMB.

[37] Unpublished data. This is the mean total private health insurance premium paid by an individual or family for the private coverage that person is on. If a person is covered by more than one plan, the premiums for the plans are added together. Those who pay no premiums towards their plans are included in the estimates. Adjusted to 2016 dollars by OMB.

[38] A person was defined as uninsured if he or she did not have any private health insurance, Medicare, Medicaid, CHIP (1999–2016), state-sponsored, other government-sponsored health plan (1997–2016), or military plan. Beginning in 2014, a person with health insurance coverage through the Health Insurance Marketplace or state-based exchanges was considered to have private coverage. A person was also defined as uninsured if he or she had only Indian Health Service coverage or had only a private plan that paid for one type of service such as accidents or dental care. In 1993–1996 Medicaid coverage is estimated through a survey question about having Medicaid in the past month and through participation in Aid to Families with Dependent Children (AFDC) or Supplemental Security Income (SSI) programs. In 1997 to 2016, Medicaid coverage is estimated through a question about current Medicaid coverage. Beginning in the third quarter of 2004, a Medicaid probe question was added to reduce potential errors in reporting Medicaid status. Persons under age 65 with no reported coverage were asked explictly about Medicaid coverage.

[39] Recommended vaccine series consists of 4 or more doses of either the diphtheria, tetanus toxoids, and pertussis vaccine (DTP), the diphtheria and tetanus toxoids vaccine (DT), or the diphtheria, tetanus toxoids, and acellular pertussis vaccine (DTaP); 3 or more doses of any poliovirus vaccine; 1 or more doses of a measles-containing vaccine (MCV); 3 or more doses or 4 or more doses of Haemophilus influenzae type b vaccine (Hib) depending on Hib vaccine product type (full series Hib); 3 or more doses of hepatitis B vaccine; 1 or more doses of varicella vaccine; and 4 or more doses of pneumococcal conjugate vaccine (PCV).

[40] Property crimes, including burglary, motor vehicle theft, and property theft, reported by a sample of households. Every 10 years, the National Crime Victimization Survey (NCVS) sample is redesigned to reflect changes in the population. To permit cross-year comparisons that were inhibited by the 2016 sample redesign, BJS created a revised data file. Estimates for 2016 are based on the revised file and replace previously published estimates. For more information, see Criminal Victimization, 2016 (Revised), available at https://www.bjs.gov/index.cfm?ty=pbdetail&iid=6427.

[41] Violent crimes include rape, robbery, aggravated assault, and simple assault. Includes crimes both reported and not reported to law enforcement. Due to methodological changes in the enumeration method for NCVS estimates from 1993 to present, use caution when comparing 1980 and 1990 criminal victimization estimates to future years. Estimates from 1995 and beyond include a small number of victimizations, referred to as series victimizations, using a new counting strategy. High-frequency repeat victimizations, or series victimizations, are six or more similar but separate victimizations that occur with such frequency that the victim is unable to recall each individual event or describe each event in detail. Including series victimizations in national estimates can substantially increase the number and rate of violent victimization; however, trends in violence are generally similar regardless of whether series victimizations are included. See Methods for Counting High-Frequency Repeat Victimizations in the National Crime Victimization Survey, NCJ 237308, BJS web, April 2012 for further discussion of the new counting strategy and supporting research. Every 10 years, the National Crime Victimization Survey (NCVS) sample is redesigned to reflect changes in the population. To permit cross-year comparisons that were inhibited by the 2016 sample redesign, BJS created a revised data file. Estimates for 2016 are based on the revised file and replace previously published estimates. For more information, see Criminal Victimization, 2016 (Revised), available at https://www.bjs.gov/index.cfm?ty=pbdetail&iid=6427.

Table 5–1. SOCIAL INDICATORS—Continued

[42] Prior to 1977, the National Prisoners Statistics (NPS) Program reports were based on custody population. Beginning in 1977, the report reoriented to jurisdiction population. Generally, State inmates housed in local jails because of overcrowding are considered to be under State jurisdiction. Most, but not all, States reserve prison for offenders sentenced to a year or more. These rates are based on persons under the jurisdiction of state and federal correctional authorities, regardless of sentence length.

[43] For all years, the actuals reflect Active Component only excluding full-time Reserve Component members and RC mobilized to active duty. End Strength for 2018 is preliminary.

[44] Ambient ozone concentrations based on 200 monitoring sites meeting minimum completeness criteria.

[45] Ambient PM2.5 concentrations based on 429 monitoring sites meeting minimum completeness criteria.

[46] The gross emissions indicator does not include sinks, which are processes (sometimes naturally occurring) that remove greenhouse gases from the atmosphere. Gross emissions are therefore more indicative of trends in energy consumption and efficiency than are net emissions.

[47] Percent of the population served by community water systems that receive drinking water that meets all applicable health - based drinking water standards.

[48] Includes net generation from solar thermal and photovoltaic (PV) energy at utility-scale facilities. Does not include distributed (small-scale) solar thermal or photovoltaic generation.

[49] Dry natural gas is also known as consumer-grade natural gas.

Table 5–2. SOURCES FOR SOCIAL INDICATORS

	Indicator	Source
	Economic	
	General Economic Conditions	
1	Real GDP per person (chained 2012 dollars)	Bureau of Economic Analysis, National Economic Accounts Data. http://www.bea.gov/national/
2	Real GDP per person change, 5-year annual average (%)	Bureau of Economic Analysis, National Economic Accounts Data. http://www.bea.gov/national/
3	Consumer Price Index	Bureau of Labor Statistics, BLS Consumer Price Index Program. https://www.bls.gov/cpi/
4	Private goods producing (%)	Bureau of Economic Analysis, National Economic Accounts Data. http://www.bea.gov/national/
5	Private services producing (%)	Bureau of Economic Analysis, National Economic Accounts Data. http://www.bea.gov/national/
6	New business starts (thousands)	U.S. Census Bureau, Business Dynamics Statistics. https://www.census.gov/ces/dataproducts/bds/
7	Business failures (thousands)	U.S. Census Bureau, Business Dynamics Statistics. https://www.census.gov/ces/dataproducts/bds/
8	International trade balance (billions of dollars; + surplus/ – deficit)	Bureau of Economic Analysis, International Economics Accounts, https://www.bea.gov/International/index.htm
	Jobs and Unemployment	
9	Labor force participation rate (%)	Bureau of Labor Statistics, Current Population Survey. https://www.bls.gov/cps
10	Employment (millions)	Bureau of Labor Statistics, Current Population Survey. https://www.bls.gov/cps
11	Employment-population ratio (%)	Bureau of Labor Statistics, Current Population Survey. https://www.bls.gov/cps
12	Payroll employment change - December to December, SA (millions)	Bureau of Labor Statistics, Current Employment Statistics program. https://www.bls.gov/ces/
13	Payroll employment change - 5-year annual average, NSA (millions)	Bureau of Labor Statistics, Current Employment Statistics program. https://www.bls.gov/ces/
14	Civilian unemployment rate (%)	Bureau of Labor Statistics, Current Population Survey. https://www.bls.gov/cps
15	Unemployment plus marginally attached and underemployed (%)	Bureau of Labor Statistics, Current Population Survey. https://www.bls.gov/cps
16	Receiving Social Security disabled-worker benefits (% of population)	Social Security Administration, Office of Research, Evaluation, and Statistics, Annual Statistical Supplement to the Social Security Bulletin, (tables 4.C1 and 5.A4). http://www.ssa.gov/policy/docs/statcomps/supplement/
	Infrastructure, Innovation, and Capital Investment	
17	Nonfarm business output per hour (average 5 year % change)	Bureau of Labor Statistics, Major Sector Productivity Program. https://www.bls.gov/lpc/
18	Corn for grain production (million bushels)	National Agricultural Statistics Service, Agricultural Estimates Program. http://www.nass.usda.gov/
19	Real net stock of fixed assets and consumer durable goods (billions of chained 2012 dollars)	Bureau of Economic Analysis, National Economic Accounts Data. http://www.bea.gov/national/
20	Population served by secondary wastewater treatment or better (%)	U.S. Environmental Protection Agency, Clean Watersheds Needs Survey. http://www.epa.gov/cwns
21	Electricity net generation (kWh per capita)	U.S. Energy Information Administration (EIA) calculation from: EIA, Monthly Energy Review (October 2018); and Table 7.2a https://www.eia.gov/totalenergy/data/monthly; and U.S. Census Bureau, Population Division, Vintage 2017 Population Estimates (2010-2017) https://www.census.gov/data/tables/2017/demo/popest/nation-total.html
22	Patents for invention, U.S. origin (per million population)	U.S. Patent and Trademark Office, Patent Technology Monitoring Team, U.S. Patent Statistics Chart, Calendar Years 1963-2015. https://www.uspto.gov/web/offices/ac/ido/oeip/taf/us_stat.htm; and, U.S. Census Bureau, Population Division.
23	Net national saving rate (% of GDP)	Bureau of Economic Analysis, National Economic Accounts Data. http://www.bea.gov/national/
24	R&D spending (% of GDP)	National Science Foundation, National Patterns of R&D Resources. http://www.nsf.gov/statistics/natlpatterns/
	Demographic and Civic	
	Population	
25	Total population (millions)	U.S. Census Bureau, Population Division, Vintage 2018 Population Estimates (2018), Vintage 2017 Population Estimates (2010-2017), 2000-2010 Intercensal Estimates (2000-2005), 1990-1999 Intercensal Estimates (1990-1995), 1980-1990 Intercensal Estimates (1980), 1970-1980 Intercensal Estimates (1970).

Table 5–2. SOURCES FOR SOCIAL INDICATORS—Continued

	Indicator	Source
26	Foreign born population (millions)	U.S. Census Bureau, Population Division, Decennial Census and American Community Survey. http://www.census.gov/prod/www/abs/decennial/ and http://www.census.gov/acs
27	17 years and younger (%)	U.S. Census Bureau, Population Division, Vintage 2018 Population Estimates (2018), Vintage 2017 Population Estimates (2010-2017), 2000-2010 Intercensal Estimates (2000-2005), 1990-1999 Intercensal Estimates (1990-1995), 1980-1990 Intercensal Estimates (1980), 1970-1980 Intercensal Estimates (1970).
28	65 years and older (%)	U.S. Census Bureau, Population Division, Vintage 2018 Population Estimates (2018), Vintage 2017 Population Estimates (2010-2017), 2000-2010 Intercensal Estimates (2000-2005), 1990-1999 Intercensal Estimates (1990-1995), 1980-1990 Intercensal Estimates (1980), 1970-1980 Intercensal Estimates (1970).
29	85 years and older (%)	U.S. Census Bureau, Population Division, Vintage 2018 Population Estimates (2018), Vintage 2017 Population Estimates (2010-2017), 2000-2010 Intercensal Estimates (2000-2005), 1990-1999 Intercensal Estimates (1990-1995), 1980-1990 Intercensal Estimates (1980), 1970-1980 Intercensal Estimates (1970).
	Household Composition	
30	Ever married (% of age 15 and older)	U.S. Census Bureau, Current Population Survey. https://www.census.gov/data/tables/2018/demo/families/cps-2018.html
31	Average family size	U.S. Census Bureau, Current Population Survey. https://www.census.gov/data/tables/2018/demo/families/cps-2018.html
32	Births to unmarried women age 15-17 (per 1,000 unmarried women age 15-17)	National Center for Health Statistics, National Vital Statistics System (natality); Births: Final data for 2017.
33	Single parent households (%)	U.S. Census Bureau, Current Population Survey. https://www.census.gov/data/tables/2018/demo/families/cps-2018.html
	Civic and Cultural Engagement	
34	Average charitable contribution per itemized tax return (2016 dollars)	U.S. Internal Revenue Service, Statistics of Income - Individual Income Tax Returns (IRS Publication 1304). http://www.irs.gov/uac/SOI-Tax-Stats-Individual-Income-Tax-Returns-Publication-1304-(Complete-Report)
35	Voting for President (% of voting age population)	The Office of the Clerk of the U.S. House of Representatives and the U.S. Census Bureau, Current Population Survey. http://www.census.gov/cps/
36	Persons volunteering (% age 16 and older)	Corporation for National and Community Service, Volunteering and Civic Life in America, https://data.nationalservice.gov/Volunteering-and-Civic-Engagement/Volunteering-and-Civic-Life-in-America/spx3-tt2b/data
37	Attendance at visual or performing arts activity, including movie-going (% age 18 and older)	The National Endowment for the Arts, Survey of Public Participation in the Arts & Annual Arts Basic Survey.
38	Reading: Novels or short stories, poetry, or plays (not required for work or school; % age 18 and older)	The National Endowment for the Arts, Survey of Public Participation in the Arts & Annual Arts Basic Survey.
	Socioeconomic	
	Education	
39	High school graduates (% of age 25-34)	U.S. Census Bureau, Decennial Census and American Community Survey. http://www.census.gov/prod/www/decennial.html and http://www.census.gov/acs
40	College graduates (% of age 25-34)	U.S. Census Bureau, Decennial Census and American Community Survey. http://www.census.gov/prod/www/decennial.html and http://www.census.gov/acs
41	Reading achievement score (age 17)	National Center for Education Statistics, National Assessment of Educational Progress. https://nces.ed.gov/nationsreportcard/
42	Math achievement score (age 17)	National Center for Education Statistics, National Assessment of Educational Progress. https://nces.ed.gov/nationsreportcard/
43	Science and engineering graduate degrees (% of total graduate degrees)	National Center for Education Statistics, Integrated Postsecondary Education Data System. http://nces.ed.gov/ipeds/
44	Receiving special education services (% of age 3-21 public school students)	National Center for Education Statistics, Digest of Education Statistics, 2012. http://nces.ed.gov/programs/digest/d12/tables/dt12_046.asp
	Income, Savings, and Inequality	
45	Real median income: all households (2017 dollars)	U.S. Census Bureau, Current Population Survey, Annual Social and Economic Supplements. https://www.census.gov/topics/income-poverty/income/data/tables.html
46	Real disposable income per capita (chained 2012 dollars)	Bureau of Economic Analysis, National Economic Accounts Data. http://www.bea.gov/national/
47	Adjusted gross income share of top 1% of all taxpayers	U.S. Internal Revenue Service, Statistics of Income. http://www.irs.gov/uac/SOI-Tax-Stats-Individual-Statistical-Tables-by-Tax-Rate-and-Income-Percentile

Table 5–2. SOURCES FOR SOCIAL INDICATORS—Continued

	Indicator	Source
48	Adjusted gross income share of lower 50% of all taxpayers	U.S. Internal Revenue Service, Statistics of Income. http://www.irs.gov/uac/SOI-Tax-Stats-Individual-Statistical-Tables-by-Tax-Rate-and-Income-Percentile
49	Personal saving rate (% of disposable personal income)	Bureau of Economic Analysis, National Economic Accounts Data. http://www.bea.gov/national/
50	Foreign remittances (billions of 2016 dollars)	Bureau of Economic Analysis, International Economics Accounts, https://www.bea.gov/International/index.htm
51	Poverty rate (%)	U.S. Census Bureau, Current Population Survey, Annual Social and Economic Supplements. http://www.census.gov/hhes/www/poverty/publications/pubs-cps.html
52	Food-insecure households (% of all households)	Economic Research Service, Household Food Security in the United States report series. http://www.ers.usda.gov/topics/food-nutrition-assistance/food-security-in-the-us/readings.aspx
53	Supplemental Nutrition Assistance Program (% of population on SNAP)	Food and Nutrition Service, USDA
54	Median wealth of households, age 55-64 (in thousands of 2016 dollars)	Board of Governors of the Federal Reserve System, Survey of Consumer Finances 2013 Estimates inflation-adjusted to 2013 dollars (Internal Data) http://www.federalreserve.gov/econresdata/scf/scfindex.htm
	Housing	
55	Homeownership among households with children (%)	U.S. Census Bureau, American Housing Survey (Current Housing Report). Estimated by Housing and Urban Development's Office of Policy Development and Research. http://www.census.gov/housing/ahs
56	Families with children and severe housing cost burden (%)	U.S. Census Bureau, American Housing Survey. Tabulated by Housing and Urban Development's Office of Policy Development and Research. http://www.census.gov/housing/ahs
57	Families with children and inadequate housing (%)	U.S. Census Bureau, American Housing Survey. Tabulated by Housing and Urban Development's Office of Policy Development and Research. http://www.census.gov/housing/ahs
	Health	
	Health Status	
58	Life expectancy at birth (years)	National Center for Health Statistics, National Vital Statistics System: Mortality in the United States, 2017.
59	Infant mortality (per 1,000 live births)	National Center for Health Statistics, National Vital Statistics System: Mortality in the United States, 2017.
60	Low birthweight [<2,500 gms] (% of babies)	National Center for Health Statistics, National Vital Statistics System (natality); Births: Final data for 2017
61	Activity limitation (% of age 5-17)	National Center for Health Statistics, National Health Interview Survey; America's Children in Brief: Key National Indicators of Well-Being, 2017, Table HEALTH5, crude percentages; http://www.childstats.gov/americaschildren/tables/health5.asp?popup=true (2000-2015 data); America's Children in Brief: Key National Indicators of Well-Being, 2018 forthcoming (2016 data).
62	Disability (% of age 18 and over)	National Center for Health Statistics, National Health Interview Survey, http://www.cdc.gov/nchs/nhis.htm
63	Disability (% of age 65 and over)	National Center for Health Statistics, National Health Interview Survey, http://www.cdc.gov/nchs/nhis.htm
	Health Behavior	
64	Engaged in regular physical activity (% of age 18 and older)	National Center for Health Statistics, National Health Interview Survey, http://www.cdc.gov/nchs/nhis.htm: Health, United States, 2017 forthcoming, Table 57, age-adjusted.
65	Obesity (% of age 20-74 with BMI 30 or greater)	National Center for Health Statistics, National Health and Nutrition Examination Survey, http://www.cdc.gov/nchs/nhanes.htm. Health E-Stats: http://www.cdc.gov/nchs/data/hestat/obesity_adult_13_14/obesity_adult_13_14.pdf and unpublished data (2016 data), age-adjusted
66	Obesity (% of age 2-19)	National Center for Health Statistics, National Health and Nutrition Examination Survey, http://www.cdc.gov/nchs/nhanes.htm. Health E-Stats: http://www.cdc.gov/nchs/data/hestat/obesity_child_13_14/obesity_child_13_14.pdf. Hales CM, Carroll MD, Fryar CD, Ogden CL. Prevalence of obesity among adults and youth: United States, 2015-2016. NCHS data brief, no 288. Hyattsville, MD: National Center for Health Statistics, 2017 (2016 data).
67	Cigarette smokers (% of age 18 and older)	National Center for Health Statistics, National Health Interview Survey, http://www.cdc.gov/nchs/nhis.htm: Health, United States, 2017 forthcoming, Table 47 and unpublished data (1970 and 1980 data), age-adjusted.
68	Heavier drinker (% of age 18 and older)	National Center for Health Statistics, National Health Interview Survey, http://www.cdc.gov/nchs/nhis.htm: Health, United States, 2014, Table 58 and unpublished data (2014-2016 data), age-adjusted.

Table 5–2. SOURCES FOR SOCIAL INDICATORS—Continued

	Indicator	Source
	Access to Health Care	
69	Total national health expenditures (% of GDP)	Centers for Medicare and Medicaid Services, National Health Expenditures Data. http://www.cms.gov/Research-Statistics-Data-and-Systems/Statistics-Trends-and-Reports/NationalHealthExpendData/index.html
70	Average total single premium per enrolled employee at private-sector establishments (2016 dollars)	Agency for Healthcare Research and Quality, Medical Expenditure Panel Survey. https://meps.ahrq.gov
71	Average health insurance premium paid by an individual or family (2016 dollars)	Centers for Disease Control and Prevention, National Center for Health Statistics, National Health Interview Survey, 2010-2017, Family Core component.
72	Persons without health insurance (% of age 18-64)	National Center for Health Statistics, National Health Interview Survey.
73	Persons without health insurance (% of age 17 and younger)	National Center for Health Statistics, National Health Interview Survey.
74	Children age 19-35 months with recommended vaccinations (%)	National Center for Immunization and Respiratory Diseases, National Immunization Survey: http://www.cdc.gov/vaccines/imz-managers/coverage/nis/child/
	Security and Safety	
	Crime	
75	Property crimes (per 100,000 households)	Bureau of Justice Statistics, National Crime Victimization Survey. http://www.bjs.gov/index.cfm?ty=dcdetail&iid=245
76	Violent crime victimizations (per 100,000 population age 12 or older)	Bureau of Justice Statistics, National Crime Victimization Survey. http://www.bjs.gov/index.cfm?ty=dcdetail&iid=245
77	Murder rate (per 100,000 persons)	Federal Bureau of Investigation, Uniform Crime Reports, Crime in the United States. https://ucr.fbi.gov/ucr
78	Prison incarceration rate (state and federal institutions, rate per 100,000 persons)	U.S. Department of Justice, Bureau of Justice Statistics, National Prisoner Statistics Program. https://www.bjs.gov/index.cfm?ty=dcdetail&iid=269
	National Security	
79	Military personnel on active duty (thousands)	ES actuals for 1960 and 1970 as reported in Table 2-11 of the DoD Selected Manpower Statistics for FY 1997 (DoD WHS, Directorate for Information Operations and Reports). The source for the remaining fiscal year actuals are the Service budget justification books.
80	Veterans (thousands)	U.S. Department of Veterans Affairs. 1960-1999 (Annual Report of the Secretary of Veterans Affairs); 2000-2017 (VetPop16), Predictive Analytics and Actuary. http://www.va.gov/vetdata/Veteran_Population.asp
	Transportation Safety	
81	Safety belt use (%)	National Highway Traffic Safety Administration, National Center for Statistics and Analysis. https://crashstats.nhtsa.dot.gov/Api/Public/ViewPublication/812465
82	Highway fatalities	National Highway Traffic Safety Administration, National Center for Statistics and Analysis. https://crashstats.nhtsa.dot.gov/Api/Public/ViewPublication/812456
	Environment and Energy	
	Air Quality and Greenhouse Gases	
83	Ground level ozone (ppm)	U.S. Environmental Protection Agency, AirTrends Website. https://www.epa.gov/air-trends/ozone-trends
84	Particulate matter 2.5 (ug/m3)	U.S. Environmental Protection Agency, AirTrends Website. https://www.epa.gov/air-trends/particulate-matter-pm25-trends
85	Annual mean atmospheric CO2 concentration (Mauna Loa, Hawaii; ppm)	National Oceanic and Atmospheric Administration. http://www.esrl.noaa.gov/gmd/ccgg/trends/
86	Gross greenhouse gas emissions (teragrams CO2 equivalent)	U.S. Environmental Protection Agency (2017). Inventory of U.S. Greenhouse Gas Emissions and Sinks 1990-2015 (EPA Publication No. 431-P-17-001). https://www.epa.gov/ghgemissions/inventory-us-greenhouse-gas-emissions-and-sinks
87	Net greenhouse gas emissions, including sinks (teragrams CO2 equivalent)	U.S. Environmental Protection Agency (2017). Inventory of U.S. Greenhouse Gas Emissions and Sinks 1990-2015 (EPA Publication No. 431-P-17-001). https://www.epa.gov/ghgemissions/inventory-us-greenhouse-gas-emissions-and-sinks
88	Gross greenhouse gas emissions per capita (metric tons CO2 equivalent)	U.S. Environmental Protection Agency (2017). Inventory of U.S. Greenhouse Gas Emissions and Sinks 1990-2015 (EPA Publication No. 431-P-17-001). https://www.epa.gov/ghgemissions/inventory-us-greenhouse-gas-emissions-and-sinks
89	Gross greenhouse gas emissions per 2009$ of GDP kg CO2 equivalent)	U.S. Environmental Protection Agency (2017). Inventory of U.S. Greenhouse Gas Emissions and Sinks 1990-2015 (EPA Publication No. 431-P-17-001). https://www.epa.gov/ghgemissions/inventory-us-greenhouse-gas-emissions-and-sinks

Table 5–2. SOURCES FOR SOCIAL INDICATORS—Continued

	Indicator	Source
90	Population that receives drinking water in compliance with standards (%)	U.S. Environmental Protection Agency, 2018a. Safe Drinking Water Information System, Federal Version. https://cfpub.epa.gov/roe/indicator.cfm?i=45#1
	Energy	
91	Energy consumption per capita (million Btu)	U.S. Energy Information Administration, Monthly Energy Review (October 2018), Table 1.7 https://www.eia.gov/totalenergy/data/monthly
92	Energy consumption per 2009$ GDP (thousand Btu per 2009$)	U.S. Energy Information Administration, Monthly Energy Review (October 2018), Table 1.7 https://www.eia.gov/totalenergy/data/monthly
93	Electricity net generation from renewable sources, all sectors (% of total)	U.S. Energy Information Administration, Monthly Energy Review (October 2018), Table 7.2a https://www.eia.gov/totalenergy/data/monthly
94	Coal production (million short tons)	U.S. Energy Information Administration, Monthly Energy Review (October 2018), Table 6.1 https://www.eia.gov/totalenergy/data/monthly
95	Natural gas production (dry) (trillion cubic feet)	U.S. Energy Information Administration, Monthly Energy Review (October 2018), Table 4.1 https://www.eia.gov/totalenergy/data/monthly
96	Petroleum production (million barrels per day)	U.S. Energy Information Administration, Monthly Energy Review (October 2018), Table 3.1 https://www.eia.gov/totalenergy/data/monthly
97	Renewable energy production (quadrillion Btu)	U.S. Energy Information Administration, Monthly Energy Review (October 2018), Table 10.1 https://www.eia.gov/totalenergy/data/monthly

6. BUILDING AND USING EVIDENCE TO IMPROVE GOVERNMENT EFFECTIVENESS

This Administration is committed to results-driven government that improves mission delivery and directs taxpayer dollars to the most effective and efficient uses. Bringing evidence to bear in decision-making is a critical component of good government. Agencies should integrate quality evidence from rigorous program evaluations, monitoring activities, and other studies and analyses into budget, management, programmatic, regulatory, and policy decisions. Doing so requires the infrastructure and commitment to credibly build and use evidence, and to develop a culture of learning and continuous improvement. The recently enacted Foundations for Evidence-Based Policymaking Act of 2018 (hereafter known as the Evidence Act) reinforces the importance of evidence-based decision-making and requires agencies to undertake activities toward this end.

Evidence is a critical tool that allows agencies to continually learn and improve. Strong evidence about policies and programs should be acted upon, suggestive evidence should be considered, and where evidence is absent, it should be built to enable better decisions in the future. However, in many policy domains, agencies lack information - or access to information - that could help them learn from and improve policies and programs to better serve the American people. Further, current capacity in Federal agencies to build and use evidence varies widely. Agencies need stronger practices that generate more evidence about what works and what needs improvement in order to inform mission-critical decisions and policies. Several requirements of the Evidence Act will help agencies to strengthen their evidence capacity and practices.

Underlying successful efforts to build and use evidence is an agency culture that promotes and values learning. An agency with a robust culture of learning continually asks questions about how the agency's activities, programs, and processes are functioning and, importantly, how the agency can improve in these areas. In practice, this means that evidence-building and data-driven decision-making are incorporated into agency processes, rather than seen as separate activities. Strategically aligning evidence activities with core agency functions allows agencies to systematically ensure that evidence is available when and where it is needed. It also means that program evaluation and other evidence-building functions are included in program and policy design from the beginning, rather than as an afterthought.

Evidence-Building Strategies to Learn and Improve

Federal agencies have implemented a number of strategies to build evidence to learn and improve. Recently, there have been efforts to elevate and spread the adoption of these strategies, including the Evidence Act and a proposal to strengthen Federal evaluation in OMB's plan[1] to reform and reorganize government. Both include designating an Evaluation Officer and creating a multi-year learning agenda, and with the enactment of the Evidence Act, agencies will now be required to adopt these and other strategies. These strategies will enhance agencies' ability to conduct program evaluations and other evidence-building activities in service of more effective agency functions and programs.

It is important that agencies build a portfolio of evidence in a particular area and not rely on a single study to make high-stakes decisions. A portfolio can and should include many different types of evidence, including results from program evaluations, policy analyses, performance measurements, and statistical analyses.[2] The questions of interest should serve as the starting point for building evidence; once questions are identified, then the appropriate methods should be selected to answer those questions (i.e., do not first pick a method of interest then search for a question that can be answered using that method). Once methods are identified, a study should then be designed to answer the questions of interest in the most rigorous manner possible that is both appropriate for those questions and feasible within budget and other constraints.

Designating an Evaluation Officer: An Evaluation Officer strengthens an agency's capacity to build evidence by providing strategic leadership around evaluation and other evidence-building strategies across the agency. Several agencies already have senior evaluation officials—individuals with professional experience and technical expertise in evaluation, who lead evaluation activities across the agency—in place. These senior officials often reside in a centralized evaluation office within the agency and are responsible for playing a leading role in overseeing the agency's evaluation activities, learning agenda, and information reported to OMB on evidence, as well as contributing to other evidence-building functions. Examples include the Deputy Assistant Secretary for Planning, Research and Evaluation in the Administration for Children and Families (ACF) at the Department of Health and Human Services (HHS) and Deputy Assistant Secretary for Research, Evaluation, and Monitoring in the Office of Policy Development and Research in the Department of Housing and Urban Development (HUD). With the enactment of the Evidence Act, agencies that do not have this position will now need to designate a senior official to coordinate and lead their evaluation efforts.

[1] *https://www.whitehouse.gov/wp-content/uploads/2018/06/Government-Reform-and-Reorg-Plan.pdf*

[2] "Evidence" in the Evidence Act is defined as "information produced as a result of statistical activities for a statistical purpose" and thus, includes evaluation, statistics, research, and policy analysis.

Developing and Using Multi-Year Learning Agendas: Under the Evidence Act, Evaluation Officers play an important role in coordinating the development and implementation of a multi-year learning agenda to strategically plan and prioritize learning. Multi-year learning agendas allow agencies to systematically identify and address short- and long-term policy questions relevant to the programs, policies, and regulations of an agency. They include important questions about the agency's operations such as human resources, grant-making, and internal processes, as well as strategic questions about how the agency meets its mission, including how programs, policies, and regulations function individually and in combination. The Evidence Act requires agencies to develop an agency evidence-building plan (i.e., learning agenda) that includes the policy-relevant questions the agency seeks to answer, the data needed to do so, and the challenges to developing evidence to support policymaking. Several agencies already have these activities underway. For example, the Small Business Administration (SBA) has a centralized program evaluation function and five-year enterprise learning agenda to strategically incorporate evidence across the agency's functions. The SBA's enterprise learning agenda aligns with the agency's strategic goals and prioritizes those evaluations that could provide insights into program effectiveness or progress towards desired outcomes, or test pilot initiatives or program adjustments. Other agencies are more nascent in developing and implementing learning agendas, and are focusing their learning agendas in key areas as they implement this practice across the agency. For example, the National Science Foundation (NSF), U.S. Agency for International Development (USAID), and the Administration on Community Living (ACL) in HHS are all either expanding their practices to develop a learning agenda for the agency or developing a learning agenda for an agency component.

Leveraging Partners: Agencies with a strong culture of learning leverage partnerships both external and internal to the government to further their missions. For example, the Office of the Assistant Secretary for Planning and Evaluation (ASPE) at HHS has a Learning Exchange that exemplifies an effective partnership between a Federal agency and an academic institution, the University of Wisconsin-Madison. As part of the National Poverty Center, this partnership allows HHS to flexibly and quickly address agency and Administration priorities within the context of longer-term research and policy development; benefit from new academic findings; forge cross-sector, policy-researcher collaborations; engage a broader range of outside experts and stakeholders; and disseminate information and tools across Federal agencies. At the Department of Veterans Affairs (VA), the Quality Enhancement Research Initiative (QUERI), an effort to increase the use of evidence-based practices in routine care for veterans, relies on relationships with VA operational partners and a large network of external partners to meet its mission. For example, its National Partnered Evaluations program allows QUERI to partner with other parts of VA to conduct high-quality evaluations of specific initiatives that have the potential for large impacts on national VA policy, including the Center for Access Policy, Evaluation and Research, which will rigorously evaluate clinic operations to assess patient access, a top priority for the VA. Finally, the Census Bureau's Data Linkage Infrastructure enables access to several Federal and Federally-sponsored high-value datasets and linked data for qualified researchers. For example, HUD and Census have partnered to make data from HUD's Moving to Opportunity Demonstration and the Family Options Study available to qualified researchers and more readily matched with other administrative data through Census' Data Linkage Infrastructure. This particular partnership enables qualified researchers to build evidence from these two large experiments, while Census' broader Infrastructure allows this type of evidence-building across several topical areas.

Evaluation as a Tool to Learn and Improve

Program evaluation is an important piece of the evidence-building enterprise and can answer essential questions regarding program effectiveness and efficiency that cannot be answered through performance measurement and monitoring, statistics, or policy analysis. Evaluation is a valuable tool for learning what works in order to focus limited funding on effective programs, discontinue programs that fall short of desired results, and identify ways to improve mandatory programs. Evaluation findings can promote effective and efficient use of taxpayer dollars. For example, a decade of rigorous evaluations of HHS' Maternal, Infant, and Early Childhood Home Visiting Program (MIECHV) demonstrated positive impacts and future savings that warranted scaling it up. In contrast, Project D.A.R.E., a substance abuse prevention program for adolescents, lost all Federal funding following several high-quality evaluations that determined the program was ineffective and in some cases had negative effects.

Investing in Evaluation: Evaluation is an investment that complements resources spent on direct program administration and should be considered an integral part of sound program management. However, building evaluation into program design in order to test outcomes and impacts is currently the exception rather than the rule. We must increase the capacity of Federal agencies to conduct evaluation and fill a critical gap in the Federal Government's ability to generate evidence about which programs work, how they work, and how we can improve them. While there may be initial discomfort in allocating resources to evaluation, these expenditures are critical investments. For example, the Temporary Assistance for Needy Families (TANF) program sets aside 0.33% of funding for evaluation, and the Every Student Succeeds Act (ESSA) allows the Department of Education (ED) to set aside up to 0.5% of funding from most ESSA programs for evaluation. The Budget includes a new proposal to set aside 0.5% of funding of Higher Education Act programs, aside from Pell Grants and Student Aid Administration, for rigorous evaluations. The Budget carries over prior proposals to designate up to three percent of Office of Justice Programs funding for research, evaluation, or statistical purposes at the Department of Justice (DOJ). To support program evaluation in areas lacking evidence, the Budget proposes the Department of Homeland Security Federal Emergency Management Agency use up to one percent of the appropriations for the State Homeland Security Grant Program (SHSGP) and Urban Area Security Initiative (UASI) Grant Program to support evaluations of these programs.

The Budget also includes proposals to capitalize on practices that optimize the use of evaluation funds. For HUD, the Budget includes a prior enacted general provision allowing HUD to deobligate and then reobligate unexpended funds (in the same fiscal year or the subsequent fiscal year) at the completion of a contract, grant, or cooperative agreement for research, evaluation, or statistical purposes. The Budget also proposes this and other flexibilities for certain statistical and evaluation units at the Departments of Labor (DOL) and HHS, to give agencies the ability to make full use of these funds and spend funds over longer periods of time. A more detailed discussion on funding flexibility options is included in the 2019 President's Budget, *Analytical Perspectives* Chapter 6[3] on Evidence.

While the exact percentage of funds devoted to evaluation should be based on what is appropriate for each agency and funding stream, evaluation activities should be sufficiently resourced and high-quality evaluation considered a worthwhile investment. High-quality and more comprehensive Federal evaluation should lead to improved government effectiveness and efficiency, and to eventual government savings as dollars are redirected to programs that work. Such investment in evaluation should increase the return on Federal spending, as evaluation results are used to inform program improvements and better target future spending. An example of such a shift in approach is the Social Impact Partnerships to Pay for Results Act (SIPPRA), enacted in 2018. SIPPRA requires that partnership projects be informed by evidence and include rigorous and transparent evaluations to determine project impact and the resulting government savings and value, and allows a portion of project funding to be used for evaluation. Requiring high-quality evaluations of SIPPRA projects and integrating evidence and evaluation into project design from the start will enable us to learn what works best and to pay based on results, rather than paying for programs that fall short. Another example of investing in evaluation is ACF's Healthy Marriage and Responsible Fatherhood Initiative which, in its latest round of grants, required all grantees to conduct local evaluations. To support these local evaluations, ACF has a research contract to train and provide technical assistance related to updated performance measures in order to improve data quality and strengthen grantee-led local evaluation plans. In addition to local evaluations, selected grantees will participate in a cross-site implementation and impact evaluation to understand the effects of healthy marriage and relationship education programs on key program outcomes.

Learning from Evaluation: In evaluating programs, we need to determine not only whether what we are currently doing is effective, but also how we can do better. For example, the Federal Government currently invests in a variety of reentry and recidivism reduction programs, but the evidence base for these programs is limited. To help build a body of evidence, the Budget includes funding to develop innovative pilot projects within the Bureau of Prisons at DOJ focused on reentry and recidivism reduction approaches with a preference for projects that include evidence-based approaches, including replication of existing models, as well as rigorous evaluation and performance management. All projects that receive funding will undergo evaluation to assess their impacts in coordination with the National Institute of Justice at DOJ. Another example is the Experimental Sites Initiative at ED, which tests the effectiveness of statutory and regulatory flexibility for participating institutions disbursing Title IV student aid. The Budget includes funding for rigorous evaluation of ongoing and future experiments.

For many years, impact evaluations were typically designed to test a treatment condition against a control condition in which program participants received either no services or the status quo service. While these evaluations can provide important information about the impact of the program, they often cannot explain why the intervention did or did not produce the desired results. One way to get inside this "black box" to understand what is working and why, is to pair an impact evaluation with a well-designed and executed implementation (or process) study. One example is the Retaining Employment and Talent after Injury/Illness Network (RETAIN) study, administered by DOL in partnership with the Social Security Administration (SSA). RETAIN is an eight-state pilot study to test the impact of early intervention strategies to support employment among workers with a new disability, injury, or health condition, and will include both an implementation and impact evaluation for each state project. Results should identify effective strategies for supporting employment in diverse program and service environments and provide a basis for scaling up and further testing the most effective strategies.

Another means of understanding the effectiveness of program services, specifically variation in which services programs provide and how they provide them, is through multi-arm trials. These evaluations provide an opportunity to test different program strategies against one another or a control group, and enable an agency to go beyond questions of overall program effectiveness and consider the effects of variations in program approaches, including which services are offered and how. These approaches might include current services, current services plus an enhancement, or a completely different package of services. If no services are currently being offered, an evaluation might test two or more different types of interventions to see which is more effective at producing the desired results. For example, earlier evaluations have shown that the Reemployment and Eligibility Assessment (REA) program at DOL, particularly when combined with intensive reemployment services (RESEA), helps unemployed workers find new employment faster and shortens their length of time on unemployment benefits. These studies, however, were not designed to determine which components of the REA/RESEA program drive these positive outcomes. To help understand this, DOL is conducting a multi-arm

[3] *https://www.gpo.gov/fdsys/pkg/BUDGET-2019-PER/pdf/BUDGET-2019-PER.pdf*

randomized controlled trial in four states that will inform future state implementation of RESEA.

Many of the evaluations that the Office of Evaluation Sciences (OES) at the General Services Administration has undertaken with agency partners utilize this idea of multi-arm trials to test different strategies. For example, SSA identified over four million individuals who were potentially eligible for Supplemental Security Income (SSI), a monthly means-tested cash payment to people who have low income and assets and are disabled, blind, or age 65 or older. OES designed an evaluation to test how different approaches to targeted outreach increased uptake of SSI among eligible individuals, in which individuals were randomly assigned to receive one of four variations of an outreach letter or to a control condition. Nine months after the intervention, the letters increased SSI awards by 340%, and including information in the letter about the maximum SSI benefit boosted applications most significantly. Similarly, OES worked with ED's Office of Federal Student Aid to develop an email outreach program to contact borrowers nearing their recertification dates who would see an increased monthly payment if they did not recertify their income. Nearly 300,000 eligible borrowers were divided into three cohorts and then randomly assigned to be sent one of three different email approaches that utilized individual or average payment increase comparisons, follow up emails, and inclusion of signatures. Including borrowers' actual payment increase was most effective at getting borrowers to recertify for income-driven repayment plans, resulting in an 8.4% increase. Both of these examples highlight the ability to embed multi-arm, quicker, low-cost evaluations into existing implementation efforts, and demonstrate the potential to learn from these types of evaluations.

Evaluation and Performance Measurement: In addition to evaluation, performance measurement is another tool available to help policymakers and program managers develop systematic evidence, understand how well policies and programs are working, and identify possible improvements. Both evaluation and performance measurement generate information that help build a portfolio of evidence, serve as methods for systematic assessment, and aim to facilitate learning and improve results of government activities. At the same time, there are important differences between the two methods that dictate what each can tell us about programs and policies. Performance measurement is the ongoing collection, monitoring, reviewing, and reporting of data on pre-selected measures related to level and type of activities, products and services delivered, and outcomes of activities. In contrast, evaluation is systematic study to examine how well all or part of a program, intervention, policy, regulation, or other government activity is working. Performance measurement tracks progress toward pre-established goals and targets, helps determine whether an activity is achieving its stated output/outcome objectives, and serves as an early alert system in the case of significant changes in operations. Evaluation is intended to assess the effectiveness of a program, intervention, policy, or regulation, compared with its absence or with one or more alternative approaches; establish a causal relationship between an activity and the outcomes experienced by those affected by it; and/or address questions about implementation, variations in effectiveness across different settings or populations, and contextual factors.

While the two approaches answer different types of questions and are often undertaken separately, collaboration between performance measurement and evaluation teams can lead to stronger evidence-building overall. The two methods can work hand in hand in the following ways:

- Performance measurement can help identify priority questions to be addressed by evaluations, informing decisions about allocating evaluation resources;
- Evaluation findings can clarify which indicators are predictive of an activity's success and should be tracked in performance measurement;
- Performance measurement can identify outliers in performance (either poor or strong) that warrant evaluation,while evaluation can provide context and potential explanations for variation over time or across sites revealed by performance measurement;
- When performance measures suggest that many participants in a program experience a certain outcome, evaluation can confirm or refute whether that is directly attributable to the program by comparing outcomes seen in a control or comparison group when possible; and
- Performance measurement can suggest to evaluators what types of indicators are important to program operators and thus might be useful to include in selecting evaluation measures.

Harnessing Data for Learning and Improvement

An agency with a strong culture of learning recognizes the value of data as a strategic asset. The President's Management Agenda[4] released in 2018 includes a Cross-Agency Priority (CAP) Goal to leverage data as a strategic asset. Part of this CAP Goal includes the creation of a Federal Data Strategy[5], a coordinated and integrated approach to using data to deliver on mission, serve the public, and steward resources while respecting privacy and confidentiality. The Federal Data Strategy will define principles, practices, and an action plan to support a consistent approach to Federal data stewardship, use, and access. The Data Strategy will, among other topics, address the use of data for evidence-building. Its Year 1 Action Plan will include agency and government-wide actions that begin to implement some of the requirements in the Evidence Act.

Beyond the Federal Data Strategy, agencies are also undertaking a number of other efforts to better leverage existing data for evidence-building, including increasing access to high-value datasets and strengthening other data sources. Through its TANF Data Innovation Project, ACF has launched a nationwide effort to support state and local TANF agencies to more effectively use their administrative

[4] *https://www.performance.gov/PMA/PMA.html*

[5] *https://strategy.data.gov/*

data to support program improvement and build evidence, including improving data quality and building staff capacity to use existing data. The Department of Agriculture (USDA) is also exploring innovative and efficient ways to evaluate the impact of its rural development programs using administrative data. For example, a pilot project to evaluate business and industry loan guarantees documented that more could be done to evaluate the program using administrative data and other pre-existing data sources. The Budget also includes a proposal to leverage data already collected by Federal agencies to administer ED student aid programs more efficiently, improve the government and public understanding of student loan program costs, and reduce student loan delinquency and default by providing ED with access to tax data, while ensuring the privacy of individuals.

Efforts to maximize the use of existing data and ongoing data collections also extend to how the Federal Government oversees and awards grants. The CAP Goal of Results-Oriented Accountability for Grants pushes grants administration to go beyond asking questions of whether and how grantees spend grant funds and, instead, consider how well grantees serve their participants and communities and ultimately use that information to inform taxpayers about what has been achieved. The long-term vision is to shift the paradigm in grants management to a balance between compliance and performance, while reducing burden.

Addressing Statutory Barriers to Data Access: Efforts described above and others being taken administratively by OMB and Federal agencies aim to better capitalize on the power of data. The Evidence Act includes provisions that begin to address statutory barriers to data use, but further barriers will remain unless Congress takes additional action. For example, the Budget includes a set of proposals [see Addendum] that would require changes to statute to expand access to valuable employment and earnings data—the National Directory of New Hires (NDNH)—for evidence-building and program integrity purposes, while ensuring privacy and security safeguards. NDNH is a national database of wage and employment information reported by each state, authorized in Sec. 453 of Social Security Act of 1996. The system was originally designed to help state and Federal agencies locate non-custodial parents to establish and enforce child support orders, particularly across state jurisdictions. For privacy and security reasons, these authorizations clearly specify the entity that may access the data and/or the purpose for which the data may be used. For example, HHS has used NDNH data to conduct evaluations that inform ACF's policies, and HUD's statutory access to NDNH has helped to reduce its improper payment rate on means-tested rental assistance programs. If Congress takes action to grant NDNH access for evidence-building and program integrity, this would eliminate duplicative efforts to collect the same employment and earnings data already in NDNH and improve government efficiencies.

<u>NDNH Access for Evidence-Building</u>: The Budget proposal includes statutory access to NDNH for units within Federal agencies that conduct research, statistical activities, evaluation, and/or performance measurement that would otherwise require costly surveys, state-by-state memoranda of understanding, or other agreements to obtain the same data contained in NDNH. For example, the proposal would enable DOL and ED to use NDNH data to conduct program evaluations of employment and training programs. The proposal would also enable data linkages across states and programs, with strict privacy and security safeguards in place.

<u>NDNH Access for Program Integrity</u>: The NDNH access proposals also include good government provisions to enable efficiencies for program integrity and eligibility verification, while ensuring data privacy and security. The Budget proposals would enable the Department of the Treasury's Do Not Pay Business Center to access NDNH and to assist agencies to reduce improper payments. The proposals also allow using NDNH to establish disability benefit eligibility for the Railroad Retirement Board in a more efficient manner, and to enhance integrity of HHS' Centers for Medicare & Medicaid Services programs.

Promoting Transparency and Accountability in Federal Evidence-Building

In an agency that uses evidence to learn and improve, transparency and accountability, both within and outside of the agency, are important. Transparency and accountability support sound stewardship of Federal funds as well as scientific integrity and allow the American public to have confidence in agencies' evidence-building activities. Agencies take a number of approaches to promote transparency and accountability in evidence-building. For example, several agencies, including the Department of State, DOL, ACL, and USAID, have published formal Evaluation Policies, which lay out the principles to which the agency will adhere while conducting evaluations, such as rigor, relevance, independence, ethics, and transparency. Many agencies' Evaluation Policies discuss requirements to publicly release evaluation results regardless of findings in an accessible format that includes full information about the study. The Evidence Act includes a requirement that agencies' Evaluation Officers establish and implement an agency evaluation policy. The Act also promotes accountability in Federal statistics by codifying the responsibilities of statistical agencies to conduct credible, accurate, and objective statistical activities while protecting confidentiality.

As part of their Evaluation Policies, several agencies state that analysis plans articulating how an evaluation's data will be analyzed will be released publicly before any analyses are undertaken. Some agencies go beyond publication of evaluation designs and/or analysis plans and require that evaluation studies be pre-registered with an internal or independent registry. Pre-registration allows agencies to state their hypotheses, primary research questions, and analysis plans in advance before data are analyzed, in order to ensure studies are reliable and can be replicated, that methods are sufficiently documented, and that agencies are committed to publishing results. For example, the Office of Planning, Research and Evaluation in ACF includes language in its evaluation contracts that requires contractors to pre-register studies on an appropriate public registry before data collection begins.

Learning agendas also offer an opportunity for agencies to increase transparency about their evaluation and evidence activities. Agencies that currently use a learning agenda typically have public components of those learning agendas. Publishing learning agendas allows agencies to ensure external stakeholders, including the public, are aware of and can inform the agency's priority questions and planned approaches to answering them. It also holds the agency accountable to answer those questions. Importantly, publishing learning agendas also allows agencies to identify those priority questions that they may not be able to address and highlight areas where external stakeholders may be able to contribute through data sharing or formal partnerships. For example, both HUD and SBA post their learning agendas in full on their respective agency websites. Included in the Evidence Act is a requirement that agencies leverage learning agendas to create annual evaluation plans, which outline the significant evaluations that the agency intends to undertake in the upcoming year, including the key research questions to be answered and anticipated data collections. These evaluation plans will tie directly to an agency's learning agenda and document the evaluation activities that agencies have planned to answer the questions laid out in their learning agendas. While some agencies already develop evaluation plans for internal use, these new requirements will allow agencies to publicly identify their evaluation priorities, which supports greater accountability and transparency.

Still other agencies promote transparency by ensuring that data are available for further analysis whenever possible. For example, the Millennium Challenge Corporation (MCC) makes decisions on public release of information based on a presumption of disclosure. MCC's decisions are guided by its Open Government Plan, Policy on Access to Information and Materials, and Disclosure Review Board. MCC's default position is to share information and materials, including programmatic and survey data, with the public whenever there is no clear reason not to. MCC has employed a purposeful strategy to ensure public access to evaluation results and evaluation data, subject to protection of participants.

As part of implementation of the Foreign Aid Transparency and Accountability Act (FATAA), agencies that administer foreign assistance as defined in OMB Bulletin 12-01[6] should adhere to guidelines for monitoring, evaluation, and reporting on the performance of U.S. foreign assistance. The monitoring and evaluation guidelines[7] issued by OMB in January 2018 include transparency as a key principle, and contain the requirement that evaluation findings be shared publicly. The guidance also requires agencies to develop a clearinghouse capacity for the collection, dissemination, and preservation of knowledge and lessons learned, and specifically notes that "agencies should make information on program plans, monitoring data, and evaluation findings available to the public, other foreign assistance agencies, implementing partners, the donor community and aid recipient governments."

Conclusion

Although some agencies and bureaus/components have been engaging in evidence-building activities for many years, there are still many policy areas and programs for which we do not have sufficient evidence. Implementing the Foundations for Evidence-Based Policymaking Act offers a unique opportunity to strengthen how agencies build evidence and enhance their capacity to conduct evaluations. Consistent use of evidence—and a commitment to building evidence where it is lacking—requires a culture of learning, leadership support, staff with appropriate technical expertise, data infrastructure and access, and the integration of evidence-building and analysis into program and policy design from the start. We must continue to build comprehensive portfolios of evidence across the Federal Government in order to learn what is working and where to improve. Doing so allows us to more effectively serve the American people.

[6] *https://www.whitehouse.gov/sites/whitehouse.gov/files/omb/bulletins/2012/b12-01.pdf*

[7] *https://www.whitehouse.gov/wp-content/uploads/2017/11/M-18-04-Final.pdf*

Addendum: 2020 Budget Proposals to Expand NDNH Access

The Budget includes the following proposals to expand access to NDNH in statute for program integrity and evidence-building purposes.

The proposal also includes penalties for unauthorized access, use, disclosure, or re-disclosure of personally identifiable information; clear specification of each authorized purpose; a requirement that the minimum data necessary be accessed; and satisfies criteria for when authority to access NDNH data should be considered. Finally, the package also requires HHS to review each agency's security position before they allow that agency to access the data and requires public reporting on the use of NDNH.

Table 6–1. NDNH ACCESS PROPOSALS

Agency	Planned Purpose
PROGRAM INTEGRITY PROPOSALS	
Treasury/DNP	Allow Treasury's Do Not Pay (DNP) Business Center to serve as a pass-through between NDNH and Federal agency programs that are authorized NDNH access for improper payment purposes.
Railroad Retirement Board	Establish eligibility for processing disability benefits in a more efficient manner.
HHS/CMS	Allow access to NDNH for HHS' Centers for Medicare & Medicaid Services (CMS) program integrity purposes.
EVIDENCE-BUILDING PROPOSALS	
Multiple/Statistical and Evaluation Access	Grant access to NDNH for Federal statistical agencies, units, and evaluation offices or their designees for statistical, research, evaluation, and performance measurement purposes.
State Agencies/Workforce Programs	Enable state agencies (designated by each governor with workforce program responsibilities) with the authority to match their data with NDNH for program administration, including program oversight and evaluation. Authorize data exchanges between state agencies that administer child support, workforce, and vocational rehabilitation programs. Would simplify state reporting on Workforce Innovation and Opportunity Act performance and evaluation results.

7. STRENGTHENING THE FEDERAL WORKFORCE

The work of the Federal Government is carried out by civilian employees dedicated to mission, service, and stewardship. Federal personnel carry out critical tasks in areas ranging from national security to veterans services to cutting-edge scientific research that leads to life-saving cures. The workforce frequently delivers outstanding results, despite the constraints of an archaic civil service system. The last major reform of the system occurred 40 years ago, and many of its core elements date back to the early 20th Century. In the meantime, the nature of work has evolved markedly, due to technology and other factors, putting great strain on this outdated personnel system.

The mission demands of the 21st Century require a Federal personnel system that is flexible and resilient enough to support the changing nature of work. That system must have a performance orientation that enables civil servants to achieve agency missions in an effective and efficient manner while holding them accountable. Although many Federal workers pursue and attain excellence, they do so despite, and not because of, the incentives built into the current system.

The workforce also absorbed the recent ordeal of a protracted Government shutdown. During the recent 35-day partial lapse in Government funding, hundreds of thousands of Federal employees worked without pay, including border patrol agents who guarded entry-points; air traffic controllers who kept the skies safe; transportation security officers who protected passengers; Coast Guard officers who patrolled the waterways; and law enforcement officers at the Federal Bureau of Investigation, U.S. Marshals Service, Federal Bureau of Prisons, Bureau of Alcohol, Tobacco, Firearms and Explosives, and U.S. Secret Service who continued to serve and protect the country.

The Administration is committed to continuing to recognize the dedication of its workforce. For example, the Presidential Rank Awards honor outstanding Federal employees each year. Past honorees include Federal workers recognized for discovering cures for diseases, saving lives, and protecting American property and American values.

Federal Workforce Demographics

The Federal civilian workforce represents an annual taxpayer investment of approximately $300 billion, and this Administration is committed to realigning that investment in ways that maximize the ability of the workforce to better support the American people. This commitment requires optimizing workforce skills, capabilities, and compensation based on mission needs and labor market dynamics, while leveraging leading market practices.

The Federal Government is the Nation's largest employer, and its footprint is global. The total workforce comprises approximately 2.1 million non-postal civilian workers and 1.4 million active duty military, as well as approximately one million military reserve personnel serving throughout the country and the world. The postal workforce includes an additional 500,000 employees. Approximately 85 percent of the Federal workforce, or 1.7 million people, live outside of the Washington, D.C., metropolitan area. Notably, an even larger "indirect" workforce carries out much of the work paid for by Federal funds. This includes Federal contractors and State, local, and nonprofit employees whose jobs are funded by Federal contracts, grants and transfer payments.

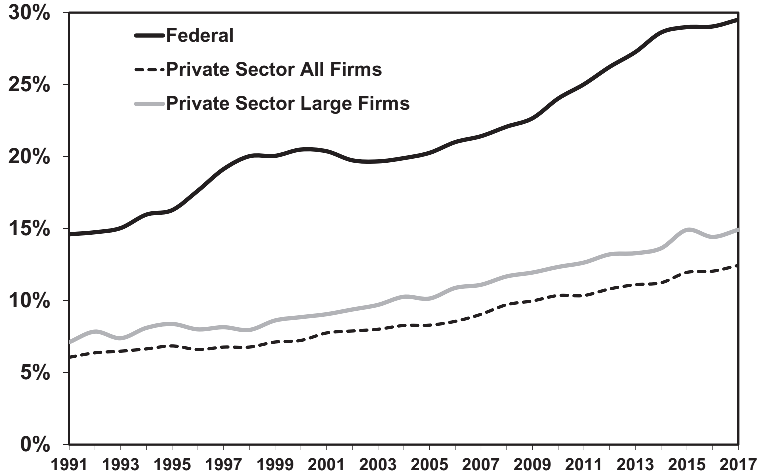
As mission, service, and stewardship needs should drive the optimal size of the Federal workforce, the Office of Management and Budget (OMB) did not set targets for full-time equivalent (FTE) levels for each agency. While some agencies may choose to reduce FTEs, in many areas, the Administration seeks to increase the workforce. Table 7-1 shows actual Federal civilian FTE levels in the Executive Branch by agency for 2017 and 2018, and estimates for 2019 and 2020, including the Uniformed Military, Postal Service, and Judicial and Legislative branches.

The size of the Federal civilian workforce decreased slightly from 2017 to 2018, with only the Departments of Defense (DOD), Homeland Security (DHS), and Veterans Affairs seeing increases in civilian FTEs. The 2020 Budget includes a short-term increase at the Department of Commerce, as it conducts the 2020 Census. This table also accounts for the transition of the Office of Personnel Management (OPM) staff to DOD and the General Services Administration.

Agencies will continue to examine their workforces to determine what jobs they need to accomplish their missions, in light of technological changes that automate transactional processes, artificial intelligence (AI) that can streamline compliance and regulatory processes, online and telephone chat-bots that can improve customer service, and other tools that may reduce agency personnel needs. Several agencies are already using shared-service models for mission-support positions, which may also reduce their need for full-time employees. Changes in Federal procurement, real-estate utilization, and administrative processes can also reduce personnel needs.

According to August 2018 OPM data, the Federal civilian workforce self-identifies as 62.7 percent White, 18.2 percent Black, 9.0 percent Hispanic of all races, 6.6 percent Asian/Pacific Islander, 1.7 percent Native American/Alaskan Native, and 1.7 percent more than one race. Men make up 56.5 percent of all permanent Federal employees and women are 43.5 percent. Veterans currently constitute 30.9 percent of the Federal workforce, which includes the 14.2 percent of the workforce who are veterans re-

Chart 7-1. Masters Degree or Above by Year for Federal and Private Sectors



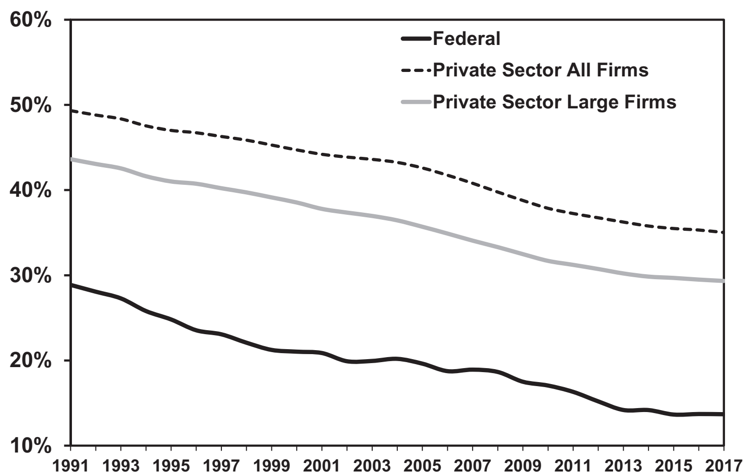
Source: 1992-2018 Current Population Survey, Integrated Public Use Microdata Series.

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 full-time, full-year workers, i.e. those with at least 1,500 annual hours of work and presents five-year averages. Industry is from the year preceding the year on the horizontal axis

ceiving disability compensation. By comparison, veterans represent only 6 percent of the private sector non-agricultural workforce. The Federal workforce continues to become older on average. Almost one-third (606,000) of employees are older than 55, while only 8 percent (173,000) of employees are younger than 30. By comparison, in the private sector, 23 percent of the workforce is younger than 30.

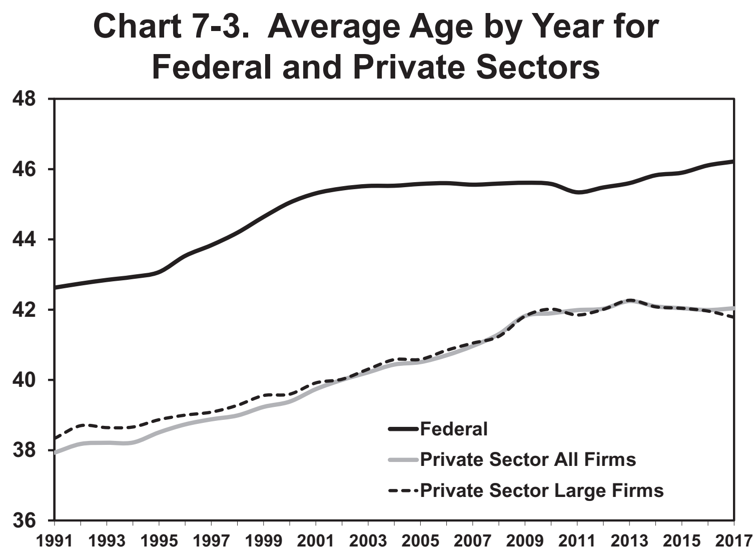
Using data from the Bureau of Labor Statistics on full-time, full-year workers, Table 7-3 breaks out all Federal

Chart 7-2. High School Graduate or Less by Year for Federal and Private Sectors



Source: 1992-2018 Current Population Survey, Integrated Public Use Microdata Series.

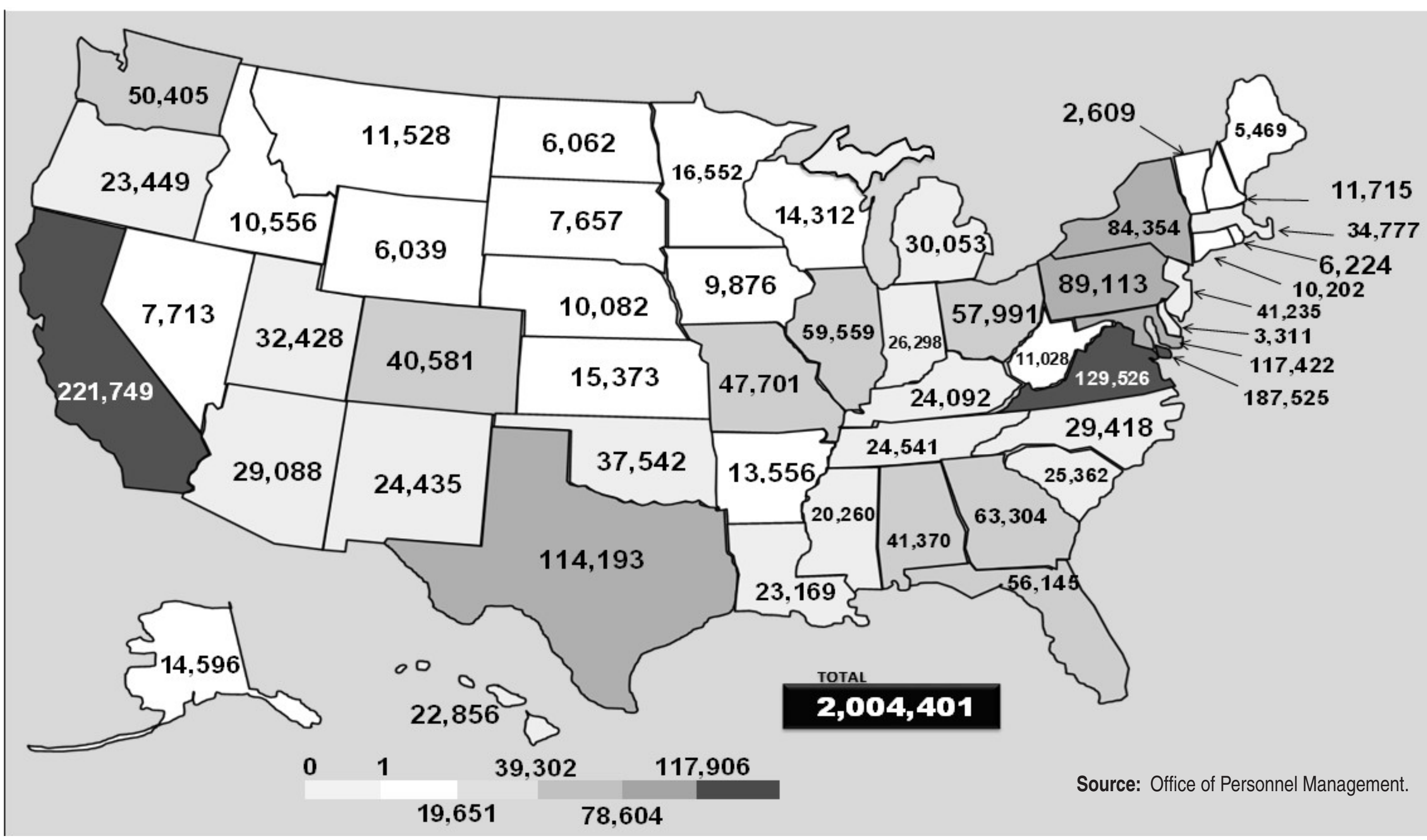
Notes: Federal excludes the military and Postal Service, but includes all other Federal workers. Private Sector excludes the self-employed. Neither category includes State and local government workers. Large firms have at least 1,000 workers. This analysis is limited to full-time, full-year workers, i.e. those with at least 1,500 annual hours of work and presents five-year averages. Industry is from the year preceding the year on the horizontal axis.



Source: 1992-2018 Current Population Survey, Integrated Public Use Microdata Series.

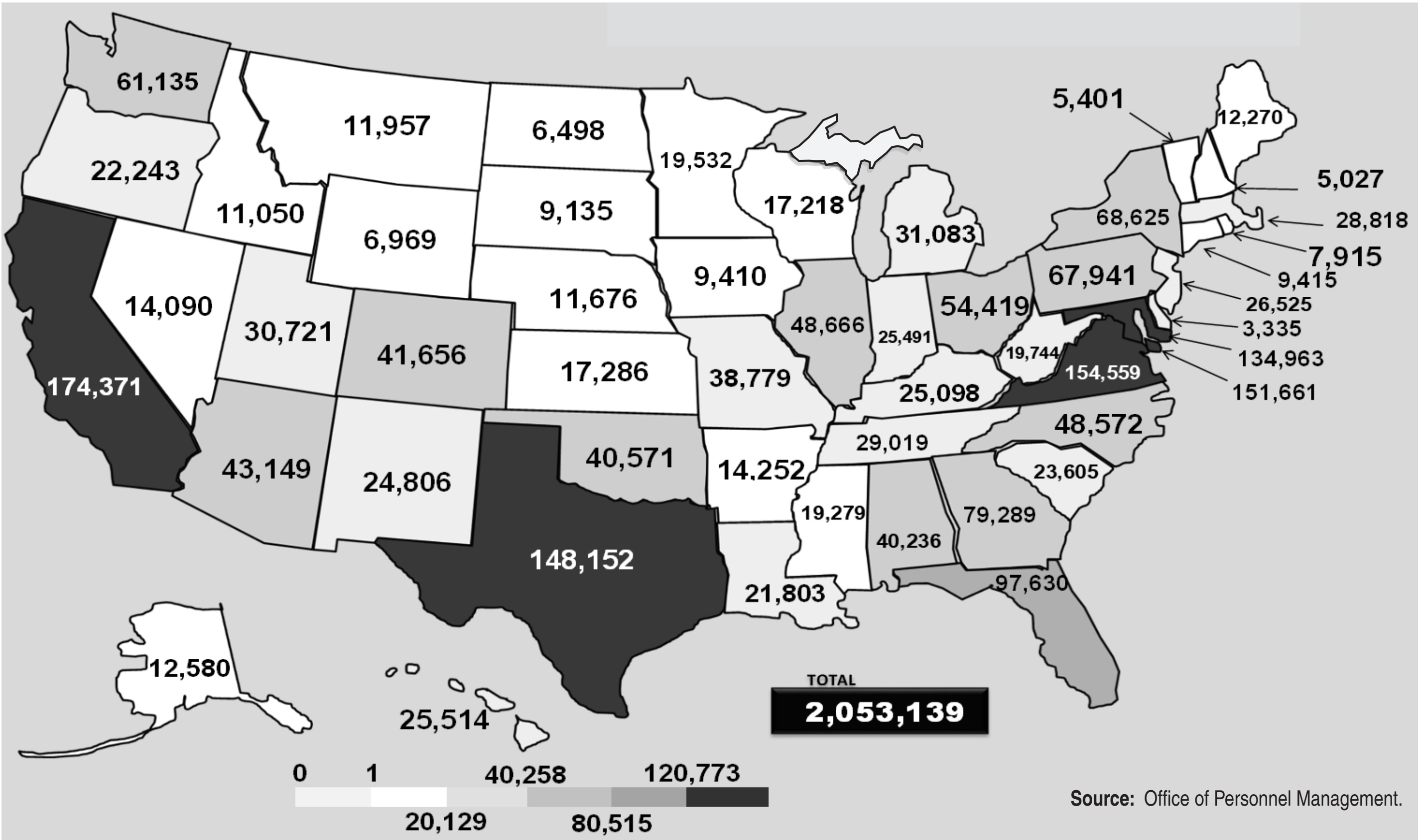
Notes: Federal excludes the military and Postal Service, but includes all other Federal workers. Private Sector excludes the self-employed. Neither category includes State and local government workers. Large firms have at least 1,000 workers. This analysis is limited to full-time, full-year workers, i.e. those with at least 1,500 annual hours of work and presents five-year averages. Industry is from the year preceding the year on the horizontal axis.

Chart 7–4. GOVERNMENT-WIDE ON-BOARD U.S. DISTRIBUTION 10-1-1978



Source: Office of Personnel Management.

Chart 7–5. GOVERNMENT-WIDE ON-BOARD U.S. DISTRIBUTION 06-30-2018



Source: Office of Personnel Management.

and private sector jobs into 22 occupational groups to demonstrate the differences in composition between the Federal and private workforces. Charts 7-1 and 7-2 present trends in educational levels for the Federal and private sector workforces over the past two decades. Chart 7-3 shows the trends in average age in both the Federal and private sectors. Chart 7-4 and Chart 7-5 track how many Federal employees are in each state for 1978 and 2018.

Developing a Modern Civil Service System

The Administration is committed to developing a civil service framework that enables agencies to accomplish their missions while balancing service and stewardship requirements. The Administration will pursue both structural alterations that require statutory changes, and administrative actions through its President's Management Agenda (PMA).

Streamlining and Eliminating Complex Rules

Reports from the National Academy of Public Administration, the Government Accountability Office, and other observers have concluded that the civil service system is increasingly weighed down by burdensome rules that incentivize rigid compliance instead of strategic workforce management. The Administration remains committed to streamlining bureaucratic human resources processes, and it will develop several high-impact projects aimed to empower the Federal workforce. In particular, the Administration proposes to partner with Congress to cull the approximately 5,000 statutory and regulatory rules that, over time, have created an incomprehensible, administratively burdensome, and unmanageable civil service system. Chart 7-6 is an OPM mapping of the current 15 functions and 54 sub-functions that compose the Federal human capital management system, which aim to provide more consistency in how agencies deliver human resources (HR) services to employees.

Pay and Compensation Reform

A modern civil service system requires flexible pay and compensation that is sensitive to labor market dynamics. A Congressional Budget Office (CBO) report issued in April 2017 found that, based on observable characteristics, Federal employees on average received a combined 17 percent higher wage and benefits package than the private sector average over the 2011-2015 period. The difference is overwhelmingly on the benefits side. CBO found that Federal employees receive on average 47 percent higher benefits and 3 percent higher wages than counterparts in the private sector. In CBO's analysis, these differences reflect higher Federal compensation paid to individuals

Chart 7-6

Maintained by: HRLOB@opm.gov

The Human Capital Business Reference Model (HCBRM) functional framework defines Federal Human Capital Management. This map represents the 15 Functions and 54 Sub-functions in the HC lifecycle.

Government-Wide					Enabling		Federal Talent Management: Employee Lifecycle					Supporting		
F1 Federal Human Capital Leadership	**F2 Federal Oversight and Evaluation**	**F3 Federal Vetting**	**F4 Federal Benefits**	**F5 Federal Retirement**	**A1 Agency Human Capital Strategy, Policies, and Operation**	**A10 Agency Human Capital Evaluation**	**A2 Talent Acquisition**	**A3 Talent Development**	**A4 Employee Performance Management**	**A5 Compensation and Benefits**	**A6 Separation and Retirement**	**A7 Employee Relations and Continuous Vetting**	**A8 Labor Relations**	**A9 Workforce Analytics and Employee Records**
F1.1 Federal Human Capital Regulation and Policy	F2.1 Human Capital Strategic and Operational Oversight	F3.1 Vetting Standards and Oversight	F4.1 Benefit Program Administration and Oversight	F5.1 Pre-Retirement Activities	A1.1 Workforce Planning	A10.1 Human Capital Programmatic Evaluation	A2.1 Talent Acquisition Management	A3.1 Talent Development Planning	A4.1 Employee Performance Management	A5.1 Compensation Management	A6.1 Separation Counseling	A7.1 Employee Accountability for Conduct	A8.1 Labor Management Relations	A9.1 Employee Inquiry Processing
F1.2 Human Capital Service Delivery Model	F2.2 Human Capital Evaluation	F3.2 Suitability and Fitness	F4.2 Benefits Enrollment	F5.2 Retirement Case Planning	A1.2 Human Capital Strategy		A2.2 Candidate Sourcing and Recruitment	A3.2 Talent Development and Training	A4.2 Recognition Management	A5.2 Work Schedule and Leave Management	A6.2 Retirement Planning and Processing	A7.2 Employee Accountability for Performance	A8.2 Negotiated Grievances and Third-Party Proceedings	A9.2 Employee Research
	F2.3 Human Capital Agency Guidance and Evaluation	F3.3 Credentialing	F4.3 Agency Benefits Counseling	F5.3 Post-Retirement Customer Service	A1.3 Position Classification and Position Management		A2.3 Candidate Assessment and Selection	A3.3 Learning Administration	A4.3 Performance Appraisal System Certification for SES and SL/ST	A5.3 Benefits Management		A7.3 Administrative Grievances and Third-Party Proceedings	A8.3 Collective Bargaining	A9.3 Workforce and Performance Analytics
		F3.4 Background Investigation Operations	F4.4 Miscellaneous Benefits		A1.4 Diversity and Inclusion		A2.4 Applicant Screening, Reciprocity, Investigation			A5.4 Work-Life Wellness / Employee Assistance Programming		A7.4 Reasonable Accommodation		A9.4 Workforce and Performance Reporting
					A1.5 Employee Engagement		A2.5 Vetting Adjudication					A7.5 Continuous Vetting		A9.5 Employee Records Recordkeeping
							A2.6 New Hire In-Processing and Onboarding							A9.6 Employee Records Disclosure

F: OPM-specific Functions
A: Agency-specific Functions

*Federal Talent Management is defined as the employee lifecycle

with a bachelor's degree or less, with Federal employees with professional degrees undercompensated relative to private sector peers (Chart 7-7). Table 7-4 summarizes total Federal compensation.

In the coming year, the President's Pay Agent (consisting of the Directors of OMB and OPM and the Secretary of Labor) intends to exercise its authority to establish special occupational pay systems for occupations where the General Schedule classification and pay system are not aligned to labor-market realities. After evaluating input from the employing agencies, labor organizations, and other interested parties, the Pay Agent will publish proposed and final plans in the Federal Register; hold one or more public hearings; and notify the Congress. In support of developing a workforce for the 21st Century under the PMA, the President's Pay Agent will analyze use of this special authority to address challenges and develop new approaches for valuing and compensating work in high-risk, mission critical, and emerging occupations (e.g., economics, mathematics, information technology (IT), and other Science, Technology, Engineering, and Math (STEM) fields).

The FY 2020 Budget re-proposes several reforms from the FY 2019 Budget that reflect difficult choices in light of fiscal realities, including:

- Increasing employee payments to the Federal Employee Retirement System (FERS) defined benefit plan, so that employees and their employing agency pay an equal share of the employee's annuity cost (phased in at one-percent increase each year); and reducing or eliminating cost of living adjustments for existing and future retirees.

- Basing annuity calculations on employees' "High-5" salary years instead of "High-3" salary years (a common private sector practice), and the elimination of the FERS Special Retirement Supplement for those employees who retire before their Social Security eligibility age.

- Modifying the "G" fund, an investment vehicle available only through the Thrift Savings Plan (TSP), the defined contribution plan for Federal employees. G fund investors benefit from receiving a medium-term Treasury bond rate of return on what is essentially a

Table 7–1. 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: 2019 to 2020	
	2017	2018	2019	2020	FTE	Percent
Cabinet agencies						
Agriculture	87.3	84.1	85.8	83.7	–2.1	–2.4%
Commerce	40.9	40.2	51.7	112.0	60.3	116.6%
Defense--Military Programs	726.2	730.3	752.6	758.0	5.4	0.7%
Education	4.1	3.8	4.0	4.0	*	*
Energy	14.7	14.2	15.4	15.5	0.1	0.9%
Health and Human Services	74.1	73.1	75.2	76.5	1.3	1.7%
Homeland Security	182.4	186.4	188.9	201.7	12.8	6.8%
Housing and Urban Development	7.9	7.6	7.6	7.8	0.2	2.1%
Interior	64.9	63.1	63.2	61.8	–1.4	–2.2%
Justice	118.2	113.0	118.2	119.6	1.4	1.2%
Labor	16.2	15.3	15.4	15.6	0.1	0.7%
State	27.6	26.3	26.8	26.8	*	0.1%
Transportation	54.7	53.9	55.0	55.2	0.3	0.5%
Treasury	92.5	88.5	89.4	89.5	0.1	0.1%
Veterans Affairs	351.6	363.4	380.0	393.8	13.8	3.6%
Other agencies -- excluding Postal Service						
Consumer Financial Protection Bureau	1.7	1.6	1.5	1.2	–0.3	–20.5%
Corps of Engineers--Civil Works	21.7	22.7	23.1	23.1	....	....
Environmental Protection Agency	14.8	14.2	14.6	12.4	–2.1	–14.7%
Equal Employment Opportunity Commission	2.1	2.0	1.9	1.8	–0.1	–5.4%
Federal Communications Commission	1.5	1.5	1.4	1.4	....	....
Federal Deposit Insurance Corporation	6.1	6.1	6.4	6.4	–*	–0.5%
Federal Trade Commission	1.1	1.1	1.1	1.1	....	....
General Services Administration	11.5	11.1	11.8	14.2	2.5	20.8%
International Assistance Programs	5.6	5.3	5.3	5.3	–0.1	–1.6%
National Aeronautics and Space Administration	17.2	17.0	17.2	17.2	–*	–0.2%
National Archives and Records Administration	2.9	2.8	2.8	2.7	–0.1	–3.1%
National Credit Union Administration	1.2	1.1	1.2	1.2	....	....
National Labor Relations Board	1.5	1.3	1.3	1.3	–*	–3.0%
National Science Foundation	1.4	1.4	1.4	1.4	*	0.4%
Nuclear Regulatory Commission	3.2	3.1	3.1	3.1	–*	–1.2%
Office of Personnel Management **	5.5	5.5	5.8	....	–5.8	–100.0%
Securities and Exchange Commission	4.6	4.5	4.4	4.5	0.1	2.0%
Small Business Administration	3.4	5.6	3.3	3.3	–*	–1.0%
Smithsonian Institution	5.0	5.0	5.3	5.2	–*	–0.7%
Social Security Administration	61.4	60.9	62.3	61.7	–0.6	–1.0%
Tennessee Valley Authority	10.1	10.0	10.0	10.0	....	....
U.S. Agency for Global Media	1.7	1.6	1.7	1.4	–0.3	–17.9%
All other small agencies	13.5	13.1	13.9	13.7	–0.2	–1.3%
Total, Executive Branch civilian employment	2,062.1	2,061.2	2,130.0	2,215.0	85.0	4.0%

* 50 or less.

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

short-term security. The Budget would instead base the G-fund yield on a short-term T-bill rate.

The portion of the Federal workforce least well-served by the existing hybrid retirement system are the roughly 70,000 term employees who are hired for an initial period of up to four years. The existing system discourages term hires, because their terms will fall short of the five years necessary to become vested in the defined benefit program. Term hiring is attractive to individuals who may not want to make a career of Government service, but who still want to serve for a limited time (e.g., STEM fields; medicine, biological science, health science and emergency management). To redress the existing disincentive to term hires, the Budget includes a new proposal under which term employees receive an expanded defined contribution benefit through the TSP, in lieu of the defined benefit annuity that offers them little value.

Federal employee sick and annual leave benefits are also managed differently than in the private sector. All

Table 7–2. TOTAL FEDERAL EMPLOYMENT
(As measured by Full-Time Equivalents)

Description	2018 Actual	2019 Estimate	2020 Estimate	Change: 2019 to 2020	
				FTE	PERCENT
Executive Branch Civilian:					
All Agencies, Except Postal Service	2,061,248	2,129,983	2,215,006	85,023	3.8%
Postal Service [1]	585,530	584,914	585,687	773	0.1%
Subtotal, Executive Branch Civilian	2,646,778	2,714,897	2,800,693	85,796	3.1%
Executive Branch Uniformed Military:					
Department of Defense [2]	1,352,971	1,367,840	1,384,111	16,271	1.2%
Department of Homeland Security (USCG)	42,077	41,527	41,766	239	0.6%
Commissioned Corps (DOC, EPA, HHS)	6,667	6,733	6,734	1	*
Subtotal, Uniformed Military	1,401,715	1,416,100	1,432,611	16,511	1.2%
Subtotal, Executive Branch	4,048,493	4,130,997	4,233,304	102,307	2.4%
Legislative Branch [3]	30,103	41,342	41,586	244	0.6%
Judicial Branch	32,711	33,237	33,448	211	0.6%
Grand Total	4,111,307	4,205,576	4,308,338	102,762	2.4%

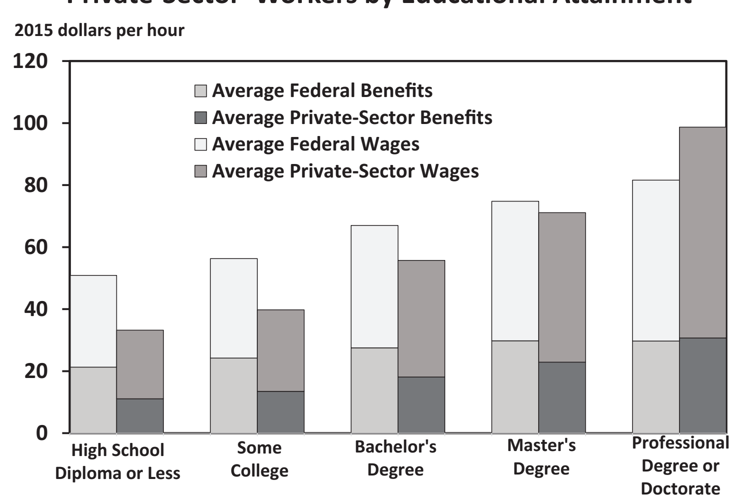
[1] Includes Postal Regulatory Commission.
[2] Includes activated Guard and Reserve members on active duty. Does not include Full-Time Support (Active Guard & Reserve (AGRSs)) paid from Reserve Component appropriations.
[3] FTE data not available for the Senate (positions filled were used for actual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

Federal employees receive 10 paid holidays and up to 13 sick days annually, as well as 13 to 26 vacation days, depending on tenure. This Budget proposes to transition the existing civilian leave system to a model used in the private sector to grant employees maximum flexibility by combining all leave into one paid time off category. While the total leave days would be reduced, the proposal adds a short term disability insurance policy to protect employees.

Across-the-board pay increases have long-term fixed costs, yet fail to address existing pay disparities or target mission critical recruitment and retention goals. The Administration therefore proposes a pay freeze for Federal civilian employees for calendar year 2020. The Administration believes in aligning pay with an employee's performance where possible. The existing Federal salary structure rewards longevity over performance. This is most evident in the tenure-based "step-increase" promotions that most Federal employees receive on a fixed, periodic schedule without regard to whether they are performing at an exceptional or merely passable level. (They are granted 99.7 percent of the time.) The Budget proposes to slow the frequency of these step increases, while increasing performance-based pay for workers in mission-critical areas.

The Budget proposes that agencies use their performance awards accounts to finance more strategic workforce awards spending and innovative approaches to meeting critical recruitment, retention, and reskilling needs across Government. Currently, agencies spend approximately one percent of their payroll on awards. However, awards funding is often spent in a non-strategic

Chart 7-7. Average Compensation of Federal and Private-Sector Workers by Educational Attainment



Source: Congressional Budget Office.

Table 7–3. OCCUPATIONS OF FEDERAL AND PRIVATE SECTOR WORKFORCES
(Grouped by Average Private Sector Salary)

Occupational Groups	Percent: Federal Workers	Percent: Private Sector Workers
Highest Paid Occupations Ranked by Private Sector Salary		
Lawyers and judges	3%	1%
Engineers	4%	2%
Scientists and social scientists	5%	1%
Managers	13%	14%
Pilots, conductors, and related mechanics	2%	0%
Doctors, nurses, psychologists, etc.	8%	6%
Miscellaneous professionals	17%	10%
Administrators, accountants, HR personnel	7%	3%
Inspectors	1%	0%
Total Percentage	**60%**	**37%**
Medium Paid Occupations Ranked by Private Sector Salary		
Sales including real estate, insurance agents	1%	6%
Other miscellaneous occupations	3%	5%
Automobile and other mechanics	2%	3%
Law enforcement and related occupations	8%	1%
Office workers	2%	5%
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%	8%
Total Percentage	**35%**	**51%**
Lowest Paid Occupations Ranked by Private Sector Salary		
Other miscellaneous service workers	3%	6%
Janitors and housekeepers	2%	2%
Cooks, bartenders, bakers, and wait staff	1%	4%
Total Percentage	**4.7%**	**12.0%**

Source: 2014–2018 Current Population Survey, Integrated Public Use Microdata Series.
Notes: Federal workers exclude the military and Postal Service, but include all other Federal workers in the Executive, Legislative, and Judicial Branches. However, the vast majority of these employees are civil servants in the Executive Branch. Private sector workers exclude the self-employed. Neither category includes state and local government workers. This analysis is limited to full-time, full-year workers, i.e. those with at least 1,500 annual hours of work.

manner that both management and employees report in the Federal Employee Viewpoint Survey (FEVS) does not adequately provide an incentive to perform or reward the best employee. OMB will issue guidance to ensure agencies use their awards funding to reward their most critical employees, with the best performance.

President's Management Agenda 21st Century Workforce Goal

While the FY 2020 Budget proposes several structural reforms, the PMA also lays out a framework for change that has the Federal workforce at its core. The Cross Agency Priority Goal focused on "Developing the 21st Century Workforce" has three focus areas: (1) actively managing the workforce based on performance; (2) developing agile operations, which includes efforts to reskill and redeploy current Federal employees toward higher value work; and (3) transforming processes to acquire top talent. Complementing the PMA, OPM published the first ever Federal Workforce Priorities Report, a quadrennial report that outlines evidence-based Federal strategic HR priorities.

Actively Managing the Workforce Based on Performance

The Senior Executive Service (SES), comprising roughly 7,000 of the highest ranking Federal managers, hold the most critical career positions in the Government. SES members are disproportionately retirement-eligible. Due to the aging of the workforce, the Administration is continuing efforts to modernize policies and practices governing the SES, including creating a more robust and effective SES succession pipeline, which could include more recruitment outreach into the private sector. During the past year, OPM has modernized its approach to a

Table 7–4. PERSONNEL PAY AND BENEFITS
(In millions of dollars)

Description	2018 Actual	2019 Estimate	2020 Estimate	Change: 2019 to 2020 Dollars	Change: 2019 to 2020 Percent
Civilian Personnel Costs:					
Executive Branch (excluding Postal Service):					
Pay	195,351	202,048	208,825	6,777	3.4%
Benefits	87,096	88,603	89,013	410	0.5%
Subtotal	282,447	290,651	297,838	7,187	2.5%
Postal Service:					
Pay	38,075	39,035	39,356	321	0.8%
Benefits	14,808	14,386	13,860	–526	–3.7%
Subtotal	52,883	53,421	53,216	–205	–0.4%
Legislative Branch:					
Pay	2,197	2,326	2,438	112	4.8%
Benefits	749	757	820	63	8.3%
Subtotal	2,946	3,083	3,258	175	5.7%
Judicial Branch:					
Pay	3,272	3,399	3,580	181	5.3%
Benefits	1,101	1,151	1,205	54	4.7%
Subtotal	4,373	4,550	4,785	235	5.2%
Total, Civilian Personnel Costs	342,649	351,705	359,097	7,392	2.1%
Military Personnel Costs					
Department of Defense--Military Programs:					
Pay	100,394	104,156	107,952	3,796	3.6%
Benefits	46,028	49,768	52,694	2,926	5.9%
Subtotal	146,422	153,924	160,646	6,722	4.4%
All other Executive Branch uniform personnel:					
Pay	3,552	3,575	3,718	143	4.0%
Benefits	756	811	837	26	3.2%
Subtotal	4,308	4,386	4,555	169	3.9%
Total, Military Personnel Costs	150,730	158,310	165,201	6,891	4.4%
Grand total, personnel costs	**493,379**	**510,015**	**524,298**	**14,283**	**2.8%**
ADDENDUM					
Former Civilian Personnel:					
Pensions	87,510	89,725	93,156	3,431	3.8%
Health benefits	12,904	13,264	14,136	872	6.6%
Life insurance	42	43	44	1	2.3%
Subtotal	100,456	103,032	107,336	4,304	4.2%
Former Military Personnel:					
Pensions	60,868	62,667	64,401	1,734	2.8%
Health benefits	10,453	11,086	11,544	458	4.1%
Veterans compensation and pensions	92,357	101,204	109,988	8,784	8.7%
Subtotal	163,678	174,957	185,933	10,976	6.3%
Total, Former Personnel	264,134	277,989	293,269	15,280	5.5%

range of SES processes, including performance appraisal programs, the Presidential Rank Awards program, SES allocations, and SES interviews.

Employee engagement indicators continued to improve, increasing one point from a year ago and five points since 2014. Almost all of the approximately 600,000 FEVS respondents reported that they are willing to put in extra effort to get the job done and are constantly looking for ways to do their jobs better. However, despite a system designed to protect the merit system, less than 40 percent believe pay raises depend on job performance, that promotions are based on merit, or that managers recognize differences in performance and take steps to address poor performers. As part of the PMA, agencies are working to enhance employee engagement via new training programs and strategic employee award funding. Moreover, the Administration seeks other actions to address root cause challenges to employee engagement.

The President issued three Executive Orders (EOs) in May 2018 to rebalance the labor-management relationship after years of management ceding its authority and increasing the costs of Government operations. Combined, (1) EO 13837 – Ensuring Transparency, Accountability, and Efficiency in Taxpayer-Funded Union Time Use; (2) EO 13836 – Developing Efficient, Effective, and Cost-Reducing Approaches to Federal Sector Collective Bargaining; and (3) EO 13839 – Promoting Accountability and Streamlining Removal Procedures Consistent with Merit System Principles, streamline dismissal procedures, minimize paid work time that Federal employees spend on union-related activities, and ensure that agencies emphasize Government efficiency as a goal of collective bargaining. OPM must publicly post online all union contracts and the amount of time employees spend on union operations. Agencies are to limit to a reasonable amount time spent in negotiation and the number of discretionary topics negotiated. A new Interagency Labor Relations Working Group has been stood up to assist the OPM Director on Executive Branch labor-management relations matters and to make recommendations to the President for improving the organization, structure, and functioning of labor relations programs across agencies. To better manage performance, legislation is required to further streamline procedures for addressing unacceptable behavior and adverse action procedures, including judicial review of certain arbitration awards.

Developing Agile Operations and Reskilling

As agencies implement new technology and processes, the Administration will invest in reskilling its workforce to meet current needs. Certain transactional work is going away; for example, there are fewer Federal forms such as tax returns that require manual processing. Those who perform such work can shift to other responsibilities, including customer-facing roles. Current employees can also shift from legacy positions to emerging fields in which the Government faces shortages, such as data analysis, cybersecurity, and other IT disciplines. Reskilling was one of the issues discussed at a September 2018 symposium on the Future of Work that OMB convened, which created a dialogue among more than 150 experts from Government, academia, and the private sector.

The Administration is also putting this idea into practice. For instance, Federal cybersecurity reskilling academies are being initiated under a joint venture being conducted by the Chief Information Officer (CIO) Council and the Department of Education, in partnership with a private educational partner. Under this intensive program, cohorts of Federal employees from both IT and non-IT occupations will be trained to move into critically needed cybersecurity work roles such as incident response analysts and cyber defense analysts.

Transforming the Hiring Process

The Administration seeks process improvements to core hiring, which currently includes at least 14 steps, is cumbersome and frustrating for Federal hiring managers and potential employees, and causes agencies to lose attractive candidates in the lengthy process.

While the Administration will focus on using the statutory flexibilities Congress has already provided, it will also seek further statutory flexibilities to improve hiring and performance management. Reflecting both the needs of Government and preferred career paths of top talent, these authorities would: (1) enable the temporary hire of highly qualified experts; (2) create an industry exchange similar to that which allows nonprofit employees and academics to serve temporarily on Government projects; (3) expand the limits of temporary and term hires; and (4) modernize qualification requirements.

The Administration is using tools at its disposal to create hiring and pay flexibilities in critical areas within the Federal workforce where mission-critical recruitment and retention needs are currently unmet. For example, in the fall of 2018, OPM announced special hiring authorities for qualified applicants to fill a variety of STEM occupations, expanding a list previously comprised predominantly of medical professions. The impacted occupations include economists, biological and physical scientists, engineers, statisticians, and cybersecurity and acquisition professionals. This hiring flexibility will enable agencies to be more nimble and hire more quickly in these areas. Separately, DHS is implementing a new personnel system for its cybersecurity staff. This new system, authorized by Congress, provides for new career paths, hiring methods, and compensation for these mission critical cyber positions.

One challenge to timely hiring is the existing background investigation inventory, which can delay hiring in critical need areas such as cybersecurity. The Administration inherited a significant and growing inventory of background investigations for Federal employment and security clearances, which reached its peak of 725,000 in April 2018. Since that time, the Security Executive Agent (the Office of the Director of National Intelligence (ODNI) and the Suitability and Credentialing Executive Agent (OPM)) chartered a new "Trusted Workforce 2.0" (TW 2.0) effort to transform and modernize background investigations. This work has dramatically reduced the inventory to approximately 550,000 cases, as of February 2019. In addition, the Administration is creating a new, modern Executive branch policy structure that supports the new vetting approach. The new policy will be established formally in 2019.

At the same time, a congressional mandate for the National Background Investigations Bureau (NBIB) at OPM to transfer DOD background investigations (constituting approximately 70 percent of NBIB's transaction volume) to DOD raised concerns about the viability of the remaining OPM NBIB operation. Following an interagency review, the Administration decided to transfer the entire NBIB program (including mission, assets, and resources) from OPM to DOD. This averts potential problems with splitting the existing program. It will retain "economies of scale," facilitate better leveraging of DOD's existing enterprise capabilities, and provide the opportunity for truly transformational reform. The Security Clearance, Suitability, and Credentialing Performance

Accountability Council (PAC), which includes OMB, ODNI, OPM, and DOD, will oversee the transition and be accountable for ongoing reform of Executive Branch vetting, including background investigations.

Further improving the recruitment process, USAJOBS, the Government's job board, is being upgraded via integration with Login.gov, a user account and authentication shared service. USAJOBS converted more than 3.9 million user accounts with minimal disruption. Another enhancement is adding Open Opportunities, a Government-wide reskilling and employee development platform that facilitates micro-details. In FY 2018, USAJOBS posted 316,074 job announcements resulting in 17,727,616 applications submitted to agencies. To assist with development of employees, OPM's USA Learning delivered more than 18 million online training courses.

As a result of changes to student programs required to meet statutory requirements, options for internships and apprenticeships have dwindled. New hires of student interns fell from about 35,000 in 2010 to 4,000 in 2018. Additionally, third-party providers of interns can no longer non-competitively place students from special interest populations who otherwise may have been overlooked (i.e., those with disabilities). Increasing the number of interns and apprentices gaining work experience in the Federal Government remains an Administration priority. Congress recently authorized agencies to hire 15 percent of their interns directly (Public Law 115-232, section 1108), a recognition that the Federal Government has a structural problem in hiring college students and recent graduates. The Administration welcomes this development, and further recommends that the 15-percent cap be removed.

Summary

The National Government should be a model employer, as former Civil Service Commissioner Theodore Roosevelt stated, "It should demand the highest quality of service from each of its employees and it should care for them all properly in return." It is encouraging that more than 90 percent of Federal employees believe the work they do is important and will devote more effort to get the job done. The Administration is committed to doing its part to facilitate a work culture and a personnel system that best enables and inspires Federal civil servants to serve the public to the fullest extent of their commitment and their abilities. The Administration looks forward to working with the Congress and other stakeholders in developing a civil service system that meets the expectations of the citizens it serves.

8. REORGANIZATION

The Federal Government has operated for too long under outdated technology, organizational constructs, and processes, leaving the American people and Federal workforce frustrated. In June 2018, the Administration laid the groundwork for transformation by issuing the "Delivering Government Solutions in the 21st Century" plan, which provided a cornerstone for bipartisan dialogue on how the Executive Branch can operate effectively in the 21st Century.

Evidence from the private sector indicates that reorganization is best implemented in phases to ensure a focus on successful results over the long term. Therefore, the Budget prioritizes critical areas to transform how the Federal Government serves the American people. In particular, the Budget would restructure governance of one of the Government's larger and more impactful investments—a Federal workforce of 2.1 million civilians—by supporting a full reorganization of the Office of Personnel Management.

Reorganizing and Reforming the Office of Personnel Management

The President's Budget for FY 2020 reflects a full reorganization of the Office of Personnel Management (OPM). Some policy and workforce strategy functions will be elevated to the Executive Office of the President (EOP), and the conduct of background investigations will transfer to the Department of Defense (DOD). All remaining functions, including Merit System Accountability and Compliance, Retirement Services, and Healthcare & Insurance, will transfer to the General Services Administration (GSA).

Federal Workforce Management Today

Forty years ago, the Civil Service Reform Act of 1978 established OPM to aid and advise the President on actions to promote an efficient civil service. This was the last time the Government implemented broad civil service reform. There is widespread acknowledgment that OPM and the Federal employment system, as both are currently structured, are archaic in many significant respects and do not reflect the realities of the contemporary workforce.

Core strategic and policy concerns about the Federal workforce have gone unaddressed for too long, according to most observers, including the Government Accountability Office, which has had Federal human capital on its high-risk list since 2001. Dissatisfaction with the existing statutory and regulatory regime has led the Congress to exempt an increasing portion of the civilian workforce from its purview. One consequence is that OPM's ability to manage the Federal workforce holistically is reduced.

More fundamentally, OPM's resources are misaligned to its mission of promoting an efficient civil service. Its original mission focus has become blurred by new responsibilities, such that more than 80 percent of OPM's workforce and budget are now dedicated to transactional activities. These include important functions, such as administering the Federal Employees Health Benefits Program for more than 8.2 million active Federal employees, retirees, and their families; administering the Civil Service Retirement System and the Federal Employees Retirement System for over 5.3 million active Federal employees, annuitants, and survivors; processing more than two million background investigations each year for over 100 Federal agencies; and managing USAJOBS, which receives over 85 million searches each month from 15 million site visitors. While these functions are vital, their scope and scale are such that they necessarily distract agency leadership's attention from strategic workforce management and stewardship of an efficient civil service structure. Less than 20 percent of the agency's workforce and budget is now dedicated to policy and oversight activities related to hiring, performance management, compensation, merit system compliance, and labor relations.

In addition, high-profile operational challenges with its transactional obligations have distracted OPM leadership from the core workforce policy functions that are its primary charge. In 2014, a data breach into OPM's information technology (IT) systems exposed personally identifiable information for over 20 million individuals, including Federal employees and their families, job applicants, and contractors. The breach constituted a major national security threat and required the Federal Government to pay for credit monitoring for affected individuals for 10 years. Between FY 2014 and FY 2018, OPM increased prices on background investigations by more than 40 percent, and the timeline for processing background investigations tripled, further straining agency budgets and the ability to fill critical positions. Currently, OPM is working to reduce a background investigation inventory of over 550,000 cases. Additionally, in 2007, OPM issued a stop work order marking its fourth consecutive failure to automate its retirement processing function.

The 2.1 million-person civilian workforce represents one of the Federal Government's larger investments and one with great impact. Like any large organization, the Federal Government is only as effective as its people. To address serious shortcomings in the areas of hiring, retention, and performance management, the Executive Branch needs a workforce management structure that elevates personnel strategy and policy, allows for a holistic view of its human capital, and continually optimizes the human resources transactional services necessary to administer one of the largest workforces in the world.

Federal Workforce Management of Tomorrow

Federal employees underpin nearly all the operations of the Government, ensuring the smooth functioning of our democracy. To build a Federal workforce management structure for the 21st Century, the Administration must improve alignment and strategic management of the Federal workforce by strengthening leadership of human capital systems; developing better human resources processes and capabilities; and enhancing the workforce culture.

To address longstanding workforce management issues, the Administration's June 2018 "Delivering Government Solutions in the 21st Century" included a proposal to merge all of OPM's transactional and consultative services (e.g., those within Human Resources Solutions (HRS), Retirement Services, and Healthcare & Insurance) into GSA; to transfer in full the National Background Investigations Bureau (NBIB) to DOD; and to transfer elements of OPM's workforce policy function into the OMB. The 2020 President's Budget reflects the end-state organizational structure and resources necessary to achieve this reorganization of OPM, to build and sustain the Federal workforce of tomorrow.

Building Organizational Effectiveness and Efficiency

Since June 2018, the Administration has been developing plans to execute transfers of OPM functions to GSA and DOD using a combination of existing legal authority and legislation. The reorganization is under way in FY 2019 with implementation planning for affected functions, including the transfer of background investigations and other OPM functions that can move administratively. Through legislation and a request for a direct appropriation to cover transition costs, the reorganization of further OPM functions, such as Retirement Services and Healthcare & Insurance, would be completed in FY 2020. Specifically, the 2020 President's Budget proposal reflects the following end-state for OPM's existing services:

- Establishment of a new Federal workforce policy office in OMB focused on strategic workforce planning and employee performance management policy by elevating elements of these policy functions from OPM to OMB. This new office, and its relationship with GSA, will be modeled on OMB's statutory Office of Federal Procurement Policy, which provides leadership on Federal procurement issues, while working closely with GSA on Government-wide implementation.
- Transfer of all OPM transactional services (e.g., those within HRS, Retirement Services, and Healthcare & Insurance) to GSA as a third "Service," comparable to GSA's current Public Buildings Service and Federal Acquisition Service.
- Transfer of OPM's NBIB in its entirety to DOD pursuant to Executive Order and the National Defense Authorization Act for FY 2018 (Public Law 115-91).
- Transfer of OPM's oversight functions to GSA, including the OPM Office of Inspector General (OIG), which will complement the GSA OIG's expertise conducting audits, investigations, and evaluations and providing recommendations to help improve the efficiency and effectiveness of agency operations.
- Transfer to GSA of OPM's Merit System Accountability and Compliance division, which ensures Federal agency human resources programs are effective and meet merit system principles and related civil service requirements.

Delivering on Our Goals

Reorganization is one tool among many that this Administration is using to drive transformational change in Government. Meeting the needs of the American people, as well as the President's mandate for greater efficiency, effectiveness, and accountability, requires a range of transformational approaches. To that end, the President's Management Agenda (PMA) outlines a range of additional priorities and tools that, in combination, will create an Executive Branch that is prepared to meet the needs of the American people both now and in the future.

With the complete reorganization of OPM, the 2020 President's Budget delivers on the Administration's Delivering Government Solutions in the 21st Century plan and the PMA. The PMA provides a long-term vision for modernizing the Federal Government to improve agencies' ability to deliver mission outcomes, provide excellent service, and effectively steward taxpayer dollars on behalf of the American people. The reorganization of OPM specifically supports six Cross-Agency Priority Goals, to include:

- *Workforce for the 21st Century*: Improve alignment and strategic management of the Federal workforce by strengthening leadership of human capital systems, developing better human resources processes and capabilities, and enhancing the workforce culture.
- *IT Modernization*: Enhance OPM mission effectiveness and reduce cybersecurity risks to the Federal enterprise through IT Modernization.
- *Improving Customer Experience*: Provide a modern, streamlined, and responsive customer experience improving transactional services provided to Federal applicants, employees, retirees, annuitants, and survivors.
- *Sharing Quality Services:* Implement process improvements through greater sharing of quality services.
- *Shifting from Low-Value to High-Value Work*: Streamline time, effort, and funding spent performing repetitive administrative tasks and complying

with unnecessary and obsolete policies, guidance, and reporting requirements.

- *Security Clearances, Suitability, and Credentialing Reform*: Protect the Nation's interests by ensuring an aligned, secure, and reciprocal process to support a trusted Federal workforce.

Overall, the path laid out in the 2020 President's Budget provides the best opportunity for a greater Government-wide strategic focus on Federal workforce management and policy. With end-to-end services around the Federal employee lifecycle maintained in GSA, considerable operational efficiencies can be achieved, as well as stronger cybersecurity, and improved customer service. Ultimately, this important reorganization effort will position the Federal Government to achieve a state where Federal agencies and managers can hire the best employees, remove low performing employees, and engage employees at all levels of the organization, putting a framework in place that drives and encourages strategic human capital management.

Government must recognize that it can no longer meet modern needs with the same approaches, technology, and skillsets from centuries past. By acknowledging shortcomings, setting a modern vision, and delivering on concrete goals, the Administration can adapt Federal programs, capabilities, and the Federal workforce to more efficiently, effectively, and accountably meet mission demands and public expectations.

Other Reform Priorities

The complete reorganization of OPM is a leading development as the Administration moves forward with its reform and reorganization plan. Additional proposals that the Administration is taking include:

- Optimizing a Fragmented and Outdated Humanitarian Assistance Structure. In the President's June 2018 Government Reform and Reorganization Plan, the Administration committed to make fundamental changes to optimize the effectiveness of our fragmented and outdated humanitarian assistance structure. In addition to the previously announced merger of humanitarian offices at the U.S. Agency for International Development (USAID), the 2020 President's Budget consolidates the overseas humanitarian assistance programming currently conducted by the Department of State (DOS) into the new bureau at USAID. In addition, all humanitarian assistance would be funded through a single flexible appropriations account. This reorganization builds on each organization's comparative advantages by leveraging USAID's program implementation and partner oversight expertise with DOS expertise on humanitarian policy, diplomacy, and refugee issues. The 2020 President's Budget pairs this restructuring with a high-level, dual-hat humanitarian leadership structure at DOS and USAID under the authority of the Secretary of State. DOS will continue management and implementation of the U.S. Refugee Admissions Program through the Migration and Refugee Assistance account. This restructuring and consolidation will facilitate dynamic funding allocations and program coordination to assist refugees abroad, those displaced within their own country, and other victims as conflict-driven crises evolve. This restructuring is critical to establishing a strong, unified U.S. voice that can extract optimal reforms from the United Nations and deliver long-overdue optimal outcomes for both beneficiaries and taxpayers.

- Reorganizing Economic Statistical Agencies. Relocating the Bureau of Labor Statistics within the Department of Commerce (DOC) alongside the Bureau of the Census and the Bureau of Economic Analysis will improve the delivery of America's economic statistics. Recognizing the importance of economic statistics for businesses and everyday citizens to make informed decisions and confidently invest in America's future, consolidating critical economic statistics programs at the Census Bureau, the Bureau of Economic Analysis, and the Bureau of Labor Statistics within DOC will make agency operations more efficient, improve products, and reduce the burden on respondents, while preserving the agencies' brand recognition and independence.

- Transitioning to Electronic Records. This initiative will begin moving Federal agencies' business processes and recordkeeping to a fully electronic environment and end the National Archives and Records Administration's (NARA) acceptance of paper records by December 31, 2022. Electronic records will greatly improve the Government's ability to provide public access to Federal records, promoting transparency and accountability. Over the long term, this transition also will reduce agencies' records management and storage costs and streamline the records management process, freeing resources for other high priority activities. In support of this important effort, the Budget includes $22 million to modernize NARA work processes and accelerate its electronic records activities.

- Solving the Federal Cybersecurity Workforce Shortage. The Federal Government struggles to recruit and retain cybersecurity professionals due to a shortage of talent along with growing demand for these employees across the public and private sectors. OMB is working with the Department of Homeland Security and all Federal agencies to establish a unified cyber workforce capability across the civilian enterprise. This Administration is standardizing its approach to federal cybersecurity personnel by ensuring Government-wide visibility into talent gaps, as well as finding unified solutions to fill those gaps in a timely and prioritized manner.

- Government Effectiveness Advanced Research (GEAR) Center. OMB is working with business, academia, and other partners to co-establish capacity to improve operational and management challenges across the Federal enterprise through applied research. For example, reskilling Federal employees to adapt to today's work environment and commercializing appropriate Federal data sets to drive economic growth are potential areas of focus where cross-sector pilot projects will help drive the best outcomes for the American people. Stakeholders can follow the latest information on the GEAR Center through *http://www.performance.gov/GEARcenter/*.

- Strengthening Federal Evaluation. Bringing evidence to bear in decision-making is a critical component of good government, and agencies need the infrastructure and commitment to credibly build and use evidence and to develop a culture of learning and continuous improvement. However, current capacity in Federal agencies to build and use evidence varies widely. In order to generate more evidence about what works and what needs improvement, and consistent with requirements in the recently enacted Foundations for Evidence-Based Policymaking Act, the Administration is tasking Federal agencies with establishing and utilizing multi-year learning agendas to strategically plan their evidence-building activities and carry out priority studies in order to facilitate policy and program improvement. Agencies will also designate an Evaluation Officer responsible for overseeing the agency's evaluation efforts and playing a leading role in other evidence-building activities.

9. PAYMENT INTEGRITY

This Administration has made protecting taxpayer money a top priority, which includes making sure that taxpayer money is serving its intended purpose. This chapter describes proposals aimed at bolstering Federal payment integrity by reducing improper payments that result in a monetary loss.

These proposals are intended to significantly reduce Government-wide improper payments through increased data access, additional legal and regulatory authorities, increased use of analytic tools, improved pre-payment reviews, and simplification of eligibility determination requirements. If adopted, these proposals will improve the effectiveness of Federal programs while providing better stewardship of taxpayer resources.

Maintaining integrity of Federal programs is essential to sustaining public trust in Government. Accordingly, the Administration supports a number of legislative and administrative reforms to help prevent improper payments with priority given to the prevention of improper payments that result in a monetary loss. Specifically, the Budget includes concrete payment integrity proposals to save $162.5 billion over 10 years (see Table 9–1).

I. IMPROPER PAYMENT PREVENTION

The proposals detailed in this chapter include significant reforms to ensure that taxpayer dollars are spent correctly by expanding oversight and enforcement activities in the largest Federal benefit programs such as Child Nutrition, Earned Income Tax Credit (EITC), Federal Employees' Compensation Act (FECA), Medicaid, Medicare, Pell Grants, Social Security, Supplemental Nutrition Assistance Program (SNAP), and Unemployment Insurance (UI). These proposals seek to maximize savings to the Government, while also considering and balancing costs, risks and program performance in establishing realistic improper payment targets.

In addition to efforts outlined in this chapter, the Administration will continue to identify areas where it can work with the Congress to further enhance efforts to detect, prevent, and recover improper payments.

Monetary Loss Prevention

While government and other reports about improper payments in Federal programs can erode citizens' trust in government, not all reported improper payments result from fraud and some of the reported improper payments do represent payments that should have been made. The term "improper payment" consists of two main components (1) improper payments resulting in a monetary loss to the Government and (2) improper payments that do not result in a monetary loss to the Government. Monetary loss occurs when payments are made to the wrong recipient and/or in the wrong amount. Improper payments that do not result in a monetary loss include underpayments and payments made to the right recipient for the right amount, but the payment was not made in strict accordance with statute or regulation.

Although working to reduce all improper payments is important, the Administration has made prevention of improper payments resulting in a monetary loss its highest priority. As a first step, OMB released the Getting Payments Right[1] Cross Agency Priority (CAP) goal as part of the President's Management Agenda in March 2018. This CAP goal is focused on reducing monetary loss by issuing payments correctly the first time. Establishment of this CAP goal has already led to exceptional collaboration across the Federal Government by sharpening the focus of the Government efforts to prevent improper payments through two main strategies: (1) reducing monetary loss and (2) clarifying and streamlining reporting requirements. For example, on June 26th, 2018 the Office of Management and Budget released a revised Circular A-123, Appendix C, Requirements for Payment Integrity Improvement[2], M-18-20. The revised guidance streamlines reporting requirements to help improve the prevention of improper payments by creating a more meaningful, unified, and comprehensive piece of guidance that significantly reduces unnecessary and burdensome improper payment requirements.

[1] *https://www.performance.gov/CAP/CAP_goal_9.html*

[2] *https://www.whitehouse.gov/wp-content/uploads/2018/06/M-18-20.pdf*

II. PROPOSALS FOR GOVERNMENT-WIDE PAYMENT INTEGRITY IMPROVEMENT

Historically, and for a variety of reasons, the Federal Government addressed improper payments broadly, including placing similar efforts towards addressing process errors that do not result in a payment to the wrong recipient or in the wrong amount as those payments that result in a monetary loss. Agencies currently respond to numerous improper payment requirements – often to comply with prescriptive laws and regulations or in response to audit reports and other questions about reported improper payments. In some cases, agencies spend more time complying with low-value activities than researching the underlying causes of improper payments and identifying best practices and building the capacity to help prevent future improper payments. The Getting

Payments Right CAP goal is geared toward improving payment integrity by preventing improper payments that result in monetary loss. Proposals that impact the prevention of improper payments across multiple agencies are a critical part of the 2020 Budget. Implementation of these proposals will significantly improve Agency capacity to prevent improper payments and thus bolster the integrity of Federal programs.

Reducing improper payment reporting burden through changes to the Improper Payments Information Act of 2002 (IPIA), as amended.—

The Budget proposes making explicit changes to existing improper payment laws intended to have agencies re-direct resources from complying with low-value activities to activities that will prevent improper payments resulting in monetary loss. Examples of changes that will improve burden reduction and allow agencies to redirect resources to improving prevention of improper payments include:

- ***Reducing burden of improper payment risk assessments.*** Specifically, under IPIA Section 2, reduce the burden for smaller programs with outlays falling below the statutory threshold by eliminating the improper payment risk assessment requirements. Requiring only agencies with outlays that exceed the statutory definition of significant (i.e. $10 million) to conduct improper payment risk assessments. This would significantly reduce the review burden for smaller agencies.
- ***Clarifying the definition of improper payments.*** The Budget proposes isolating the items with documentation or procedural errors as control deficiencies and including a provision addressing program statutes that cause otherwise proper payment to be classified as improper. Agencies are currently required to place too much emphasis and effort on reporting improper payments that do not result in a monetary loss, such as payments that simply lacked complete documentation but would have been made regardless of those errors. In addition, an improper payment should not include any overpayment that is the result of a statutory requirement to pay benefits or to continue to pay benefits by a specified period when all necessary information has not been received due to statutory barriers. This would give agencies the ability to wait to count a payment as proper or improper until after the statutory due process specified in the program has occurred.
- ***Streamlining reporting requirements to reduce burden.*** Specifically, the Budget proposes changes to the Improper Payments Elimination and Recovery Act of 2010 (IPERA) Section 2 to change an annual November 1 report so that the information can be included in an Agency Annual Financial Report or Performance and Accountability Report (which is typically November 15) to eliminate the need for agencies to produce two separate reports.
- ***Clarifying requirements for IPERA compliance to improve improper payment prevention and reduction.*** Specifically, the Budget proposes that the requirement in IPERA Section 3 to set and meet a reduction target should be modified so that that the program will be considered compliant if it is demonstrating improvement (this moves the requirement away from an estimation exercise and toward driving for improved improper payment rates).
- ***Reducing risk assessment burden by clarifying assessment method type.*** Specifying under IPIA Section 2 clarifying that the risk factors are only for programs and activities performing a qualitative risk assessments. This is an important distinction as the programs and activities that perform a quantitative risk assessment will be developing an improper payment estimate to determine whether the program is susceptible to significant improper payments under statute (which is the main goal of the risk assessment). Requiring programs and activities to also consider and document consideration of the other numerous factors is burdensome and unnecessary.
- ***Specifying which programs should be assessed for compliance annually by the Office of Inspectors General (OIG).*** The Budget proposes changing IPERA Section 3 to require OIGs to evaluate only programs and activities that are susceptible to significant improper payments by statute for compliance with the law. This will reduce burden for both OIGs and agencies. The rationale is that programs and activities below the statutory threshold for susceptibility to significant improper payments are not required to be reporting improper payments estimates, therefore finding a program non-compliant because they missed a reduction target when they are already below the acceptable threshold established under statute is counterproductive and creates extra burden for the OIG and the Agency.
- ***Increasing interagency collaboration and reducing burden of duplicate working groups.*** The Budget proposes replacing requirements for narrowly focused working groups such as that required in the Fraud Reduction and Data Analytics Act of 2015 with a requirement for an interagency payment integrity working group. This change allows for sharing and collaborating about payment integrity rather than narrowly focusing on fraud or other topics from a narrow perspective. This change will allow for statutorily required working groups to modify their focus and structure so that they are better equipped to strengthen overall payment integrity and take a more holistic view of improper payments and fraud. Creating narrowly defined working groups legislatively, while well intended, increases burden and prohibits agencies from taking a more risk based approach to the problem and adapt-

ing the strategy to address emerging areas needing attention.

- ***Increasing the threshold of significant improper payments.*** Giving the Office of Management and Budget the authority to adjust the dollar threshold of "significant" every five years for inflation to ensure that the threshold remains relevant.
- ***Improve accountability and transparency for material programs.*** To improve accountability and transparency in programs, the Budget proposes adding a requirement for managers of high-priority Federal programs to meet with the Director of the Office of Management and Budget at least once a year to discuss actions taken or planned to prevent improper payments within their programs.
- ***Provide the Do Not Pay (DNP) initiative the authority to include publically available data sources for review.*** The Budget proposes providing the DNP initiative the authority under the Improper Payments Elimination and Recovery Improvement Act of 2012 (IPERIA) Section 5, to include publically available data sources in their suite of data for pre-check for the purposes of identifying, preventing, and reducing improper payments. This will increase the identification and prevention of improper payments across the initiative.

Data analytics and data access to improve payment accuracy.—Government-wide efforts to improve payment accuracy include increased access to data and better matching services to help detect, prevent, and recover improper payments. The Administration is continuing to pursue opportunities to improve information sharing by developing or enhancing policy guidance, ensuring privacy protection, and developing legislative proposals to leverage available information and technology in determining benefit eligibility and other opportunities to prevent improper payments. The Budget proposes legislation to enhance the Government's capacity to identify, detect, and prevent fraud and improper payments across all Federal programs and activities. Examples of efforts that will improve data analytics for payment integrity improvement include:

- ***Expand access to the National Directory of New Hires (NDNH).*** The Budget includes a set of proposals that expands access to valuable employment and earnings data—NDNH—for evidence building and program integrity purposes, while ensuring privacy and security safeguards. The proposals are detailed in the Building and Using Evidence to Improve Government Effectiveness in the Analytical Perspectives volume, and include provisions to enable efficiencies for program integrity and eligibility verification and to reduce improper payments. For example, the Budget proposals would enable the Department of the Treasury's DNP Business Center to access NDNH and to assist agencies to reduce improper payments, while ensuring data privacy and security.
- ***Eliminate constraints on the DNP Business Center to work with States on improper payments.*** This effort would allow the Department of Treasury's DNP Business Center to work with Federally funded state administered programs, state auditors, or other state entities that play a role in preventing and detecting improper payments in these programs.
- ***Do Not Pay obtaining authority to serve as a central repository for death records.*** This effort would move and centralize the management and custodial authorities for death reporting to the Department of Treasury's for the use of preventing improper payments and fraud. This provides a more accurate and complete "Death Master File" to be used for checks against Government-wide payment files.
- ***Share full death master file with Treasury's DNP Business Center***. This proposal would authorize the Social Security Administration (SSA) to share its full file of death information—including State-reported death data—with Federal law enforcement agencies, and with the Department of the Treasury's DNP Business Center for use in preventing improper payments. SSA receives death information from many sources, including family members, funeral homes, financial institutions, and the States. Current law limits the purposes for which SSA can share death information it receives from the States, and does not provide SSA authority to share State death data with Federal law enforcement agencies or Treasury's DNP Business Center. This proposal would ensure that Federal law enforcement and Treasury's DNP Business Center have access to all death information in SSA's records, including State-reported death data.

III. PROPOSALS FOR PROGRAM-SPECIFIC PAYMENT INTEGRITY IMPROVEMENT

In addition to including proposals that will reach across the Government-wide enterprise to tackle the improper payment problem, it is also critical to pursue program specific proposals aimed at preventing improper payments.

Department of Agriculture

The 2020 Budget demonstrates the Administration's commitment to reducing payment error and ensuring the Department of Agriculture's (USDA) nutrition assistance benefits go to the intended recipients. The Budget proposes increasing and improving verification of information reported on household applications for benefits, and strengthening use of technology to prevent improper payments in SNAP, and Child Nutrition Programs. Administrative application processing errors and errors in household reporting are the most common causes of improper payments in these programs. The proposals would result in more than $500 million in savings over 10 years.

Supplemental Nutrition Assistance Program.—

- ***Improve income verification.*** The Budget is requesting an additional $4 million in administrative funding to support payment accuracy. USDA will evaluate and implement the best options and practices related to electronic data matching through existing data sources, such as the Work Number. The evaluation will provide the data necessary to estimate the potential reductions in improper payments that could be achieved if States implement the best practices identified.

Improve Child Nutrition Program integrity.—

- ***Provide technology grants.*** To incentivize technology upgrades aimed at improper payment prevention, the Budget requests an additional $200 million in administrative funding to support State grants for technology upgrades. These upgrades will improve data systems used by States to collect meal claims from Local Educational Agencies (LEAs). Improvements in these systems will help prevent and detect improper payments that occur when LEAs submit incorrect meal counts or make claim aggregation errors. The proposal saves $44 million over 10 years.
- ***Increase school meal verification to eight percent.*** The Budget proposes increasing the number of household applications for free and reduced price meal benefits that schools participating in the National School Lunch and School Breakfast Programs must annually verify. Currently, the Richard B. Russell National School Lunch Act limits verification to a maximum of three percent of all applications or 3,000 “error prone” applications. This limit restricts the ability of USDA, States, and LEAs to identify and reduce payment error. This proposal would increase the verification limit to eight percent of applications with reduced requirements for high performing schools. The proposal saves $483 million over 10 years.

Department of Education

The 2020 Budget reflects the Administration’s commitment to protecting Pell Grant funding in fiscal year 2020, ensuring the program remains on stable footing, and expanding options available to pursuing postsecondary education and training. The Budget also includes proposals to reduce the risk of improper payments, which will help protect those benefits by improving the long-term fiscal strength of the program. Pell Grant improper payments that result in monetary loss are most frequently the result of administrative errors by schools, including distribution of funds to ineligible students or in incorrect amounts based on a students’ eligibility. The Budget proposes legislative and administrative actions that would improve data accuracy, prevent fraud and abuse, and better target the Department of Education’s enforcement and oversight mechanisms.

Pell Grants.—

- ***Except education from Section 6103 for certain student aid programs.*** One of the primary causes of improper payments in the Pell Grant program is failure to accurately verify financial data. The Budget proposes to except the Department of Education from restrictions of Section 6103 of the Internal Revenue Code to allow the Department to more easily receive income tax data from the IRS, thereby simplifying and improving the accuracy of Free Application for Federal Student Aid filing by prepopulating certain fields. This exception will also allow borrowers to more easily recertify their income to stay enrolled in Income Driven Repayment plans. This proposal would reduce discretionary program costs by $782 million and mandatory outlays by $177 million over 10 years.
- ***Improve Pell fraud prevention.*** The Budget proposes to bar someone from receiving another Pell Grant if they have been awarded three consecutive Pell Grants without earning any credits. This will prevent the fraudulent practice of people going from school to school, enrolling long enough to receive a reimbursement but not pursuing any credits. This proposal would reduce discretionary program costs by $163 million and mandatory outlays by $38 million over 10 years.
- ***Improve selection for verification.*** The Department of Education is in the process of strengthening its use of administrative data to create a smarter system for selecting students for verification. By selecting for verification reviews those applicants with greater likelihood of incorrect information, this proposal will improve schools’ ability to detect and prevent improper payments. In addition, it will help ensure students and schools bear the burden of verification only when necessary, balancing the need to protect taxpayers and access to student aid for those who need it most.
- ***Better target program reviews.*** The Department of Education will strengthen its use of administrative data to target Federal Student Aid’s (FSA) program compliance reviews on schools with higher risk of improper payments. This proposal should increase both the number of improper payments FSA identifies and the amounts it recovers.
- ***Take enforcement actions against noncompliant schools.*** The Department of Education has the authority to issue fines or take other enforcement actions to penalize schools for noncompliance. Enforcement actions currently are determined based on the type and level of severity, as well as the Department’s ability to execute successfully based on

available resources. The Department will consider how it may use this authority to incentivize schools further to put the necessary controls into place to reduce improper payments, particularly for those schools that neglect their responsibilities.

Department of Health and Human Services

The Budget includes a robust package of Medicare, Medicaid, and Children's Health Insurance Program (CHIP) payment integrity proposals to help prevent fraud and abuse before they occur; detect fraud and abuse as early as possible; provide greater flexibility to the Secretary of Health and Human Services to implement program integrity activities that allow for efficient use of resources and achieve high return on investment; and promote integrity in Federal-State financing. For example, the Budget includes several proposals aimed at strengthening the authorities and tools that the Centers for Medicare & Medicaid Services (CMS) has to ensure that the Medicare program only pays those providers and suppliers who are eligible and who furnish items and services that are medically necessary to the care of beneficiaries. The package of payment integrity proposals will help prevent inappropriate payments, eliminate wasteful Federal and State spending, protect beneficiaries, and reduce time-consuming and expensive "pay and chase" activities. Together, the CMS payment integrity legislative and administrative proposals would net approximately $65.4 billion in savings over 10 years. Finally, the Budget proposes to continue investments in Health Care Fraud and Abuse Control (HCFAC) program, which will provide CMS with the resources and tools to combat waste, fraud, and abuse and promote high-quality and efficient healthcare. Additional information can be found in the Budget Process chapter in the Analytical Perspectives volume.

Medicare Fee for Service Program.—

- ***Expand prior authorization to additional Medicare fee-for-service items at high risk of fraud, waste, and abuse.*** The Budget proposes expanding the Medicare program's authority to conduct prior authorization on certain items or services that are prone to high improper payments, such as inpatient rehabilitation services. The proposal would reduce improper payments and save taxpayer dollars from paying for Medicare services that are not medically necessary by ensuring that the right payment goes to the right provider for the appropriate service. The proposal saves $6.26 billion over 10 years.

- ***Prevent fraud by applying penalties on providers and suppliers who fail to update enrollment records.*** The Budget proposes increasing CMS' authority to enforce appropriate reporting of changes in provider enrollment information through civil monetary penalties or other intermediate sanctions to mitigate the associated risk. This proposal will ensure CMS has the most up-to-date data as it continues to monitor for fraud and abuse. The proposal saves $32 million over 10 years.

- ***Require reporting on clearinghouses and billing agents when Medicare providers and suppliers enroll in the program.*** This proposal would provide CMS with the necessary organizational information to remove providers or suppliers from the Medicare program if clearinghouses and billing agents, acting on behalf of the provider or supplier, engage in abusive or potentially fraudulent billing practices.

- ***Assess a penalty on physicians and practitioners who order services or supplies without proper documentation.*** This proposal allows the Secretary to assess an administrative penalty on providers for claims that have not been properly documented for high risk and high cost items and services.

- ***Address improper payments of chiropractic services through targeted medical review.*** Under this administrative proposal, CMS will test whether prior authorization review is an effective tool at addressing improper payments in chiropractic services.

- ***Address overutilization and billing of durable medical equipment, prosthetics, and orthotics (DMEPOS) by expanding prior authorization.*** In 2016, CMS established a master list of DMEPOS items that were both high cost and at high risk for improper payments that could be subject to prior authorization. The Budget proposes expanding prior authorization to additional items that are at high risk of improper payments. This administrative proposal saves $300 million over 10 years.

- ***Address excessive billing for durable medical equipment (DME) that requires refills on serial claims.*** Under this administrative proposal, CMS would test whether creating a DME benefits manager for serial claims, such as for non-emergency oxygen supplies, results in more appropriate utilization and lower improper payments. The benefits manager would be responsible for ensuring beneficiaries receive the correct quantity of supplies or services for the appropriate time period by contacting the ordering physician directly to obtain documentation.

Medicare Advantage Program (Medicare Part C).—

- ***Implement targeted risk-adjustment pre-payment review in Medicare Advantage.*** The Budget proposes requiring CMS, in a targeted fashion, to confirm diagnoses submitted by Medicare Advantage Organizations (MAOs) for risk-adjustment with the medical record prior to CMS paying risk-adjustment payments.

- ***Expand Medicare Advantage risk adjustment data validation audits.*** The Budget proposes doubling the level of effort for Medicare Advantage risk-adjustment data validation audits by 2022. These audits are an important component to verifying that the diagnoses submitted by the MAO are supported by the medical record.

Medicaid Program.—

- ***Strengthen CMS's ability to recoup improper payments.*** The Budget proposes strengthening CMS's ability to partner with States to address improper payments and ensure Federal recovery of incorrect eligibility determinations, an area of concern identified by the HHS Office of Inspector General. This proposal saves $4.4 billion over 10 years.
- ***Implement pre-payment controls to prevent inappropriate personal care services (PCS) payments.*** The Budget proposes to require States to implement claims edits to automatically deny unusual PCS payments such as duplicative services, services provided by unqualified providers, or services provided to those no longer eligible for Medicaid, as recommended by the HHS OIG. This proposal saves $8.7 billion over 10 years.
- ***Allow States the flexibility to complete more frequent eligibility redeterminations.*** The Budget proposes to allow States flexibility to more frequently assess beneficiary eligibility to ensure taxpayer resources are not supporting ineligible beneficiaries. This administrative proposal saves $45.6 billion over 10 years.
- ***Consolidate provider screening for Medicaid and CHIP.*** The leading driver of Medicaid and CHIP improper payments is State noncompliance with provider screening and documentation requirements. To address this problem, the Budget proposes requiring CMS to conduct all eligibility screenings for Medicaid and CHIP providers, as it does for Medicare.

Medicare and Medicaid programs (crosscutting proposals).—

- ***Allow revocation and denial of provider enrollment based on affiliation with a sanctioned entity.*** Under this administrative proposal, CMS will strengthen the enrollment process and the Medicare program's authority to remove bad actors from the program. This proposal would provide CMS with the authority to take administrative action (either to revoke or deny billing privileges) against providers or suppliers that have any affiliation with another provider or supplier that has previously been sanctioned by Medicare. This administrative proposal saves $78 million over 10 years.

Department of Labor

The Budget includes proposals aimed at improving integrity in the Department of Labor's UI program. The proposals would result in approximately $1 billion in savings subject to the Pay-As-You-Go Act of 2010 (PAYGO) over 10 years, and would result in more than $1.4 billion in non-PAYGO savings. The PAYGO and non-PAYGO savings include a reduction in State unemployment taxes, which would reduce revenues for State accounts within the Unemployment Insurance Fund.

Unemployment Insurance Program.—

- ***Expand State use of the Separation Information Data Exchange System.*** This proposal improves program integrity by allowing States and employers to exchange information on reasons for a claimant's separation from employment and thereby helping States to determine UI eligibility.
- ***Mandate the use of the National Directory of New Hires to conduct cross-matches for program integrity purposes.*** This proposal would require State UI agencies to use the National Directory of New Hires to better identify individuals continuing to claim unemployment compensation after returning to work, which is one of the leading root causes of UI improper payments.
- ***Allow the Secretary to set corrective action measures for poor State performance.*** This proposal would allow the Secretary of Labor to require States to implement corrective action measures for poor State performance in the UI program, helping to reduce improper payments in States with the higher improper payment rates.
- ***Require States to cross-match claimants against the Prisoner Update Processing System (PUPS).*** Under current law, State UI agencies' use of this cross-match is permissible and the Social Security Administration's PUPS is currently only used by some States for UI verification. Requiring States to cross-match claims against the PUPS or other repositories of prisoner information will help identify those individuals ineligible for benefits due to incarceration and reduce improper payments.
- ***Allow States to retain five percent of overpayment and tax investigation recoveries to fund program integrity activities.*** This proposal would allow States to retain up to five percent of overpayment recoveries to fund additional program integrity activities in each State's UI program. This provides an incentive to States to increase detection and recovery of improper payments and provides necessary resources to carry out staff-intensive work to validate cross-match hits as required by law.
- ***Require States to implement the UI integrity center of excellence's integrated data hub.*** This proposal would require States to implement the Integrated Data Hub as a program integrity tool, allowing them to identify fraud schemes and conduct cross-matches that will help them reduce improper payments.
- ***Implement Reemployment Services and Eligibility Assessments (RESEA) cap adjustment.*** The Budget also includes $175 million in discretion-

ary funding for RESEA, including $117 million in base funding and $58 million in program integrity cap adjustment funding, as authorized in the Balanced Budget and Emergency Deficit Control Act of 1985 (as amended by the Bipartisan Budget Act of 2018). Research, including a random-assignment evaluation, shows that a combination of eligibility reviews and reemployment services reduces the time on UI, increases earnings, and reduces improper payments to claimants who are not eligible for benefits. Additional detail about the cap adjustment can be found in the Budget Process chapter in the Analytical Perspectives volume.

Federal Employees' Compensation Act program.—

- ***Reform FECA.*** — The Budget incorporates longstanding Government Accountability Office, Congressional Budget Office, and Labor Inspector General recommendations to improve and update the FECA. The reform package includes changes that generate cost savings by simplifying FECA benefit rates, introducing controls to prevent fraud and limit improper payments, and modernizing benefit administration. The provisions would prevent retroactive selection of FECA benefits after claimants have declined them in favor of Federal retirement benefits; apply a consistent waiting period for compensation for all covered employees; suspend payments to indicted medical providers; and make other changes to improve program integrity and reduce improper payments. The proposal saves $220 million over 10 years.

Department of the Treasury

The Department of the Treasury and the Internal Revenue Service (IRS) proposals will save an estimated $56 billion over 10 years by increasing IRS enforcement efforts, increasing the accuracy of tax returns filed by paid preparers, providing IRS additional authority to correct errors on a taxpayer's tax return, ensure that only those eligible for refundable tax credits receive them, improving wage and information reporting, and increasing the recovery of unclaimed assets and collection of non-tax debts.

Tax Administration.—

- ***Increase oversight of paid tax return preparers.*** This proposal would give the IRS the statutory authority to increase its oversight of paid tax return preparers. Paid tax return preparers have an important role in tax administration because they assist taxpayers in complying with their obligations under the tax laws. Increasing the quality of paid preparers lessens the need for after-the-fact enforcement of tax laws and increases the amount of revenue that the IRS can collect. This proposal saves $507 million over 10 years

- ***Provide more flexible authority for the Internal Revenue Service to address correctable errors.*** The Budget proposes giving the IRS expanded authority to correct errors on taxpayer returns. Current law only allows the IRS to correct errors on returns in certain limited instances, such as basic math errors or the failure to include the appropriate Social Security Number or Taxpayer Identification Number. This proposal would expand the instances in which the IRS could correct a taxpayer's return. For example, with this new authority, the IRS could deny a tax credit that a taxpayer had claimed on a tax return if the taxpayer did not include the required paperwork, where Government databases showed that the taxpayer-provided information was incorrect, where the taxpayer had exceeded the lifetime limit for claiming a deduction or credit, or where the taxpayer had failed to include with the tax return documentation that was required to be included or attached to the return. This proposal would save $17.4 billion over 10 years.

- ***Improve clarity in worker classification and information reporting requirements.*** The Budget would require the form 1099-K to be filed by January 31 and would expand electronic wage reporting. Under current law, Forms 1099-K must be furnished to the recipient by January 31 and filed with IRS by March 31. The proposal would change the filing requirement to January 31. The IRS would also eliminate the regulations that allow for an automatic 30-day filing extension. This would allow IRS to receive information about some sources of self-employment income earlier in the filing season. This proposal saves $2.2 billion over 10 years and includes an existing proposal to improve clarity in worker classification and information reporting requirements.

- ***Expand mandatory electronic filing of W-2s.*** Under current law, employers who file 250 or more forms must file Form W-2 electronically. The Budget proposes to reduce the mandatory electronic filing threshold to 10. This would increase the accuracy of W-2 data and allow the Social Security Administration to make more W-2 data available to IRS early in the filing season. This proposal saves $319 million over 10 years.

- ***Implement tax enforcement program integrity cap adjustment.*** The Budget proposes establishing and fund a new adjustment to the discretionary caps for program integrity activities related to IRS program integrity operations starting in 2020. The IRS base appropriation funds current tax administration activities, including all tax enforcement and compliance program activities, in the Enforcement and Operations Support accounts. The additional $362 million cap adjustment in 2020 funds new and continuing investments in expanding and improving the effectiveness and efficiency of the IRS's tax enforcement program. The activities are estimated to generate $47 billion in additional revenue over 10 years and cost approximately $15 billion resulting in an estimated net savings of $33 billion. Once the new enforcement staff are trained and become fully operational these initiatives are expected to generate roughly $3 in additional revenue for every $1 in IRS expenses. Notably, the return on investment is likely understated because it only includes amounts received; it does not reflect the effect enhanced enforcement has on deterring noncompliance. This indirect deterrence helps to ensure the continued payment of $3.5 trillion in taxes paid each year without direct enforcement measures. Additional detail about the cap adjustment can be found in the Budget Process chapter in the Analytical Perspectives volume.

- ***Require a Social Security Number (SSN) that is valid for employment to claim the EITC.*** As part of a broader proposal, the 2020 Budget includes a proposal to require an SSN that is valid for employment in order to claim the EITC. While this is already current law for the EITC, the proposal fixes an administrative gap to strengthen enforcement of this provision. This proposal ensures that only individuals who are authorized to work in the United States are able to claim this credit. The proposal saves roughly $3 billion over 10 years.
- ***Increase and streamline recovery of unclaimed assets.*** This proposal would increase and streamline recovery of unclaimed assets owed to the United States by authorizing Treasury to locate and recover these assets and to retain a portion of amounts collected to pay for the costs of recovery. States and other entities hold assets in the name of the United States or in the name of departments, agencies, and other subdivisions of the Federal Government. Many agencies are not recovering these assets due to lack of expertise and funding. While unclaimed Federal assets are generally not considered to be delinquent debts, Treasury's debt collection operations personnel have the skills and training to recover these assets. The proposal saves $60 million over 10 years.
- ***Increase delinquent Federal non-tax debt collections.*** This proposal would increase delinquent Federal non-tax debt collections by authorizing administrative bank garnishment for non-tax debts of commercial entities. It would allow Federal agencies to collect delinquent non-tax debt by garnishing the accounts of delinquent commercial debtors without a court order after providing full administrative due process. The proposal is modeled on existing authority for the Internal Revenue Service to collect Federal tax debts. In addition to providing appropriate limitations, the legislation would direct the Secretary of the Treasury to issue Government-wide regulations implementing the authority of bank garnishment for non-tax debts of commercial entities. The proposal saves $320 million over 10 years.

Social Security Administration

Overall, the Budget proposes legislation that would avert close to $12.2 billion in improper payments in Social Security over 10 years. While much of this savings is considered off-budget and would be non-PAYGO, about $836 million from various proposals would be PAYGO savings. In addition, the Budget proposes administrative actions to reduce improper payments that would result in $11 billion in outlay savings over 10 years. The Budget proposes to continue investments in SSA dedicated program integrity funding. SSA uses this funding to conduct continuing disability reviews and SSI redeterminations to confirm that participants remain eligible to receive benefits. These funds also support anti-fraud cooperative disability investigation units and special attorneys for fraud prosecutions. Additional information can be found in the Budget Process chapter in the Analytical Perspectives volume.

Old Age Survivors Disability Insurance (OASDI) and Supplemental Security Income (SSI).—

- ***Reduce improper payments caused by barriers for beneficiaries to report income and assets.*** The Budget proposes to reduce improper payments in disability programs by targeting administrative resources to the development of a uniform system of reporting in mySocialSecurity. This is in addition to instituting a holistic view that provides all beneficiaries' data, including income and assets, in one electronic location, while simultaneously developing a network of automated processes across other IT platforms for work-related benefit payment adjustments, work continuing disability reviews, redeterminations, and payments to Ticket to Work providers. In addition, future related legislative changes to address the root causes of these improper payments could include requiring suspension of benefits when beneficiaries neglect wage and resource reporting requirements, and instituting mandatory training for beneficiaries on reporting requirements prior to receipt of their first benefit checks.
- ***Hold fraud facilitators liable for overpayments.*** The Budget proposes holding fraud facilitators liable for overpayments by allowing SSA to recover the overpayment from a third party if the third party was responsible for making fraudulent statements or providing false evidence that allowed the beneficiary to receive payments that should not have been paid. This proposal would result in an estimated $10 million in savings over 10 years.
- ***Allow Government-wide use of Custom and Border Protection (CBP) entry/exit data to prevent improper payments.*** The Budget proposes the use of CBP Entry/Exit data to prevent improper OASDI and SSI payments. Generally, U.S. citizens can receive benefits regardless of residence. Non-citizens may be subject to additional residence requirements depending on the country of residence and benefit type. However, an SSI beneficiary who is outside the United States for 30 consecutive days is not eligible for benefits for that month. These data have the potential to be useful across the Government to

prevent improper payments. This proposal would result in an estimated $181 million in savings over 10 years.

- ***Increase the overpayment collection threshold for OASDI.*** The Budget would change the minimum monthly withholding amount for recovery of Social Security benefit overpayments to reflect the increase in the average monthly benefit since the Agency established the current minimum of $10 in 1960. By changing this amount from $10 to 10 percent of the monthly benefit payable, SSA would recover overpayments more quickly and better fulfill its stewardship obligations to the combined Social Security Trust Funds. The SSI program already utilizes the 10 percent rule. Debtors could still pay less if the negotiated amount would allow for repayment of the debt in 36 months. If the beneficiary cannot afford to have his or her full benefit payment withheld because he or she cannot meet ordinary and necessary living expenses, the beneficiary may request partial withholding. To determine a proper partial withholding amount, SSA negotiates (as well as renegotiates at the overpaid beneficiary's request) a partial withholding rate. This proposal would result in savings of almost $1.5 billion over 10 years.

- ***Authorize SSA to use all collection tools to recover funds in certain scenarios.*** The Budget proposes allowing SSA a broader range of collection tools when someone improperly receives a benefit after the beneficiary has died. Currently, if a spouse cashes a benefit payment (or does not return a directly deposited benefit) for an individual who has died and the spouse is also not receiving benefits on that individual's record, SSA has more limited collection tools available than would be the case if the spouse also receives benefits on the deceased individual's earning record. The Budget proposal would end this disparate treatment of similar types of improper payments and results in an estimated $46 million in savings over 10 years.

- ***Simplify administration of the SSI program.*** The Budget proposes changes to simplify the SSI program by incentivizing support from recipients' family and friends, reducing SSA's administrative burden, and streamlining requirements for applicants. SSI benefits are reduced by the amount of food and shelter, or in-kind support and maintenance, a beneficiary receives. The policy is burdensome to administer and is a leading source of SSI improper payments. The Budget proposes to replace the complex calculation of in-kind support and maintenance with a flat rate reduction for adults living with other adults to capture economies of scale. The Budget also proposes to eliminate dedicated accounts for past due benefits and to eliminate the administratively burdensome consideration whether a couple is holding themselves out as married. The proposal saves $648 million over 10 years.

- ***Improve collection of pension information from States and localities.*** The Budget proposes a data collection approach designed to provide seed money to the States for them to develop systems that will enable them to report pension payment information to SSA. The proposal would improve reporting for non-covered pensions by including up to $70 million for administrative expenses, $50 million of which would be available to the States, to develop a mechanism so that the Social Security Administration can enforce the current law offsets for the Windfall Elimination Provision and Government Pension Offset, which are a major source of improper payments. The proposal will save $9.5 billion over 10 years.

- ***Provide additional debt collection authority for SSA civil monetary penalties and assessments.*** This proposal would assist SSA with ensuring the integrity of its programs and increase SSA recoveries by establishing statutory authority for the SSA to use the same debt collection tools available for recovery of delinquent overpayments toward recovery of delinquent CMP and assessments.

- ***Exclude SSA debts from discharge in bankruptcy.*** Debts due to an overpayment of Social Security benefits are generally dischargeable in bankruptcy. The Budget includes a proposal to exclude such debts from discharge in bankruptcy, except when it would result in an undue hardship. This proposal would help ensure program integrity by increasing the amount of overpayments SSA recovers and would save $274 million over 10 years.

Table 9–1. SUMMARY OF PAYMENT INTEGRITY INITIATIVES
(Deficit increases (+) or decreases (–) in millions of dollars)

	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	10-year total
Agriculture:											
SNAP											
Improve income verification	2	2	....	....	....	....	....	....	....	....	4
Improve Child Nutrition Program integrity											
Provide technology grants	20	20	20	11	1	–8	–18	–23	–29	–38	–44
Increase school meal verification to 8%	....	....	–28	–59	–61	–63	–65	–67	–69	–71	–483
Total, Agriculture	22	22	–8	–48	–60	–71	–83	–90	–98	–109	–523
Education:											
Pell Grants [1]											
Except Education Section 6103 for certain student aid programs (Non-PAYGO)	–8	–17	–18	–18	–18	–19	–19	–20	–20	–20	–177
Improve Pell fraud prevention	–2	–4	–4	–4	–4	–4	–4	–4	–4	–4	–38
Improve selection for verification	....	....	....	....	....	....	....	....	....	....	....
Better target program reviews	....	....	....	....	....	....	....	....	....	....	....
Take enforcement actions against noncompliant schools	....	....	....	....	....	....	....	....	....	....	....
Total, Education	–10	–21	–22	–22	–22	–23	–23	–24	–24	–24	–215
Health and Human Services:											
Medicare Fee for Service											
Expand prior authorization to additional Medicare fee-for-service items at high risk of fraud, waste, and abuse	–430	–510	–540	–570	–610	–640	–680	–720	–760	–800	–6,260
Prevent fraud by applying penalties on providers and suppliers who fail to update enrollment records	–2	–2	–3	–3	–3	–3	–4	–4	–4	–4	–32
Require reporting on clearinghouses and billing agents when Medicare providers and suppliers enroll in the program	....	....	....	....	....	....	....	....	....	....	....
Assess a penalty on physicians and practitioners who order services or supplies without proper documentation	....	....	....	....	....	....	....	....	....	....	....
Address improper payments of chiropractic services through targeted medical review*	....	....	....	....	....	....	....	....	....	....	....
Address overutilization and billing of DMEPOS by expanding prior authorization*	–15	–25	–25	–25	–30	–30	–35	–35	–40	–40	–300
Address excessive billing for DME that requires refills on serial claims*	....	....	....	....	....	....	....	....	....	....	....
Medicare Advantage (Medicare Part C)											
Implement targeted risk-adjustment pre-payment review in Medicare Advantage	....	....	....	....	....	....	....	....	....	....	....
Expand Medicare Advantage risk adjustment data validation audits*	....	....	....	....	....	....	....	....	....	....	....
Medicaid											
Strengthen CMS's ability to recoup Medicaid improper payments	....	–100	–430	–460	–490	–520	–550	–590	–620	–660	–4,420
Implement pre-payment controls to prevent inappropriate personal care services payments	–700	–730	–760	–800	–840	–880	–920	–970	–1,010	–1,060	–8,670
Allow States the flexibility to compete more frequent eligibility redeterminations*	–1,300	–2,700	–4,300	–4,500	–4,800	–5,000	–5,300	–5,600	–5,900	–6,200	–45,600
Consolidate provider screening for Medicaid and CHIP	....	....	....	....	....	....	....	....	....	....	....
Medicare and Medicaid (Cross-cutting proposals)											
Allow revocation and denial of provider enrollment based on affiliation with a sanctioned entity*	....	....	–1	–11	–11	–11	–11	–11	–11	–11	–78
Total, Health and Human Services	–2,447	–4,067	–6,059	–6,369	–6,784	–7,084	–7,500	–7,930	–8,345	–8,775	–65,360
Labor:											
Improve UI program integrity	–103	–225	–258	–259	–258	–370	–190	–133	–193	–244	–2,233
PAYGO effects	*–33*	*–53*	*–59*	*–69*	*–78*	*–87*	*–96*	*–106*	*–111*	*–121*	*–813*
Non-PAYGO effects	*–70*	*–172*	*–199*	*–190*	*–180*	*–283*	*–94*	*–27*	*–82*	*–123*	*–1,420*
Reform the Federal Employees' Compensation Act (FECA)	–31	–26	–29	–18	–18	–19	–19	–20	–21	–19	–220
Total, Labor	–134	–251	–287	–277	–276	–389	–209	–153	–214	–263	–2,453
Treasury:											
Tax administration											
Increase oversight of paid tax return preparers	–25	–35	–39	–44	–48	–53	–57	–62	–69	–75	–507

Table 9–1. SUMMARY OF PAYMENT INTEGRITY INITIATIVES—Continued

(Deficit increases (+) or decreases (–) in millions of dollars)

	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	10-year total
Provide more flexible authority for the Internal Revenue Service to address correctable errors	–1,061	–1,584	–1,632	–1,685	–1,750	–1,809	–1,871	–1,934	–2,014	–2,086	–17,426
Improve clarity in worker classification and information reporting requirements	–86	–104	–138	–177	–206	–235	–271	–298	–315	–337	–2,167
Implement tax enforcement program integrity cap adjustment	–160	–818	–1,895	–3,166	–4,558	–5,899	–6,880	–7,510	–7,942	–8,241	–47,069
Increase discretionary outlays (non-add, program integrity)	*320*	*693*	*1,040*	*1,386*	*1,737*	*1,850*	*1,865*	*1,875*	*1,885*	*1,893*	*14,544*
Require Social Security Number (SSN) for Child Tax Credit, Earned Income Tax Credit, and credit for other dependents [2]	0	–308	–309	–319	–322	–324	–336	–337	–340	–354	–2,949
Other payment integrity proposals											
Increase and streamline recovery of unclaimed assets	–6	–6	–6	–6	–6	–6	–6	–6	–6	–6	–60
Increase collections of delinquent Federal non-tax debt	–32	–32	–32	–32	–32	–32	–32	–32	–32	–32	–320
Total, Treasury	–1,370	–2,887	–4,051	–5,429	–6,922	–8,358	–9,453	–10,179	–10,718	–11,131	–70,498
Social Security Administration (SSA):											
Reduce improper payments caused by barriers for beneficiaries to report income and assets*	....	–500	–800	–1,100	–1,100	–1,500	–1,500	–1,500	–1,500	–1,500	–11,000
Hold fraud facilitators liable for overpayments	....	....	–1	–2	–2	–1	–1	–1	....	–2	–10
PAYGO effects	....	....	....	*–1*	*–1*	....	....	....	....	*–1*	*–3*
Non-PAYGO effects	....	....	*–1*	*–1*	*–1*	*–1*	*–1*	*–1*	....	*–1*	*–7*
Allow Government-wide use of CBP entry/exit data to prevent improper payments	....	....	–1	–5	–11	–18	–27	–35	–43	–41	–181
PAYGO effects	....	....	*–1*	*–4*	*–9*	*–16*	*–24*	*–31*	*–39*	*–36*	*–160*
Non-PAYGO effects	....	....	....	*–1*	*–2*	*–2*	*–3*	*–4*	*–4*	*–5*	*–21*
Increase overpayment collection threshold for Old Age, Survivors, and Disability Insurance (non-PAYGO)	–12	–77	–100	–110	–135	–161	–181	–237	–254	–251	–1,518
Authorize Social Security Administration (SSA) to use all collection tools to recover funds in certain scenarios (non-PAYGO)	....	–2	–3	–4	–5	–5	–6	–6	–7	–8	–46
Simplify administration of the SSI program	....	–382	–98	–69	–46	–34	–23	–11	2	13	–648
Improve collection of pension information from States and localities (non-PAYGO)	18	28	24	–474	–1,135	–1,614	–1,735	–1,645	–1,547	–1,429	–9,509
Provide additional debt collection authority for civil monetary penalties (CMPs) and assessments	....	....	....	....	....	....	....	....	....	....	....
Exclude SSA debts from discharge in bankruptcy	–4	–12	–20	–24	–29	–32	–34	–37	–39	–43	–274
PAYGO effects	....	*–1*	*–2*	*–2*	*–2*	*–3*	*–3*	*–4*	*–4*	*–4*	*–25*
Non-PAYGO effects	*–4*	*–11*	*–18*	*–22*	*–27*	*–29*	*–31*	*–33*	*–35*	*–39*	*–249*
Expand mandatory electronic filing of W–2s [3]	–39	–37	–36	–33	–32	–31	–30	–28	–27	–26	–319
Total, Social Security	–37	–982	–1,035	–1,821	–2,495	–3,396	–3,537	–3,500	–3,415	–3,287	–23,505
Total, Payment Integrity Proposals	**–3,976**	**–8,186**	**–11,462**	**–13,966**	**–16,559**	**–19,321**	**–20,805**	**–21,876**	**–22,814**	**–23,589**	**–162,554**

Please note that all proposal estimates are subject to PAYGO unless noted otherwise

* This is an administrative proposal, and therefore not subject to PAYGO. Savings estimates for this proposal are included in the baseline.

[1] In addition to the mandatory savings shown here, the Pell Grant payment integrity proposals also reduce discretionary program costs. Over 10 years, Except Education from 6103 reduces these costs by $782 million and Improve Pell Fraud Prevention by $163 million.

[2] This proposal reflects savings from improper payments in the Budget proposal to Require Social Security Number (SSN) for Child Tax Credit, Earned Income Tax Credit, and credit for other dependents.

[3] The proposal to expand mandatory electronic filing of W–2s is a tax administration proposal, and is detailed in the Treasury section of the chapter text.

10. FEDERAL REAL PROPERTY

The Federal Government owns and leases an extensive portfolio of real property to support execution of the Federal missions, and it is critical that Federal agencies effectively manage those assets. The President's real property agenda expands the Government's focus to date on managing the real property portfolio to include obtaining key data on assets to ensure that the right investment and divestment decisions are made. Aligned with the President's Management Agenda, the real property agenda provides a roadmap for agencies to strengthen stewardship, improve service to the taxpayer, and leverage real property. To achieve these objectives, agencies will increase focus on creating standard business processes and data definitions in the real property arena, identifying opportunities to share common business application tools and improving the overall management of the portfolio.

The Federal portfolio of real property assets is diverse, has an average age of more than 47 years, and as with any portfolio, requires significant upkeep. Agencies invest billions of dollars in the operation, repair and alteration of existing assets and construction of new assets necessary to meet Federal mission requirements. It is important to reinvest in the Federal portfolio at the appropriate level. Deferring necessary maintenance and repair can result in higher outyear costs. Deteriorated condition or the failure of Federal real property can affect the efficiency of agencies' capability to deliver their missions and could potentially inhibit economic growth and lead to divestiture. The Administration's initiatives will ensure that agencies have the information necessary to make the right decisions to maintain their assets and have the right type and amount of assets in place to ensure mission capability, manage costs and serve taxpayers.

Overview of the Federal Inventory

The Federal inventory of buildings contains a wide range of assets - office buildings, warehouses, hospitals, service buildings, and land ports of entry, among several other building types required to implement agencies' missions. The Department of Defense manages the largest domestic building portfolio, followed by the Department of Veterans Affairs and the Department of Energy. The General Service Administration (GSA) manages approximately 50 percent of the office space in the portfolio, providing office space for most Federal agencies.

The largest building type - office space - comprises 21 percent of the total square footage of the building space. Of the total office inventory, leased office space comprises 36 percent (on a square foot basis) of all office space and is 67 percent of total office building expenditures. By continuing to emphasize capital planning, improving data quality, and implementing legislative reforms, the Federal Government could better optimize leased and owned building space to improve mission support and reduce costs, as discussed later in this chapter.

The Government's real property inventory also includes structures, the most numerous of which are utility systems, roads and bridges, navigation and traffic aids, miscellaneous military structures, and parking structures. Divestiture, through sale or demolition where operationally feasible, is often the most appropriate method to control the cost of the structure portfolio.

Fifteen Years of Progress and Improvement

Over the last 15 years, the Federal Government has made significant strides in identifying the full range of real property within the Federal inventory, improving the asset management planning process, measuring performance of the assets, leveraging assets to reduce the Federal footprint and disposing of assets that no longer meet the Federal need.

In February 2004, Executive Order 13327 tasked agencies with creating the first, detailed Government-wide inventory of buildings and structures under Federal control. Prior to this time, the best estimation of the number and value of Federal assets was garnered from Government-wide financial audit property, plant, and

Table 10–1. FY 2016 INVENTORY OF FEDERAL ASSETS, OWNED AND LEASED

	FY 2016		
	Owned	Leased	Total
Buildings			
Total Number	232,419	19,404	251,823
Total Square Feet	2,368,129,721	280,103,254	2,648,232,976
Total Annual Operating Costs	$11,507,899,223	$7,284,160,244	$18,792,059,467
Structures			
Total Number	415,146	3,449	418,595
Total Annual Operating Costs	$6,230,950,083	$59,135,377	$6,290,085,460

equipment reporting. High-value, easy-to-dispose real property assets have largely left the Federal inventory. During the 2004-2009 timeframe, the Office of Management and Budget (OMB) utilized a Management Agenda "scorecard" methodology to measure agency success in achieving the Administration's management agenda. In the area of real property, OMB expected agencies to achieve milestones that included the use of data and achievement of disposal targets. Between 2004 and 2009, agencies completed the first inventory of assets, established agency-specific asset management plans, and disposed of thousands of assets with an aggregate replacement value of more than $5 billion. The vast majority of these disposals were demolitions of assets on Federal campuses for which there was no marketable return (e.g., located within the center of a campus), so the main benefit was reduced operating costs.

From 2013-2015, agencies disposed of 24.7 million square feet under the "Freeze the Footprint" policy. This averages to approximately 8.3 million square feet annually, with an estimated gross cost avoidance of $100 million per year. The "Reduce the Footprint" (RTF) policy, in effect since 2015, targeted an additional 61 million square feet of building disposals (owned and leased) during 2016–2020, or 12 million square feet annually. Executing identified disposals is largely predicated on availability of discretionary agency funds necessary to complete remediation, relocation, and disposition, and enactment of necessary statutory fixes to aid in the disposal of unneeded assets. To aid in achieving these ongoing goals, the Administration proposes legislative fixes to streamline the disposal of unneeded assets. For example, current statutory prohibitions on the disposal of certain pieces of property mean that the Government continues to pay to maintain assets it no longer needs. In other instances, the Government wishes to dispose of property, but local stakeholders have impeded disposal for years.

In the early years of these more aggressive real property efforts, agencies were successful in disposing of the "low-hanging fruit": those assets without high-cost environmental contamination requiring remediation, those without stakeholder interests prohibiting disposition, and those empty facilities with private sector marketability. High value disposals, such as San Francisco's Presidio via transfer, were completed early in the effort to improve focus on real property. However, GSA, the Government's disposal agent by statute, generated an average of only $53 million in annual gross proceeds through public and negotiated sales of both GSA's and other agencies' property during FY 2009 – FY 2013. To increase annual sales proceeds, the Government would need to identify and sell larger, difficult-to-market, and politically contentious properties.

In recent years, agencies have expanded their focus to managing their entire portfolios strategically to gain efficiencies and improved mission performance. Agencies have established agency-specific design standards for space utilization, set explicit targets to reduce the amount of unneeded real property that agencies retain, and developed and implemented new analytical tools.

Administration Initiatives to Optimize the Portfolio to Achieve the Mission and Manage Costs

The Administration's multi-pronged approach continues the historic progress made over the last 15 years to continue to improve the management of Federal real property, while also recognizing that new, transformative authorities and reform initiatives are necessary to achieve the next level of accomplishments. The Administration is taking necessary administrative action, as well as proposing legislation, to optimize the Federal real property portfolio. Under this leadership, agencies are making smart decisions to reduce their square footage and consolidate into federally owned space, such as the Bureau of Labor Statistics (BLS) moving from an expiring lease to the GSA-owned Suitland Federal Center and reducing the BLS footprint by more than 340,000 square feet. The ongoing administrative initiatives and legislative proposals reflected in the FY 2020 Budget include:

Federal Real Property Council. OMB issued Memorandum M—18-21 in July 2018 to reconstitute the Federal Real Property Council (FRPC), comprised of agency Senior Real Property Officers and empowered to provide comprehensive program governance Government-wide. The FRPC's objective is to provide the Administration with recommendations on the strategic direction over the Government-wide approach to optimizing the real property portfolio to support mission success, manage costs, and help Federal managers provide the best value for the Government and taxpayer. The FRPC is also working to implement the requirements of recently enacted legislation, including the Federal Assets Sale and Transfer Act (Public Law 114-287) and the Federal Real Property Management and Reform Act (Public Law 114-318).

Revised National Strategy for Real Property. OMB issued the National Strategy for the Efficient Use of Real Property in 2015 to build upon OMB's Freeze the Footprint policy's success in reducing agency portfolios and reducing costs. The RTF policy, focused solely on office and warehouse facilities, reduced the baseline by 12 million square feet and generated an estimated cost avoidance of $125 million in fiscal years 2016 and 2017. In line with the President's Management Agenda, the FRPC will lead revisions to the National Strategy focusing on emphasizing application of a consistent Government-wide real property capital planning process, creating standard business processes and data definitions in line with the Administration's Cross-Agency Priority Goal on Sharing Quality Services and improved transparency, and addressing other issues identified in audit reports .

Federal Capital Revolving Fund. Last year, the Administration proposed the establishment of a Federal Capital Revolving Fund, a new and innovative way to budget for the largest civilian real property construction projects, valued at more than $250 million. This Budget includes $10 billion in mandatory resources to seed the Fund to execute these vital efforts. This Fund will provide the necessary upfront amounts to execute projects and then require agencies to repay those funds over 15 years, similar to how state capital budgeting occurs, while conforming to a Federal cash budget environment. Without enactment of the Fund, agencies will continue to turn to more costly solutions to meet some of these large requirements, including operating leases, to avoid the upfront cost requirement associated with Federal construction. Further, since projects executed via the new Fund would be paid through annual operations over a 15-year period, Federal decision-makers are incentivized to fund only those projects with the highest return on investment and mission priority to protect taxpayers. Providing budget resources through the Fund will enable agencies to prioritize real property actions that result in lower long-term costs for taxpayers. The FY 2020 Budget proposes using $288 million from the new fund for the renovation and expansion of a key National Institute of Science and Technology facility in Boulder, Colorado, as the priority project. The Administration transmitted to the Congress in June 2018 a legislative proposal to establish the Fund and looks forward to working with Congress to enact this implementing legislation.

Disposing Government Property Directly to the Market. The current process for disposing of unneeded Federal real property is long, convoluted, and results in diminished returns to taxpayers. Title 40 of the U.S. Code requires agencies to screen property disposals for at least 12 discrete public benefit conveyance requirements prior to taking assets to market for sale. The average disposal timeframe is more than 12 months, unnecessarily long and at a time where the Government continues to carry the operating costs. Additionally, certain nonprofit institutions and state and local government can obtain Federal property at no cost or at a substantial discount if they use the property for various types of public uses. Such transfers divert Federal taxpayer funds from deficit reduction and services provided to citizens. The Administration proposes streamlining the disposal process by eliminating all of the public benefit conveyances and taking all excess Federal real property directly to sale, thereby maximizing the return to taxpayers. The Administration also supports expanding existing authority to allow GSA to assist other Federal agencies in preparing unneeded properties for disposition. This expansion would further streamline and accelerate the disposal process, allowing GSA to be reimbursed from the sale proceeds rather than requiring agencies to dedicate appropriated budgetary resources up front.

Government to Citizens. The Administration has pursued efforts to ensure that agency footprints better match the location of where citizens rely on their missions, including in the Infrastructure Initiative, the Government Reform agenda, Federal workforce efforts, and the President's Budget. Recently, GSA spearheaded an effort referred to as the Government-to-Citizens (G2C) initiative, with support from the Office of Personnel Management and the Department of Labor. The three agencies developed a playbook that provides Federal agencies with access to data and tools necessary for analyzing which missions and functions can be better executed closer to the populations serviced, and at a lower cost to the taxpayer. Agencies, including the Department of Agriculture, are actively pursuing opportunities to relocate personnel and office space closer to the populations they serve. GSA is also undertaking efforts with the Small Business Administration to begin looking at potential opportunities.

Conclusion

The Administration continues to pursue opportunities to optimize the Federal portfolio of real property by disposing of unneeded assets, investing in mission-critical assets, bringing the delivery of the Federal mission closer to the populations serviced, and proposing necessary legislative action to support the real property agenda. The efforts of this Administration are positioning agencies to make informed decisions on their portfolios, executing missions, and serving taxpayers.

For more details on the agency real property inventory see the following website: https://www.gsa.gov/cdnstatic/FY_2016_Open_Data_Set.xlsx

BUDGET CONCEPTS AND BUDGET PROCESS

11. 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 amounts 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, 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 2020. (Fiscal year 2020 will begin on October 1, 2019, and end on September 30, 2020.) 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 2019, 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 2018, so that the reader can compare budget estimates to actual accounting data.

In a normal year, the President begins the process of formulating the budget by establishing general budget and fiscal policy guidelines, usually by the spring of each year, at least nine months before the President transmits the budget to the Congress and at least 18 months before the fiscal year begins. (See the "Budget Calendar" later in this chapter.) 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 Treasury Department.

In early fall, agencies 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 its transmittal to the Congress on or after the first Monday in January but not later than the first Monday in February of each year for the following fiscal year, which begins on October 1. 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 in February or March.

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 (described below), 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 spending authority—funding—for specified purposes in appropriations acts each year. It also enacts changes each year in other laws that affect spending and receipts. Both appropriations acts and these other laws are discussed in the following paragraphs.

In making appropriations, the Congress does not vote on the level of outlays (spending) directly, but rather on budget authority, or funding, 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, the Congress decides on budget targets before commencing action on individual appropriations. The 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—a congressional budget plan, or budget resolution. The budget resolution sets targets for total receipts and for budget authority and outlays, both in total and by functional category (see "Functional Classification" later in this chapter). It also sets targets for the budget deficit or surplus and for Federal debt subject to statutory limit.

The congressional timetable 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 ("discretionary" spending) that would breach or further 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 or further breached. The Budget Committees' reports may discuss assumptions about the level of funding for major programs. While these assumptions do not

[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).

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 health care 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 below) to the committees responsible for tax laws and for mandatory spending—programs not controlled by annual appropriation acts—in order to conform the level of receipts and this type of spending to the targets in the budget resolution.

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 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 or balance the budget. 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. Appropriations bills are initiated in the House. They provide the budgetary resources for the majority of Federal programs, but only a minority of Federal spending. 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 has not been agreed to by this date, 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

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

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. This chapter discusses the control of budget authority and outlays in greater detail under "Budget Authority and Other Budgetary Resources, Obligations, and Outlays." 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 reductions in mandatory spending controlled by those laws. These directives specify the dollar amount of changes that each designated committee is expected to achieve, but do 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.

Such a large and complicated bill would be difficult to enact under normal legislative procedures because it usually involves changes to tax rates or to popular social programs, generally to reduce projected deficits. 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. The House does not allow reconciliation bills to increase mandatory spending in net, but does allow such bills to increase deficits by reducing revenues. 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, as described under "Budget Enforcement."

Budget Enforcement

The Federal Government uses three primary enforcement mechanisms to control revenues, spending, and deficits. First, 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. Second, 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. Third, 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 9 years after the Joint Committee process failed to achieve its deficit reduction goal.

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 because it is usually provided by appropriations acts. Direct spending is more commonly called mandatory spending. Mandatory spending is controlled by permanent laws. Medicare and Medicaid payments, unemployment insurance benefits, and farm price supports are examples of mandatory spending, because permanent laws authorize payments for those purposes. Receipts are included under the same statutory enforcement rules that apply to mandatory spending because permanent laws generally control receipts.

Discretionary cap enforcement. BBEDCA specifies 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 caps originally established by the BCA were divided between security and nonsecurity categories for 2012 and 2013, with a single cap for all discretionary spending established for 2014 through 2021. The security category included discretionary budget authority for the Departments of Defense, Homeland Security, and Veterans Affairs, the National Nuclear Security Administration, the Intelligence Community Management account, and all budget accounts in the international affairs budget function (budget function 150). The nonsecurity category included all discretionary budget authority not included in the security category.

As part of the enforcement mechanisms triggered by the failure of the BCA's Joint Committee process, the security and nonsecurity categories were redefined and established for all years through 2021. The "revised security category" includes discretionary budget authority in the defense budget function 050, which primarily consists of the Department of Defense. The "revised nonsecurity category" includes all discretionary budget authority not included in the defense budget function 050. The redefined categories are commonly referred to as the "defense" and "non-defense" categories, respectively, to distinguish them from the original categories.

Since the Joint Committee sequestration that was ordered on March 1, 2013, the Congress and the President have enacted three agreements to increase the caps on discretionary programs over what would have been available under the Joint Committee enforcement mechanisms. The Bipartisan Budget Act (BBA) of 2013 set new discretionary caps for 2014 at $520.5 billion for the defense category and $491.8 billion for the non-defense category and for 2015 at $521.3 billion for the defense category and $492.4 billion for the non-defense category. The BBA of 2015 set new discretionary caps for 2016 at $548.1 billion for the defense category and $518.5 for the non-defense category and for 2017 at $551.1 billion for the defense category and $518.5 billion for the non-defense category. The BBA of 2018 set new discretionary caps for 2018 at $629.0 billion for the defense category and $579.0 for the non-defense category and for 2019 at $647.0 billion for the defense category and $597.0 billion for the non-defense category. These increases to the caps in the 2013 and 2015 agreements were paid for while the 2018 agreement only partially offset the increases. The offsets for these cap increases largely came from savings in mandatory spending.

BBEDCA requires 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. BBEDCA also specifies cap adjustments (which are limited to fixed amounts) for: appropriations for continuing disability reviews and redeterminations by the Social Security Administration; the health care fraud and abuse control program at the Department of Health and Human Services; appropriations designated by Congress as being for disaster relief; appropriations for reemployment services and eligibility assessments; and appropriations for wildfire suppression at the Department of Agriculture and the Department of the Interior.

BBEDCA requires OMB to provide cost estimates of each appropriations act in a report to the Congress within 7 business days after enactment of such act and to publish three discretionary sequestration reports: a "preview" report when the President submits the budget; an "update" report in August, and a "final" report within 15 days after the end of a session of the Congress.

The preview report explains the adjustments that are required by law to the discretionary caps, including any changes in concepts and definitions, and publishes the revised caps. The preview report may also provide a summary of policy changes, if any, proposed by the President in the Budget to those caps. The update and final reports revise the preview report estimates to reflect the effects of newly enacted discretionary laws. In addition, the update report must contain a preview estimate of the adjustment for disaster funding for the upcoming fiscal year.

If OMB's final sequestration report for a given fiscal year indicates that the amount of discretionary budget authority provided in appropriations acts for that year exceeds the cap for that category in that year, the President must issue a sequestration order canceling budgetary resources in nonexempt accounts within that category by the amount necessary to eliminate the breach. Under sequestration, each nonexempt account within a category is reduced by a dollar amount calculated by multiplying the enacted level of sequestrable budgetary resources in that account by the uniform percentage necessary to eliminate a breach within that category. BBEDCA specifies special rules for reducing some programs and exempts some programs from sequestration entirely. For example, any sequestration of certain health and medical care accounts is limited to 2 percent. Also, if a continuing resolution is in effect when OMB issues its final sequestration report, the sequestration calculations will be based on the annualized amount provided by that continuing resolution. During the 1990s and so far under the BCA caps, the threat of sequestration proved sufficient to ensure compliance with the discretionary spending limits. In that respect, discretionary sequestration can be viewed first as an incentive for compliance and second as a remedy for noncompliance.

Supplemental appropriations can also trigger spending reductions. From the end of a session of the Congress through the following June 30th, a within-session discretionary sequestration of current-year spending is imposed if appropriations for the current year cause a cap to be breached. In contrast, if supplemental appropriations enacted in the last quarter of a fiscal year (i.e., July 1 through September 30) cause the caps to be breached, the required reduction is instead achieved by reducing the applicable spending limit for the following fiscal year by the amount of the breach, because the size of the potential sequestration in relation to the unused funding remaining for the current year could severely disrupt agencies' operations.

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. Unlike the budget enforcement mechanism for discretionary programs, 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 cumulative 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. Like the discretionary caps, PAYGO is enforced by sequestration. Within 14 business days after a congressional session ends, OMB issues an annual PAYGO report and determines whether a violation of the PAYGO requirement has occurred. 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. During the first year of statutory PAYGO, nearly half the bills included congressional estimates. Subsequently, OMB estimates were used for all but one of the enacted bills due to the absence of a congressional estimate. 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 PAYGO.

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 Senate imposes points of order against consideration of tax or mandatory spending legislation that would violate the PAYGO principle, although the time periods covered by the Senate's rule 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. The House, in contrast, imposes points of order on legislation increasing mandatory spending in net, whether or not those costs are offset by revenue increases, but the House rule does not constrain the size of tax cuts or require them to be offset.

Joint Committee 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 $1.2 trillion triggered automatic reductions to discretionary and mandatory spending in fiscal years 2013 through 2021. The reductions are implemented through a combination of sequestration of mandatory spending and reductions in the discretionary caps. These reductions have already been ordered to take effect for 2013 through 2019, with some modifications as provided for in the American Taxpayer Relief Act of 2012, the BBA of 2013, the BBA of 2015, and the BBA of 2018. Unless any legislative changes are enacted, further reductions will be implemented by pro rata reductions to the discretionary caps in 2020 and 2021, which would be reflected in OMB's discretionary sequestration preview report for those years, and by a sequestration of non-exempt mandatory spending for 2020 onward, which would be ordered when the President's Budget is transmitted to Congress and would take effect beginning October 1 of the upcoming fiscal year.

OMB is required to calculate the amount of the deficit reduction required for 2020 onward as follows:

- The $1.2 trillion savings target is reduced by 18 percent to account for debt service.
- The resulting net savings of $984 billion is divided by nine to spread the reductions in equal amounts across the nine years, 2013 through 2021.
- The annual spending reduction of $109.3 billion is divided equally between the defense and non-defense functions.
- The annual reduction of $54.7 billion for each functional category of spending is divided proportionally between discretionary and direct spending programs, using as the base the discretionary cap, redefined as outlined in the discretionary cap enforcement section above, and the most recent baseline estimate of non-exempt mandatory outlays.
- The resulting reductions in defense and non-defense direct spending are implemented through a sequestration order released with the President's Budget and taking effect the following October 1st. The reductions in discretionary spending are applied as reductions in the discretionary caps, and are enforced through the discretionary cap enforcement procedures discussed earlier in this section.

Subsequent to the enactment of the BCA, the mandatory sequestration provisions were extended beyond 2021 by the BBA of 2013, which extended sequestration through 2023, P.L. 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, and the BBA of 2018, which extended sequestration through 2027. Sequestration during these years will use the same percentage reductions for defense and non-defense as calculated for 2021 under the procedures outlined above.[2]

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 the Government to spend in advance or in excess of an appropriation, unless specific authority to do so has been provided in law. Additionally, the 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 following the requirements of the Impoundment Control Act (ICA). The ICA allows the President, using the specific authorities in that 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 Congress does not act to rescind these funds within the 45 day period, the funds are made available for obligation. In May of 2018, the President proposed the largest single ICA rescissions package by sending a request to permanently reduce approximately $15 billion of budget authority.

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 2020 President's Budget includes $31 billion in proposed cancellations.

[2] The BBA of 2018 specified that, notwithstanding the 2 percent limit on Medicare sequestration in the BCA, in extending sequestration into 2027 the reduction in the Medicare program should be 4.0 percent for the first half of the sequestration period and zero for the second half of the period.

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.

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 12 of this volume, "Coverage of the Budget," provides more information on this subject.

Table 11–1. TOTALS FOR THE BUDGET AND THE FEDERAL GOVERNMENT

(In billions of dollars)

	2018 Actual	Estimate	
		2019	2020
Budget authority			
Unified	4,466	4,661	4,944
On-budget	3,614	3,745	3,971
Off-budget	852	916	973
Receipts:			
Unified	3,330	3,438	3,645
On-budget	2,475	2,527	2,695
Off-budget	855	911	949
Outlays:			
Unified	4,109	4,529	4,746
On-budget	3,260	3,620	3,778
Off-budget	849	909	968
Deficit (–) / Surplus (+):			
Unified	–779	–1,092	–1,101
On-budget	–785	–1,094	–1,082
Off-budget	6	2	–18

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 27 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 20 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 11–1, “Totals for the Budget and the Federal Government,” which appears earlier in this chapter.) Chapter 14 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.

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 agency's 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 15, "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.

The budget records new budget authority as a dollar amount in the year when it first becomes available for obligation. When permitted by law, unobligated balances of budget authority may be carried over and used in the next year. The budget does not record these balances as budget authority again. They do, however, constitute a budgetary resource that is available for obligation. In some cases, a provision of law (such as a limitation on obligations or a benefit formula) precludes the obligation of funds that would otherwise be available for obligation. In such cases, the budget records budget authority equal to the amount of obligations that can be incurred. A major exception to this rule is for the highway and mass transit programs financed by the Highway Trust Fund, where budget authority is measured as the amount of contract authority (described later in this chapter) provided in authorizing statutes, even though the obligation limitations enacted in annual appropriations acts restrict the amount of contract authority that can be obligated.

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 fully 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.

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 multi-year 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 canceled. (A general law provides that the obligated balances 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 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 2018 appropriations act extends the availability of unobligated budget authority that expired at the end of 2017, new budget authority would be recorded for 2018. This scorekeeping is used because a reappropriation has exactly the same effect as allowing the earlier appropriation to expire at the end of 2017 and enacting a new appropriation for 2018.

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 enter into binding agreements 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).

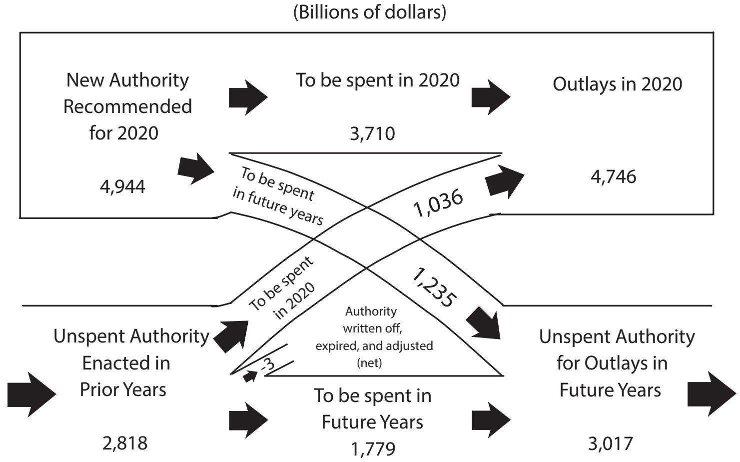
The budget records refunds of receipts that result from overpayments by the public (such as income taxes withheld in excess of tax liabilities) as reductions of receipts, rather than as outlays. However, the budget records payments to taxpayers for refundable tax credits (such as earned income tax credits) 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 2020 will be obligated or spent in 2020. 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.

As shown in the accompanying chart, $3,710 billion of outlays in 2020 (78 percent of the outlay total) will be made from that year's $4,944 billion total of proposed new budget authority (a first-year outlay rate of 75 percent). Thus, the remaining $1,036 billion of outlays in 2020 (22 percent of the outlay total) will be made from bud-

Chart 11-1. Relationship of Budget Authority to Outlays for 2020

(Billions of dollars)



get authority enacted in previous years. At the same time, $1,235 billion of the new budget authority proposed for 2020 (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 31 percent of total outlays in 2018 ($1,185 billion) were discretionary and the remaining 69 percent ($2,667 billion in 2018) were mandatory spending and net interest. Such a large portion of total spending is mandatory because authorizing rather than appropriations legislation determines net interest ($240 billion in 2018) and the spending for a few programs with large amounts of spending each year, such as Social Security ($910 billion in 2018) and Medicare ($588 billion in 2018).

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 covers the entire cost estimated when the projects are initiated 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 ac-

[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.

tivities, 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 FCRA grandfathered the budgetary treatment of direct loan obligations and loan guarantee commitments made prior to 1992. 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 has 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. 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 2009 increases to the International Monetary Fund (IMF) quota and New Arrangements to Borrow (NAB) enacted in the Supplemental Appropriations Act of 2009 were treated on a FCRA basis through 2015, with a risk adjustment to the discount rate, as directed in that Act. However, pursuant to Title IX of the Department of State, Foreign Operations, and Related Programs Appropriations Act, 2016, these transactions have been restated on a present value basis with a risk adjustment to the discount rate, and the associated FCRA accounts have been closed.

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 2018, the Government borrowed $1,084 billion from the public, bringing debt held by the public to $15,750 billion. This borrowing financed the $779 billion deficit in that year, partly offset by 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 Treasury Department 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. 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 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).

Other exchanges of monetary assets, such as deposits of cash in Treasury accounts at commercial banks, are not included in the Budget. However, Congress has historically expressed interest in showing some kind of budgetary effect for U.S. transactions with the IMF.[4] Most recently, Title IX of the Department of State, Foreign Operations, and Related Programs Appropriations Act, 2016, required the estimated cost of the 2009 and 2016 quota increases and the partial rescission of the new arrangements to borrow (NAB) authorized by the Act to be recorded on a present value basis with a fair value premium added to the Treasury discount rate.[5] As a result, the Budget records budget authority and outlays equal to the estimated present value, including the fair value adjustment to the discount rate, in the year that the quota increase is enacted, i.e., 2016. All concurrent and subsequent transactions between the Treasury and the IMF are treated as a non-budgetary means of financing, which do not directly affect receipts, outlays, or deficits. The only exception is that interest earnings on U.S. deposits in its IMF account are recorded as offsetting receipts. For transparency and to support future decisions concerning the U.S. level of participation in the IMF quota and the NAB, the Budget Appendix shows supplementary "below-the-lines" information about dollar value of the IMF quota, divided between the portion that is held in a Treasury letter of credit and the amount deposited in the U.S. reserve tranche at the IMF and the NAB. The actual amounts are updated in the Budget to reflect changes in the dollar value of Special Drawing Rights that serve as the unit of measure for countries' level of participation.

[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.

[5] 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 due to 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 (FTE). Agency FTEs are the measure of total hours worked by an agency's 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 (2018) generally presents the actual transactions and balances as recorded in agency accounts and as summarized in the central financial reports prepared by the Treasury Department 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 28 of this volume, "Comparison of Actual to Estimated Totals," for a summary of these differences).

Data for the Current Year

The current year column (2019) 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 (2020) 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 (2021 through 2029) 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 would be used by the Government 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 "policy-neutral" benchmark against which the President's Budget and alternative pro-

posals 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. Because the resulting funding would exceed the discretionary caps, the Administration's baseline includes adjustments that reduce overall discretionary funding to levels consistent with the caps. (Chapter 26 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 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 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; and
- ***Impoundment Control Act of 1974***, which controls certain aspects of budget execution.
- ***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 group: (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.

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 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.

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 Treasury Department 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 1st and ends on September 30th, 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 such cancellations if discretionary appropriations exceed the statutory limits on discretionary spending.

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).

12. 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 11, "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 30-1, "Federal Budget by Agency 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 Board, which is not a Federally created entity but since 2003

[1] For more information on means of financing, see the "Budget Deficit or Surplus and Means of Financing" section of Chapter 11, "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, 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 30-1 can be found at: *https://www.whitehouse.gov/omb/analytical-perspectives*.

Table 12–1. 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	3,691.8	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 estimate	3,437.7	2,526.5	911.1	4,529.2	3,620.3	908.9	–1,091.5	–1,093.7	2.2
2020 estimate	3,644.8	2,695.5	949.3	4,745.6	3,777.9	967.7	–1,100.8	–1,082.4	–18.4
2021 estimate	3,876.9	2,873.5	1,003.3	4,945.2	3,916.4	1,028.8	–1,068.3	–1,042.8	–25.5
2022 estimate	4,128.6	3,069.9	1,058.7	5,177.5	4,082.3	1,095.2	–1,048.8	–1,012.4	–36.5
2023 estimate	4,421.5	3,308.1	1,113.3	5,330.1	4,165.3	1,164.8	–908.6	–857.2	–51.5
2024 estimate	4,752.5	3,578.6	1,173.9	5,453.0	4,213.7	1,239.3	–700.5	–635.0	–65.4

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

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 (PL 114-187). By statute, this oversight board is not a department, agency, 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 involved the National Association of Registered Agents and Brokers (NARAB). 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. The Terrorism Risk Insurance Reauthorization Act of 2015 established the association. In addition to being statutorily established—which in itself is an indication that the entity is governmental—NARAB has a board of directors 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 agency 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 had been 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 (PL 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 12–1 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), as amended by the Balanced Budget Act of 1997, 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 16 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 11 of this volume, "Budget Concepts." More detail on credit programs is in Chapter 22 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).— Government-Sponsored Enterprises 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 22 of this volume, "Credit and Insurance."

In September 2008, in response to the financial market crisis, the director of the Federal Housing Finance Agency (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 board 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 agency-specific research under contract or cooperative agreement. Some FFRDCs were created to conduct research for the

[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, as discussed in this section, the GSEs and the Federal Reserve System were created by the Federal Government, but are classified as non-budgetary. In addition, 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 Academy of Sciences, 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 agency 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 Congress from granting new Federal charters to private, non-profit organizations. This policy has been adopted by every subcommittee with jurisdiction over charters since the 101st Congress.

Department of Defense but are administered by colleges, universities, or other non-profit entities. Despite this 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 agency'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 agency 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.[11] 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 30-1. 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.[12] OMB has published the estimated costs and benefits of Federal regulation annually since 1997.[13]

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."[14] 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.[15]

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 2018, Treasury recorded $70.8 billion in receipts from the Federal Reserve System. 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 agency, 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] Under section 415(b) of the Amtrak Reform and Accountability Act of 1997, (49 U.S.C. 24304 and note), Amtrak was required to redeem all of its outstanding common stock. Once all outstanding common stock is redeemed, Amtrak will be wholly-owned by the Government and, at that point, its non-budgetary status may need to be reassessed.

[12] 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*.

[13] In the most recent draft report, OMB indicates that the estimated annual benefits of Federal regulations it reviewed from October 1, 2006, to September 30, 2016, range from $219 billion to $695 billion, while the estimated annual costs range from $59 billion to $88 billion, reported in 2001 dollars.

[14] See 12 U.S.C. 225a.

[15] See 15 U.S.C. 3101 et seq.

[16] See section 1011 of Public Law 111-203 (12 U.S.C. 5491), (2010). The CFPB is an executive agency, led by a director appointed by the President and reliant on Federal funding, that serves the governmental function of regulating Federal consumer financial laws. Accordingly, it is included in the Budget.

13. BUDGET PROCESS

This chapter addresses two broad categories of budget reform. First, the chapter discusses proposals to improve budgeting and fiscal sustainability with respect to individual programs as well as across Government. These proposals include: an extension of the spending reductions required by the Joint Select Committee on Deficit Reduction and what comes after the expiration of the discretionary caps in 2021; program integrity initiatives both enacted and proposed within budget law; funding requests for disaster relief and wildfire suppression; limits on changes in mandatory programs in appropriations Acts; limits on advance appropriations; proposals for the Pell Grant program; changes to capital budgeting for large civilian Federal capital projects; and fast track spending reduction powers. Second, this chapter describes proposals for budget enforcement and budget presentation. The budget enforcement proposals include a discussion of the system under the Statutory Pay-As-You-Go Act of 2010 (PAYGO Act) of scoring legislation affecting receipts and mandatory spending; reforms to account for debt service in cost estimates; administrative PAYGO actions affecting mandatory spending; adjustments in the baseline for Highway Trust Fund spending and the extension of certain expiring tax laws; discretionary spending caps; funds that would encourage deficit reduction underneath the discretionary spending caps; improvements to how Joint Committee sequestration is shown in the Budget; the budgetary treatment of the housing Government-sponsored enterprises and the United States Postal Service; using fair value as a method of estimating the cost of credit programs; and outlay caps and sequestration. These reforms combine fiscal responsibility with measures to provide citizens with a more transparent, comprehensive, and accurate measure of the reach of the Federal budget. Together, the reforms and presentations discussed create a budget more focused on core Government functions and more accountable to the taxpayer.

I. BUDGET REFORM PROPOSALS

Joint Committee Enforcement

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 legislation to achieve at least $1.5 trillion of deficit reduction over the period of fiscal years 2012 through 2021. 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 2020, and forced additional sequestrations of mandatory spending in each of fiscal years 2014 through 2019. A further sequestration of mandatory spending is scheduled to take effect beginning on October 1, 2019 based on the order released with the 2020 Budget.

To date, various laws have changed the annual reductions required to the discretionary spending limits set in the BCA through 2019. Most recently, the Bipartisan Budget Act of 2018 (BBA) adjusted these discretionary spending limits for fiscal years 2018 and 2019. The 2019 caps remain at the levels enacted in this Act and are reflected in the Sequestration Update Report transmitted in August of 2018. The sequestration preview report issued with this Budget reduces the 2020 discretionary caps according to current law. Looking ahead, reductions to the discretionary caps for fiscal year 2021 are to be implemented in the sequestration preview report of the 2021 Budget. Future reductions to mandatory programs are to be implemented by a sequestration of non-exempt mandatory budgetary resources in each of fiscal years 2020 through 2027, which are triggered 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 2028 and 2029 to generate an additional $51.2 billion in deficit reduction.

For discretionary programs, under current law, the 2019 caps remain at $647 billion for defense and $597 billion for non-defense while, for 2020, the Joint Committee procedures reduce the defense cap from $630 billion to $576 billion and the non-defense cap from $578 billion to $543 billion. For 2020, the Administration will enforce much needed spending discipline by budgeting to the current law caps for defense and non-defense after accounting for the Joint Committee reductions. In 2021, the caps are proposed to remain at the estimated 2021 levels after reduction for Joint Committee procedures. However, proposed levels for defense programs will be at the 2021 cap while proposed levels for non-defense programs will be reduced by 2 percent from the cap. In order to fully resource national defense requirements while staying at the current 2020 and 2021 caps, the 2020 Budget proposes increases in the Overseas Contingency Operations budget to nearly $165 billion and $156 billion in 2020 and 2021, respectively. An additional $9 billion is requested for defense in 2020 as an emergency requirement. Together, this defense funding will support the National Security Strategy goal of preserving peace through strength with a substantial investment that will protect America's vital national interests. In total, $750 billion is provided for defense programs in 2020 while base non-defense programs are held to $543 billion. After 2021, the Administration would support new base caps for defense and non-defense programs through 2029 at the levels included in the 2020 Budget. These funding levels will enhance the country's national security while maintaining fiscal responsibility by rebalancing the non-defense mission to focus on core Government responsibilities. See Table S–7 in the main *Budget* volume for the proposed annual discretionary caps.

Discretionary Cap Adjustment Funding

Discretionary Funding for Program Integrity Cap Adjustments

All Federal programs must be run efficiently and effectively. 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, the Administration continues to support using discretionary dollars to make significant investments in activities that ensure that taxpayer dollars are spent correctly. Using cap adjustment funding on 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, where return on investment using discretionary dollars is proven. Additionally, the Administration supports increasing investments in tax compliance related to Internal Revenue Service tax enforcement.

The following sections explain the benefits and budget presentation of the enacted and proposed adjustments to the discretionary caps for program integrity activities. The Administration proposes legislative and administrative reforms that support several other program integrity efforts. Chapter 9, Payment Integrity, provides a comprehensive discussion of these proposals.

Enacted Adjustments Pursuant to BBEDCA.—The Balanced Budget and Emergency Deficit Control Act of 1985, as amended (BBEDCA), recognizes that a multi-year strategy to reduce the rate of improper payments, commensurate with the large and growing costs of the programs administered by the Social Security Administration (SSA), the Department of Health and Human Services and the Department of Labor, is a laudable goal. To support the overall goal, BBEDCA provides for adjustments to the discretionary spending limits through 2021 to allow for additional funding for specific program integrity activities to reduce improper payments in the Social Security programs, in the Medicare and Medicaid programs and more recently, in Unemployment Insurance programs. Because the additional funding is classified as discretionary and the savings as mandatory, the savings cannot be offset against the funding for budget enforcement purposes. These adjustments to the discretionary caps are made only if appropriations bills increase funding for the specified program integrity purposes above specified minimum, or base levels. This method ensures that the additional funding amounts authorized in BBEDCA do not supplant other Federal spending on these activities and that such spending is not diverted to other purposes. The Budget continues to support full funding of the authorized cap adjustments for these programs through 2021 and proposes to extend the cap adjustments through 2029 at the rate of inflation assumed in the Budget for the current services baseline. The 2020 Budget shows the baseline and policy levels at equivalent amounts. Accordingly, savings generated from such funding levels in the baseline

Table 13–1. PROGRAM INTEGRITY DISCRETIONARY CAP ADJUSTMENTS, INCLUDING MANDATORY SAVINGS

(Budget authority and outlays in millions of dollars)

	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	10-year Total
Social Security Administration (SSA) Program Integrity:											
Discretionary Budget Authority (non add)[1]	1,309	1,302	1,351	1,403	1,456	1,511	1,569	1,629	1,690	1,754	14,974
Discretionary Outlays[1]	1,301	1,303	1,351	1,403	1,455	1,511	1,569	1,629	1,688	1,754	14,964
Mandatory Savings[2]	–56	–2,069	–3,405	–3,982	–4,403	–5,258	–5,863	–6,468	–7,434	–7,374	–46,312
Net Savings	1,245	–766	–2,054	–2,579	–2,948	–3,747	–4,294	–4,839	–5,746	–5,620	–31,348
Health Care Fraud and Abuse Control Program:											
Discretionary Budget Authority/Outlays[1]	475	496	515	534	555	576	598	620	644	668	5,681
Mandatory Savings[2,3]	–951	–1,017	–1,080	–1,148	–1,191	–1,235	–1,281	–1,331	–1,382	–1,433	–12,049
Net Savings	–476	–521	–565	–614	–636	–659	–683	–711	–738	–765	–6,368
Unemployment Insurance (UI) Program Integrity:											
Discretionary Costs[1]	58	83	133	258	433	533	608	633	646	659	4,044
Mandatory Savings[2]	–425	–440	–488	–591	–846	–921	–880	–760	–688	–373	–6,412
Net Savings	–367	–357	–355	–333	–413	–388	–272	–127	–42	286	–2,368

[1] The discretionary costs are equal to the outlays associated with the budget authority levels authorized for cap adjustments in BBEDCA through 2021; the costs for each of 2022 through 2029 are equal to the outlays associated with the budget authority levels inflated from the 2021 level for SSA and HCFAC, using the 2020 Budget assumptions. The UI levels for 2022 through 2027 are equal to the amounts authorized for congressional enforcement, while 2028 and 2029 are inflated using of 2027. For each program the levels in the baseline are equal to the 2020 Budget policy levels.

[2] The mandatory savings from the cap adjustment funding are included in the baselines for Social Security, Medicare, Medicaid, and UI programs. For SSA, amounts are based on SSA's Office of the Chief Actuary's and CMS' Office of the Actuary's 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.

for program integrity activities are reflected in the baselines for Social Security programs, Medicare, Medicaid, and Unemployment Insurance.

SSA Medical Continuing Disability Reviews (CDRs) and Non-Medical Redeterminations of SSI Eligibility.—For SSA, the Budget's proposed discretionary amount of $1,582 million ($273 million in base funding and $1,309 million in cap adjustment funding, pursuant to BBEDCA) will allow SSA to conduct 674,000 full medical CDRs and approximately 2.8 million Supplemental Security 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. As a result of the discretionary funding requested in 2020, as well as the fully funded base and cap adjustment amounts in 2021 through 2029, the OASDI, SSI, Medicare and Medicaid programs would recoup about $46 billion in gross Federal savings 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 cap 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 $31 billion in the 10-year window, and additional savings in the outyears. These costs and savings are reflected in Table 13-1.

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. However, the frequency of CDRs and redeterminations is constrained by the availability of funds to support these activities. The mandatory savings from the base funding in every year and the enacted discretionary cap adjustment funding assumed for 2019 are included in the BBEDCA baseline, consistent with the levels adopted by the Bipartisan Budget Act of 2015 (BBA), because the baseline assumes the continued funding of program integrity activities. The BBA of 2015 increased the level of such adjustments for Social Security programs by a net $484 million over the 2017-2021 period, and it expanded the uses of cap adjustment funds to include cooperative disability investigation (CDI) units, and special attorneys for fraud prosecutions. To support these important anti-fraud activities, the Budget continues to provide for SSA to transfer up to $10 million to the SSA Inspector General to fund CDI unit team leaders. This anti-fraud activity is an authorized use of the cap adjustment.

The Budget shows the savings that would result from the increase in CDRs and redeterminations made possible by the discretionary cap adjustment funding requested in 2020 through 2029. With access to program integrity cap adjustments, SSA is on track to remain current with program integrity workloads throughout the budget window.

Current estimates indicate that CDRs conducted in 2020 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 2020 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 because some results find that beneficiaries are no longer eligible to receive OASDI or SSI benefits.

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. However, the schedule of savings resulting from redeterminations will be different for the base funding and the cap adjustment funding in 2020 through 2029. This is because redeterminations of eligibility can uncover underpayment errors as well as 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 state option to expand Medicaid coverage for individuals under age 65 with income less than 133 percent of poverty. As a result of this option, some SSI beneficiaries, who would otherwise lose Medicaid coverage due to a medical CDR or non-medical redetermination, would continue to be covered. In addition, some of the coverage costs for these individuals will be eligible for the enhanced Federal matching rate, resulting in higher Federal Medicaid costs in those States.

Health Care Fraud and Abuse Program (HCFAC).—The Budget proposes base and cap adjustment funding levels over the next 10 years and continues the program integrity cap adjustment through 2029. In order to maintain the same level of effort throughout the Budget window, the Budget proposes that the base amount increase annually at the rate of inflation in the current services baseline over the 10-year period. The cap adjustment is set at the levels specified under BBEDCA through 2021 and then increases annually based on inflation from 2022 through 2029. The mandatory savings from both the base and cap adjustment amounts are included in the Medicare and Medicaid baselines.

The discretionary base funding of $311 million plus an additional $6 million adjustment for inflation and cap adjustment of $475 million for HCFAC activities in 2020 are designed to reduce the Medicare improper payment rate, support the Health Care Fraud Prevention & Enforcement Action Team (HEAT) initiative and reduce Medicaid improper payment rates. The investment will also allow CMS to deploy innovative efforts that focus on improving the analysis and application of data, including state-of-the-art predictive modeling capabilities, in order to prevent potentially wasteful, abusive, or fraudulent payments before they occur. The funding is to be allocated among CMS, the Health and Human Services Office of Inspector General, and the Department of Justice.

Over 2020 through 2029, as reflected in Table 13-1, this $5.7 billion investment in HCFAC cap adjustment funding will generate approximately $12.0 billion in savings to Medicare and Medicaid. This results in net deficit reduction of $6.4 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 BBA of 2018 established a new adjustment to the discretionary caps for program integrity efforts targeted at Unemployment Insurance. Like the SSA and HCFAC cap adjustments, the RESEA cap 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 these activities. While the discretionary caps are in statute through 2021, the law allows for the adjustment for Congressional budget enforcement procedures through 2027, which the Budget proposes. Program integrity funding in 2028 and 2029 continue at level that results from applying the rate of inflation in the current services baseline to the 2027 amount. In order to maintain the same level of effort throughout the Budget window, the base amount is proposed to increase annually with inflation over the 10-year period. The mandatory savings from both the base and cap adjustment are included in the Unemployment Insurance baseline. Table 13-1 shows the mandatory savings of $6.4 billion over 10 years, which includes an estimated $2.3 billion 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 $2.4 billion.

Proposed Adjustment Pursuant to BBEDCA, Internal Revenue Service (IRS) Program Integrity.—The Budget proposes to establish and fund a new adjustment to the discretionary caps for program integrity activities related to IRS program integrity operations starting in 2020, as shown in Table 13-2. The IRS base appropriation funds current tax administration activities, including all tax enforcement and compliance program activities, in the Enforcement and Operations Support accounts. The additional $362 million cap adjustment in 2020 funds new and continuing investments in expanding and improving the effectiveness and efficiency of the IRS's tax enforcement program. The activities are estimated to generate $47 billion in additional revenue over 10 years and cost approximately $15 billion resulting in an estimated net savings of almost $33 billion. Once the new enforcement staff are trained and become fully operational these initiatives are expected to generate roughly $3 in additional revenue for every $1 in IRS expenses. Notably, the ROI is likely understated because it only includes amounts received; it does not reflect the effect that enhanced enforcement has on deterring noncompliance. This indirect deterrence helps to ensure the continued payment of over $3.5 trillion in taxes paid each year without direct enforcement measures.

Disaster Relief Funding

Section 251(b)(2)(D) of BBEDCA includes a provision to adjust the discretionary caps for appropriations that the Congress designates in statute as provided for disaster relief. "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 (42 U.S.C. 5122(2)) for major disasters declared by the President. Prior to enactment of the Consolidated Appropriations Act of 2018 (Public Law 115-141; "CAA of 2018"), BBEDCA set an annual limit for the adjustment (or "funding ceiling") that was calculated by adding the average funding provided for disaster re-

Table 13–2. PROPOSED PROGRAM INTEGRITY CAP ADJUSTMENT FOR THE INTERNAL REVENUE SERVICE (IRS)
(Budget authority/outlays/receipts in millions of dollars)

	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	10-year Total
Proposed Adjustment Pursuant to the BBEDCA, as amended:											
Enforcement Base (budget authority)	8,515	8,603	8,691	8,781	8,871	8,962	9,055	9,148	9,242	9,337	89,205
Cap Adjustment:											
Budget Authority	362	749	1,097	1,448	1,802	1,895	1,896	1,905	1,914	1,924	14,992
Outlays	320	693	1,040	1,386	1,737	1,850	1,865	1,875	1,885	1,893	14,544
Receipt Savings from Discretionary Program Integrity Base Funding and Cap Adjustments:[1]											
Enforcement Base[2]	59,400	59,400	59,400	59,400	59,400	59,400	59,400	59,400	59,400	59,400	594,000
Cap Adjustment[3]	–160	–818	–1,895	–3,166	–4,558	–5,899	–6,880	–7,510	–7,942	–8,241	–47,069
Net Savings from Proposed IRS Cap Adjustment:[1]	160	–125	–855	–1,780	–2,821	–4,049	–5,015	–5,635	–6,057	–6,348	–32,525

[1] Savings for IRS are revenue increases rather than spending reductions. They are shown as negatives for presentation and netting against outlays.

[2] No official estimate for 2020 enforcement revenue has been produced, so this figure is an approximation and included only for illustrative purposes.

[3] The IRS cap adjustment funds increases for existing enforcement initiatives and activities and new initiatives. The IRS enforcement program helps maintain the more than $3 trillion in taxes paid each year without direct enforcement measures. The cost increases will help maintain the base revenue while generating additional revenue through targeted program investments. The activities and new initiatives funded out of the cap adjustment will yield more than $47 billion in savings over ten years. Aside from direct enforcement revenue, the deterrence impact of these activities suggests the potential for even greater savings.

lief over the previous 10 years (excluding the highest and lowest years) plus any portion of the ceiling for the previous year that was not appropriated (or "carryover"). If the carryover from one year was not used in the subsequent year, it would not carry forward for a second year. This led to precipitous decline in the funding ceiling as higher disaster funding years began to fall out of the 10-year average formula. The ceiling fell from a high of $18,430 million in 2015 to a low of $7,366 million in 2018. The "use or lose" aspect of the carryover discouraged judicious use of the cap adjustment funding and the Administration proposed to work with the Congress in its 2018 and 2019 Budgets to address the declining ceiling.

Division O of the CAA of 2018 amended BBEDCA to stabilize the disaster formula by redefining the calculation beginning in fiscal year 2019. Under the new calculation, the funding ceiling is determined by adding three pieces: 1) the same 10-year average as calculated under the previous formula; 2) a portion of discretionary amounts appropriated to address Stafford Act disasters that were designated as emergency requirements pursuant to BBEDCA; and 3) the cumulative net carryover from 2018 and all subsequent fiscal years. With respect to the portion of emergency funding, the new calculation permits an adjustment of five percent of the total appropriations (net of any rescissions) that were provided after 2011 (or in the previous 10 years, whichever is less) as emergency requirements pursuant to section 251(b)(2)(A)(i) of BBEDCA for Stafford Act emergencies. On April 23, 2018, OMB released the *OMB Report on Disaster Relief Funding to the Committees on Appropriations and the Budget of the U.S. House of Representatives and the Senate, 2018*[1] which specified the methodology and criteria OMB is using for estimating the emergency appropriations for Stafford Act disasters that will apply in the new formula. Furthermore, the final piece of this change effectively allows any unused carryover to continue to be factored into each funding ceiling until it is used.

As required by law, OMB included in its Sequestration Update Report for 2019 a preview estimate of the 2019 adjustment for disaster relief. In this report, the ceiling for the disaster relief adjustment in 2019 was calculated to be $14,965 million. This ceiling was calculated by adding together the three components under the new formula: the 10-year average ($6,814 million); 5 percent of Stafford Act emergencies since 2012 ($6,296 million); and carryover from the previous year ($1,855 million). At the time the Budget was prepared, the Government was operating under a continuing resolution set in the Continuing Appropriations Act, 2019 (the "CR"). The CR had provided for 2019 a continuing appropriation of $7,366 million for the Federal Emergency Management Agency's Disaster Relief Fund (DRF).

OMB must include in its Sequestration Update Report for 2020 a preview estimate of the ceiling on the adjustment for disaster relief funding. This estimate will contain the same components discussed above. At the time of the Budget, based on continuing appropriations, OMB estimates the total adjustment available for disaster funding for 2020 at $21,371 million. This ceiling estimate is based on these three components under the new formula: the 10-year average ($7,392 million); 5 percent of Stafford Act emergencies since 2012 ($6,380 million); and carryover from the previous year ($7,599 million). Any revisions necessary to account for final 2019 appropriations will be included in the 2020 Sequestration Update Report.

In the 2020 Budget, based on the CR level assumed at the time, the Administration is requesting $19,423 million in funding for FEMA's DRF to cover the costs of Presidentially declared major disasters, including identified costs for previously declared catastrophic events (defined by FEMA as events with expected costs that total more than $500 million) and the predictable annual cost of non-catastrophic events expected to obligate in 2020. The Administration's request addresses the significant and unprecedented recovery needs of the recent hurricanes and wildfires that have devastated our Nation. Consistent with past practice, the 2020 request level does not seek to pre-fund anticipated needs in other programs arising out of disasters that have yet to occur, nor does the Budget seek funding for potential catastrophic needs. As additional information about the need to fund prior or future disasters becomes available, additional requests, in the form of either 2019 supplemental appropriations (designated as either disaster relief or emergency requirements pursuant to BBEDCA), or amendments to the Budget, may be transmitted.

Under the principles outlined above, 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 as disaster relief. Accordingly, the Budget does not explicitly request to use the BBEDCA disaster designation in any year after the budget year. Instead, a placeholder for disaster relief is included in each of the outyears that is equal to the 10-year average ($7,392 million) of disaster relief currently estimated under the new formula 2020 request. 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. When these costs exceed the funds appropriated, the Federal Government covers 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 manage-

[1] The report is available on the OMB website: *https://www.whitehouse.gov/omb/legislative/omb-reports/*

ment agencies to reduce the risk of catastrophic fire and restore and maintain healthy functioning ecosystems.

In order to more adequately plan for these events, the 2019 Budget proposed a new cap adjustment for wildfire suppression to create funding certainty in times of wildfire disasters. Since that time, with bipartisan support, division O of the CAA of 2018 enacted a new cap adjustment, which begins in 2020 and the Administration proposes using it in this Budget. The adjustment is permitted so long as a base level of funding for wildfire suppression operations is funded in the underlying appropriations bill under the caps. 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 2020 Budget requests these base amounts for wildfire suppression and seeks the full $2,250 million adjustment authorized in BBEDCA for 2020 with $1,950 million included for Forest Service and $300 million included for DOI. Providing the full level authorized in 2020 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 2020, the Administration does not have sufficient information about future wildfire suppression needs and, therefore, includes a placeholder in the 2020 Budget for wildfire suppression in each of the outyears that is equal to the current 2020 request. Actual funding levels, up to but not exceeding the proposed cap adjustments, will be decided on an annual basis as part of the normal budget process.

Limits on Changes in Mandatory Spending in Appropriations Acts (CHIMPs)

The discretionary spending caps in place since the enactment of the BCA in 2011 have been circumvented annually in appropriations bills through the use of changes in mandatory programs, or CHIMPs, that have no net outlay savings to offset increases in discretionary spending.

There can be programmatic reasons to make changes to mandatory programs on annual basis in the annual appropriations bills. However, many enacted CHIMPs do not result in actual spending reductions. In some cases, the budget authority reduced in one year may become available again the following year, allowing the same reduction to be taken year after year. In other cases, the reduction comes from a program that never would have spent its funding anyway. In both of these cases, under current scoring rules, reductions in budget authority from such CHIMPs can be used to offset appropriations in other programs, which results in an overall increase in Federal spending. In such cases, CHIMPs are used as a tool to work around the constraints imposed by the discretionary budget enforcement caps.

The Administration supports limiting and ultimately phasing out the use of CHIMPs with no outlay savings. In support of this, the 2020 Budget proposes reforms to certain mandatory programs which have been the target of CHIMPs in the past, including the Department of Justice's Crime Victims Fund and the Department of Agriculture's Section 32 program. One goal of these reforms is to reduce the availability of CHIMPs by setting funding levels in permanent law rather than through annual appropriations Acts. For example, the appropriations Acts will no longer be able to claim billions in discretionary offsets from temporarily blocking the same funding in the Crime Victims Fund year after year. In addition, the Budget proposes permanent reductions to the Department of Health and Human Services' Children's Health Insurance Program to ensure that these amounts cannot be used as discretionary offsets in future fiscal years.

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. However, advance appropriations can also be used in situations that lack a programmatic justification, as a gimmick to make room for expanded funding within the discretionary spending limits on budget authority for a given year under BBEDCA. 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 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 gimmick 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 gimmick, which allows over-budget funding in the budget year and exerts pressure for increased funding in future years by committing upfront a portion of the total budget authority limits under the discretionary caps in BBEDCA in those years, congressional budget resolutions since 2001 have set limits on the amount of advance appropriations. When the congressional limit equals the amount that had been advance appropriated in the most recent appropriations bill, there is no additional room to switch forward funding to advance appropriations, and so no room for this particular gimmick to operate in that year's budget.

The Budget includes $28,683 million in advance appropriations for 2021 and freezes them at this level in subsequent years. In this way, the Budget does not employ this potential gimmick. Moreover, the Administration supports limiting advance appropriations to the proposed level for 2021, below the limits included in sections 4101 and 5104 for the Senate and the House, respectively, of the Concurrent Resolution on the Budget for Fiscal Year 2018 (H. Con. Res. 71). Those limits apply only to the accounts explicitly specified in the joint explanatory statement of managers accompanying H. Con. Res. 71.

Outside of these limits, the Administration 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 health care 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 2021 veterans medical care funding request.

For a detailed table of accounts that have received discretionary and mandatory advance appropriations since 2018 or for which the Budget requests advance appropriations for 2021 and beyond, please refer to the Advance Appropriations chapter in the *Appendix*.

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 everyone 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 2019-2020 is $6,195, of which $5,135 was established in discretionary appropriations and the remaining $1,060 in mandatory funding is provided automatically by the College Cost Reduction and Access Act (CCRAA), as amended.

- 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, as amended, and the BCA, but also by amendments to the Higher Education Act of 1965 contained in the 2011 and 2012 appropriations acts. There is no programmatic dif-

Table 13–3. DISCRETIONARY PELL FUNDING NEEDS
(Dollars in billions)

Discretionary Pell Funding Needs (Baseline)

	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Estimated Program Cost for $4,860 Maximum Award ...	24.2	24.8	25.2	25.8	26.4	27.0	27.6	28.3	29.2	29.9
Cumulative Incoming Surplus ...	8.9	....	....	....	....	....	....	....	....	....
Mandatory Budget Authority Available ...	1.4	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
Total Additional Budget Authority Needed ...	13.9	23.6	24.1	24.6	25.2	25.8	26.5	27.1	28.0	28.8
Fund Pell at 2019 Enacted Level ...	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5
Surplus/Funding Gap (–) from Prior Year ...		8.6	7.4	5.8	3.7	0.9	–2.4	–6.4	–11.1	–16.6
Cumulative Surplus/Discretionary Funding Gap (–) ...	8.6	7.4	5.8	3.7	0.9	–2.4	–6.4	–11.1	–16.6	–22.9
Effect of 2020 Budget Policies										
Expand Pell to Short-Term Programs ...	–0.1	–0.1	–0.2	–0.2	–0.2	–0.2	–0.2	–0.2	–0.2	–0.2
Fund Iraq-Afghanistan Service Grants through Pell[1] ...	–0.0	–0.0	–0.0	–0.0	–0.0	–0.0	–0.0	–0.0	–0.0	–0.0
Reduce Improper Payments ...	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Cancellation of Unobligated Balances ...	–2.0	....	....	....	....	....	....	....	....	....
Mandatory Funding Shift[2] ...	–0.0	–0.0	–0.0	–0.0	–0.0	–0.0	–0.1	–0.1	–0.1	–0.1
Surplus/Funding Gap (–) from Prior Year ...		6.5	5.3	3.6	1.3	–1.6	–5.1	–9.2	–14.0	–19.8
Cumulative Surplus/Discretionary Funding Gap (–) ...	6.5	5.3	3.6	1.3	–1.6	–5.1	–9.2	–14.0	–19.8	–26.2

[1] Amounts between -$50 million and zero represented with –0.0.

[2] 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.

ference 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 the appropriations provided. 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. This scorekeeping rule was adopted by the Congress as §406(b) of the Concurrent Resolution on the Budget for Fiscal Year 2006 (H. Con. Res. 95, 109th Congress).

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 the discretionary spending caps pursuant to section 251 of BBEDCA and 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. In fact, the program experienced a spike in enrollment and costs during the most recent recession, reaching a peak of 9.4 million students in 2011. This spike required temporary mandatory or emergency appropriations to fund the program well above the level that could have been provided as a practical matter by the regular discretionary appropriation. Enrollment and costs declined continuously from 2011 to 2018, and the funding provided has lasted longer than anticipated. Recent changes to the program expanded the amount of aid available to students, including the enactment of Year-Round Pell and increases to the maximum award, and the Budget projects enrollment to increase in 2019 and 2020. As a result, total program costs increased in the 2017-18 award year for the first time since the recession. Nevertheless, assuming no changes in current policy, the 2020 Budget baseline expects program costs to stay within available resources, which include the discretionary appropriation, budget authority carried forward from the previous year, and extra mandatory funds, until 2025 (see Table 13-3). These estimates have changed significantly from year to year, which illustrates continuing uncertainty about Pell program costs, and the year in which a shortfall will reemerge.

The 2020 Budget reflects the Administration's commitment to ensuring students receive the maximum Pell Grant for which they are eligible, and to expanding options available to pursuing postsecondary education and training. First, the Budget provides sufficient resources to fully fund Pell Grants in the award years covered by the budget year, and subsequent years, including the funds needed to continue support of Year-Round Pell. The Budget provides $22.5 billion in discretionary budget authority in 2020, the same as the 2019 enacted appropriation. Level-funding Pell in 2020, combined with available budget authority from the previous year and mandatory funding provided in previous legislation, provides $8.6 billion more than is needed to fully fund the program in the 2020-21 award year.

In light of these additional resources, the Budget proposes a cancellation of $2 billion from the unobligated carryover from 2019. Then, with significant budget authority still available in the program, the Budget also proposes legislative changes to provide more postsecondary pathways by expanding Pell Grant eligibility to high-quality short-term training programs. This will help low-income or out-of-work individuals access training programs that can equip them with skills to secure well-paying jobs in high-demand fields more quickly than traditional 2-year or 4-year degree programs. The Budget also proposes moving Iraq and Afghanistan Service Grants (IASG) into the Pell program, which will exempt those awards from cuts due to sequestration and streamline the administration of the programs. The expansion of Pell Grants to short-term programs and the costs of incorporating IASG increases future discretionary Pell program costs by $1.7 billion over 10 years (see Table 13–3). Finally, the Budget includes proposals to reduce the risk of improper payments in the program (see the Payment Integrity chapter for more detail). With the proposed cancellation and these other reforms, the Pell program still is expected to have sufficient discretionary funds until 2024.

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

[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 2020 appropriation, for instance, will support the 2020-2021 academic year beginning in July 2020 but will become available in October 2019 and can therefore help cover any shortages that may arise in funding for the 2019-2020 academic year.

kinds of expenditures must compete for limited funding within the discretionary caps. 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, agencies sign shorter-term consecutive leases of the same space. For example, the cost of two consecutive 15-year leases for a building can exceed its fair market value by close to 180 percent. 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;

Chart 13-1. Scoring of $288 Million NIST Renovation Project using the Federal Capital Revolving Fund

Federal Capital Revolving Fund

	Year 1	Years 2-15
Mandatory:		
Transfer to purchasing agency to renovate building....................	288	
Purchasing agency repayments....	-19	-269

Purchasing Agency

	Year 1	Years 2-15
Mandatory:		
Collection of transfer from Federal Capital Revolving Fund....................	-288	
Payment to renovate building..........	288	
Discretionary:		
Repayments to Federal Capital Revolving Fund....................	19	269

Total Government-Wide Deficit Impact

	Year 1	Years 2-15	Total
Mandatory:			
Renovate building...	288		288
Collections from purchasing agency................	-19	-269	-288
Discretionary:			
Purchasing agency repayments........................	19	269	288
Total Government-wide..	288	---	288

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. As part of the overall 2020 Budget infrastructure initiative, the FCRF would be capitalized initially by a $10 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 expansion and remaining renovation, estimated at $288 million for the Department of Commerce National Institute of Standards and Technology (NIST) to do advance precision measurement tools and technologies for a variety of scientific endeavors at Building One on the Boulder Colorado campus. In accordance with the principles and design of the FCRF, the 2020 budget requests appropriations language designating the NIST expansion and renovation as a project to be funded out of the FCRF, which is housed within the General Services Administration, along with 1/15 of the full purchase price, or $19.2 million for the first year repayment back to the FCRF. The FCRF account is displayed funding the NIST project in 2020 and a total of $15 billion worth of federal buildings projects using the initial $10 billion in mandatory appropriations and $5 billion from revolving the collections from annual project repayments starting in 2025.

The flow of funds for the expansion and renovation of a NIST research building with a $288 million cost and the proposed scoring are illustrated in Chart 10–1. Current budget enforcement rules would require the entire $288 million to be scored as discretionary BA 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, $288 million in the case of the NIST project, 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 $19.2 million for the NIST building construction 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 $10 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.

Fast Track Spending Reductions

The Administration is committed to ensuring the Federal Government spends precious taxpayer dollars in the most efficient, effective manner possible. Given the long-term fiscal constraints facing our Nation, we must put our fiscal house back in order. The President's Budget proposes redirecting funding away from programs where the goals have been met, or where funds are not being used efficiently to target higher priority needs. In the Budget, the President proposes cancellations, or reductions in budgetary resources. Such cancellations are not subject to the requirements of title X of the Impoundment Control Act of 1974 ("ICA"; 2 U.S.C. 601-88). Amounts proposed for cancellation may not be withheld from obligation pending enactment into law.

Alternatively, the President may propose permanent rescissions of budgetary resources pursuant to the ICA, as occurred in May of 2018, when the President proposed the largest single ICA rescissions package ever proposed by sending a request to cut approximately $15 billion of spending that was no longer needed. In such cases, the ICA requires that the President transmit a special message to the Congress at which time the funding can be withheld from obligation for up to 45 days. Also, the package receives privileged treatment where both the House and Senate can use expedited procedures for considering rescission bills

The Administration is interested in working with Congress to enhance the shared goal of reducing Government spending where it no longer serves the interest of taxpayers. For example, the Administration would support legislative proposals that ease the President's ability to reduce unnecessary spending through expedited rescission procedures.

II. BUDGET ENFORCEMENT AND BUDGET PRESENTATION

Statutory PAYGO

The Statutory Pay-As-You-Go Act of 2010 (the "PAYGO Act") 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, six pieces of legislation 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. Since PAYGO was reinstated, OMB's annual PAYGO reports showed net savings in the budget year column of both the 5- and 10-year scorecards. For the second session of the 115th Congress, the most recent session, enacted legislation placed costs of $1,646 million in each year of the 5-year scorecard and $1,032 million in each year of the 10-year scorecard. However, the budget year balance on each of the PAYGO scorecards is zero because two laws, the Bipartisan Budget Act of 2018 (Public Law 115-123), and the Further Additional Continuing Appropriations Act, 2019 (Public Law 116-5), directed changes to the balances of the scorecards. Public Law 115-123 removed all balances included on the scorecards at the time of enactment, and Public Law 116-5 shifted the debits on both scorecards from fiscal year 2019 to fiscal year 2020, so no sequestration was required.[3]

There are limitations to Statutory PAYGO's usefulness as a budget enforcement tool. In the past, the scorecards have carried large surpluses from year to year, giving Congress little incentive to limit costly spending. Some costs, such as changes to the Postal Service or increases to debt service, are ignored. The frequent exemption of budgetary effects from the PAYGO scorecards by the Congress also suggests the PAYGO regime has been ineffective at controlling deficits. In the coming year the Administration looks forward to working with the Congress to rein in the deficit by exploring budget enforcement tools, including reforms to PAYGO.

Estimating the Impacts of Debt Service

New legislation that affects direct spending and revenue will also indirectly affect interest payments on the Federal debt. These effects on interest payments can cause a significant budgetary impact; however, they are not captured in cost estimates that are required under the PAYGO Act, nor are they typically included in estimates of new legislation that are produced by the Congressional Budget Office. The Administration believes that cost estimates of new legislation could be improved by incorporating information on the effects of interest payments and looks forward to working with the Congress in making reforms in this area.

Administrative PAYGO

In addition to enforcing budget discipline on enacted legislation, the Administration continues to review potential administrative actions by Executive Branch agencies affecting entitlement programs, so that agencies administering these programs have a requirement to keep costs low. This requirement was codified in a memorandum issued on May 23, 2005, by the Director of the Office of Management and Budget, "Budget Discipline for Agency Administrative Actions." This memo effectively established a PAYGO requirement for administrative actions involving mandatory spending programs. Exceptions to this requirement are only provided in extraordinary or compelling circumstances.

Adjustments to BBEDCA Baseline: Extension of Revenue Provisions and Transportation Spending

In order to provide a more realistic outlook for the deficit under current policies, the Budget presents the Administration's budget proposals relative to a baseline that makes certain 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

[3] OMB's annual PAYGO reports and other explanatory material about the PAYGO Act are available on OMB's website at *https://www.whitehouse.gov/omb/paygo/*.

purposes, but rather are intended to make the baseline a more useful benchmark for assessing the deficit outlook and the impact of budget proposals.

Revenue Provisions Extended in Adjusted Baseline.—The Tax Cuts and Jobs Act provided comprehensive tax reform for individuals and corporations. The Administration's adjusted baseline assumes permanent extension of the individual income tax and estate and gift tax provisions enacted in that Act that are currently set to expire at the end of 2025. These expirations were included in the tax bill not because these provisions were intended to be temporary, but in order to comply with reconciliation rules in the Senate. Assuming extension of these provisions in the adjusted baseline presentation results in reductions in governmental receipts and increases in outlays for refundable tax credits of $1,057.5 billion over the 2025-2029 period relative to the BBEDCA baseline. This yields a more realistic depiction of the outlook for receipts and the deficit than a strictly current law baseline in which these significant tax cuts expire.

Highway Trust Fund (HTF) Spending in the Adjusted Baseline.—Under BBEDCA baseline rules, the Budget shows outlays supported by HTF receipts inflating at the current services level. However, that presentation masks the reality that the HTF has a structural insolvency, one that all stakeholders are aware of, and the source of which is described below. The BBEDCA baseline results in a presentation that overestimates the amount of HTF spending the Government could support. Therefore, beginning in 2022, the Budget presents an adjusted baseline to account for the mismatch between baseline rules that require assuming that spending continues at current levels and the law limiting the spending from the HTF to the level of available balances in the HTF. Under current law, DOT is unable to reimburse States and grantees when the balances in the HTF, largely reflecting the level of incoming receipts, are insufficient to meet their requests. Relative to the BBEDCA baseline levels, reducing outlays from the HTF to the level of receipts in the adjusted baseline presentation results in a reduction in HTF outlays of 145.6 billion over the 2022-2029 window. This adjustment makes the level of spending that could be supported in the HTF absent reforms more apparent.

Surface Transportation Hybrid Budgetary Treatment.— The Highway Revenue Act of 1956 (Public Law 84-627) introduced the HTF to accelerate the development of the Interstate Highway System. In the 1970s, the HTF's scope was expanded to include expenditures on mass transit. In 1982, a permanent Mass Transit Account within the HTF was created. HTF programs are treated as hybrids for budget enforcement purposes: contract authority is classified as mandatory, while outlays are controlled by obligation limitations in appropriations acts and are therefore classified as discretionary. Broadly speaking, this framework evolved as a mechanism to ensure that collections into the HTF (e.g., motor fuel taxes) were used to pay only for programs that benefit surface transportation users, and that funding for those programs would generally be commensurate with collections. Deposits to the HTF through the 1990s were historically more than sufficient to meet the surface transportation funding needs.

However, by the 2000s, deposits into the HTF began to level off as vehicle fuel efficiency continued to improve. At the same time, the investment needs continued to rise as the infrastructure, much of which was built in the 1960s and 1970s, deteriorated and required recapitalization. The cost of construction also generally increased. The Federal motor fuel tax rates have stayed constant since 1993. By 2008, balances that had been building in the HTF were spent down. The 2008-2009 recession and rising gasoline prices had led to a reduction in the consumption of fuel resulting in the HTF reaching the point of insolvency for the first time. Congress responded by providing the first in a series of General Fund transfers to the HTF to maintain solvency.

Fixing America's Surface Transportation Act (FAST Act).—The passage of the FAST Act (Public Law 114-94), shored up the HTF and maintained the hybrid budgetary treatment through 2020. The FAST Act did not significantly amend transportation-related taxes or HTF authorization provisions beyond extending the authority to collect and spend revenue. Congress retained the Federal fuel tax rate at 18.4 cents per gallon for gasoline and 24.4 cents for diesel. To maintain HTF solvency, the FAST Act transferred $70 billion from the General Fund into the HTF. Since 2008, HTF tax revenues have been supplemented by $140 billion in General Fund transfers. The last year of the FAST Act's authorization is 2020, and for 2020, in policy, the Administration is requesting obligation limitation levels for HTF programs equal to the contract authority levels provided in the FAST Act. For the outyears, those levels are frozen at the 2020 level through 2029. Beyond 2020 contract authority is frozen at the 2020 level. Outlays in policy are equal to the adjusted baseline levels, reflecting the need for a long- term solution.

Long-Term Solution Needed.—The fact that the HTF has required $140 billion in General Fund transfers to stay solvent points to the need for a comprehensive reevaluation of the surface transportation funding regime. The adjusted baseline presentation shows the level of spending that could be supported, without assuming General Fund transfers. While Congress and past Administrations have been unable to find a long-term funding solution to the HTF, many States and localities have raised new revenue sources to finance transportation expenditures. The Administration supports such actions by States and localities, as they are best equipped to know the right level and mix of infrastructure investments.

Discretionary Spending Limits

The BBEDCA baseline extends enacted or continuing appropriations at the account level assuming the rate of inflation for current services but allowances are included to bring total base discretionary funding in line with the BBEDCA caps through 2021. Current law requires reductions to those discretionary caps in accordance with Joint Committee enforcement procedures put in place by the BCA. For 2020 and 2021, the Budget supports maintaining the base caps for discretionary programs at the Joint Committee-enforced levels for defense and non-defense. In 2021, however, the Administration would seek to begin rebalancing Federal responsibilities by instituting a two-percent (or "two-penny") reduction to non-defense programs. While no change is proposed to the current non-defense cap in 2021, the Budget assumes spending below that cap consistent with the two-penny plan. After 2021, the Administration would support new caps at the levels in the 2020 Budget that would codify a shift in resources from non-defense programs by continuing the two-penny plan through the budget window while increasing the defense category to fully resource national defense programs. The discretionary cap policy levels are reflected in Table S–7 of the main *Budget* volume.

Further adjustments to the proposed discretionary caps for Employer-Employee Share of Federal Employee Retirement

The Budget includes a proposal that starts in 2021 to reduce the contributions of Federal agencies to the retirement plans of civilian employees. The Budget proposes to reallocate the costs of Federal employee retirement by charging equal shares of employees' accruing retirement costs to employees and employers. The Budget takes the estimated reductions in the share of employee retirement paid by Federal agencies out of the proposed non-defense levels starting in 2021. Additionally, the discretionary non-defense caps proposed in the 2020 Budget for the 2022 through 2029 period (post Joint Committee enforcement) are reduced further to account for the reduction in discretionary costs. This proposal starts at a reduction of discretionary budget authority of $6.4 billion in 2021 and totals $85.1 billion in reduced discretionary spending over the 2021 to 2029 period.

Funds for Reducing Discretionary Spending

Discretionary spending caps can be an important tool to reign in Government spending, but only when they are set at levels that reflect a balanced and limited approach to Government spending in the economy. Since the discretionary spending caps were reinstated in 2013 as part of the Budget Control Act of 2011, these caps have not been exceeded, an indication that avoiding a discretionary sequester is a powerful discretionary budget enforcement tool. While spending caps are effective, in that they require the Administration and Congress to balance competing tradeoffs for limited federal funds, these caps are usually treated as a floor rather than as a ceiling. If the caps were considered a ceiling, annual discretionary choices could include spending levels below the cap, as proposed by the Administration in prior years and in this Budget for 2021. The 2020 Budget maintains the estimated 2021 post-sequester cap while also making choices that bring non-defense spending levels to an amount that is $31 billion below the expected 2021 non-defense current law cap.

The Administration is interested in proposals that help Congress consider proposals to reduce spending below the discretionary caps. For instance, the 2019 House Financial Services and General Government bill included the Fund for America's Kids and Grandkids to set aside $585 million under the Committee's 2019 congressional allocation that would be spent only if deficits were certified at zero. Using funds such as these promotes transparency about the choice between deficit reduction and additional spending. The Administration is open to using such reserve funds in the coming years.

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 2020 Budget shows the net effect of Joint Committee sequestration reductions by accounting for reductions in 2020, 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 $2 billion in 2020. 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 $804 million in 2020.

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). The baseline 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 Budget proposes to eliminate the 4.2 basis point set-aside and discontinue funding for these programs. The GSEs are discussed in more detail in Chapter 22, "Credit and Insurance."

Postal Service Reforms

The Administration proposes reform of the Postal Service, necessitated by the serious financial condition of the Postal Service Fund. The proposals are discussed in the Postal Service and General Services Administration sections of the *Appendix*.

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, in part to reflect the policy agreement that the Postal Service should pay for its own costs through its own revenues and should operate more like an independent business entity. Statutory requirements on Postal Service expenses and restrictions that impede the Postal Service's ability to adapt to the ongoing evolution to paperless written communications have made those goals increasingly difficult to achieve. To address its current financial and structural challenges, the Administration proposes reform measures to ensure that the Postal Service funds existing commitments to current and former employees from business revenues, not taxpayer funds. 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.

Fair Value for Credit Programs

Fair value is an approach to measuring the cost of Federal direct loan and loan guarantee programs that would align budget estimates with the market value of Federal assistance, typically by including risk premiums observed in the market. Under current budget rules, the cost of Federal credit programs is measured as the net present value of the estimated future cash flows resulting from a loan or loan guarantee discounted at Treasury interest rates. These rules are defined in law by the Federal Credit Reform Act of 1990 (FCRA). In recent years, some analysts have argued that fair value estimates would better capture the true costs imposed on taxpayers from Federal credit programs and would align with private sector standard practices for measuring the value of loans and loan guarantees. The CBO, for instance, has stated that fair value would be a more comprehensive measure of the cost of Federal credit programs. The Concurrent Resolution on the Budget for Fiscal Year 2018 (H. Con. Res. 71) also included language requiring CBO to produce fair value scores alongside FCRA scores upon request. The Administration supports proposals to improve the accuracy of cost estimates and is open to working with Congress to address any conceptual and implementation challenges necessary to implement fair value estimates for Federal credit programs.

Outlay Caps and Sequestration

The Budget achieves declining deficits over the next ten years, due to proposals to empower States and consumers to reform healthcare; eliminate wasteful spending in Medicare and improve drug pricing and payment policies; reform student loans, disability programs, and the welfare system; and reprioritize Government to focus on the most effective programs. While the Budget's policies help bring spending under control, additional efforts to control spending are needed, such as setting caps on mandatory outlays consistent with the historical average as a share of gross domestic product (GDP), post-World War II levels. Such caps could be enforced with sequestration across programs similar to other budget enforcement regimes. An outlay cap on mandatory spending would complement discretionary caps that have been in place since 2013, and that the Budget proposes to continue through 2029. Program reforms such as those in the Budget would be necessary to bring outlays to or below the historical average as a share of GDP, post-World War II.

FEDERAL RECEIPTS

14. GOVERNMENTAL RECEIPTS

A simpler, fairer, and more efficient tax system is critical to growing the economy and creating jobs. The enactment of the Tax Cuts and Jobs Act (Public Law 115–97) in 2017 reformed the Nation's outdated, overly complex, and burdensome tax system to unleash America's economy, and create millions of new, better-paying jobs that enable American workers to meet their families' needs. This Act, the first comprehensive tax reform in a generation, streamlines the tax system and ends special interest tax breaks and loopholes, ensuring that all Americans will be treated fairly by the tax system, not just the wealthy. This chapter presents the Budget's estimates of taxes and governmental receipts including the effects of tax legislation enacted in 2018, discusses the provisions of those enacted laws, and explains the Administration's additional receipt proposals.

Table 14–1. RECEIPTS BY SOURCE—SUMMARY
(In billions of dollars)

	2018 Actual	Estimate										
		2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Individual income taxes	1,683.5	1,698.4	1,824.2	1,945.8	2,081.1	2,236.8	2,394.5	2,567.8	2,752.4	2,944.1	3,151.4	3,365.2
Corporation income taxes	204.7	216.2	255.2	284.1	314.7	370.9	418.4	443.4	428.6	418.0	428.1	432.4
Social insurance and retirement receipts	1,170.7	1,242.4	1,295.5	1,370.0	1,446.9	1,523.2	1,607.0	1,692.6	1,788.4	1,876.9	1,989.6	2,092.6
(On-budget)	*(316.0)*	*(331.3)*	*(346.2)*	*(366.6)*	*(388.2)*	*(409.8)*	*(433.1)*	*(457.3)*	*(483.6)*	*(505.6)*	*(535.0)*	*(563.0)*
(Off-budget)	*(854.7)*	*(911.1)*	*(949.3)*	*(1,003.3)*	*(1,058.7)*	*(1,113.3)*	*(1,173.9)*	*(1,235.3)*	*(1,304.8)*	*(1,371.3)*	*(1,454.5)*	*(1,529.6)*
Excise taxes	95.0	98.7	108.8	111.5	115.0	107.7	136.4	126.6	130.2	134.1	122.7	143.0
Estate and gift taxes	23.0	19.3	19.3	20.4	21.8	23.3	24.9	26.5	28.0	29.4	30.7	31.9
Customs duties	41.3	69.5	48.4	45.2	48.2	51.0	53.8	56.7	59.6	62.5	65.5	68.6
Miscellaneous receipts	111.7	93.3	94.4	99.9	104.5	112.5	121.9	130.5	139.1	146.8	154.7	162.8
Allowance for empowering States and consumers to reform healthcare	....	....	–1.0	*	–3.5	–4.0	–4.4	–4.1	–3.7	–3.4	–3.7	–3.9
Total, receipts	**3,329.9**	**3,437.7**	**3,644.8**	**3,876.9**	**4,128.6**	**4,421.5**	**4,752.5**	**5,040.1**	**5,322.6**	**5,608.5**	**5,938.9**	**6,292.5**
(On-budget)	*(2,475.2)*	*(2,526.5)*	*(2,695.5)*	*(2,873.5)*	*(3,069.9)*	*(3,308.1)*	*(3,578.6)*	*(3,804.7)*	*(4,017.9)*	*(4,237.2)*	*(4,484.4)*	*(4,762.9)*
(Off-budget)	*(854.7)*	*(911.1)*	*(949.3)*	*(1,003.3)*	*(1,058.7)*	*(1,113.3)*	*(1,173.9)*	*(1,235.3)*	*(1,304.8)*	*(1,371.3)*	*(1,454.5)*	*(1,529.6)*
Total receipts as a percentage of GDP	16.5	16.1	16.3	16.5	16.7	17.0	17.4	17.6	17.7	17.8	17.9	18.1

* $50 million or less.

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 15, "Offsetting Collections and Offsetting Receipts," in this volume.

Total governmental receipts (hereafter referred to as "receipts") are estimated to be $3,437.7 billion in 2019, an increase of $107.8 billion or 3.2 percent from 2018. The estimated increase in 2019 is largely due to increases in social insurance and retirement receipts and customs duties. Receipts in 2019 are estimated to be 16.1 percent of Gross Domestic Product (GDP), which is lower than in 2018, when receipts were 16.5 percent of GDP.

Receipts are estimated to rise to $3,644.8 billion in 2020, an increase of $207.1 billion or 6.0 percent relative to 2019. Receipts are projected to grow at an average annual rate of 6.9 percent between 2020 and 2024, rising to $4,752.5 billion. Receipts are projected to rise to $6,292.5 billion in 2029, growing at an average annual rate of 5.8 percent between 2024 and 2029. This growth is largely due to assumed increases in incomes resulting from both real economic growth and inflation.

As a share of GDP, receipts are projected to increase from 16.1 percent in 2019 to 16.3 percent in 2020, and to steadily increase to 18.1 percent of GDP by 2029.

LEGISLATION ENACTED IN 2018 THAT AFFECTS GOVERNMENTAL RECEIPTS

Five laws were enacted during 2018 that affect receipts. The major provisions of these laws that have a significant impact on receipts are described below.[1]

AN ACT MAKING FURTHER CONTINUING APPROPRIATIONS FOR THE FISCAL YEAR ENDING SEPTEMBER 30, 2018, AND FOR OTHER PURPOSES (Public Law 115–120)

This Act, which was signed into law on January 22, 2018, extends for two years, through 2019, the moratorium on the 2.3% excise tax on the sale of medical devices. It also delays for two years, until 2022, implementation of the excise tax on high cost employer-sponsored health coverage.

BIPARTISAN BUDGET ACT OF 2018 (Public Law 115–123)

This Act, which was signed into law on February 9, 2018, provides tax relief to certain individuals and businesses in the areas affected by the California wildfires and areas affected by Hurricanes Harvey, Irma, and Maria. The Act also extends expiring provisions providing tax relief for families and individuals; incentives for growth, jobs, investment, and innovation; and incentives for energy production and conservation. Finally, the Act extends funding for the Children's Health Insurance Program and extends several Medicare provisions, among other health provisions.

CONSOLIDATED APPROPRIATIONS ACT, 2018 (Public Law 115–141)

This Act, which was signed into law on March 23, 2018, extends existing fuel and ticket taxes that are dedicated to the Airport and Airway Trust Fund. The Act also increases the State housing credit ceiling for 2018 through 2021.

ECONOMIC GROWTH, REGULATORY RELIEF, AND CONSUMER PROTECTION ACT (Public Law 115–174)

This Act, which was signed into law on May 24, 2018, permits some credit unions to issue more loans for non-owner occupied housing. Under this Act, loans for non-owner occupied homes that house one to four families would not count against the cap on member business loans. This would shift some of the business of issuing such loans from taxable banks and thrifts to nonprofit credit unions.

MISCELLANEOUS TARIFF BILL ACT OF 2018 (Public Law 115–239)

This Act, which was signed into law on September 13, 2018, provides for duty suspensions and reductions for specified chemicals and other items through December 31, 2020.

FAA REAUTHORIZATION ACT OF 2018 (Public Law 115–254)

This Act, which was signed into law on October 5, 2018, establishes a Concrete Masonry Products Board to carry out promotion, research, and education activities regarding concrete masonry products. The Board is funded by a manufacturer-paid assessment of $0.01 per concrete masonry unit sold.

[1] In the discussions of enacted legislation, years referred to are calendar years, unless otherwise noted.

Table 14–2. ADJUSTMENTS TO THE BALANCED BUDGET AND EMERGENCY DEFICIT CONTROL ACT (BBEDCA) BASELINE ESTIMATES OF GOVERNMENTAL RECEIPTS

(In billions of dollars)

	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2020–2024	2020–2029
BBEDCA baseline receipts	**3,437.6**	**3,642.6**	**3,874.1**	**4,125.9**	**4,414.5**	**4,742.5**	**5,043.5**	**5,463.2**	**5,843.9**	**6,194.8**	**6,561.7**	**20,800.1**	**49,909.0**
Adjustments to BBEDCA baseline:													
Extend individual income tax provisions [1]	....	....	....	....	....	....	–17.0	–157.2	–235.6	–256.2	–269.7	....	–935.6
Extend estate and gift tax provisions	....	....	....	....	....	....	....	....	–15.8	–16.1	–17.2	....	–49.0
Total, adjustments to BBEDCA baseline	....	....	....	....	....	....	**–17.0**	**–157.2**	**–251.4**	**–272.3**	**–286.8**	....	**–984.7**
Adjusted baseline receipts	**3,437.6**	**3,642.6**	**3,874.1**	**4,125.9**	**4,414.5**	**4,742.5**	**5,026.5**	**5,306.0**	**5,592.5**	**5,922.5**	**6,274.9**	**20,800.1**	**48,924.3**

[1] This provision affects both receipts and outlays. Only the receipt effect is shown here. The outlay effects are listed below:

	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2020–2024	2020–2029
Extend individual income tax provisions	....	....	....	....	....	....	....	0.7	23.7	23.7	24.7	....	72.8
Total, outlay effects of adjustments to BBEDCA baseline	....	....	....	....	....	....	....	**0.7**	**23.7**	**23.7**	**24.7**	....	**72.8**

ADJUSTMENTS TO THE BALANCED BUDGET AND EMERGENCY DEFICIT CONTROL ACT (BBEDCA) BASELINE

An important step in addressing the Nation's fiscal problems is to be upfront about them and to establish a baseline that provides a realistic measure of the deficit outlook before new policies are enacted. This Budget does so by adjusting the BBEDCA baseline to reflect the true cost of extending major tax policies that are scheduled to expire but that are likely to be extended. The BBEDCA baseline, which is commonly used in budgeting and is defined in statute, reflects, with some exceptions, the projected receipts level under current law.

However, current law includes a number of scheduled tax changes that the Administration believes are unlikely to occur and that prevent it from serving as a realistic benchmark for judging the effect of new legislation. These tax changes include expiration in 2025 of the individual income and estate and gift tax provisions enacted in the Tax Cuts and Jobs Act. This Budget uses an adjusted baseline that is intended to be more realistic by assuming permanent extension of those expiring provisions. This baseline does not reflect the President's policy proposals, but is rather a realistic and fair benchmark from which to measure the effects of those policies.

Extend individual income tax provisions.—The Administration's adjusted baseline projection assumes permanent extension of all individual income tax provisions in the Tax Cuts and Jobs Act that are currently set to expire on December 31, 2025.

Extend estate and gift tax provisions.—The Administration's adjusted baseline projection assumes permanent extension of the estate and gift tax parameters and provisions in effect for calendar year 2025.

BUDGET PROPOSALS

The 2020 Budget supports the extension of the individual and estate tax provisions of the Tax Cuts and Jobs Act beyond their expiration in 2025, as described above, to provide certainty for taxpayers and to support continued economic growth. The Budget's additional proposals affecting governmental receipts are as follows:

Establish Education Freedom Scholarships.—The Administration proposes to make available annually $5 billion worth of income tax credits for individual and corporate donations to State-authorized nonprofit education scholarship granting organizations (SGOs). (Taxpayers who claim the credit will not be allowed to claim an itemized deduction for the same contribution.) These SGOs will use donated funds to provide families with Education Freedom Scholarships that can be used on a range of educational activities such as career and technical dual-enrollment programs, afterschool tutoring programs, and tuition for private schools. States will decide family eligibility requirements and allowable uses of scholarship funds.

Allow Medicare beneficiaries to contribute to Health Savings Accounts (HSAs) and Medical Savings Accounts (MSAs).—Under current law, workers who are entitled to Medicare are not allowed to contribute to an HSA, even if they are working and are enrolled in a qualifying health plan through their employer. The Administration proposes to allow workers aged 65 or older who have a high-deductible health plan through their employer to contribute to an HSA, even if they are entitled to Medicare. In addition, the Administration proposes to allow beneficiaries enrolled in Medicare MSA Plans to contribute to their MSAs, beginning in 2021, subject to the annual HSA contribution limits as determined by the Internal Revenue Service. Beneficiaries would also be allowed a one-time opportunity to roll over the funds from their private HSAs to their Medicare MSAs. Beneficiaries who elect this plan option would not be allowed to purchase Medigap or other supplemental insurance.

Provide tax exemption for Indian Health Service (IHS) Health Professions, NURSE Corps, and Native Hawaiian scholarship and loan repayment programs in return for obligatory service requirement.—The Administration proposes to allow scholarship funds for qualified tuition and related expenses received under the IHS Health Professions, NURSE Corps, and Native Hawaiian scholarships to be excluded from income. The Administration also proposes to allow students to exclude from gross income student loan amounts forgiven or repaid by the IHS Loan Repayment Program and NURSE Corps. Under current law, National Health Service Corps programs and Armed Forces Health Professions Scholarships are provided an exception to the general rule that scholarship amounts representing payment for work are considered ordinary income and therefore taxable. Furthermore, certain loans forgiven or repaid as part of certain State and profession-based loan programs are provided an exception from the general rule that loan amounts paid on another's behalf are taxable income. Eliminating the current tax burden on scholarship and loan repayment recipients would allow IHS and the Health Resources and Services Administration to leverage another tool to bolster their ongoing efforts to recruit and retain qualified healthcare providers and provide equity between participants in these programs and other similar programs currently receiving these tax benefits.

Reduce the grace period for Exchange premiums.—The Administration proposes to reduce the 90-day grace period for individuals on Exchange plans to repay any missed premium payments to 30 days. The proposal would decrease premium tax credit outlays and increase governmental receipts.

Require a minimum contribution for Premium Tax Credits (PTC).—The Administration proposes a minimum required contribution percent for subsidized individuals enrolled in health plans on the Exchange. While the PTC would continue to be calculated based on the required contribution percent of an individual's income and the second lowest cost silver plan, an individual's PTC would be reduced when they buy a less expensive plan so that they are required to spend at least a minimum percentage of their income on any health plan.

Improve and expand access to health savings accounts (HSAs).—The Administration proposes to allow taxpayers enrolled in health plans with an actuarial value of 70 percent or below to make contributions to health savings accounts; deem all individual and small group market plans meeting the PPACA out-of-pocket spending limit as meeting the HSA out-of-pocket limit; and allow fees for direct primary care arrangements to be paid out of HSAs.

Reform medical liability.—The Administration proposes to reform medical liability beginning in 2020. This proposal has the potential to lower health insurance premiums, increasing taxable income and payroll tax receipts.

Establish Electronic Visa Update System (EVUS) user fee.—The Administration proposes to establish a user fee for EVUS, a new U.S. Customs and Border Protection (CBP) program to collect biographic and travel-related information from certain non-immigrant visa holders prior to traveling to the United States. The user fee would fund the costs of providing and administering the system.

Eliminate Corporation for Travel Promotion.—The Administration proposes to eliminate funding for the Corporation for Travel Promotion (also known as Brand USA). The Budget extends the authorization for the Electronic System for Travel Authorization (ESTA) surcharge currently deposited in the Travel Promotion Fund and redirects the surcharge to the ESTA account at CBP.

Establish an immigration services surcharge.—The Administration proposes to add a 10 percent surcharge on all requests received by U.S. Citizenship and Immigration Services, including applications for citizenship and adjustment of status and petitions for temporary workers.

Increase worksite enforcement penalties.—The Administration proposes to increase by 35 percent all penalty amounts against employers who violate Immigration and Nationality Act provisions on the unlawful employment of aliens.

Reinstate the Oil Spill Liability Trust Fund excise tax.—The Administration proposes to reinstate the Oil Spill Liability Trust Fund excise tax, which expired on December 31, 2018. The Trust Fund provides resources for the Federal Government to respond and clean up incidents of oil spills.

Provide paid parental leave benefits.—The Administration proposes establishing a new benefit within the Unemployment Insurance (UI) program to provide up to six weeks paid leave to mothers, fathers, and adoptive parents. States are responsible for adjusting their UI tax structures to maintain sufficient balances in their Unemployment Trust Fund accounts.

Establish Unemployment Insurance (UI) solvency standard.—The Administration proposes to set a minimum solvency standard to encourage States to maintain sufficient balances in their UI trust funds. States that are currently below this minimum standard are expected to increase their State UI taxes to build up their trust fund balances. States that do not build up sufficient reserves will be subject to Federal Unemployment Tax Act credit reductions, increasing Federal UI receipts.

Improve UI Insurance program integrity.—The Administration proposes a package of reforms to the UI program aimed at improving program integrity. These reforms are expected to reduce outlays in the UI program by reducing improper payments. In general, reduced outlays allow States to keep UI taxes lower, reducing overall receipts to the UI trust funds.

Provide authority to purchase and construct a new Bureau of Engraving and Printing facility.—The Administration proposes to provide authority to the Bureau of Engraving and Printing to construct a more efficient production facility. This will reduce the cost incurred by the Federal Reserve for printing currency and therefore increase governmental receipts via increased deposits from the Federal Reserve to Treasury.

Subject Financial Research Fund (FRF) assessments to annual appropriations action.—Expenses of the Financial Stability Oversight Council (FSOC) and Office of Financial Research (OFR) are paid through the FRF, which is authorized to assess fees on certain bank holding companies and nonbank financial companies supervised by the Federal Reserve Board of Governors. The FRF was established by the Dodd-Frank Act and is managed by the Department of the Treasury. To improve their effectiveness and ensure greater accountability, the Budget proposes to subject the activities of FSOC and OFR to the appropriations process. In so doing, currently authorized assessments would, beginning in 2021, be reclassified as discretionary offsetting collections and set at a level determined by the Congress.

Provide discretionary funding for Internal Revenue Service (IRS) program integrity cap adjustment.—The Administration proposes to establish and fund a new adjustment to the discretionary caps for IRS program integrity activities starting in 2020. The IRS base funding within the discretionary caps funds current tax administration activities, including all tax enforcement and compliance program activities, in the Enforcement and Operations Support accounts at IRS. The additional $362 million cap adjustment in 2020 will fund new and continuing investments in expanding and improving the effectiveness and efficiency of the IRS's tax enforcement program. The activities are estimated to generate $47 billion in additional revenue over 10 years and cost approximately $15 billion, resulting in an estimated net savings of $33 billion. Once the new staff are trained and become fully operational, these initiatives are expected to generate roughly $3 in additional revenue for every $1 in IRS expenses. Notably, the return on investment is likely understated because it only includes amounts received; it does not reflect the effect enhanced enforcement has on deterring noncompliance. This indirect deterrence helps to ensure the continued payment of $3.5 trillion in taxes paid each year without direct enforcement measures.

Increase oversight of paid tax return preparers.—Paid tax return preparers have an important role in tax administration because they assist taxpayers in complying with their obligations under the tax laws. Incompetent and dishonest tax return preparers increase collection costs, reduce revenues, disadvantage taxpayers by potentially subjecting them to penalties and interest as a result of incorrect returns, and undermine confidence in the tax system. To promote high quality services from paid tax return preparers, the proposal would explicitly provide that the Secretary of the Treasury has the authority to regulate all paid tax return preparers.

Provide the IRS with greater flexibility to address correctable errors.—The Administration proposes to expand IRS authority to correct errors on taxpayer returns. Current statute only allows the IRS to correct errors on returns in certain limited instances, such as basic math errors or the failure to include the appropriate social security number or taxpayer identification number. This proposal would expand the instances in which the IRS could correct a taxpayer's return including cases where: (1) the information provided by the taxpayer does not match the information contained in Government databases or Form W-2, or from other third party databases as the Secretary determines by regulation; (2) the taxpayer has exceeded the lifetime limit for claiming a deduction or credit; or (3) the taxpayer has failed to include with his or her return certain documentation that is required to be included on or attached to the return. This proposal would make it easier for IRS to correct clear taxpayer errors, directly improving tax compliance and reducing EITC and other improper payments and freeing IRS resources for other enforcement activities.

Eliminate the qualified plug-in electric drive motor vehicle credit.—The Administration proposes to repeal the tax credit for vehicles placed in service after December 31, 2019. Current law provides a non-refundable tax credit of up to $7,500 to the purchaser of a qualified plug-in electric drive motor vehicle. The credit phases out for a manufacturer's vehicles over a one-year period beginning with the second calendar quarter after which the manufacturer has sold a cumulative 200,000 qualifying vehicles.

Repeal exclusion of utility conservation subsidies.—The Administration proposes to repeal the exclusion of utility conservation subsidies to non-business customers who invest in energy conservation measures. The current rate subsidies are equivalent to payments from the utility to its customer, but individuals are not taxed on the value of these subsidies.

Repeal accelerated depreciation for renewable energy property.—The Administration proposes to repeal accelerated (five-year) depreciation for renewable energy property. The cost recovery period for such property—including solar energy, wind energy, biomass, geothermal, combined heat and power, and geothermal heat pump property; fuel cells; and micro-turbines—would range from five to 20 years, depending on the specific activity of the taxpayer and the type of property in service after repeal. Qualifying properties would still be eligible for the bonus depreciation allowance included in the TCJA.

Repeal energy investment credit.—The Administration proposes to repeal the energy investment credit for property for which construction begins after December 31, 2019. The IRC currently provides a credit equal to a certain portion of the cost of solar energy property, geothermal electric property, qualified fuel cell power plants, small wind energy property, stationary micro-turbine power plants, geothermal heat pumps, and combined heat and power property.

Repeal credit for residential energy efficient property.—The Administration proposes to repeal the credit for residential energy efficient property for property placed in service after December 31, 2019. Currently, a credit is available for a portion of the purchase of qualified photovoltaic and solar water heating property, fuel cell power plants, geothermal heat pumps, and small wind property used in or placed on a residence.

Reform inland waterways financing.—The Administration proposes to reform the laws governing the Inland Waterways Trust Fund, including establishing a fee to increase the amount paid by commercial navigation users of the inland waterways. In 1986, the Congress provided that commercial traffic on the inland waterways would be responsible for 50 percent of the capital costs of the locks, dams, and other features that make barge transportation possible on the inland waterways. The additional revenue would help finance the users' share of future capital investments as well as 10 percent of the cost of operation and maintenance activities in these waterways to support economic growth. The current excise tax on diesel fuel used in inland waterways commerce will not produce sufficient revenue to cover these costs.

Increase employee contributions to the Federal Employees Retirement System (FERS).—The Administration proposes to increase Federal employee contributions to FERS, equalizing employee and employer contributions to FERS so that half of the normal cost would be paid by each. For some specific occupations, such as law enforcement officers and firefighters, the costs of their retirement packages necessitates a higher normal-cost percentage. For those specific occupations, this proposal would increase, but not equalize, employee contributions. This proposal brings Federal retirement benefits more in line with the private sector. This adjustment will reduce the long term cost to the Federal Government by reducing the Government's contribution rate. To reduce the impact on employees, this proposal will be phased in, increasing employee contributions by one percentage point per year, and reducing employer contributions by one percentage point per year, until both are equalized.

Implement a defined contribution system for term employees.—The Administration proposes to provide new federal term employees with a more generous TSP defined contribution plan, in lieu of participation in the FERS defined benefit plan. Term employees would receive a defined contribution that consists of an automatic 5 percent agency contribution to the Thrift Savings Plan,

Table 14–3. EFFECT OF BUDGET PROPOSALS
(In millions of dollars)

	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2020–2024	2020–2029
Establish Education Freedom Scholarships	....	–893	–4,847	–4,928	–5,006	–4,974	–5,036	–4,916	–4,934	–4,960	–4,994	–20,648	–45,488
Give Medicare beneficiaries with high deductible health plans the option to make tax deductible contributions to Health Savings Accounts or Medical Savings Accounts	....	....	–601	–1,056	–1,267	–1,472	–1,577	–1,652	–1,724	–1,785	–1,223	–4,396	–12,357
Provide tax exemption for certain HRSA and IHS scholarship and loan repayment programs	....	–24	–32	–32	–32	–32	–32	–35	–35	–35	–36	–152	–325
Reduce the grace period for Exchange premiums	....	47	–20	....	....	....	....	....	....	....	....	27	27
Introduce new minimum required contribution for premium tax credits	....	....	38	....	....	....	....	....	....	....	....	38	38
Improve and expand access to Health Savings Accounts	....	....	–2,122	–2,997	–2,933	–2,872	–2,948	–3,077	–3,216	–3,339	–3,467	–10,924	–26,971
Reform medical liability	....	18	64	94	117	134	183	147	33	....	....	427	790
Establish Electronic Visa Update System user fee	....	34	38	42	47	52	58	64	72	79	88	213	574
Make full Electronic System for Travel Authorization (ESTA) receipts available to CBP	....	....	....	....	....	....	–1	....	....	209	216	0	424
Establish an immigration services surcharge	....	466	471	479	486	494	508	523	538	554	570	2,396	5,089
Increase worksite enforcement penalties	....	13	14	15	15	15	15	15	15	15	15	72	147
Reauthorize the Oil Spill Liability Trust Fund excise tax [1]	....	403	533	539	544	551	552	536	535	543	546	2,570	5,282
Provide paid parental leave benefits [1]	....	....	....	538	803	887	966	1,042	1,113	1,180	1,241	2,228	7,770
Establish an Unemployment Insurance (UI) solvency standard [1]	....	....	....	332	678	1,042	1,472	2,047	404	690	1,062	2,052	7,727
Improve UI program integrity [1]	....	....	–1	–8	–22	–39	54	–143	–214	–169	–140	–70	–682
Provide authority for Bureau of Engraving and Printing to construct a new facility	42	5	3	–83	360	54	–19	3	223	3	....	339	549
Subject Financial Research Fund to appropriations [1]	....	....	–51	–51	–51	–51	–51	–51	–51	–51	–51	–204	–459
Implement tax enforcement program integrity cap adjustment	....	160	818	1,895	3,166	4,558	5,899	6,880	7,510	7,942	8,241	10,597	47,069
Increase oversight of paid tax return preparers	....	19	19	21	24	26	29	32	35	39	43	109	287
Provide more flexible authority for the Internal Revenue Service to address correctable errors	....	419	634	666	700	736	773	812	852	893	937	3,155	7,422
Repeal the qualified plug-in electric drive motor vehicle credit	....	34	379	386	381	319	234	207	221	208	156	1,499	2,525
Repeal exclusion of utility conservation subsidies	....	2	10	9	8	8	7	7	6	6	5	37	68
Repeal accelerated depreciation for renewable energy property	....	127	395	591	655	688	690	622	534	448	352	2,456	5,102
Repeal energy investment credit	....	–160	274	1,184	1,457	1,382	1,254	1,105	1,019	957	916	4,137	9,388
Repeal credit for residential energy efficient property	....	374	676	192	34	....	....	....	....	....	....	1,276	1,276
Reform inland waterways financing	....	178	178	178	178	178	178	178	178	178	178	890	1,780
Increase employee contributions to 50 percent of cost, phased in at 1 percent per year	....	....	2,121	4,400	6,687	8,627	10,191	11,505	11,699	11,762	11,819	21,835	78,811
Implement defined contribution system for term employees	....	–33	–90	–92	–93	–95	–98	–100	–102	–104	–106	–403	–913
Expand mandatory electronic filing of W–2s	....	12	12	12	11	11	11	11	10	10	10	58	110
Eliminate allocations to the Housing Trust Fund and Capital Magnet Fund	....	64	72	65	66	66	66	66	67	68	70	333	670
Improve clarity in worker classification and information reporting requirements	....	86	124	147	188	220	249	282	302	321	341	765	2,260
Empowering States and consumers to reform healthcare	....	–959	24	–3,489	–4,014	–4,355	–4,081	–3,688	–3,415	–3,737	–3,901	–12,793	–31,615
Require Social Security Number (SSN) for Child Tax Credit, Earned Income Tax Credit, and credit for other dependents	....	1,780	3,587	3,662	3,764	3,887	4,028	4,175	4,328	4,501	4,694	16,680	38,406
Offset overlapping unemployment and disability payments [1]	....	....	....	....	–1	–7	–18	–15	–17	–20	–28	–8	–106
Total, effect of budget proposals	42	2,172	2,720	2,711	6,950	10,038	13,556	16,582	15,986	16,406	17,554	24,591	104,675

[1] Net of income offsets

and up to 5 percent additional in matching contributions. These employees are currently provided a 1 percent automatic agency contribution to the Thrift Savings Plan and up to 4 percent additional in matching contributions. For certain term employees in the public safety field, the automatic Government contribution would consist of 7 percent of basic pay, with a Government match of up to 7 percent.

Lower the threshold from 250 to 10 for mandatory electronic reporting of W-2 data by employers.—Providing the IRS with timely and accurate W-2 information reported by employers facilitates pre-refund verification of wage and withholding information, which, in turn, can prevent issuance of questionable tax refunds through early detection of fraud and other erroneous refund claims. Extra time and resources are needed for the SSA to process paper W-2s submitted by employers before information on paper statements can be transmitted to the IRS. Under current law, employers who file 250 or more Forms W-2 in a year must e-file these information returns but those filing fewer than 250 Forms W-2 in a year can choose to file on paper. To enhance IRS pre-refund W-2 verification, the Administration proposes increasing the number of employers subject to mandatory electronic reporting of W-2 data. The proposal would reduce the W-2 e-file threshold from 250 to 10 Forms W-2.

Eliminate allocations to the Housing Trust Fund and Capital Magnet Fund.—The Administration proposes to eliminate an assessment on Fannie Mae and Freddie Mac that is used to fund the Housing Trust Fund and Capital Magnet Fund, two Federal programs that support affordable low-income housing. The resulting increase in taxable income at Fannie Mae and Freddie Mac would increase governmental receipts.

Improve clarity in worker classification and information reporting requirements.—The Administration proposes to: (1) establish a new safe harbor that allows a service recipient to classify a service provider as an independent contractor and requires withholding of individual income taxes to this independent contractor at a rate of five percent on the first $20,000 of payments; and (2) raises the reporting threshold for payments to all independent contractors from $600 to $1,000, and reduces the reporting threshold for third-party settlement organizations from $20,000 and 200 transactions per payee to $1,000 without regard to the number of transactions. In addition, Form 1099-K would be required to be filed with the IRS by January 31 of the year following the year for which the information is being reported. The proposal increases clarity in the tax code, reduces costly litigation, and improves tax compliance.

Empower States and consumers to reform healthcare.—The Administration is committed to empowering consumers and States to reimagine health care. Enacting ACA reform legislation would affect governmental receipts by repealing the Premium Tax Credit and several of the damaging Obamacare taxes. It would also make reforms to HSAs that would expand individuals' ability to contribute pre-tax dollars to their health care.

Require a social security number (SSN) that is valid for work in order to claim child tax credit, earned income tax credit (EITC), and/or credit for other dependents (ODTC).—The Administration proposes requiring a SSN that is valid for work to claim the EITC, the child tax credit (both the refundable and non-refundable portion), and/or the ODTC for the taxable year. For all credits, this requirement would apply to taxpayers (including both the primary and secondary filer on a joint return) and all qualifying children or dependents. Under current law, taxpayers who do not have SSNs that are valid for work may claim the child tax credit (CTC) as long as the qualifying child for whom the credit is claimed has a valid SSN. Furthermore, the ODTC, created by the Tax Cuts and Jobs Act, allows taxpayers whose dependents do not meet the requirements of the CTC—including the SSN requirement—to claim this non-refundable credit. This proposal would ensure that only individuals who are authorized to work in the United States could claim these credits by extending the SSN requirement for qualifying children to parents on the tax form for the CTC and instituting an SSN requirement for the ODTC. While this SSN requirement is already current law for the EITC, this proposal would also fix an administrative gap to strengthen enforcement of the provision.

Offset overlapping unemployment and disability payments.—The Administration proposes to close a loophole that allows individuals to receive both UI and Disability Insurance (DI) benefits for the same period of joblessness. The proposal would offset the DI benefit to account for concurrent receipt of UI benefits. Offsetting the overlapping benefits would discourage some individuals from applying for UI, reducing benefit outlays. The reduction in benefit outlays is accompanied by a reduction in States' UI tax receipts, which are held in the Unemployment Trust Fund.

Table 14–4. RECEIPTS BY SOURCE
(In millions of dollars)

Source	2018 Actual	Estimate										
		2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Individual income taxes:												
Federal funds	1,683,538	1,698,353	1,821,791	1,945,724	2,081,146	2,235,619	2,391,867	2,563,837	2,747,521	2,938,708	3,145,623	3,358,755
Legislative proposal, not subject to PAYGO	....	....	102	741	1,767	3,002	4,368	5,675	6,622	7,345	7,752	8,025
Legislative proposal, subject to PAYGO	....	....	2,292	–678	–1,863	–1,852	–1,743	–1,742	–1,729	–1,929	–1,989	–1,535
Total, Individual income taxes	**1,683,538**	**1,698,353**	**1,824,185**	**1,945,787**	**2,081,050**	**2,236,769**	**2,394,492**	**2,567,770**	**2,752,414**	**2,944,124**	**3,151,386**	**3,365,245**
Corporation income taxes:												
Federal funds	204,733	216,194	255,598	284,269	314,104	370,177	417,717	442,942	428,264	417,683	427,773	432,163
Legislative proposal, not subject to PAYGO	....	....	–11	3	3	3	2	2	1	1	1	1
Legislative proposal, subject to PAYGO	....	....	–426	–214	570	768	684	496	375	364	303	187
Total, Corporation income taxes	**204,733**	**216,194**	**255,161**	**284,058**	**314,677**	**370,948**	**418,403**	**443,440**	**428,640**	**418,048**	**428,077**	**432,351**
Social insurance and retirement receipts (trust funds):												
Employment and general retirement:												
Old-age survivors insurance (off-budget)	691,215	767,747	811,470	858,009	905,648	952,447	1,004,297	1,056,904	1,116,360	1,173,033	1,244,273	1,308,411
Legislative proposal, not subject to PAYGO	....	....	11	–320	–597	–718	–817	–906	–988	–807	–887	–856
Disability insurance (off-budget)	163,532	143,367	137,797	145,699	153,789	161,737	170,541	179,474	189,571	199,194	211,292	222,183
Legislative proposal, not subject to PAYGO	....	....	2	–54	–101	–122	–138	–154	–167	–137	–150	–145
Hospital Insurance	260,659	276,253	288,938	306,642	324,951	342,843	362,213	381,745	403,745	425,219	451,693	476,070
Legislative proposal, not subject to PAYGO	....	....	–8	–10	–41	–63	–80	–100	–118	–58	–73	–89
Legislative proposal, subject to PAYGO	....	....	–5	–113	–167	–178	–192	–188	–206	–239	–253	–224
Railroad retirement:												
Social security equivalent account	2,396	2,363	2,508	2,600	2,700	2,803	2,899	2,999	3,098	3,197	3,300	3,406
Rail pension & supplemental annuity	3,353	3,300	3,408	3,458	3,585	3,716	3,843	3,972	4,099	4,229	4,361	4,703
Total, Employment and general retirement	1,121,155	1,193,030	1,244,121	1,315,911	1,389,767	1,462,465	1,542,566	1,623,746	1,715,394	1,803,631	1,913,556	2,013,459
On-budget	(266,408)	(281,916)	(294,841)	(312,577)	(331,028)	(349,121)	(368,683)	(388,428)	(410,618)	(432,348)	(459,028)	(483,866)
Off-budget	(854,747)	(911,114)	(949,280)	(1,003,334)	(1,058,739)	(1,113,344)	(1,173,883)	(1,235,318)	(1,304,776)	(1,371,283)	(1,454,528)	(1,529,593)
Unemployment insurance:												
Deposits by States [1]	36,222	37,850	39,502	39,682	38,913	38,906	39,562	41,210	42,823	44,276	45,875	47,867
Legislative proposal, not subject to PAYGO	....	....	....	–1	–6	–18	–32	88	–152	–235	–175	–135
Legislative proposal, subject to PAYGO	....	....	....	....	669	994	1,084	1,164	1,258	1,336	1,414	1,476
Federal unemployment receipts [1]	8,686	6,405	6,528	6,657	6,792	6,931	7,078	7,222	7,374	7,536	7,708	7,708
Legislative proposal, subject to PAYGO	....	....	....	....	414	848	1,302	1,839	2,558	506	863	1,326
Railroad unemployment receipts [1]	134	134	124	127	142	142	129	129	146	156	156	154
Total, Unemployment insurance	45,042	44,389	46,154	46,465	46,924	47,803	49,123	51,652	54,007	53,575	55,841	58,396
Other retirement:												
Federal employees retirement - employee share	4,473	4,955	5,211	5,524	5,897	6,291	6,701	7,127	7,567	8,024	8,472	8,960
Legislative proposal, subject to PAYGO	....	....	–33	2,031	4,308	6,594	8,532	10,093	11,405	11,597	11,658	11,713
Non-Federal employees retirement [2]	31	31	31	30	30	30	29	29	29	28	28	28
Total, Other retirement	4,504	4,986	5,209	7,585	10,235	12,915	15,262	17,249	19,001	19,649	20,158	20,701
Total, Social insurance and retirement receipts (trust funds)	**1,170,701**	**1,242,405**	**1,295,484**	**1,369,961**	**1,446,926**	**1,523,183**	**1,606,951**	**1,692,647**	**1,788,402**	**1,876,855**	**1,989,555**	**2,092,556**
On-budget	(315,954)	(331,291)	(346,204)	(366,627)	(388,187)	(409,839)	(433,068)	(457,329)	(483,626)	(505,572)	(535,027)	(562,963)
Off-budget	(854,747)	(911,114)	(949,280)	(1,003,334)	(1,058,739)	(1,113,344)	(1,173,883)	(1,235,318)	(1,304,776)	(1,371,283)	(1,454,528)	(1,529,593)

Table 14–4. RECEIPTS BY SOURCE—Continued
(In millions of dollars)

Source	2018 Actual	Estimate 2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Excise taxes:												
Federal funds:												
Alcohol	10,057	10,204	10,305	10,363	10,353	10,460	10,524	10,581	10,755	10,967	11,213	11,488
Tobacco	12,861	13,210	13,150	12,898	12,908	12,806	12,690	12,619	12,522	12,426	12,337	12,241
Transportation fuels	–1,459	–3,710	–1,018	–1,022	–1,016	–1,007	–1,004	–1,001	–992	–990	–985	–984
Telephone and teletype services	512	464	414	363	310	257	203	148	98	47	44	33
High-cost health insurance coverage	....	....	....	....	1,608	5,584	6,377	7,329	8,455	9,726	11,191	12,885
Health insurance providers	4,681	9,590	15,397	16,221	16,897	5,878	30,024	19,200	20,075	20,952	7,322	22,188
Indoor tanning services	69	67	65	62	60	58	55	53	51	48	46	43
Medical devices	–176	....	1,755	2,624	2,794	2,969	3,152	3,332	3,526	3,735	3,957	4,193
Other Federal fund excise taxes	3,522	3,063	3,188	3,260	3,339	3,356	3,426	3,528	3,635	3,742	3,858	3,977
Total, Federal funds	30,067	32,888	43,256	44,769	47,253	40,361	65,447	55,789	58,125	60,653	48,983	66,064
Trust funds:												
Transportation	42,613	42,772	43,348	43,411	43,471	43,467	43,469	43,467	43,575	43,755	44,002	44,427
Airport and airway	15,793	16,309	17,176	18,066	19,004	19,945	20,879	21,943	23,130	24,311	25,555	26,960
Sport fish restoration and boating safety	562	568	573	577	583	589	595	601	608	614	621	628
Tobacco assessments	3	....	....	....	....	....	....	....	....	....	....	....
Black lung disability insurance	384	238	194	192	188	188	195	199	203	204	205	207
Inland waterway	115	108	106	104	101	100	98	96	95	93	93	92
Oil spill liability	503	146	....	....	....	....	....	....	....	....	....	....
Legislative proposal, subject to PAYGO	....	....	511	675	681	688	698	699	696	699	709	712
Vaccine injury compensation	309	305	310	307	310	314	317	318	321	327	331	337
Leaking underground storage tank	223	215	216	214	213	210	208	206	205	203	202	201
Supplementary medical insurance	4,095	4,709	2,800	2,800	2,800	1,492	4,108	2,800	2,800	2,800	1,492	2,800
Patient-centered outcomes research	319	411	345	360	376	395	414	434	454	476	499	523
Total, Trust funds	64,919	65,781	65,579	66,706	67,727	67,388	70,981	70,763	72,087	73,482	73,709	76,887
Total, Excise taxes	**94,986**	**98,669**	**108,835**	**111,475**	**114,980**	**107,749**	**136,428**	**126,552**	**130,212**	**134,135**	**122,692**	**142,951**
Estate and gift taxes:												
Federal funds	22,983	19,295	19,304	20,405	21,803	23,313	24,874	26,504	27,958	29,424	30,712	31,887
Total, Estate and gift taxes	**22,983**	**19,295**	**19,304**	**20,405**	**21,803**	**23,313**	**24,874**	**26,504**	**27,958**	**29,424**	**30,712**	**31,887**
Customs duties and fees:												
Federal funds	39,692	67,737	46,534	43,265	46,153	48,808	51,502	54,224	56,984	59,799	62,646	65,580
Legislative proposal, subject to PAYGO	....	....	....	....	....	....	....	....	....	....	....	....
Trust funds	1,607	1,732	1,849	1,953	2,064	2,195	2,323	2,451	2,582	2,718	2,857	3,007
Total, Customs duties and fees	**41,299**	**69,469**	**48,383**	**45,218**	**48,217**	**51,003**	**53,825**	**56,675**	**59,566**	**62,517**	**65,503**	**68,587**
Miscellaneous receipts:												
Federal funds:												
Miscellaneous taxes	666	676	639	630	631	631	629	630	629	630	630	622
Deposit of earnings, Federal Reserve System	70,750	48,741	49,446	52,262	56,277	61,533	68,039	73,327	78,733	84,419	90,393	96,674
Legislative proposal, subject to PAYGO	....	42	28	519	445	901	607	547	583	817	611	622
Transfers from the Federal Reserve	381	533	504	516	528	541	553	566	580	594	608	622
Legislative proposal, subject to PAYGO	....	....	–23	–516	–528	–541	–553	–566	–580	–594	–608	–622
Fees for permits and regulatory and judicial services	18,930	19,114	19,193	20,491	22,666	25,043	28,092	31,306	34,177	35,774	37,458	38,931
Legislative proposal, subject to PAYGO	....	....	500	441	453	465	478	497	519	541	774	806
Fines, penalties, and forfeitures	19,193	22,690	22,438	23,558	22,231	22,427	22,615	22,806	23,044	23,163	23,423	23,676
Legislative proposal, subject to PAYGO	....	....	13	14	15	15	15	15	15	15	15	15
Refunds and recoveries	–26	–26	–26	–26	–26	–26	–26	–26	–26	–26	–26	–26

Table 14–4. RECEIPTS BY SOURCE—Continued

(In millions of dollars)

Source	2018 Actual	Estimate 2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Total, Federal funds	109,894	91,770	92,712	97,889	102,692	110,989	120,449	129,102	137,674	145,333	153,278	161,320
Trust funds:												
United Mine Workers of America, combined benefit fund	19	17	16	14	13	12	11	9	9	8	7	7
Defense cooperation	656	333	361	734	504	223	154	157	160	163	166	169
Inland waterways (Legislative proposal, subject to PAYGO)	....	....	178	178	178	178	178	178	178	178	178	178
Fines, penalties, and forfeitures	1,095	1,151	1,112	1,121	1,081	1,099	1,111	1,102	1,102	1,097	1,102	1,100
Total, Trust funds	1,770	1,501	1,667	2,047	1,776	1,512	1,454	1,446	1,449	1,446	1,453	1,454
Total, Miscellaneous receipts	**111,664**	**93,271**	**94,379**	**99,936**	**104,468**	**112,501**	**121,903**	**130,548**	**139,123**	**146,779**	**154,731**	**162,774**
Allowance for empowering States and consumers to reform healthcare	....	....	**–959**	**24**	**–3,489**	**–4,014**	**–4,355**	**–4,081**	**–3,688**	**–3,415**	**–3,737**	**–3,901**
Total, budget receipts	**3,329,904**	**3,437,656**	**3,644,772**	**3,876,864**	**4,128,632**	**4,421,452**	**4,752,521**	**5,040,055**	**5,322,627**	**5,608,467**	**5,938,919**	**6,292,450**
On-budget	(2,475,157)	(2,526,542)	(2,695,492)	(2,873,530)	(3,069,893)	(3,308,108)	(3,578,638)	(3,804,737)	(4,017,851)	(4,237,184)	(4,484,391)	(4,762,857)
Off-budget	(854,747)	(911,114)	(949,280)	(1,003,334)	(1,058,739)	(1,113,344)	(1,173,883)	(1,235,318)	(1,304,776)	(1,371,283)	(1,454,528)	(1,529,593)

[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.

15. 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 2020 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 2018, offsetting receipts and offsetting collections from the public were $564 billion, while receipts and collections from intragovernmental transactions were $1,128 billion, for a total of $1,692 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 33 percent 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 health care 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 ($24.4 billion in 2018) 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 11 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 12, "Coverage of the Budget."

Table 15–1. OFFSETTING COLLECTIONS AND OFFSETTING RECEIPTS FROM THE PUBLIC
(In billions of dollars)

	Actual 2018	Estimate 2019	Estimate 2020
Offsetting collections (credited to expenditure accounts):			
User charges:			
Postal Service stamps and other USPS fees (off-budget)	70.0	71.3	74.4
Defense Commissary Agency	4.8	5.2	4.4
Employee contributions for employees and retired employees health benefits funds	16.4	16.9	17.7
Sale of energy:			
Tennessee Valley Authority	47.7	47.3	47.8
Bonneville Power Administration	3.6	3.9	3.8
Pension Benefit Guaranty Corporation fund	10.5	10.9	10.4
Deposit Insurance	16.3	8.6	12.4
All other user charges	51.5	45.2	47.0
Subtotal, user charges	220.8	209.2	217.8
Other collections credited to expenditure accounts:			
Commodity Credit Corporation fund	7.7	8.7	10.7
Supplemental Security Income (collections from the States)	2.6	2.7	2.8
Other collections	35.4	6.4	4.9
Subtotal, other collections	45.8	17.8	18.3
Subtotal, offsetting collections	266.6	227.0	236.1
Offsetting receipts (deposited in receipt accounts):			
User charges:			
Medicare premiums	100.1	107.6	112.7
Spectrum auction, relocation, and licenses	5.9	1.1	2.8
Outer Continental Shelf rents, bonuses, and royalties	3.2	3.9	3.8
Immigration fees	4.8	5.5	6.0
All other user charges	24.0	28.5	29.0
Subtotal, user charges deposited in receipt accounts	138.0	146.6	154.4
Other collections deposited in receipt accounts:			
Military assistance program sales	32.2	43.1	47.4
Interest received from credit financing accounts	42.1	50.0	51.5
Proceeds, GSE equity related transactions	9.9	21.0	18.8
Student loan receipt of negative subsidy and downward reestimates	26.8	12.3	9.2
All other collections deposited in receipt accounts	48.5	52.1	44.1
Subtotal, other collections deposited in receipt accounts	159.5	178.4	171.1
Subtotal, offsetting receipts	297.5	325.0	325.4
Total, offsetting collections and offsetting receipts from the public	**564.0**	**552.0**	**561.6**
Total, offsetting collections and offsetting receipts excluding off-budget	477.5	472.7	479.9
ADDENDUM:			
User charges that are offsetting collections and offsetting receipts[1]	358.8	355.8	372.2
Other offsetting collections and offsetting receipts from the public	205.3	196.2	189.4

[1] Excludes user charges that are classified on the receipts side of the budget. For total user charges, see Table 15–3.

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, immigration fees, food inspection fees, passport fees, and patent and trademark 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.

The spending associated with the activities that generate offsetting collections and offsetting receipts from the public is included in total or "gross outlays." Offsetting

[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 15–2. SUMMARY OF OFFSETTING RECEIPTS BY TYPE
(In millions of dollars)

Receipt Type	Actual 2018	Estimate 2019	2020	2021	2022	2023	2024
Intragovernmental	780,357	801,689	853,288	893,210	938,218	986,816	1,042,628
Receipts from non-Federal sources:							
Proprietary	279,032	310,335	307,560	318,426	331,760	349,533	368,424
Offsetting governmental	18,427	14,656	17,883	15,675	15,920	16,539	17,018
Total, receipts from non-Federal sources	297,459	324,991	325,443	334,101	347,680	366,072	385,442
Total Offsetting receipts	1,077,816	1,126,680	1,178,731	1,227,311	1,285,898	1,352,888	1,428,070

collections and offsetting receipts from the public are subtracted from gross outlays to yield "net outlays," which is the most common measure of outlays cited and generally referred to as simply "outlays." For 2018, gross outlays were $5,801 billion, or 28.7 percent of GDP and offsetting collections and offsetting receipts were $1,692 billion, or 8.4 percent of GDP, resulting in net outlays of $4,109 billion or 20.3 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 2018, governmental receipts were $3,330 billion, or 16.5 percent of GDP, and the deficit was $779 billion, or 3.8 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.

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 15–3. GROSS OUTLAYS, USER CHARGES, OTHER OFFSETTING COLLECTIONS AND OFFSETTING RECEIPTS FROM THE PUBLIC, AND NET OUTLAYS
(In billions of dollars)

	Actual 2018	Estimate 2019	2020
Gross outlays to the public	4,673.1	5,081.0	5,306.6
Offsetting collections and offsetting receipts from the public:			
User charges [1]	358.8	355.8	372.2
Other	205.3	196.2	189.4
Subtotal, offsetting collections and offsetting receipts from the public	564.0	552.0	561.6
Net outlays	4,109.0	4,529.1	4,745.0

[1] $4.9 billion of the total user charges for 2018 were classified as governmental receipts, and the remainder were classified as offsetting collections and offsetting receipts. $5.1 billion and $5.7 billion of the total user charges for 2019 and 2020 are classified as governmental receipts, respectively.

Table 15–1 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 2020, the table shows that total offsetting collections and offsetting receipts from the public are estimated to be $561.6 billion or 2.5 percent of GDP. Of these, an estimated $236.1 billion are offsetting collections and an estimated $325.4 billion are offsetting receipts. Table 15–1 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 B and D, proceeds from military assistance program sales, rents and royalties from Outer Continental Shelf oil extraction, proceeds from auctions of the electromagnetic spectrum, dividends on holdings of preferred stock of the Government-sponsored enterprises, and interest income.

Tables 15–2 and 15–3 provide further detail about offsetting receipts, including both offsetting receipts from the public (as summarized in Table 15–1) and intragovernmental transactions. Table 15–5, formerly printed in this chapter, and Table 15–6. Offsetting Collections and Offsetting Receipts, Detail—FY 2020 Budget, which is a complete listing by account, are available on the Internet at *https://www.whitehouse.gov/omb/analytical-perspectives/*. In total, offsetting receipts are estimated to be $1,178.7 billion in 2020; $853.3 billion are from intragovernmental transactions and $325.4 billion are from the public. The offsetting receipts from the public consist of proprietary receipts ($307.6 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 ($17.8 billion).

II. USER CHARGES

User charges or user fees[4] 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 2020, only an estimated 1.5 percent of user charges are classified as governmental receipts. As summarized in Table 15–3, total user charges for 2020 are estimated to be $377.9 billion with $372.2 billion being offsetting collections or offsetting receipts, and accounting for more than half of all offsetting collections and offsetting receipts from the public.

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 15–1 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, interest, and dividends, 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.[5]

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 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

[4] 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 11 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.

[5] 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.

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.[6] 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 15–3, 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 $5.7 billion in 2020 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 $372.2 billion in 2020, 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.

[6] 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 15–1, an estimated $217.8 billion of user charges for 2020 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 $154.4 billion of user charges for 2020 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 15–4, the Administration is proposing new or increased user charges that would, in the aggregate, increase collections by an estimated $3.8 billion in 2020 and an average of $13.7 billion per year from 2021 through 2029. 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 11, "Budget Concepts."

A. Discretionary User Charge Proposals

1. Offsetting collections

Department of Agriculture

Establish Federal Grain Inspection Service fee. The Administration proposes establishing a new discretionary user fee to recover the full costs for programs under the Federal Grain Inspection Service (FGIS). Entities that receive marketing benefits from FGIS services should pay for the costs of these programs. For example, grain standards benefit and are used almost solely for the grain industry, and because they facilitate the orderly marketing of grain products, it is industry that should bear the cost.

Establish Agricultural Quarantine Inspection fee. The Administration proposes establishing a new discretionary user fee for the Animal and Plant Health Inspection

Service (APHIS) Agricultural Quarantine Inspection (AQI) pre-departure program. The fees would recover the full costs of APHIS' inspections of passengers and cargo traveling to the continental United States from Hawaii and Puerto Rico to prevent the introduction of non-native agricultural pests and diseases into the mainland.

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: Establish over-the-counter monograph user fee. FDA currently regulates over-the-counter (OTC) products through a three-phase public rulemaking process to establish standards or drug monographs for an OTC therapeutic drug class. The proposal would provide additional resources and authorities to FDA to bring new OTC products into the market faster so that Americans will have greater access to a wider range of safe and effective OTC products.

FDA: Expand 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 deemed products, which currently do not pay user fees. To ensure that resources keep up with new tobacco products, the proposal would also index future collections to inflation.

FDA: Establish innovative food products user fee. Innovative food products include new ingredients, methods, and food contact substances. Examples of new products include new proteins, new ingredients, and synthetic foods. Food contact substances include components of food packaging and food processing equipment that come in contact with food. This new fee will allow FDA to evaluate emerging products and technologies to ensure their safety and get them to the market in a timely manner, thus fostering innovation.

Centers for Medicare and Medicaid Services (CMS): Establish survey and certification revisit fee. The Budget proposes a revisit user fee to provide CMS with a greater ability to revisit poorly performing health care facilities and build greater accountability by creating an incentive for facilities to correct deficiencies and ensure quality of care.

Health Resources and Services Administration: Establish 340B Program user fee. To improve the administration and oversight of the 340B Drug Discount Program, the Budget includes a new user charge to those covered entities participating in the program.

Department of Homeland Security

Transportation Security Administration (TSA): Increase aviation passenger security fee. Pursuant to the Bipartisan Budget Act (BBA) of 2013, the passenger security fee is $5.60 per one-way trip. The BBA also allocated a portion of the fee revenue to deficit reduction. The 2020 Budget proposes to increase the passenger security fee from $5.60 to $6.60 in FY 2020, and from $6.60 to $8.25 starting in FY 2021 in order to recover the full cost of aviation security from the traveling public by 2029. This proposal will increase offsetting collections by an estimated $22.4 billion between 2020 and 2029.

Department of Housing and Urban Development

Federal Housing Administration (FHA): Establish Information Technology (IT) fee. The Budget requests authority to charge lenders using FHA mortgage insurance an IT fee, which would generate, through 2023, an estimated $20 million annually in offsetting collections. These additional collections will offset the cost of modernizing FHA's aging IT systems.

Department of State

Establish Diplomacy Center 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 U.S. Diplomacy Center.

Department of Transportation

Federal Railroad Administration (FRA): Establish Railroad Safety Inspection fee. The FRA establishes and enforces safety standards for U.S. railroads. FRA's rail safety inspectors work in the field and oversee railroads' operating and management practices. The Administration is proposing that, starting in 2020, the railroads contribute to partially cover the cost of FRA's field inspections because railroads benefit directly from Government efforts to maintain high safety standards. The proposed fee would be similar to existing charges collected from other industries regulated by Federal safety programs.

Department of the Treasury

Subject Financial Research Fund (FRF) assessments to annual appropriations action. Expenses of the Financial Stability Oversight Council (FSOC) and Office of Financial Research (OFR) are paid through the FRF, which is authorized to assess fees on certain bank holding companies and nonbank financial companies supervised by the Federal Reserve Board of Governors. The FRF was established by the Dodd-Frank Act and is managed by the Department of the Treasury. To improve their effectiveness and ensure greater accountability, the Budget proposes to subject the activities of FSOC and OFR to the appropriations process. In so doing, currently authorized assessments would, beginning in 2021, be reclassified as discretionary offsetting collections and set at a level determined by the Congress.

Establish Committee on Foreign Investments in the United States (CFIUS) filing fees. The Budget proposes that CFIUS will assess and collect filing fees on certain covered transactions for which a written notice is submitted to the Committee, as authorized by The Foreign Investment Risk Review Modernization Act (FIRRMA). Collected fees will be deposited into a newly-established CFIUS Fund and remain available for transfer to departments and agencies to support FIRRMA activities and address emerging needs. Fee collection will begin no sooner than mid–2020, when all FIRRMA regulations must be issued and take effect.

Environmental Protection Agency (EPA)

Establish ENERGY STAR fee. The Administration proposes to collect fees to fund EPA's administration of the ENERGY STAR program. Energy Star is a voluntary certification program that aims to help businesses and individuals save money and protect the environment through improved energy efficiency. By administering the voluntary program through the collection of user fees, entities participating in Energy Star would directly pay for the services and benefits that the program provides. Product manufacturers who seek to label their products under the program would pay a modest fee that would recover the full costs of EPA's work to set voluntary energy efficiency standards and to process applications. Fee collections will begin after EPA undertakes a rulemaking process to determine which products would be covered by fees and the level of fees, and to ensure that a fee system would not discourage manufacturers from participating in the program or result in a loss of environmental benefits.

Establish oil and chemical facility compliance assistance fees. The Administration proposes to provide an optional service to oil and chemical facilities to help these facilities identify actions to comply with certain environmental laws and regulations. Upon payment of a fee, EPA would conduct an on-site walk-through of a facility and provide recommendations and best practices regarding how to comply with certain regulations under the Clean Air Act and the Federal Water Pollution Control Act. This service would initially be available to facilities that are responsible for preparing and implementing a Risk Management Plan, Spill Prevention Control and Countermeasure Plan, and/or Facility Response Plan. Facilities choosing to utilize this service would pay a modest fee that would recover the full costs of EPA's work in providing this compliance assistance service to that facility. Fee collections and program implementation will begin after EPA issues procedures for applying for the service and the collection and use of such fees.

Commodity Futures Trading Commission (CFTC)

Establish CFTC user fee. The Budget proposes an amendment to the Commodity Exchange Act authorizing 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 CFTC to collect fees, the Administration proposes that collections begin in 2020 to offset a portion of CFTC's annual appropriation.

Social Security Administration

Establish replacement Social Security card fee. The Budget proposes to collect fees on replacement Social Security cards. First-time Social Security cards including cards issued at birth would not be subject to the fee. The new fee would offset some administrative costs of processing Social Security card requests. While having a Social Security Number is required for many public and private sector transactions, individuals rarely need to display the physical Social Security card.

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 (P.L. 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 2020 are projected to increase by $13 million (from $3 million to $16 million).

B. Mandatory User Charge Proposals

1. Offsetting collections

Department of Health and Human Services

Pass Treasury collection fees for CMS overpayment collections on to debtor. The Budget proposes to pass Treasury fees for CMS overpayment collections onto the debtor. Currently CMS pays the fee from the overpayment amount resulting in CMS recouping less than the overpayment. This proposal would require the debtor to pay the collection fee on top of the overpayment amount owed to CMS, resulting in all of the overpayment going back into the trust funds.

Department of Labor

Improve Pension Benefit Guaranty Corporation (PBGC) Multiemployer Program solvency. PBGC acts as a backstop to protect pension payments for workers whose companies have failed. Currently, PBGC's multiemployer pension insurance program is underfunded, and its liabilities far exceed its assets. PBGC receives no taxpayer funds and its premiums are currently much lower than what a private financial institution would charge for insuring the same risk. PBGC's multiemployer program, which insures the pension benefits of over 10 million participants, is at risk of insolvency by the end of fiscal year 2025. As an important step to protect the pensions of these hardworking Americans, the Budget proposes to create a variable-rate premium (VRP) and exit premium in the multiemployer program. A multiemployer VRP would require plans to pay additional premiums based on their level of underfunding, up to a cap, as is done in the single-employer program. An exit premium, equal to ten times the VRP cap, would be assessed on employers that withdraw from the system. PBGC would have limited authority to design waivers for some or all of the newly assessed variable-rate premiums if there is a substantial risk that the payment of premiums will accelerate plan insolvency, resulting in earlier financial assistance to the plan. These proposals would raise approximately $18 billion in premiums over the ten-year window. At this level of receipts, the program is more likely than not to remain solvent over the next 20 years, helping to ensure that there is a safety net available to workers and retirees whose multiemployer plans fail.

Reform PBGC's single-employer premiums. The financial condition of PBGC's single-employer program has improved in recent years, reflecting premium increases enacted by Congress, a strong economy, and the absence of large claims. Under current law, for plan years beginning in 2019, the single-employer premium consists of a flat-rate premium of $80 per participant and a variable-rate premium of $43 per $1,000 of unfunded vested benefits. The variable-rate premium is capped at $541 per participant and the flat and variable rates and the cap are indexed to wages. The Budget proposes to pause the indexation of premium rates for one year so that the rates for the 2020 plan year remain at the 2019 level. Indexation would resume for plan years beginning in 2021. The Budget also proposes to rebalance the single-employer premium structure by increasing the cap on the variable-rate premium. Recent increases in the variable premium rate, without a corresponding increase in the cap, have resulted in more plans with very significant underfunding having their premiums limited by the cap, thereby eroding the premium incentive to improve funding of pensions. The Budget proposes to increase the cap to $900 per participant in order to help restore the incentive to better fund promised pensions.

2. Offsetting receipts

Department of Agriculture

Establish Food Safety and Inspection Service (FSIS) user fee. The Administration proposes establishing a Food Safety and Inspection Service (FSIS) user fee to cover the costs of all domestic inspection activity and import re-inspection and most of the central operations costs for Federal, State, and international inspection programs for meat, poultry, and eggs. FSIS inspections benefit the meat, poultry, and egg industries. FSIS personnel are continuously present for all egg processing and domestic slaughter operations, inspect each livestock and poultry carcass, and inspect operations at meat and poultry processing establishments at least once per shift. The inspections cover microbiological and chemical testing as well as cleanliness and cosmetic product defects. The "inspected by USDA" stamp on meat and poultry labels increases consumer confidence in the product which may increase sales. The user fee would not cover Federal functions such as investigation, enforcement, risk analysis, and emergency response. The Administration estimates this fee would increase the cost of meat, poultry, and eggs for consumers by less than one cent per pound.

Establish Packers and Stockyards Program user fee. The Administration proposes establishing a Packers and Stockyards user fee. This would recover the costs of the Packers and Stockyards Program (P&SP) through a licensing fee. The P&SP benefits the livestock, meat, and poultry industries by promoting fair business practices and competitive market environments.

Establish Animal and Plant Health Inspection Service (APHIS) user fee. The Administration proposes establishing three new Animal and Plant Health Inspection Service (APHIS) mandatory user fees to offset costs related to 1) enforcement of the Animal Welfare Act, 2) regulation of biotechnology derived products, and 3) regulation of veterinary biologics products.

Establish Agricultural Marketing Service (AMS) user fee. The Administration proposes establishing an Agricultural Marketing Service (AMS) user fee to cover the full costs of the agency's oversight of Marketing Orders and Agreements. Marketing Orders and Agreements are initiated by industry to help provide stable markets, and are tailored to the specific industry's needs. The industries that substantially benefit from Marketing Orders and Agreements should pay for the oversight of these programs.

Establish Forest Service Mineral Program cost recovery fee. The Forest Service does not currently collect user fees to recover costs for special use permits to extract energy and hardrock mineral resources. The Administration proposes establishing fees to reduce the need for discretionary appropriations to fund permitting and oversight for surface extraction mining operations. For oil and gas resources, this proposal would bring Forest Service authorities in closer alignment with those of the Department of the Interior (DOI) where the Bureau of Land Management has responsibility for subsurface minerals below most federal lands and collects permitting fees for oil and gas. For hardrock mining, if the fees are properly structured, they could provide additional resources to improve permitting times.

Amend land uses cost recovery authority. The Administration proposes to change cost recovery authority to allow the Forest Service to collect funds for the full cost of processing a public lands-related special use proposal, primarily for new infrastructure owned and maintained by private sector entities. This technical amendment would authorize the agency to collect fees at the beginning of the project screening process and bring Forest Service land uses cost recovery practice in line with the Bureau of Land Management. Current Forest Service authority provides for fee collection after an application has been fully screened and accepted for consideration as a formal application.

Department of Commerce

Lease shared secondary licenses. To promote efficient use of the electromagnetic spectrum, the Administration proposes to require the leasing of Federal spectrum through secondary licenses. Under this proposal, the National Telecommunications and Information Administration (NTIA) would be granted authority to lease access to Federal spectrum for commercial use on a non-interference basis with Federal primary users. Working with other Federal agencies, NTIA would negotiate sharing arrangements on behalf of the Federal Government and would seek to increase the efficiency of spectrum when possible without causing harmful interference to Federal users authorized to operate in the negotiated bands. In addition to Federal spectrum auctions, leases will provide another option for maximizing the economic value of this scarce spectrum resource. Significant resources will be required by NTIA and other Federal agencies to negotiate and manage these spectrum leases. The cost of administering the program will be offset by a portion of the lease revenue. Therefore the proposal is conservatively estimated to generate approximately $670 million in net deficit reduction for taxpayers.

Department of Energy

Reform Power Marketing Administration (PMA) power rates. The PMAs sell wholesale electricity generated at dams owned and operated by the Army Corps of Engineers or the Bureau of Reclamation. The Flood Control Act of 1944 requires the PMAs to generate revenues to recover all costs, including annual operating and maintenance costs and the taxpayers' investment in the power portions of dams and in transmission lines. The PMAs recover these costs by establishing rates, charged to utility customers, based on the cost of providing this electricity. These rates are limited to recovering costs and there is limited Federal or state regulatory oversight to ensure these rates are efficient and justified. Current law permits the PMAs to defer repayment of prior capital investment by the taxpayers and creates economic inefficiencies. The vast majority of the Nation's electricity needs are met through for-profit Investor Owned Utilities, which are subject to state and/or Federal regulatory oversight in the establishment of rates. This proposal would change the statutory requirement that the PMA rates be based on recovering costs to a rate structure that could allow for faster recoupment of taxpayer investment and consideration of rates charged by comparable utilities.

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 October 20, 2027 to January 14, 2031, 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 (P.L. 112–41). It also proposes to extend COBRA fees (statutorily set under the Consolidated Omnibus Budget Reconciliation Act of 1985) and the Express Consignment Courier Facilities (ECCF) fee created under the Trade Act of 2002 beyond their current expiration date of September 30, 2027 to September 30, 2030.

Increase customs user fees. The Budget proposes to increase COBRA and ECCF fees created under the Trade Act of 2002. COBRA created a series of user fees for air and sea passengers, commercial trucks, railroad cars, private aircraft and vessels, commercial vessels, dutiable mail packages, broker permits, barges and bulk carriers from Canada and Mexico, cruise vessel passengers, and ferry vessel passengers. This proposal would increase the customs inspection fee by $2.10 (to $7.75) for certain air and sea passengers and increase other COBRA fees by proportional amounts. The additional revenue raised from increasing the user fees will allow CBP to recover more costs associated with customs related inspections, and reduce waiting times by helping to support the hiring of 840 new CBP Officers. This fee was last adjusted in April 2007, yet international travel volumes have grown since that time and CBP costs for customs inspections continue to increase. As a result, CBP relies on its annually appropriated funds to support the difference between fee collections and the costs of providing customs inspectional services. The Government Accountability Office's most recent review of these COBRA user fees (July 2016) identified that CBP collected $686 million in COBRA/ECCF fees compared to $870 million in operating costs, exhibiting a recovery rate of 78 percent.[7] With the fee increase, CBP would potentially collect the same amount it incurs in COBRA/ECCF eligible costs in FY 2020. The proposed legislation will close the gap between costs and collections, enabling CBP to provide improved inspectional services to those who pay this user fee.

Increase immigration user fees. This proposal will increase the Immigration Inspection User Fee (IUF) by $2 and eliminate a partial fee exemption for sea passengers arriving from the United States, Canada, Mexico, or adjacent islands. These two adjustments will result in a total fee of $9 for all passengers, regardless of mode of transportation or point of departure. This fee is paid by passengers and is used to recover some of the costs related to determining the admissibility of passengers entering the U.S. Specifically, the fees collected support immigration inspections, the maintenance and updating of systems to track criminal and illegal aliens in areas with high apprehensions, asylum hearings, and the repair and maintenance of equipment. This fee was last adjusted in November 2001, yet international travel volumes have grown significantly since that time and CBP costs for im-

[7] GAO–16–443, Enhanced Oversight Could Better Ensure Programs Receiving Fees and Other Collections Use Funds Efficiently, http://www.gao.gov/products/GAO–16–443

migration inspections continue to increase. As a result, CBP relies on annually appropriated funds to support the difference between fee collections and the costs of providing immigration inspection services. The Government Accountability Office's most recent review of IUF (July 2016) identified that CBP collected $728 million in IUF fees compared to $1,003 million in operating costs, exhibiting a recovery rate of 73 percent.[8] To prevent this gap from widening again in the future, the proposal will authorize CBP to adjust the fee without further statutory changes. CBP estimates raising the fee and lifting the exemption could offset the cost of an estimated 1,230 CBP Officers.

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 includes the following: 1) charge employer fees for its prevailing wage determinations; 2) charge employer fees for its permanent labor certification program; 3) charge employer fees for H–2B non-agricultural workers; 4) charge employer fees for CW–1 Northern Mariana Islands transitional workers; and 5) 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 the 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.

Increase H–1B ACWIA filing fee. The Budget proposes authorizing legislation to double the American Competitiveness and Workforce Improvement Act (ACWIA) fee for the H–1B visa program in order to help train domestic workers and close the skills gap. The increased fee revenue would provide additional funding for DOL's training grants to support apprenticeship while creating a new funding source for the Department of Education's Career and Technical Education formula grant. Under the proposal, the prescribed allocations for DOL job training grants (50 percent) and foreign labor certifications (five percent) would remain the same. The National Science Foundation's allocation for the Innovative Technology Experiences for Students and Teachers program (10 percent) would remain the same, while its allocation for STEM scholarships would decrease from 30 percent to 15 percent, a level that would nonetheless maintain absolute funding levels under current estimates. The proposal would initiate a new 15 percent allocation for the Department of Education's Career and Technical Education formula grant, which would provide additional support for technical training at the K–12 and community college levels. The remaining 5 percent would be maintained for Department of Homeland Security processing costs.

Department of the Treasury

Increase and extend guarantee fee charged by GSEs. The Temporary Payroll Tax Cut Continuation Act of 2011 (Public Law 112–78) required that Fannie Mae and Freddie Mac increase their credit guarantee fees on single-family mortgage acquisitions between 2012 and 2021 by an average of at least 0.10 percentage points. Revenues generated by this fee increase are remitted directly to the Treasury for deficit reduction. The Budget proposes to increase this fee by 0.10 percentage points for single-family mortgage acquisitions from 2020 through 2021, and then extend the 0.20 percentage point fee for acquisitions through 2024.

C. User Charge Proposals that are Governmental Receipts

Department of Homeland Security

CBP: Establish user fee for Electronic Visa Update System. 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.

Eliminate BrandUSA; make revenue available to CBP. The Administration proposes to eliminate funding for the Corporation for Travel Promotion (also known as Brand USA) as part of the Administration's plans to move the Nation towards fiscal responsibility and to redefine the proper role of the Federal Government. The Budget redirects the Electronic System for Travel Authorization (ESTA) surcharge currently deposited in the Travel Promotion Fund to the ESTA account at Customs and Border Protection.

Make full Electronic System for Travel Authorization (ESTA) receipts available to CBP. The Budget proposes to permanently extend the ESTA receipts beyond the current September 30, 2027 expiration date, eliminate the $100 million limitation on ESTA receipt transfers from the General Fund, and provide all collections made to CBP's ESTA account. CBP intends to use these resources to support traveler processing, including entry and exit process re-engineering and modernization, staffing and overtime processing of arrivals and departures from the

[8] GAO–16–443, Enhanced Oversight Could Better Ensure Programs Receiving Fees and Other Collections Use Funds Efficiently, *http://www.gao.gov/products/GAO–16–443*

United States, and any other CBP activities related to the processing of passengers including, but not limited to, activities of CBP's National Targeting Center.

Department of the Treasury

Subject Financial Research Fund (FRF) assessments to annual appropriations action. As explained above in the section of discretionary use charge proposals, the Budget proposes to subject activities of the Financial Stability Oversight Council (FSOC) and the Office of Financial Research (OFR) to the appropriations process in order to improve their effectiveness and ensure greater accountability. As part of the proposal, currently authorized assessments would be reclassified as discretionary offsetting collections, resulting in a reduction in governmental receipts and an increase in discretionary offsetting collections.

Corps of Engineers—Civil Works

Reform inland waterways funding. The Administration proposes to reform the laws governing the Inland Waterways Trust Fund, including establishing an annual fee to increase the amount paid by commercial navigation users of the inland waterways. In 1986, Congress provided that commercial traffic on the inland waterways would be responsible for 50 percent of the capital costs of the locks, dams, and other features that make barge transportation possible on the inland waterways. The additional revenue would help finance future capital investments, as well as 10 percent of the operation and maintenance cost, in these waterways to support economic growth. The current excise tax on diesel fuel used in inland waterways commerce will not produce the revenue needed to cover these costs.

Table 15–4. USER CHARGE PROPOSALS IN THE FY 2020 BUDGET[1]
(Estimated collections in millions of dollars)

	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2020-2024	2020-2029
OFFSETTING COLLECTIONS AND OFFSETTING RECEIPTS													
DISCRETIONARY:													
Offsetting collections													
Department of Agriculture													
Establish Federal Grain Inspection Service fee	....	25	25	25	25	25	25	25	25	25	25	125	250
Establish Agricultural Quarantine Inspection fee	....	31	32	33	34	35	35	36	37	38	39	165	350
Department of Health and Human Services													
Food and Drug Administration (FDA): Increase export certification user fee cap	....	4	4	4	4	4	4	4	4	5	5	20	42
FDA: Establish over-the-counter monograph user fee	....	28	30	31	33	35	36	38	40	42	44	157	357
FDA: Expand tobacco product user fee	....	100	120	141	162	184	207	230	253	277	302	707	1,976
FDA: Establish innovative food products user fee	....	28	28	28	28	28	28	28	28	28	28	140	280
Centers for Medicare and Medicaid Services (CMS): Establish survey and certification revisit fee	....	0	11	22	22	23	23	24	24	25	25	78	199
Health Resources and Services Administration: Establish 340B Program user fee	....	19	19	19	19	19	19	19	19	19	19	95	190
Department of Homeland Security													
Transportation Security Administration (TSA): Increase aviation passenger security fee	....	600	1,842	2,246	2,314	2,384	2,455	2,528	2,604	2,683	2,763	9,386	22,419
Department of Housing and Urban Development													
Federal Housing Administration (FHA): Establish Information Technology (IT) fee	....	20	20	20	20	....	....	....	....	....	....	80	80
Department of State													
Establish Diplomacy Center Rental Fee	....	*	*	*	*	*	*	*	*	*	*	*	*
Department of Transportation													
Federal Railroad Administration (FRA): Establish Railroad Safety Inspection fee	....	50	50	50	50	50	50	50	50	50	50	250	500
Department of the Treasury													
Subject Financial Research Fund assessments to annual appropriations action	....	....	68	68	68	68	68	68	68	68	68	272	612
Establish Committee on Foreign Investments in the United States (CFIUS) filing fees.	....	10	20	20	20	20	20	20	20	20	20	90	190
Environmental Protection Agency													
Establish ENERGY STAR fee	....	46	46	46	46	46	46	46	46	46	46	230	460
Establish chemical facility compliance assistance fee	....	20	20	20	20	20	20	20	20	20	20	100	200
Establish oil facility compliance assistance fee	....	10	10	10	10	10	10	10	10	10	10	50	100
Commodity Futures Trading Commission (CFTC)													
Establish CFTC user fee	....	65	66	68	69	70	72	73	75	76	78	338	712
Social Security Administration													
Establish replacement Social Security card fee	....	270	270	270	270	270	270	270	270	270	270	1,350	2,700
Offsetting receipts													
Department of State													
Extend Western Hemisphere Travel Initiative surcharge	....	483	483	483	483	483	483	483	483	483	483	2,415	4,830
Increase Border Crossing Card Fee	....	13	13	13	13	13	13	13	13	13	13	65	130
Subtotal, discretionary user charge proposals	....	1,822	3,177	3,617	3,710	3,787	3,884	3,985	4,089	4,198	4,308	16,113	36,577
MANDATORY:													
Offsetting collections													
Department of Health and Human Services													
Pass Treasury collection fees for CMS overpayment collections on to debtor	....	20	20	20	20	20	20	20	20	20	20	100	200
Department of Labor													
Improve Pension Benefit Guaranty Corporation (PBGC) Multiemployer Program solvency	....	....	1,963	2,008	2,048	2,071	–709	4,918	2,118	2,107	2,101	8,090	18,625

Table 15–4. USER CHARGE PROPOSALS IN THE FY 2020 BUDGET [1] —Continued

(Estimated collections in millions of dollars)

	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2020-2024	2020-2029
Reform PBGC's single-employer premiums	....	....	233	59	–9	–6	–63	–35	–70	–62	–77	277	–31
Offsetting receipts													
Department of Agriculture													
Establish Food Safety and Inspection Service (FSIS) user fee	....	....	660	660	660	660	660	660	660	660	660	2,640	5,940
Establish Packers and Stockyards Program user fee	....	23	23	23	23	23	23	23	23	23	23	115	230
Establish Animal and Plant Health Inspection Service (APHIS) user fee	....	22	22	23	23	24	24	24	25	25	26	114	238
Establish Agricultural Marketing Service (AMS) user fee	....	20	20	20	20	20	20	20	20	20	20	100	200
Establish Forest Service Mineral Program cost recovery fee	....	60	60	60	60	60	60	60	60	60	60	300	600
Amend land uses cost recovery authority	....	3	3	3	3	3	3	3	3	3	3	15	30
Department of Commerce													
Lease shared secondary licenses	....	50	55	55	60	65	70	70	80	80	85	285	670
Department of Energy													
Reform Power Marketing Administration (PMA) power rates	....	247	253	259	266	274	283	291	298	304	83	1,299	2,558
Department of Homeland Security													
Extend expiring Customs and Border Protection (CBP) fees	....	....	....	....	....	....	....	....	967	5,477	5,848	....	12,292
Increase Customs user fees	....	342	402	417	434	452	469	489	509	521	534	2,047	4,569
Increase immigration user fees	....	351	401	415	472	488	592	612	726	750	825	2,127	5,632
Department of Labor													
Expand Foreign Labor Certification fees	....	1	40	82	85	89	94	98	103	108	114	297	814
Increase H–1B ACWIA filing fee	....	380	380	380	380	380	380	380	380	380	380	1,900	3,800
Department of the Treasury													
Increase and extend guarantee fee charged by GSEs	....	224	1,013	1,616	3,002	4,352	5,108	4,971	4,371	3,771	3,284	10,208	31,714
Subtotal, mandatory user charge proposals	....	1,743	5,548	6,101	7,548	8,975	7,034	12,603	10,293	14,248	13,989	29,914	88,081
Subtotal, user charge proposals that are offsetting collections and offsetting receipts	....	3,565	8,725	9,718	11,258	12,762	10,918	16,588	14,382	18,446	18,297	46,027	124,658
GOVERNMENTAL RECEIPTS													
Department of Homeland Security													
CBP: Establish user fee for Electronic Visa Update System	....	34	38	42	47	52	58	64	72	79	88	213	574
Eliminate BrandUSA; make revenue available to CBP	....	....	....	....	....	....	....	....	....	....	....	....	....
Make full Electronic System for Travel Authorization (ESTA) receipts available to CBP	....	....	....	....	....	....	....	....	....	209	216	....	425
Department of the Treasury													
Subject Financial Research Fund assessments to annual appropriations action	....	....	–68	–68	–68	–68	–68	–68	–68	–68	–68	–272	–612
Corps of Engineers - Civil Works													
Reform inland waterways funding	....	178	178	178	178	178	178	178	178	178	178	890	1,780
Subtotal, governmental receipts user charge proposals	....	212	148	152	157	162	168	174	182	398	414	831	2,167
Total, user charge proposals	**.........**	**3,777**	**8,873**	**9,870**	**11,415**	**12,924**	**11,086**	**16,762**	**14,564**	**18,844**	**18,711**	**46,858**	**126,825**

[1] A positive sign indicates an increase in collections.

* $500,000 or less

16. 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 2018–2028 using two methods of accounting: current revenue effects and present value effects. The present value approach provides estimates of the revenue 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 1, 2018 and reflect the economic assumptions from the Mid-Session Review of the 2018 Budget. In some cases, expired or repealed provisions are listed if their revenue effects occur in fiscal year 2018 or later.

The total revenue effects for tax expenditures for fiscal years 2018–2028 are displayed according to the Budget's functional categories in Table 16–1. 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 revenue effects for these items are zero using the reference tax law baseline. The alternative baseline concepts are discussed in detail below.

Tables 16–2A and 16–2B report separately the respective portions of the total revenue 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 16–3 ranks the major tax expenditures by the size of their 2018–2028 revenue effect. The first column provides the number of the provision in order to cross reference this table to Tables 16–1, 16–2A, and 16–2B, as well as to the descriptions below.

Interpreting Tax Expenditure Estimates

The estimates shown for individual tax expenditures in Tables 16–1 through 16–3 do not necessarily equal the increase in Federal revenues (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 of other tax provisions or Government programs. For example, if capital gains were taxed at ordinary rates, capital gain realizations would be expected to decline, resulting in lower tax receipts. 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 revenues associated with other provisions. For example, even if behavior does not change, repeal of an itemized deduction could increase the revenue costs from other deductions because some taxpayers would be moved into higher tax brackets.

[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.

Alternatively, repeal of an itemized deduction could lower the revenue 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 16–1 are the totals of individual and corporate income tax revenue effects reported in Tables 16–2A and 16–2B, and do not reflect any possible interactions between individual and corporate income tax receipts. For this reason, the estimates in Table 16–1 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 16–4. Cash-based estimates reflect the difference between taxes deferred in the current year and incoming revenues 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. 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 revenue effects are presented in Table 16–4 for certain provisions that involve tax deferrals or other long-term revenue effects. These estimates complement the cash-based tax expenditure estimates presented in the other tables.

The present-value estimates represent the revenue effects, net of future tax payments that follow from activities undertaken during calendar year 2018 that cause the deferrals or other long-term revenue effects. For instance, a pension contribution in 2018 would cause a deferral of tax payments on wages in 2018 and on pension fund earnings on this contribution (e.g., interest) in later years. In some future year, however, the 2018 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 law 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 baseline 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 law baseline, but the reverse is not always true.

Both the normal and reference tax law baselines allow several major departures from a pure comprehensive income tax. For example, under the normal 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 are included in the reference tax law baseline. Thus, corporate tax rates below the maximum statutory rate do not give rise to a tax expenditure. The normal tax baseline is similar, except that, by convention, it specifies the current maximum rate as the baseline for the corporate income tax. The lower tax rates applied to the first $10 million of corporate income are thus regarded as a tax expenditure under the normal tax. By convention, the Alternative Minimum Tax is 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 rules, 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.

As illustrated in the Fiscal Year 2004 Tax expenditure Budget, provisions defined as tax expenditures in this Budget would be different if a pure comprehensive income tax were employed as the baseline. Similarly, they would also look quite different if a consumption tax were employed; the current income tax can be considered as a hybrid tax with income and consumption tax features. Comprehensive income, also called Haig-Simons income, is the real, inflation-adjusted accretions to wealth, accrued or realized. Using a comprehensive income tax baseline, the tax base can be larger than that considered here. A broad-based consumption tax is a combination of an income tax plus a deduction for net saving, or just consumption plus the change in net worth. Under this baseline, some of the current tax provisions would no longer be considered as tax expenditures (e.g. retirement savings). Because of the dramatic changes in the tax system introduced by the Tax Cuts and Jobs Act of 2017, the appendix updates the earlier analysis of 2004 using the new law with its modified tax base and new tax rate structure.

[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.

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 1, 2018.

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 supple-

Table 16–1. ESTIMATES OF TOTAL INCOME TAX EXPENDITURES FOR FISCAL YEARS 2018–2028

(In millions of dollars)

	Total from corporations and individuals											
	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2019–2028
National Defense												
1 Exclusion of benefits and allowances to armed forces personnel	12,030	12,450	11,220	11,240	11,590	12,050	12,550	13,090	13,660	14,270	14,920	127,040
International affairs:												
2 Exclusion of income earned abroad by U.S. citizens	6,930	7,280	7,640	8,020	8,420	8,840	9,290	9,750	10,240	10,750	11,290	91,520
3 Exclusion of certain allowances for Federal employees abroad	240	250	260	280	290	300	320	330	350	370	390	3,140
4 Inventory property sales source rules exception	1,250	0	0	0	0	0	0	0	0	0	0	0
5 Reduced tax rate on active income of controlled foreign corporations	63,400	34,490	38,950	41,870	43,500	34,020	20,510	9,410	45,150	73,890	77,270	419,060
6 Deduction for foreign-derived intangible income dervied from trade or business within the United States	4,290	7,420	7,970	9,730	10,990	11,440	11,950	12,490	9,090	6,880	7,220	95,180
7 Interest Charge Domestic International Sales Corporations (IC-DISCs)	1,220	1,280	1,340	1,410	1,480	1,560	1,630	1,720	1,800	1,890	1,990	16,100
General science, space, and technology:												
8 Expensing of research and experimentation expenditures (normal tax method)	8,510	6,750	7,430	8,420	–26,470	–46,290	–33,850	–20,540	–6,300	0	0	–110,850
9 Credit for increasing research activities	13,310	14,480	15,870	17,310	18,710	20,080	21,480	22,930	24,390	25,890	27,420	208,560
Energy:												
10 Expensing of exploration and development costs, fuels	970	850	820	750	710	710	710	740	1,010	1,230	1,270	8,800
11 Excess of percentage over cost depletion, fuels	350	290	410	530	590	620	660	700	810	890	920	6,420
12 Exception from passive loss limitation for working interests in oil and gas properties	10	0	0	0	10	10	10	10	10	10	10	70
13 Capital gains treatment of royalties on coal	160	140	130	130	140	140	150	150	170	190	200	1,540
14 Exclusion of interest on energy facility bonds	10	10	10	10	10	10	10	10	10	20	20	120
15 Enhanced oil recovery credit	390	520	570	620	660	750	810	850	850	840	810	7,280
16 Energy production credit [1]	3,150	3,240	3,320	3,510	3,680	3,760	3,710	3,570	3,110	2,720	2,360	32,980
17 Marginal wells credit	0	0	70	70	90	140	190	230	270	300	330	1,690
18 Energy investment credit [1]	3,180	4,300	5,100	5,250	4,650	3,620	2,460	1,700	1,230	1,030	970	30,310
19 Alcohol fuel credits [2]	10	0	0	0	0	0	0	0	0	0	0	0
20 Bio-Diesel and small agri-biodiesel producer tax credits [3]	20	0	0	0	0	0	0	0	0	0	0	0
21 Tax credits for clean-fuel burning vehicles and refueling property	740	640	450	360	360	350	310	240	200	170	160	3,240
22 Exclusion of utility conservation subsidies	430	450	470	490	510	540	570	590	620	650	680	5,570
23 Credit for holding clean renewable energy bonds [4]	70	70	70	70	70	70	70	70	70	70	70	700
24 Deferral of gain from dispositions of transmission property to implement FERC restructuring policy	–80	–120	–100	–80	–60	–40	–10	0	0	0	0	–410
25 Credit for investment in clean coal facilities	90	60	30	70	160	430	520	350	210	110	30	1,970
26 Temporary 50% expensing for equipment used in the refining of liquid fuels	–820	–460	–370	–280	–190	–90	–20	0	0	0	0	–1,410
27 Natural gas distribution pipelines treated as 15-year property	100	70	70	50	30	–10	–50	–80	–120	–140	–140	–320

Table 16–1. ESTIMATES OF TOTAL INCOME TAX EXPENDITURES FOR FISCAL YEARS 2018–2028—Continued
(In millions of dollars)

	Total from corporations and individuals											
	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2019–2028
28 Amortize all geological and geophysical expenditures over 2 years	230	180	180	190	210	220	230	250	290	320	340	2,410
29 Allowance of deduction for certain energy efficient commercial building property	40	10	0	0	0	0	0	0	0	0	0	10
30 Credit for construction of new energy efficient homes	120	50	10	0	0	0	0	0	0	0	0	60
31 Credit for energy efficiency improvements to existing homes	260	0	0	0	0	0	0	0	0	0	0	0
32 Credit for residential energy efficient property	1,900	1,530	1,180	770	190	30	0	0	0	0	0	3,700
33 Qualified energy conservation bonds [5]	30	30	30	30	30	30	30	30	30	30	30	300
34 Advanced Energy Property Credit	0	10	10	10	20	20	20	20	20	20	20	170
35 Advanced nuclear power production credit	0	80	200	300	340	340	340	140	0	0	0	1,740
36 Reduced tax rate for nuclear decommissioning funds	90	100	100	110	110	120	120	130	130	140	150	1,210
Natural resources and environment:												
37 Expensing of exploration and development costs, nonfuel minerals	50	20	30	30	50	60	50	30	40	40	50	400
38 Excess of percentage over cost depletion, nonfuel minerals	330	250	250	250	250	260	270	280	310	330	330	2,780
39 Exclusion of interest on bonds for water, sewage, and hazardous waste facilities	320	340	350	370	410	440	460	470	500	530	540	4,410
40 Capital gains treatment of certain timber income	160	140	130	130	140	140	150	150	170	190	200	1,540
41 Expensing of multiperiod timber growing costs	220	200	210	220	230	250	250	270	290	320	340	2,580
42 Tax incentives for preservation of historic structures	290	140	240	350	470	520	530	550	560	570	590	4,520
43 Carbon oxide sequestration credit	200	110	70	120	190	260	350	440	540	630	720	3,430
44 Deduction for endangered species recovery expenditures	30	30	30	30	30	30	40	40	40	60	60	390
Agriculture:												
45 Expensing of certain capital outlays	160	150	160	170	180	190	190	200	250	280	290	2,060
46 Expensing of certain multiperiod production costs	260	250	270	280	290	310	320	340	420	460	480	3,420
47 Treatment of loans forgiven for solvent farmers	30	30	30	30	40	40	40	40	70	70	70	460
48 Capital gains treatment of certain agriculture income	1,590	1,380	1,330	1,340	1,370	1,410	1,470	1,540	1,720	1,900	1,990	15,450
49 Income averaging for farmers	100	110	110	120	120	130	130	140	230	230	230	1,550
50 Deferral of gain on sale of farm refiners	15	15	15	15	15	15	20	20	20	20	20	175
51 Expensing of reforestation expenditures	50	50	60	70	70	80	80	80	90	100	100	780
Commerce and housing:												
Financial institutions and insurance:												
52 Exemption of credit union income	2,380	1,861	2,010	2,097	2,214	2,340	2,411	2,511	2,692	2,865	3,016	24,017
53 Exclusion of life insurance death benefits	13,510	14,350	15,550	16,600	17,520	18,460	19,390	20,340	21,690	23,480	24,630	192,010
54 Exemption or special alternative tax for small property and casualty insurance companies	30	40	40	40	40	50	50	50	60	60	60	490
55 Tax exemption of insurance income earned by tax-exempt organizations	480	320	330	340	350	360	370	380	400	410	420	3,680
56 Small life insurance company deduction	10	0	0	0	0	0	0	0	0	0	0	0

Table 16–1. ESTIMATES OF TOTAL INCOME TAX EXPENDITURES FOR FISCAL YEARS 2018–2028—Continued
(In millions of dollars)

		Total from corporations and individuals											
		2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2019–2028
57	Exclusion of interest spread of financial institutions	3,900	2,250	1,170	1,210	1,240	1,280	1,310	1,350	1,420	1,480	1,530	14,240
	Housing:												
58	Exclusion of interest on owner-occupied mortgage subsidy bonds	890	920	960	1,020	1,110	1,200	1,260	1,300	1,380	1,440	1,490	12,080
59	Exclusion of interest on rental housing bonds	910	960	990	1,060	1,160	1,250	1,310	1,340	1,430	1,490	1,550	12,540
60	Deductibility of mortgage interest on owner-occupied homes	37,160	26,850	29,820	33,090	36,340	39,480	42,480	45,170	93,380	121,910	129,090	597,610
61	Deductibility of State and local property tax on owner-occupied homes [17]	15,360	6,250	6,650	7,100	7,520	7,930	8,300	8,630	42,220	61,210	65,030	220,840
62	Deferral of income from installment sales	1,700	1,720	1,750	1,790	1,840	1,910	2,000	2,090	2,190	2,290	2,400	19,980
63	Capital gains exclusion on home sales	43,760	44,380	46,600	49,000	51,470	54,020	56,690	59,430	67,070	72,600	76,070	577,330
64	Exclusion of net imputed rental income	116,590	121,070	125,610	129,970	134,030	138,090	142,130	146,710	188,840	199,400	210,190	1,536,040
65	Exception from passive loss rules for $25,000 of rental loss	5,720	6,030	6,390	6,750	7,090	7,400	7,720	8,380	9,330	9,690	10,060	78,840
66	Credit for low-income housing investments	9,140	9,040	9,070	9,230	9,410	9,620	9,870	10,130	10,430	10,740	10,960	98,500
67	Accelerated depreciation on rental housing (normal tax method)	2,460	2,810	3,410	4,130	4,890	5,600	6,260	6,920	8,500	9,690	10,500	62,710
68	Discharge of mortgage indebtedness	210	0	0	0	0	0	0	0	0	0	0	0
	Commerce:												
69	Discharge of business indebtedness	–50	10	50	50	40	30	20	20	40	50	50	360
70	Exceptions from imputed interest rules	50	60	60	70	70	70	70	70	90	90	90	740
71	Treatment of qualified dividends	29,690	28,730	29,820	31,190	32,860	34,850	37,130	39,690	45,080	50,720	54,050	384,120
72	Capital gains (except agriculture, timber, iron ore, and coal)	118,630	102,910	99,210	99,890	101,950	105,290	109,710	114,910	128,090	141,870	148,780	1,152,610
73	Capital gains exclusion of small corporation stock	1,010	1,240	1,410	1,530	1,640	1,750	1,850	1,930	2,000	2,080	2,160	17,590
74	Step-up basis of capital gains at death	46,730	49,920	51,840	53,630	56,160	58,980	62,450	66,040	69,900	74,220	79,050	622,190
75	Carryover basis of capital gains on gifts	3,330	3,040	3,030	2,930	2,830	2,740	2,710	2,720	2,950	3,180	3,220	29,350
76	Ordinary income treatment of loss from small business corporation stock sale	70	70	70	70	70	70	80	80	80	80	90	760
77	Deferral of gains from like-kind exchanges	6,800	2,850	2,980	3,140	3,290	3,460	3,630	3,810	4,000	4,190	4,400	35,750
78	Depreciation of buildings other than rental housing (normal tax method)	–8,130	–7,600	–8,110	–8,630	–9,170	–9,710	–10,320	–10,780	–11,940	–12,800	–13,460	–102,520
79	Accelerated depreciation of machinery and equipment (normal tax method)	67,820	68,750	65,410	63,890	63,550	43,830	21,700	4,830	–10,750	–25,410	–10,380	285,420
80	Expensing of certain small investments (normal tax method)	1,430	1,660	2,290	2,690	3,000	4,540	6,350	7,870	10,280	12,270	11,930	62,880
81	Graduated corporation income tax rate (normal tax method)	380	0	0	0	0	0	0	0	0	0	0	0
82	Exclusion of interest on small issue bonds	120	120	120	130	140	150	160	170	180	190	200	1,560
83	Deduction for US production activities	3,610	0	0	0	0	0	0	0	0	0	0	0
84	Special rules for certain film and TV production	1,330	–250	–240	–200	–190	–200	–150	–60	–20	–10	–10	–1,330
85	Allow 20-percent deduction to certain pass-through income	34,065	53,273	57,429	61,260	64,855	68,493	72,260	76,707	25,831	0	0	480,108

Table 16–1. ESTIMATES OF TOTAL INCOME TAX EXPENDITURES FOR FISCAL YEARS 2018–2028—Continued
(In millions of dollars)

	Total from corporations and individuals											
	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2019–2028
Transportation:												
86 Tonnage tax	80	90	90	90	100	100	110	110	120	130	130	1,070
87 Deferral of tax on shipping companies	12	12	12	12	12	12	12	12	12	12	12	120
88 Exclusion of reimbursed employee parking expenses	2,120	2,201	2,271	2,343	2,449	2,495	2,555	2,639	2,717	2,793	2,874	25,337
89 Exclusion for employer-provided transit passes	340	363	383	407	435	453	475	505	532	562	592	4,707
90 Tax credit for certain expenditures for maintaining railroad tracks	130	40	40	20	20	10	10	10	0	0	0	150
91 Exclusion of interest on bonds for Highway Projects and rail-truck transfer facilities	190	170	170	160	160	140	140	130	130	120	110	1,430
Community and regional development:												
92 Investment credit for rehabilitation of structures (other than historic)	10	10	0	0	0	0	0	0	0	0	0	10
93 Exclusion of interest for airport, dock, and similar bonds	560	570	610	640	700	760	790	820	870	910	930	7,600
94 Exemption of certain mutuals' and cooperatives' income	110	90	90	100	100	100	100	110	110	110	110	1,020
95 Empowerment zones	110	50	40	10	10	10	10	10	0	0	0	140
96 New markets tax credit	1,410	1,320	1,280	1,210	1,090	880	570	290	80	–120	–250	6,350
97 Credit to holders of Gulf Tax Credit Bonds.	170	170	170	160	170	170	160	160	150	150	130	1,590
98 Recovery Zone Bonds [6]	90	90	90	90	90	100	90	90	80	70	70	860
99 Tribal Economic Development Bonds	10	10	10	10	10	10	10	10	10	10	10	100
100 Opportunity Zones	460	1,980	2,510	1,850	1,730	1,340	1,390	1,320	–4,040	–5,930	490	2,640
101 Employee retention credit	460	200	60	40	40	30	30	30	20	20	10	480
Education, training, employment, and social services:												
Education:												
102 Exclusion of scholarship and fellowship income (normal tax method)	3,070	2,840	2,960	3,100	3,250	3,400	3,550	3,720	4,110	4,730	4,920	36,580
103 Tax credits and deductions for postsecondary education expenses [7]	17,450	16,300	16,360	16,490	16,550	16,590	16,550	16,440	16,490	17,220	17,280	166,270
104 Education Individual Retirement Accounts	30	40	40	40	40	40	40	30	30	30	30	360
105 Deductibility of student-loan interest	2,300	1,980	2,030	2,060	2,090	2,110	2,150	2,190	2,280	2,700	2,730	22,320
106 Qualified tuition programs	2,090	2,200	2,420	2,650	2,920	3,240	3,630	4,110	5,050	6,050	7,170	39,440
107 Exclusion of interest on student-loan bonds	240	250	260	280	300	330	340	350	380	390	410	3,290
108 Exclusion of interest on bonds for private nonprofit educational facilities	1,830	1,900	1,990	2,110	2,310	2,500	2,620	2,690	2,860	3,000	3,080	25,060
109 Credit for holders of zone academy bonds [8]	180	170	150	130	110	90	80	60	50	50	40	930
110 Exclusion of interest on savings bonds redeemed to finance educational expenses	30	30	30	40	40	40	40	40	50	50	50	410
111 Parental personal exemption for students age 19 or over	2,860	0	0	0	0	0	0	0	5,820	8,790	8,940	23,550
112 Deductibility of charitable contributions (education)	5,400	4,140	4,450	4,790	5,100	5,410	5,720	6,020	7,160	9,200	9,620	61,610
113 Exclusion of employer-provided educational assistance	880	890	940	990	1,040	1,090	1,140	1,200	1,410	1,560	1,640	11,900
114 Special deduction for teacher expenses	210	180	180	190	220	220	220	230	240	270	270	2,220
115 Discharge of student loan indebtedness	90	90	90	90	90	100	100	100	110	120	130	1,020

Table 16–1. ESTIMATES OF TOTAL INCOME TAX EXPENDITURES FOR FISCAL YEARS 2018–2028—Continued
(In millions of dollars)

		Total from corporations and individuals											
		2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2019–2028
116	Qualified school construction bonds [9]	620	600	570	540	520	490	470	440	410	390	360	4,790
	Training, employment, and social services:												
117	Work opportunity tax credit	1,450	1,520	1,100	510	320	240	190	140	100	80	60	4,260
118	Employer provided child care exclusion	720	680	720	780	840	910	990	1,070	1,400	1,610	490	9,490
119	Employer-provided child care credit	10	20	20	20	20	20	20	20	20	20	20	200
120	Assistance for adopted foster children	550	630	680	740	810	880	950	1,020	1,110	1,190	1,290	9,300
121	Adoption credit and exclusion	630	630	700	710	760	780	800	800	810	820	830	7,640
122	Exclusion of employee meals and lodging (other than military)	4,640	4,260	4,390	4,530	4,700	4,890	5,080	5,400	6,340	6,920	7,200	53,710
123	Credit for child and dependent care expenses	4,560	4,360	4,460	4,560	4,690	4,870	4,970	5,100	5,330	5,550	5,610	49,500
124	Credit for disabled access expenditures	10	10	10	10	10	10	10	10	10	10	10	100
125	Deductibility of charitable contributions, other than education and health	45,956	36,660	39,540	42,760	45,510	48,270	51,040	53,750	64,790	84,810	88,800	555,930
126	Exclusion of certain foster care payments	480	500	520	530	540	550	560	570	570	580	580	5,500
127	Exclusion of parsonage allowances	839	850	896	943	993	1,046	1,101	1,160	1,221	1,285	1,353	10,848
128	Indian employment credit	40	30	20	20	20	20	10	10	10	10	10	160
129	Credit for employer differential wage payments	0	0	0	0	10	10	20	20	20	20	20	120
Health:													
130	Exclusion of employer contributions for medical insurance premiums and medical care [10]	205,080	203,290	214,950	227,350	239,620	253,230	268,240	284,210	333,840	370,750	391,420	2,786,900
131	Self-employed medical insurance premiums	7,420	7,430	7,910	8,440	8,970	9,450	10,010	10,590	12,520	13,870	14,600	103,790
132	Medical Savings Accounts / Health Savings Accounts	7,410	7,810	8,460	9,080	9,760	10,360	10,880	11,450	13,110	14,240	14,740	109,890
133	Deductibility of medical expenses	8,840	6,890	7,130	7,880	8,740	9,690	10,680	11,700	17,820	22,170	24,200	126,900
134	Exclusion of interest on hospital construction bonds	2,700	2,810	2,930	3,120	3,410	3,680	3,860	3,960	4,210	4,420	4,550	36,950
135	Refundable Premium Assistance Tax Credit [11]	6,790	5,900	5,930	6,000	6,340	6,710	7,050	7,510	8,610	9,330	9,960	73,340
136	Credit for employee health insurance expenses of small business [12]	80	70	50	40	20	20	10	10	10	10	10	250
137	Deductibility of charitable contributions (health)	4,890	3,960	4,270	4,620	4,930	5,230	5,530	5,820	7,050	9,270	9,710	60,390
138	Tax credit for orphan drug research	1,960	1,550	1,880	2,290	2,780	3,370	4,090	4,960	6,020	7,310	8,840	43,090
139	Special Blue Cross/Blue Shield tax benefits	270	290	310	340	360	390	410	440	460	490	520	4,010
140	Tax credit for health insurance purchased by certain displaced and retired individuals [13]	20	10	0	0	0	0	0	0	0	0	0	10
141	Distributions from retirement plans for premiums for health and long-term care insurance	430	420	430	450	460	470	490	500	590	630	650	5,090
Income security:													
142	Child credit [14]	30,450	76,010	76,930	77,910	78,890	79,910	80,780	81,640	57,830	21,450	21,220	652,570
143	Exclusion of railroad retirement (Social Security equivalent) benefits	250	220	210	200	190	180	170	160	160	170	170	1,830
144	Exclusion of workers' compensation benefits	9,590	9,680	9,780	9,880	9,970	10,070	10,170	10,270	10,370	10,480	10,580	101,250
145	Exclusion of public assistance benefits (normal tax method)	580	580	600	620	640	660	670	700	720	740	690	6,620

Table 16–1. ESTIMATES OF TOTAL INCOME TAX EXPENDITURES FOR FISCAL YEARS 2018–2028—Continued

(In millions of dollars)

		Total from corporations and individuals											
		2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2019–2028
146	Exclusion of special benefits for disabled coal miners	20	20	20	10	10	10	10	10	10	10	10	120
147	Exclusion of military disability pensions	160	160	160	170	170	180	180	180	210	220	220	1,850
	Net exclusion of pension contributions and earnings:												
148	Defined benefit employer plans	69,910	71,430	73,540	75,290	75,840	76,400	76,830	76,380	77,840	76,440	75,560	755,550
149	Defined contribution employer plans	72,260	75,720	84,590	90,670	97,200	104,080	111,230	118,850	142,180	155,000	164,490	1,144,010
150	Individual Retirement Accounts	19,680	20,620	23,590	24,730	26,510	28,150	29,930	32,000	37,340	40,760	44,170	307,800
151	Low and moderate income savers credit	1,180	1,170	1,180	1,180	1,200	1,190	1,200	1,210	1,330	1,320	1,320	12,300
152	Self-Employed plans	24,940	24,120	26,680	29,680	32,720	35,890	39,260	42,660	50,790	63,450	69,680	414,930
	Exclusion of other employee benefits:												
153	Premiums on group term life insurance	2,810	2,810	2,930	3,060	3,190	3,330	3,470	3,630	4,130	4,410	4,590	35,550
154	Premiums on accident and disability insurance	330	330	330	340	340	340	350	350	350	350	350	3,430
155	Income of trusts to finance supplementary unemployment benefits	30	30	40	40	50	50	50	50	60	60	60	490
156	Income of trusts to finance voluntary employee benefits associations	1,080	1,150	1,230	1,310	1,400	1,490	1,570	1,670	1,860	1,970	2,080	15,730
157	Special ESOP rules	2,020	2,070	2,130	2,180	2,240	2,300	2,370	2,430	2,500	2,560	2,630	23,410
158	Additional deduction for the blind	30	40	40	40	40	40	50	50	50	50	60	460
159	Additional deduction for the elderly	4,230	4,920	5,220	5,590	6,030	6,340	6,750	7,150	6,720	6,690	7,170	62,580
160	Tax credit for the elderly and disabled	0	0	0	0	0	0	0	0	0	0	0	0
161	Deductibility of casualty losses	110	0	0	0	0	0	0	0	390	610	650	1,650
162	Earned income tax credit [15]	8,050	8,110	2,660	2,710	2,780	2,850	2,940	3,020	3,100	10,520	10,770	49,460
Social Security:													
	Exclusion of social security benefits:												
163	Social Security benefits for retired and disabled workers and spouses, dependents and survivors	32,970	29,980	31,020	32,090	33,340	34,870	35,460	35,530	40,840	48,030	49,850	371,010
164	Credit for certain employer contributions to social security	1,080	1,140	1,200	1,270	1,330	1,400	1,460	1,540	1,610	1,690	1,780	14,420
Veterans benefits and services:													
165	Exclusion of veterans death benefits and disability compensation	8,240	8,180	8,710	9,060	9,400	9,750	10,100	10,480	11,340	12,860	13,340	103,220
166	Exclusion of veterans pensions	450	420	430	450	470	480	500	520	560	640	660	5,130
167	Exclusion of GI bill benefits	1,650	1,610	1,700	1,780	1,870	1,960	2,050	2,140	2,340	2,680	2,810	20,940
168	Exclusion of interest on veterans housing bonds	40	30	30	40	40	40	40	50	50	50	50	420
General purpose fiscal assistance:													
169	Exclusion of interest on public purpose State and local bonds	23,130	24,080	25,100	26,740	29,270	31,550	33,060	33,950	36,120	37,870	38,990	316,730
170	Build America Bonds [16]	0	0	0	0	0	0	0	0	0	0	0	0
171	Deductibility of nonbusiness State and local taxes other than on owner-occupied homes [17]	22,330	4,610	7,520	8,000	8,460	8,880	9,280	9,590	84,070	125,130	132,330	397,870
Interest:													
172	Deferral of interest on U.S. savings bonds	950	850	840	840	830	820	810	800	790	890	900	8,370

Table 16–1. ESTIMATES OF TOTAL INCOME TAX EXPENDITURES FOR FISCAL YEARS 2018–2028—Continued

(In millions of dollars)

	Total from corporations and individuals											
	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2019–2028
Addendum: Aid to State and local governments:												
Deductibility of:												
Property taxes on owner-occupied homes	15,360	6,250	6,650	7,100	7,520	7,930	8,300	8,630	42,220	61,210	65,030	220,840
Nonbusiness State and local taxes other than on owner-occupied homes	22,330	4,610	7,520	8,000	8,460	8,880	9,280	9,590	84,070	125,130	132,330	397,870
Exclusion of interest on State and local bonds for:												
Public purposes	23,130	24,080	25,100	26,740	29,270	31,550	33,060	33,950	36,120	37,870	38,990	316,730
Energy facilities	10	10	10	10	10	10	10	10	10	20	20	120
Water, sewage, and hazardous waste disposal facilities 320		340	350	370	410	440	460	470	500	530	540	4,410
Small-issues	120	120	120	130	140	150	160	170	180	190	200	1,560
Owner-occupied mortgage subsidies	890	920	960	1,020	1,110	1,200	1,260	1,300	1,380	1,440	1,490	12,080
Rental housing	910	960	990	1,060	1,160	1,250	1,310	1,340	1,430	1,490	1,550	12,540
Airports, docks, and similar facilities	560	570	610	640	700	760	790	820	870	910	930	7,600
Student loans	240	250	260	280	300	330	340	350	380	390	410	3,290
Private nonprofit educational facilities	1,830	1,900	1,990	2,110	2,310	2,500	2,620	2,690	2,860	3,000	3,080	25,060
Hospital construction	2,700	2,810	2,930	3,120	3,410	3,680	3,860	3,960	4,210	4,420	4,550	36,950
Veterans' housing	40	30	30	40	40	40	40	50	50	50	50	420

[1] Firms can take an energy grant in lieu of the energy production credit or the energy investment credit for facilities whose construction began in 2009, 2010, or 2011. The effect of the grant on outlays (in millions of dollars) is as follows: 2018 $48; and $0 thereafter.

[2] The alternative fuel mixture credit results in a reduction in excise tax receipts (in millions of dollars) as follows: 2018 $710 and $0 thereafter.

[3] In addition, the biodiesel producer tax credit results in a reduction in excise tax receipts (in millions of dollars) as follows: 2018 $3,410 and $0 thereafter.

[4] In addition, the credit for holding clean renewable energy bonds has outlay effects of (in millions of dollars): [2018] $40; 2019 $40; 2020 $40; 2021 $40; 2022 $40; 2023 $40; 2024 $40; 2025, $40; 2026 $40; 2017 $40; and 2028 $40.

[5] In addition, the qualified energy conservation bonds have outlay effects of (in millions of dollars): 2018 $40; 2019 $40; 2020 $40; 2021 $40; 2022 $40; 2023 $40; 2024 $40; 2025, $40; 2026 $40; 2027 $40; and 2028 $40.

[6] In addition, recovery zone bonds have outlay effects (in millions of dollars) as follows: 2018 $290; 2019 $290; 2020 $290; 2021 $290; 2022 $290; 2023 $290; 2024 $290; 2025, $290; 2026 $290; 2027 $290; and 2028 $290.

[7] In addition, the tax credits and deductions for postsecondary education expenses have outlay effects of (in millions of dollars): 2018 $3860; 2019 $4040; 2020 $4000; 2021 $3870; 2022 $3760; 2023 $3730; 2024 $3720; 2025 $3700; 2026 $3670; 2027 $3330; and 2028 $3200.

[8] In addition, the credit for holders of zone academy bonds has outlay effects of (in millions of dollars): 2018 $60; 2019 $60; 2020 $60; 2021 $60; 2022 $60; 2023 $60; 2024 $60; 2025 $60; 2026 $60; 2027 $60; and 2028 $60.

[9] In addition, the provision for school construction bonds has outlay effects of (in millions of dollars): 2018 $795; 2019 $795; 2020 $795; 2021 $795; 2022 $795; 2023 $795; 2024 $795; 2025 $795; 2026 $795; 2027 $795; and 2028 $795.

[10] In addition, the employer contributions for health have effects on payroll tax receipts (in millions of dollars) as follows: 2018 $131850; 2019 $136,880; 2020 $143,060; 2021 $149,500; 2022 $156,100; 2023 $163,730; 2024 $172,170; 2025 $180,970; 2026 $189,960; 2027 $199,570; and 2028 $209,850.

[11] In addition, the premium assistance credit provision has outlay effects (in millions of dollars) as follows: 2018 $39,550; 2019 $37,480; 2020 $36,480; 2021 $37,520; 2022 $39,080; 2023 $40,810; 2024 $42,640; 2025 $44,510; 2026 $45,690; 2027 $47,370; and 2028 $49,350.

[12] In addition, the small business credit provision has outlay effects (in millions of dollars) as follows: 2018 $20; 2019 $20; 2020 $10; 2021 $10; 2022 $10; and $0 thereafter.

[13] In addition, the effect of the health coverage tax credit on receipts has outlay effects of (in millions of dollars) 2018 $30; 2019 $30; 2020 $10; and $0 thereafter.

[14] In addition, the effect of the child tax credit on receipts has outlay effects of (in millions of dollars): 2018 $35,000; 2019 $44,960; 2020 $45,470; 2021 $45,720; 2022 $45,950; 2023 $47,630; 2024 $47,630; 2025 $47,890; 2026 $69,550; 2027 $30,970; and 2028 $30,940. The child tax credit line also includes the credit for other dependents (in millions of dollars): 2018 $3,980; 2019 $9,560; 2020 $9,750; 2021 $9,920; 2022 $10,060; 2023 $10,280; 2024 $10,380; 2025 $10,430; 2026 $3,180; 2027 $0; and 2028 $0.

[15] In addition, the earned income tax credit on receipts has outlay effects of (in millions of dollars): 2018 $58,500; 2019 $ 60,250; 2020 $66,680; 2021 $67,740; 2022 $68,910; 2023 $70,210; 2024 $71,600; 2025 $72,820; 2026 $73,529; 2027 $67,380; and 2028 68,460.

[16] In addition, the Build America Bonds have outlay effects of (in millions of dollars): 2018 $3,610; 2019 $3,610; 2020 $3,610; 2021 $3,610; 2022 $3,610; 2023 $3,610; 2024 $3,610; 2025, $3,610; 2026 $3,610; 2027 $3,610; and 2028 $3,610.

[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 owner occupied housing and other taxes. The estimate of repealing both is (in millions of dollars): 2018 $41,090; 2019 $17,360; 2020 $21,470; 2021 $23,310; 2022 $25,200; 2023 $27,060; 2024 $28,880; 2025 $30,540; 2026 $131,460; 2027 $187,990; and 2028 $199,290.

Note: Provisions with estimates denoted normal tax method have no revenue loss under the reference tax law method.

All estimates have been rounded to the nearest $10 million. Provisions with estimates that rounded to zero in each year are not included in the table.

Table 16–2A. ESTIMATES OF TOTAL CORPORATE INCOME TAX EXPENDITURES FOR FISCAL YEARS 2018-2028
(In millions of dollars)

	Total from corporations											
	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2019–28
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 Inventory property sales source rules exception	1,250	0	0	0	0	0	0	0	0	0	0	0
5 Reduced tax rate on active income of controlled foreign corporations	63,400	34,490	38,950	41,870	43,500	34,020	20,510	9,410	45,150	73,890	77,270	419,060
6 Deduction for foreign-derived intangible income dervied from trade or business within the United States	4,290	7,420	7,970	9,730	10,990	11,440	11,950	12,490	9,090	6,880	7,220	95,180
7 Interest Charge Domestic International Sales Corporations (IC-DISCs)	1,220	1,280	1,340	1,410	1,480	1,560	1,630	1,720	1,800	1,890	1,990	16,100
General science, space, and technology:												
8 Expensing of research and experimentation expenditures (normal tax method)	7,670	6,020	6,630	7,510	–25,180	–40,820	–29,740	–17,890	–5,210	0	0	–98,680
9 Credit for increasing research activities	11,880	12,850	14,100	15,390	16,640	17,870	19,110	20,390	21,680	22,990	24,320	185,340
Energy:												
10 Expensing of exploration and development costs, fuels	420	370	360	330	310	310	310	320	430	520	540	3,800
11 Excess of percentage over cost depletion, fuels	250	210	300	380	420	440	470	490	520	540	560	4,330
12 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
13 Capital gains treatment of royalties on coal	0	0	0	0	0	0	0	0	0	0	0	0
14 Exclusion of interest on energy facility bonds	0	0	0	0	0	0	0	0	0	0	0	0
15 Enhanced oil recovery credit	310	420	460	500	530	600	650	680	680	670	650	5,840
16 Energy production credit [1]	2,360	2,430	2,490	2,630	2,760	2,820	2,780	2,680	2,330	2,040	1,770	24,730
17 Marginal wells credit	0	0	20	20	30	40	60	70	80	90	100	510
18 Energy investment credit [1]	2,400	3,240	3,850	3,960	3,520	2,740	1,870	1,300	950	790	740	22,960
19 Alcohol fuel credits [2]	0	0	0	0	0	0	0	0	0	0	0	0
20 Bio-Diesel and small agri-biodiesel producer tax credits [3]	0	0	0	0	0	0	0	0	0	0	0	0
21 Tax credits for clean-fuel burning vehicles and refueling property	260	200	130	110	110	100	80	60	50	40	40	920
22 Exclusion of utility conservation subsidies	20	20	20	20	20	20	20	20	20	20	20	200
23 Credit for holding clean renewable energy bonds [4]	20	20	20	20	20	20	20	20	20	20	20	200
24 Deferral of gain from dispositions of transmission property to implement FERC restructuring policy	–80	–120	–100	–80	–60	–40	–10	0	0	0	0	–410
25 Credit for investment in clean coal facilities	80	50	30	60	140	390	470	320	190	100	30	1,780
26 Temporary 50% expensing for equipment used in the refining of liquid fuels	–820	–460	–370	–280	–190	–90	–20	0	0	0	0	–1,410
27 Natural gas distribution pipelines treated as 15-year property	100	70	70	50	30	–10	–50	–80	–120	–140	–140	–320
28 Amortize all geological and geophysical expenditures over 2 years	140	110	110	120	130	140	140	150	160	160	170	1,390
29 Allowance of deduction for certain energy efficient commercial building property	10	0	0	0	0	0	0	0	0	0	0	0

Table 16–2A. ESTIMATES OF TOTAL CORPORATE INCOME TAX EXPENDITURES FOR FISCAL YEARS 2018–2028—Continued

(In millions of dollars)

		Total from corporations											
		2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2019–28
30	Credit for construction of new energy efficient homes	40	10	0	0	0	0	0	0	0	0	0	10
31	Credit for energy efficiency improvements to existing homes	0	0	0	0	0	0	0	0	0	0	0	0
32	Credit for residential energy efficient property	0	0	0	0	0	0	0	0	0	0	0	0
33	Qualified energy conservation bonds [5]	10	10	10	10	10	10	10	10	10	10	10	100
34	Advanced Energy Property Credit	0	10	10	10	20	20	20	20	20	20	20	170
35	Advanced nuclear power production credit	0	80	200	300	340	340	340	140	0	0	0	1,740
36	Reduced tax rate for nuclear decommissioning funds	90	100	100	110	110	120	120	130	130	140	150	1,210
Natural resources and environment:													
37	Expensing of exploration and development costs, nonfuel minerals	30	10	20	20	30	40	30	20	20	20	30	240
38	Excess of percentage over cost depletion, nonfuel minerals	280	210	210	210	210	220	230	240	250	260	260	2,300
39	Exclusion of interest on bonds for water, sewage, and hazardous waste facilities	50	40	30	30	30	30	30	30	20	20	20	280
40	Capital gains treatment of certain timber income	0	0	0	0	0	0	0	0	0	0	0	0
41	Expensing of multiperiod timber growing costs	110	90	90	100	100	110	110	120	120	130	140	1,110
42	Tax incentives for preservation of historic structures	230	120	210	310	420	460	470	480	490	500	510	3,970
43	Carbon oxide sequestration credit	200	110	70	120	190	260	350	440	540	630	720	3,430
44	Deduction for endangered species recovery expenditures	10	10	10	10	10	10	10	10	10	20	20	120
Agriculture:													
45	Expensing of certain capital outlays	10	10	10	10	10	10	10	10	10	10	10	100
46	Expensing of certain multiperiod production costs	10	10	10	10	10	10	10	10	10	10	10	100
47	Treatment of loans forgiven for solvent farmers	0	0	0	0	0	0	0	0	0	0	0	0
48	Capital gains treatment of certain agriculture income	0	0	0	0	0	0	0	0	0	0	0	0
49	Income averaging for farmers	0	0	0	0	0	0	0	0	0	0	0	0
50	Deferral of gain on sale of farm refiners	15	15	15	15	15	15	20	20	20	20	20	175
51	Expensing of reforestation expenditures	10	0	10	10	10	10	10	10	10	10	10	90
Commerce and housing:													
	Financial institutions and insurance:												
52	Exemption of credit union income	2,380	1,861	2,010	2,097	2,214	2,340	2,411	2,511	2,692	2,865	3,016	24,017
53	Exclusion of life insurance death benefits	1,260	1,320	1,390	1,460	1,530	1,610	1,690	1,780	1,870	1,960	2,050	16,660
54	Exemption or special alternative tax for small property and casualty insurance companies	30	40	40	40	40	50	50	50	60	60	60	490
55	Tax exemption of insurance income earned by tax-exempt organizations	480	320	330	340	350	360	370	380	400	410	420	3,680
56	Small life insurance company deduction	10	0	0	0	0	0	0	0	0	0	0	0
57	Exclusion of interest spread of financial institutions	0	0	0	0	0	0	0	0	0	0	0	0
	Housing:												
58	Exclusion of interest on owner-occupied mortgage subsidy bonds	140	100	90	80	80	80	80	80	60	50	60	760

Table 16–2A. ESTIMATES OF TOTAL CORPORATE INCOME TAX EXPENDITURES FOR FISCAL YEARS 2018–2028—Continued
(In millions of dollars)

		Total from corporations											
		2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2019–28
59	Exclusion of interest on rental housing bonds	140	110	90	80	90	90	90	80	60	50	60	800
60	Deductibility of mortgage interest on owner-occupied homes	0	0	0	0	0	0	0	0	0	0	0	0
61	Deductibility of State and local property tax on owner-occupied homes	0	0	0	0	0	0	0	0	0	0	0	0
62	Deferral of income from installment sales	0	0	0	0	0	0	0	0	0	0	0	0
63	Capital gains exclusion on home sales	0	0	0	0	0	0	0	0	0	0	0	0
64	Exclusion of net imputed rental income	0	0	0	0	0	0	0	0	0	0	0	0
65	Exception from passive loss rules for $25,000 of rental loss	0	0	0	0	0	0	0	0	0	0	0	0
66	Credit for low-income housing investments	8,680	8,590	8,620	8,770	8,940	9,140	9,380	9,620	9,910	10,200	10,410	93,580
67	Accelerated depreciation on rental housing (normal tax method)	290	280	330	400	470	540	600	660	720	780	850	5,630
68	Discharge of mortgage indebtedness	0	0	0	0	0	0	0	0	0	0	0	0
	Commerce:												
69	Discharge of business indebtedness	0	0	0	0	0	0	0	0	0	0	0	0
70	Exceptions from imputed interest rules	0	0	0	0	0	0	0	0	0	0	0	0
71	Treatment of qualified dividends	0	0	0	0	0	0	0	0	0	0	0	0
72	Capital gains (except agriculture, timber, iron ore, and coal)	0	0	0	0	0	0	0	0	0	0	0	0
73	Capital gains exclusion of small corporation stock	0	0	0	0	0	0	0	0	0	0	0	0
74	Step-up basis of capital gains at death	0	0	0	0	0	0	0	0	0	0	0	0
75	Carryover basis of capital gains on gifts	0	0	0	0	0	0	0	0	0	0	0	0
76	Ordinary income treatment of loss from small business corporation stock sale	0	0	0	0	0	0	0	0	0	0	0	0
77	Deferral of gains from like-kind exchanges	5,050	1,000	1,040	1,100	1,150	1,210	1,270	1,330	1,400	1,460	1,530	12,490
78	Depreciation of buildings other than rental housing (normal tax method)	–2,530	–2,020	–2,140	–2,260	–2,400	–2,530	–2,690	–2,790	–2,890	–3,000	–3,150	–25,870
79	Accelerated depreciation of machinery and equipment (normal tax method)	37,180	35,470	33,880	33,110	32,920	23,450	12,870	4,830	–2,110	–8,500	–1,730	164,190
80	Expensing of certain small investments (normal tax method)	–10	30	130	190	240	590	1,000	1,320	1,610	1,870	1,690	8,670
81	Graduated corporation income tax rate (normal tax method)	380	0	0	0	0	0	0	0	0	0	0	0
82	Exclusion of interest on small issue bonds	20	10	10	10	10	10	10	10	10	10	10	100
83	Deduction for US production activities	2,580	0	0	0	0	0	0	0	0	0	0	0
84	Special rules for certain film and TV production	1,060	–200	–190	–160	–150	–160	–120	–50	–20	–10	–10	–1,070
85	Allow 20-percent deduction to certain pass-through income	0	0	0	0	0	0	0	0	0	0	0	0
Transportation:													
86	Tonnage tax	80	90	90	90	100	100	110	110	120	130	130	1,070
87	Deferral of tax on shipping companies	12	12	12	12	12	12	12	12	12	12	12	120
88	Exclusion of reimbursed employee parking expenses	–1,060	–1,101	–1,136	–1,171	–1,225	–1,247	–1,278	–1,319	–1,358	–1,396	–1,437	–12,668
89	Exclusion for employer-provided transit passes	–341	–362	–383	–406	–435	–454	–476	–505	–532	–562	–592	–4,707

Table 16–2A. ESTIMATES OF TOTAL CORPORATE INCOME TAX EXPENDITURES FOR FISCAL YEARS 2018–2028—Continued

(In millions of dollars)

		Total from corporations											
		2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2019–28
90	Tax credit for certain expenditures for maintaining railroad tracks	100	30	30	10	10	10	10	10	0	0	0	110
91	Exclusion of interest on bonds for Highway Projects and rail-truck transfer facilities	50	40	40	40	40	30	30	30	30	30	20	330
	Community and regional development:												
92	Investment credit for rehabilitation of structures (other than historic)	0	0	0	0	0	0	0	0	0	0	0	0
93	Exclusion of interest for airport, dock, and similar bonds	90	60	60	50	50	50	50	50	40	30	30	470
94	Exemption of certain mutuals' and cooperatives' income	110	90	90	100	100	100	100	110	110	110	110	1,020
95	Empowerment zones	60	40	30	10	10	10	10	10	0	0	0	120
96	New markets tax credit	1,380	1,290	1,250	1,180	1,070	860	550	280	70	–120	–250	6,180
97	Credit to holders of Gulf Tax Credit Bonds.	30	20	20	10	10	10	10	10	10	10	0	110
98	Recovery Zone Bonds [6]	10	10	10	10	10	10	10	10	0	0	0	70
99	Tribal Economic Development Bonds	0	0	0	0	0	0	0	0	0	0	0	0
100	Opportunity Zones	250	930	910	770	640	550	550	530	–2,410	–1,630	200	1,040
101	Employee retention credit	340	130	40	30	30	20	20	20	10	10	10	320
	Education, training, employment, and social services:												
	Education:												
100	Exclusion of scholarship and fellowship income (normal tax method)	0	0	0	0	0	0	0	0	0	0	0	0
101	Tax credits and deductions for postsecondary education expenses [7]	0	0	0	0	0	0	0	0	0	0	0	0
102	Education Individual Retirement Accounts	0	0	0	0	0	0	0	0	0	0	0	0
103	Deductibility of student-loan interest	0	0	0	0	0	0	0	0	0	0	0	0
104	Qualified tuition programs	0	0	0	0	0	0	0	0	0	0	0	0
105	Exclusion of interest on student-loan bonds	40	30	20	20	20	20	20	20	20	10	20	200
106	Exclusion of interest on bonds for private nonprofit educational facilities	280	210	190	160	170	180	180	160	120	110	110	1,590
107	Credit for holders of zone academy bonds [8]	180	170	150	130	110	90	80	60	50	50	40	930
108	Exclusion of interest on savings bonds redeemed to finance educational expenses	0	0	0	0	0	0	0	0	0	0	0	0
109	Parental personal exemption for students age 19 or over	0	0	0	0	0	0	0	0	0	0	0	0
110	Deductibility of charitable contributions (education)	990	570	600	620	660	690	730	760	800	830	860	7,120
111	Exclusion of employer-provided educational assistance	0	0	0	0	0	0	0	0	0	0	0	0
112	Special deduction for teacher expenses	0	0	0	0	0	0	0	0	0	0	0	0
113	Discharge of student loan indebtedness	0	0	0	0	0	0	0	0	0	0	0	0
114	Qualified school construction bonds [9]	150	150	140	130	130	120	120	110	100	100	90	1,190
	Training, employment, and social services:												
115	Work opportunity tax credit	1,070	1,130	780	390	250	190	150	110	80	60	50	3,190
116	Employer provided child care exclusion	0	0	0	0	0	0	0	0	0	0	0	0
117	Employer-provided child care credit	10	20	20	20	20	20	20	20	20	20	20	200
118	Assistance for adopted foster children	0	0	0	0	0	0	0	0	0	0	0	0

Table 16–2A. ESTIMATES OF TOTAL CORPORATE INCOME TAX EXPENDITURES FOR FISCAL YEARS 2018–2028—Continued
(In millions of dollars)

		Total from corporations											
		2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2019–28
119	Adoption credit and exclusion	0	0	0	0	0	0	0	0	0	0	0	0
120	Exclusion of employee meals and lodging (other than military)	–160	–280	–290	–310	–330	–340	–360	–380	–400	–420	–440	–3,550
121	Credit for child and dependent care expenses	0	0	0	0	0	0	0	0	0	0	0	0
122	Credit for disabled access expenditures	0	0	0	0	0	0	0	0	0	0	0	0
123	Deductibility of charitable contributions, other than education and health	2,046	1,160	1,210	1,250	1,300	1,350	1,400	1,460	1,520	1,580	1,640	13,870
124	Exclusion of certain foster care payments	0	0	0	0	0	0	0	0	0	0	0	0
125	Exclusion of parsonage allowances	0	0	0	0	0	0	0	0	0	0	0	0
126	Indian employment credit	20	10	10	10	10	10	0	0	0	0	0	50
127	Credit for employer differential wage payments	0	0	0	0	10	10	10	10	10	10	10	70
Health:													
128	Exclusion of employer contributions for medical insurance premiums and medical care [10]	0	0	0	0	0	0	0	0	0	0	0	0
129	Self-employed medical insurance premiums	0	0	0	0	0	0	0	0	0	0	0	0
130	Medical Savings Accounts / Health Savings Accounts	0	0	0	0	0	0	0	0	0	0	0	0
131	Deductibility of medical expenses	0	0	0	0	0	0	0	0	0	0	0	0
132	Exclusion of interest on hospital construction bonds	420	310	280	240	250	260	260	240	180	160	170	2,350
133	Refundable Premium Assistance Tax Credit [11]	0	0	0	0	0	0	0	0	0	0	0	0
134	Credit for employee health insurance expenses of small business [12]	10	10	10	10	0	0	0	0	0	0	0	30
135	Deductibility of charitable contributions (health)	0	0	0	0	0	0	0	0	0	0	0	0
136	Tax credit for orphan drug research	1,930	1,520	1,840	2,240	2,720	3,300	4,010	4,860	5,910	7,180	8,690	42,270
137	Special Blue Cross/Blue Shield tax benefits	270	290	310	340	360	390	410	440	460	490	520	4,010
138	Tax credit for health insurance purchased by certain displaced and retired individuals [13]	0	0	0	0	0	0	0	0	0	0	0	0
139	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
Income security:													
140	Child credit [14]	0	0	0	0	0	0	0	0	0	0	0	0
141	Exclusion of railroad retirement (Social Security equivalent) benefits	0	0	0	0	0	0	0	0	0	0	0	0
142	Exclusion of workers' compensation benefits	0	0	0	0	0	0	0	0	0	0	0	0
143	Exclusion of public assistance benefits (normal tax method)	0	0	0	0	0	0	0	0	0	0	0	0
144	Exclusion of special benefits for disabled coal miners	0	0	0	0	0	0	0	0	0	0	0	0
145	Exclusion of military disability pensions	0	0	0	0	0	0	0	0	0	0	0	0
	Net exclusion of pension contributions and earnings:												
146	Defined benefit employer plans	0	0	0	0	0	0	0	0	0	0	0	0
147	Defined contribution employer plans	0	0	0	0	0	0	0	0	0	0	0	0
148	Individual Retirement Accounts	0	0	0	0	0	0	0	0	0	0	0	0
149	Low and moderate income savers credit	0	0	0	0	0	0	0	0	0	0	0	0
150	Self-Employed plans	0	0	0	0	0	0	0	0	0	0	0	0
	Exclusion of other employee benefits:												

Table 16–2A. ESTIMATES OF TOTAL CORPORATE INCOME TAX EXPENDITURES FOR FISCAL YEARS 2018–2028—Continued
(In millions of dollars)

		Total from corporations											
		2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2019–28
151	Premiums on group term life insurance	0	0	0	0	0	0	0	0	0	0	0	0
152	Premiums on accident and disability insurance	0	0	0	0	0	0	0	0	0	0	0	0
153	Income of trusts to finance supplementary unemployment benefits	0	0	0	0	0	0	0	0	0	0	0	0
154	Income of trusts to finance voluntary employee benefits associations	0	0	0	0	0	0	0	0	0	0	0	0
155	Special ESOP rules	1,900	1,950	2,000	2,050	2,100	2,160	2,220	2,280	2,340	2,400	2,460	21,960
156	Additional deduction for the blind	0	0	0	0	0	0	0	0	0	0	0	0
157	Additional deduction for the elderly	0	0	0	0	0	0	0	0	0	0	0	0
158	Tax credit for the elderly and disabled	0	0	0	0	0	0	0	0	0	0	0	0
159	Deductibility of casualty losses	0	0	0	0	0	0	0	0	0	0	0	0
160	Earned income tax credit [15]	0	0	0	0	0	0	0	0	0	0	0	0
Social Security:													
	Exclusion of social security benefits:												
161	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
162	Credit for certain employer contributions to social security	510	540	570	600	630	660	690	730	760	800	840	6,820
Veterans benefits and services:													
163	Exclusion of veterans death benefits and disability compensation	0	0	0	0	0	0	0	0	0	0	0	0
164	Exclusion of veterans pensions	0	0	0	0	0	0	0	0	0	0	0	0
165	Exclusion of GI bill benefits	0	0	0	0	0	0	0	0	0	0	0	0
166	Exclusion of interest on veterans housing bonds	10	0	0	0	0	0	0	0	0	0	0	0
General purpose fiscal assistance:													
167	Exclusion of interest on public purpose State and local bonds	3,580	2,690	2,370	2,050	2,180	2,220	2,220	2,030	1,570	1,360	1,440	20,130
168	Build America Bonds [16]	0	0	0	0	0	0	0	0	0	0	0	0
169	Deductibility of nonbusiness State and local taxes other than on owner-occupied homes	0	0	0	0	0	0	0	0	0	0	0	0
Interest:													
170	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	3,580	2,690	2,370	2,050	2,180	2,220	2,220	2,030	1,570	1,360	1,440	20,130
	Energy facilities	0	0	0	0	0	0	0	0	0	0	0	0
	Water, sewage, and hazardous waste disposal facilities	50	40	30	30	30	30	30	30	20	20	20	280
	Small-issues	20	10	10	10	10	10	10	10	10	10	10	100
	Owner-occupied mortgage subsidies	140	100	90	80	80	80	80	80	60	50	60	760
	Rental housing	140	110	90	80	90	90	90	80	60	50	60	800
	Airports, docks, and similar facilities	90	60	60	50	50	50	50	50	40	30	30	470
	Student loans	40	30	20	20	20	20	20	20	20	10	20	200

Table 16–2A. ESTIMATES OF TOTAL CORPORATE INCOME TAX EXPENDITURES FOR FISCAL YEARS 2018–2028—Continued

(In millions of dollars)

		Total from corporations											
		2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2019–28
	Private nonprofit educational facilities	280	210	190	160	170	180	180	160	120	110	110	1,590
	Hospital construction	420	310	280	240	250	260	260	240	180	160	170	2,350
	Veterans' housing	10	0	0	0	0	0	0	0	0	0	0	0

See Table 16-1 footnotes for specific table information

Table 16–2B. ESTIMATES OF TOTAL INDIVIDUAL INCOME TAX EXPENDITURES FOR FISCAL YEARS 2018–2028
(In millions of dollars)

	Total from individuals											
	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2019–2028
National Defense												
1 Exclusion of benefits and allowances to armed forces personnel	12,030	12,450	11,220	11,240	11,590	12,050	12,550	13,090	13,660	14,270	14,920	127,040
International affairs:												
2 Exclusion of income earned abroad by U.S. citizens	6,930	7,280	7,640	8,020	8,420	8,840	9,290	9,750	10,240	10,750	11,290	91,520
3 Exclusion of certain allowances for Federal employees abroad	240	250	260	280	290	300	320	330	350	370	390	3,140
4 Inventory property sales source rules exception	0	0	0	0	0	0	0	0	0	0	0	0
5 Reduced tax rate on active income of controlled foreign corporations	0	0	0	0	0	0	0	0	0	0	0	0
6 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
7 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:												
8 Expensing of research and experimentation expenditures (normal tax method)	840	730	800	910	–1,290	–5,470	–4,110	–2,650	–1,090	0	0	–12,170
9 Credit for increasing research activities	1,430	1,630	1,770	1,920	2,070	2,210	2,370	2,540	2,710	2,900	3,100	23,220
Energy:												
10 Expensing of exploration and development costs, fuels	550	480	460	420	400	400	400	420	580	710	730	5,000
11 Excess of percentage over cost depletion, fuels	100	80	110	150	170	180	190	210	290	350	360	2,090
12 Exception from passive loss limitation for working interests in oil and gas properties	10	0	0	0	10	10	10	10	10	10	10	70
13 Capital gains treatment of royalties on coal	160	140	130	130	140	140	150	150	170	190	200	1,540
14 Exclusion of interest on energy facility bonds	10	10	10	10	10	10	10	10	10	20	20	120
15 Enhanced oil recovery credit	80	100	110	120	130	150	160	170	170	170	160	1,440
16 Energy production credit [1]	790	810	830	880	920	940	930	890	780	680	590	8,250
17 Marginal wells credit	0	0	50	50	60	100	130	160	190	210	230	1,180
18 Energy investment credit [1]	780	1,060	1,250	1,290	1,130	880	590	400	280	240	230	7,350
19 Alcohol fuel credits [2]	10	0	0	0	0	0	0	0	0	0	0	0
20 Bio-Diesel and small agri-biodiesel producer tax credits [3]	20	0	0	0	0	0	0	0	0	0	0	0
21 Tax credits for clean-fuel burning vehicles and refueling property	480	440	320	250	250	250	230	180	150	130	120	2,320
22 Exclusion of utility conservation subsidies	410	430	450	470	490	520	550	570	600	630	660	5,370
23 Credit for holding clean renewable energy bonds [4]	50	50	50	50	50	50	50	50	50	50	50	500
24 Deferral of gain from dispositions of transmission property to implement FERC restructuring policy	0	0	0	0	0	0	0	0	0	0	0	0
25 Credit for investment in clean coal facilities	10	10	0	10	20	40	50	30	20	10	0	190
26 Temporary 50% expensing for equipment used in the refining of liquid fuels	0	0	0	0	0	0	0	0	0	0	0	0
27 Natural gas distribution pipelines treated as 15-year property	0	0	0	0	0	0	0	0	0	0	0	0
28 Amortize all geological and geophysical expenditures over 2 years	90	70	70	70	80	80	90	100	130	160	170	1,020
29 Allowance of deduction for certain energy efficient commercial building property	30	10	0	0	0	0	0	0	0	0	0	10

Table 16–2B. ESTIMATES OF TOTAL INDIVIDUAL INCOME TAX EXPENDITURES FOR FISCAL YEARS 2018–2028—Continued

(In millions of dollars)

		Total from individuals											
		2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2019–2028
30	Credit for construction of new energy efficient homes	80	40	10	0	0	0	0	0	0	0	0	50
31	Credit for energy efficiency improvements to existing homes	260	0	0	0	0	0	0	0	0	0	0	0
32	Credit for residential energy efficient property	1,900	1,530	1,180	770	190	30	0	0	0	0	0	3,700
33	Qualified energy conservation bonds [5]	20	20	20	20	20	20	20	20	20	20	20	200
34	Advanced Energy Property Credit	0	0	0	0	0	0	0	0	0	0	0	0
35	Advanced nuclear power production credit	0	0	0	0	0	0	0	0	0	0	0	0
36	Reduced tax rate for nuclear decommissioning funds	0	0	0	0	0	0	0	0	0	0	0	0
Natural resources and environment:													
37	Expensing of exploration and development costs, nonfuel minerals	20	10	10	10	20	20	20	10	20	20	20	160
38	Excess of percentage over cost depletion, nonfuel minerals	50	40	40	40	40	40	40	40	60	70	70	480
39	Exclusion of interest on bonds for water, sewage, and hazardous waste facilities	270	300	320	340	380	410	430	440	480	510	520	4,130
40	Capital gains treatment of certain timber income	160	140	130	130	140	140	150	150	170	190	200	1,540
41	Expensing of multiperiod timber growing costs	110	110	120	120	130	140	140	150	170	190	200	1,470
42	Tax incentives for preservation of historic structures	60	20	30	40	50	60	60	70	70	70	80	550
43	Carbon oxide sequestration credit	0	0	0	0	0	0	0	0	0	0	0	0
44	Deduction for endangered species recovery expenditures	20	20	20	20	20	20	30	30	30	40	40	270
Agriculture:													
45	Expensing of certain capital outlays	150	140	150	160	170	180	180	190	240	270	280	1,960
46	Expensing of certain multiperiod production costs	250	240	260	270	280	300	310	330	410	450	470	3,320
47	Treatment of loans forgiven for solvent farmers	30	30	30	30	40	40	40	40	70	70	70	460
48	Capital gains treatment of certain agriculture income	1,590	1,380	1,330	1,340	1,370	1,410	1,470	1,540	1,720	1,900	1,990	15,450
49	Income averaging for farmers	100	110	110	120	120	130	130	140	230	230	230	1,550
50	Deferral of gain on sale of farm refiners	0	0	0	0	0	0	0	0	0	0	0	0
51	Expensing of reforestation expenditures	40	50	50	60	60	70	70	70	80	90	90	690
Commerce and housing:													
	Financial institutions and insurance:												
52	Exemption of credit union income	0	0	0	0	0	0	0	0	0	0	0	0
53	Exclusion of life insurance death benefits	12,250	13,030	14,160	15,140	15,990	16,850	17,700	18,560	19,820	21,520	22,580	175,350
54	Exemption or special alternative tax for small property and casualty insurance companies	0	0	0	0	0	0	0	0	0	0	0	0
55	Tax exemption of insurance income earned by tax-exempt organizations	0	0	0	0	0	0	0	0	0	0	0	0
56	Small life insurance company deduction	0	0	0	0	0	0	0	0	0	0	0	0
57	Exclusion of interest spread of financial institutions	3,900	2,250	1,170	1,210	1,240	1,280	1,310	1,350	1,420	1,480	1,530	14,240
	Housing:												
58	Exclusion of interest on owner-occupied mortgage subsidy bonds	750	820	870	940	1,030	1,120	1,180	1,220	1,320	1,390	1,430	11,320

Table 16–2B. ESTIMATES OF TOTAL INDIVIDUAL INCOME TAX EXPENDITURES FOR FISCAL YEARS 2018–2028—Continued

(In millions of dollars)

		Total from individuals											
		2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2019–2028
59	Exclusion of interest on rental housing bonds	770	850	900	980	1,070	1,160	1,220	1,260	1,370	1,440	1,490	11,740
60	Deductibility of mortgage interest on owner-occupied homes	37,160	26,850	29,820	33,090	36,340	39,480	42,480	45,170	93,380	121,910	129,090	597,610
61	Deductibility of State and local property tax on owner-occupied homes	15,360	6,250	6,650	7,100	7,520	7,930	8,300	8,630	42,220	61,210	65,030	220,840
62	Deferral of income from installment sales	1,700	1,720	1,750	1,790	1,840	1,910	2,000	2,090	2,190	2,290	2,400	19,980
63	Capital gains exclusion on home sales	43,760	44,380	46,600	49,000	51,470	54,020	56,690	59,430	67,070	72,600	76,070	577,330
64	Exclusion of net imputed rental income	116,590	121,070	125,610	129,970	134,030	138,090	142,130	146,710	188,840	199,400	210,190	1,536,040
65	Exception from passive loss rules for $25,000 of rental loss	5,720	6,030	6,390	6,750	7,090	7,400	7,720	8,380	9,330	9,690	10,060	78,840
66	Credit for low-income housing investments	460	450	450	460	470	480	490	510	520	540	550	4,920
67	Accelerated depreciation on rental housing (normal tax method)	2,170	2,530	3,080	3,730	4,420	5,060	5,660	6,260	7,780	8,910	9,650	57,080
68	Discharge of mortgage indebtedness	210	0	0	0	0	0	0	0	0	0	0	0
	Commerce:												
69	Discharge of business indebtedness	–50	10	50	50	40	30	20	20	40	50	50	360
70	Exceptions from imputed interest rules	50	60	60	70	70	70	70	70	90	90	90	740
71	Treatment of qualified dividends	29,690	28,730	29,820	31,190	32,860	34,850	37,130	39,690	45,080	50,720	54,050	384,120
72	Capital gains (except agriculture, timber, iron ore, and coal)	118,630	102,910	99,210	99,890	101,950	105,290	109,710	114,910	128,090	141,870	148,780	1,152,610
73	Capital gains exclusion of small corporation stock	1,010	1,240	1,410	1,530	1,640	1,750	1,850	1,930	2,000	2,080	2,160	17,590
74	Step-up basis of capital gains at death	46,730	49,920	51,840	53,630	56,160	58,980	62,450	66,040	69,900	74,220	79,050	622,190
75	Carryover basis of capital gains on gifts	3,330	3,040	3,030	2,930	2,830	2,740	2,710	2,720	2,950	3,180	3,220	29,350
76	Ordinary income treatment of loss from small business corporation stock sale	70	70	70	70	70	70	80	80	80	80	90	760
77	Deferral of gains from like-kind exchanges	1,750	1,850	1,940	2,040	2,140	2,250	2,360	2,480	2,600	2,730	2,870	23,260
78	Depreciation of buildings other than rental housing (normal tax method)	–5,600	–5,580	–5,970	–6,370	–6,770	–7,180	–7,630	–7,990	–9,050	–9,800	–10,310	–76,650
79	Accelerated depreciation of machinery and equipment (normal tax method)	30,640	33,280	31,530	30,780	30,630	20,380	8,830	0	–8,640	–16,910	–8,650	121,230
80	Expensing of certain small investments (normal tax method)	1,440	1,630	2,160	2,500	2,760	3,950	5,350	6,550	8,670	10,400	10,240	54,210
81	Graduated corporation income tax rate (normal tax method)	0	0	0	0	0	0	0	0	0	0	0	0
82	Exclusion of interest on small issue bonds	100	110	110	120	130	140	150	160	170	180	190	1,460
83	Deduction for US production activities	1,030	0	0	0	0	0	0	0	0	0	0	0
84	Special rules for certain film and TV production	270	–50	–50	–40	–40	–40	–30	–10	0	0	0	–260
85	Allow 20-percent deduction to certain pass-through income	34,065	53,273	57,429	61,260	64,855	68,493	72,260	76,707	25,831	0	0	480,108
Transportation:													
86	Tonnage tax	0	0	0	0	0	0	0	0	0	0	0	0
87	Deferral of tax on shipping companies	0	0	0	0	0	0	0	0	0	0	0	0
88	Exclusion of reimbursed employee parking expenses	3,180	3,302	3,407	3,514	3,674	3,742	3,833	3,958	4,075	4,189	4,311	38,005
89	Exclusion for employer-provided transit passes	681	725	766	813	870	907	951	1,010	1,064	1,124	1,184	9,414

Table 16–2B. ESTIMATES OF TOTAL INDIVIDUAL INCOME TAX EXPENDITURES FOR FISCAL YEARS 2018–2028—Continued

(In millions of dollars)

		Total from individuals											
		2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2019–2028
90	Tax credit for certain expenditures for maintaining railroad tracks	30	10	10	10	10	0	0	0	0	0	0	40
91	Exclusion of interest on bonds for Highway Projects and rail-truck transfer facilities	140	130	130	120	120	110	110	100	100	90	90	1,100
Community and regional development:													
92	Investment credit for rehabilitation of structures (other than historic)	10	10	0	0	0	0	0	0	0	0	0	10
93	Exclusion of interest for airport, dock, and similar bonds	470	510	550	590	650	710	740	770	830	880	900	7,130
94	Exemption of certain mutuals' and cooperatives' income	0	0	0	0	0	0	0	0	0	0	0	0
95	Empowerment zones	50	10	10	0	0	0	0	0	0	0	0	20
96	New markets tax credit	30	30	30	30	20	20	20	10	10	0	0	170
97	Credit to holders of Gulf Tax Credit Bonds.	140	150	150	150	160	160	150	150	140	140	130	1,480
98	Recovery Zone Bonds [6]	80	80	80	80	80	90	80	80	80	70	70	790
99	Tribal Economic Development Bonds	10	10	10	10	10	10	10	10	10	10	10	100
100	Opportunity Zones	210	1,050	1,600	1,080	1,090	790	840	790	–1,630	–4,300	290	1,600
101	Employee retention credit	120	70	20	10	10	10	10	10	10	10	0	160
Education, training, employment, and social services:													
	Education:												
100	Exclusion of scholarship and fellowship income (normal tax method)	3,070	2,840	2,960	3,100	3,250	3,400	3,550	3,720	4,110	4,730	4,920	36,580
101	Tax credits and deductions for postsecondary education expenses [7]	17,450	16,300	16,360	16,490	16,550	16,590	16,550	16,440	16,490	17,220	17,280	166,270
102	Education Individual Retirement Accounts	30	40	40	40	40	40	40	30	30	30	30	360
103	Deductibility of student-loan interest	2,300	1,980	2,030	2,060	2,090	2,110	2,150	2,190	2,280	2,700	2,730	22,320
104	Qualified tuition programs	2,090	2,200	2,420	2,650	2,920	3,240	3,630	4,110	5,050	6,050	7,170	39,440
105	Exclusion of interest on student-loan bonds	200	220	240	260	280	310	320	330	360	380	390	3,090
106	Exclusion of interest on bonds for private nonprofit educational facilities	1,550	1,690	1,800	1,950	2,140	2,320	2,440	2,530	2,740	2,890	2,970	23,470
107	Credit for holders of zone academy bonds [8]	0	0	0	0	0	0	0	0	0	0	0	0
108	Exclusion of interest on savings bonds redeemed to finance educational expenses	30	30	30	40	40	40	40	40	50	50	50	410
109	Parental personal exemption for students age 19 or over	2,860	0	0	0	0	0	0	0	5,820	8,790	8,940	23,550
110	Deductibility of charitable contributions (education)	4,410	3,570	3,850	4,170	4,440	4,720	4,990	5,260	6,360	8,370	8,760	54,490
111	Exclusion of employer-provided educational assistance	880	890	940	990	1,040	1,090	1,140	1,200	1,410	1,560	1,640	11,900
112	Special deduction for teacher expenses	210	180	180	190	220	220	220	230	240	270	270	2,220
113	Discharge of student loan indebtedness	90	90	90	90	90	100	100	100	110	120	130	1,020
114	Qualified school construction bonds [9]	470	450	430	410	390	370	350	330	310	290	270	3,600
	Training, employment, and social services:												
115	Work opportunity tax credit	380	390	320	120	70	50	40	30	20	20	10	1,070
116	Employer provided child care exclusion	720	680	720	780	840	910	990	1,070	1,400	1,610	490	9,490
117	Employer-provided child care credit	0	0	0	0	0	0	0	0	0	0	0	0
118	Assistance for adopted foster children	550	630	680	740	810	880	950	1,020	1,110	1,190	1,290	9,300

Table 16–2B. ESTIMATES OF TOTAL INDIVIDUAL INCOME TAX EXPENDITURES FOR FISCAL YEARS 2018–2028—Continued

(In millions of dollars)

		Total from individuals											
		2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2019–2028
119	Adoption credit and exclusion	630	630	700	710	760	780	800	800	810	820	830	7,640
120	Exclusion of employee meals and lodging (other than military)	4,800	4,540	4,680	4,840	5,030	5,230	5,440	5,780	6,740	7,340	7,640	57,260
121	Credit for child and dependent care expenses	4,560	4,360	4,460	4,560	4,690	4,870	4,970	5,100	5,330	5,550	5,610	49,500
122	Credit for disabled access expenditures	10	10	10	10	10	10	10	10	10	10	10	100
123	Deductibility of charitable contributions, other than education and health	43,910	35,500	38,330	41,510	44,210	46,920	49,640	52,290	63,270	83,230	87,160	542,060
124	Exclusion of certain foster care payments	480	500	520	530	540	550	560	570	570	580	580	5,500
125	Exclusion of parsonage allowances	839	850	896	943	993	1,046	1,101	1,160	1,221	1,285	1,353	10,848
126	Indian employment credit	20	20	10	10	10	10	10	10	10	10	10	110
127	Credit for employer differential wage payments	0	0	0	0	0	0	10	10	10	10	10	50
Health:													
128	Exclusion of employer contributions for medical insurance premiums and medical care [10]	205,080	203,290	214,950	227,350	239,620	253,230	268,240	284,210	333,840	370,750	391,420	2,786,900
129	Self-employed medical insurance premiums	7,420	7,430	7,910	8,440	8,970	9,450	10,010	10,590	12,520	13,870	14,600	103,790
130	Medical Savings Accounts / Health Savings Accounts	7,410	7,810	8,460	9,080	9,760	10,360	10,880	11,450	13,110	14,240	14,740	109,890
131	Deductibility of medical expenses	8,840	6,890	7,130	7,880	8,740	9,690	10,680	11,700	17,820	22,170	24,200	126,900
132	Exclusion of interest on hospital construction bonds	2,280	2,500	2,650	2,880	3,160	3,420	3,600	3,720	4,030	4,260	4,380	34,600
133	Refundable Premium Assistance Tax Credit [11]	6,790	5,900	5,930	6,000	6,340	6,710	7,050	7,510	8,610	9,330	9,960	73,340
134	Credit for employee health insurance expenses of small business [12]	70	60	40	30	20	20	10	10	10	10	10	220
135	Deductibility of charitable contributions (health)	4,890	3,960	4,270	4,620	4,930	5,230	5,530	5,820	7,050	9,270	9,710	60,390
136	Tax credit for orphan drug research	30	30	40	50	60	70	80	100	110	130	150	820
137	Special Blue Cross/Blue Shield tax benefits	0	0	0	0	0	0	0	0	0	0	0	0
138	Tax credit for health insurance purchased by certain displaced and retired individuals [13]	20	10	0	0	0	0	0	0	0	0	0	10
139	Distributions from retirement plans for premiums for health and long-term care insurance	430	420	430	450	460	470	490	500	590	630	650	5,090
Income security:													
140	Child credit [14]	30,450	76,010	76,930	77,910	78,890	79,910	80,780	81,640	57,830	21,450	21,220	652,570
141	Exclusion of railroad retirement (Social Security equivalent) benefits	250	220	210	200	190	180	170	160	160	170	170	1,830
142	Exclusion of workers' compensation benefits	9,590	9,680	9,780	9,880	9,970	10,070	10,170	10,270	10,370	10,480	10,580	101,250
143	Exclusion of public assistance benefits (normal tax method)	580	580	600	620	640	660	670	700	720	740	690	6,620
144	Exclusion of special benefits for disabled coal miners	20	20	20	10	10	10	10	10	10	10	10	120
145	Exclusion of military disability pensions	160	160	160	170	170	180	180	180	210	220	220	1,850
	Net exclusion of pension contributions and earnings:	0	0	0	0	0	0	0	0	0	0	0	0
146	Defined benefit employer plans	69,910	71,430	73,540	75,290	75,840	76,400	76,830	76,380	77,840	76,440	75,560	755,550
147	Defined contribution employer plans	72,260	75,720	84,590	90,670	97,200	104,080	111,230	118,850	142,180	155,000	164,490	1,144,010
148	Individual Retirement Accounts	19,680	20,620	23,590	24,730	26,510	28,150	29,930	32,000	37,340	40,760	44,170	307,800
149	Low and moderate income savers credit	1,180	1,170	1,180	1,180	1,200	1,190	1,200	1,210	1,330	1,320	1,320	12,300
150	Self-Employed plans	24,940	24,120	26,680	29,680	32,720	35,890	39,260	42,660	50,790	63,450	69,680	414,930
	Exclusion of other employee benefits:	0	0	0	0	0	0	0	0	0	0	0	0

Table 16–2B. ESTIMATES OF TOTAL INDIVIDUAL INCOME TAX EXPENDITURES FOR FISCAL YEARS 2018–2028—Continued

(In millions of dollars)

		Total from individuals											
		2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2019–2028
151	Premiums on group term life insurance	2,810	2,810	2,930	3,060	3,190	3,330	3,470	3,630	4,130	4,410	4,590	35,550
152	Premiums on accident and disability insurance	330	330	330	340	340	340	350	350	350	350	350	3,430
153	Income of trusts to finance supplementary unemployment benefits	30	30	40	40	50	50	50	50	60	60	60	490
154	Income of trusts to finance voluntary employee benefits associations	1,080	1,150	1,230	1,310	1,400	1,490	1,570	1,670	1,860	1,970	2,080	15,730
155	Special ESOP rules	120	120	130	130	140	140	150	150	160	160	170	1,450
156	Additional deduction for the blind	30	40	40	40	40	40	50	50	50	50	60	460
157	Additional deduction for the elderly	4,230	4,920	5,220	5,590	6,030	6,340	6,750	7,150	6,720	6,690	7,170	62,580
158	Tax credit for the elderly and disabled	0	0	0	0	0	0	0	0	0	0	0	0
159	Deductibility of casualty losses	110	0	0	0	0	0	0	0	390	610	650	1,650
160	Earned income tax credit [15]	8,050	8,110	2,660	2,710	2,780	2,850	2,940	3,020	3,100	10,520	10,770	49,460
Social Security:													
	Exclusion of social security benefits:												
161	Social Security benefits for retired and disabled workers and spouses, dependents and survivors	32,970	29,980	31,020	32,090	33,340	34,870	35,460	35,530	40,840	48,030	49,850	371,010
162	Credit for certain employer contributions to social security	570	600	630	670	700	740	770	810	850	890	940	7,600
Veterans benefits and services:													
163	Exclusion of veterans death benefits and disability compensation	8,240	8,180	8,710	9,060	9,400	9,750	10,100	10,480	11,340	12,860	13,340	103,220
164	Exclusion of veterans pensions	450	420	430	450	470	480	500	520	560	640	660	5,130
165	Exclusion of GI bill benefits	1,650	1,610	1,700	1,780	1,870	1,960	2,050	2,140	2,340	2,680	2,810	20,940
166	Exclusion of interest on veterans housing bonds	30	30	30	40	40	40	40	50	50	50	50	420
General purpose fiscal assistance:													
167	Exclusion of interest on public purpose State and local bonds	19,550	21,390	22,730	24,690	27,090	29,330	30,840	31,920	34,550	36,510	37,550	296,600
168	Build America Bonds [16]	0	0	0	0	0	0	0	0	0	0	0	0
169	Deductibility of nonbusiness State and local taxes other than on owner-occupied homes [17]	22,330	4,610	7,520	8,000	8,460	8,880	9,280	9,590	84,070	125,130	132,330	397,870
Interest:													
170	Deferral of interest on U.S. savings bonds	950	850	840	840	830	820	810	800	790	890	900	8,370
Addendum: Aid to State and local governments:													
	Deductibility of:												
	Property taxes on owner-occupied homes	15,360	6,250	6,650	7,100	7,520	7,930	8,300	8,630	42,220	61,210	65,030	220,840
	Nonbusiness State and local taxes other than on owner-occupied homes	22,330	4,610	7,520	8,000	8,460	8,880	9,280	9,590	84,070	125,130	132,330	397,870
	Exclusion of interest on State and local bonds for:												
	Public purposes	19,550	21,390	22,730	24,690	27,090	29,330	30,840	31,920	34,550	36,510	37,550	296,600
	Energy facilities	10	10	10	10	10	10	10	10	10	20	20	120
	Water, sewage, and hazardous waste disposal facilities	270	300	320	340	380	410	430	440	480	510	520	4,130
	Small-issues	100	110	110	120	130	140	150	160	170	180	190	1,460
	Owner-occupied mortgage subsidies	750	820	870	940	1,030	1,120	1,180	1,220	1,320	1,390	1,430	11,320
	Rental housing	770	850	900	980	1,070	1,160	1,220	1,260	1,370	1,440	1,490	11,740
	Airports, docks, and similar facilities	470	510	550	590	650	710	740	770	830	880	900	7,130

Table 16–2B. ESTIMATES OF TOTAL INDIVIDUAL INCOME TAX EXPENDITURES FOR FISCAL YEARS 2018–2028—Continued

(In millions of dollars)

	Total from individuals											
	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2019–2028
Student loans	200	220	240	260	280	310	320	330	360	380	390	3,090
Private nonprofit educational facilities	1,550	1,690	1,800	1,950	2,140	2,320	2,440	2,530	2,740	2,890	2,970	23,470
Hospital construction	2,280	2,500	2,650	2,880	3,160	3,420	3,600	3,720	4,030	4,260	4,380	34,600
Veterans' housing	30	30	30	40	40	40	40	50	50	50	50	420

See Table 16–1 footnotes for specific table information

Table 16–3. INCOME TAX EXPENDITURES RANKED BY TOTAL FISCAL YEAR 2019-2028 PROJECTED REVENUE EFFECT
(In millions of dollars)

	Provision	2019	2020	2019–2028
130	Exclusion of employer contributions for medical insurance premiums and medical care [10]	203,290	214,950	2,786,900
64	Exclusion of net imputed rental income	121,070	125,610	1,536,040
72	Capital gains (except agriculture, timber, iron ore, and coal)	102,910	99,210	1,152,610
149	Defined contribution employer plans	75,720	84,590	1,144,010
148	Defined benefit employer plans	71,430	73,540	755,550
142	Child credit [14]	76,010	76,930	652,570
74	Step-up basis of capital gains at death	49,920	51,840	622,190
60	Deductibility of mortgage interest on owner-occupied homes	26,850	29,820	597,610
63	Capital gains exclusion on home sales	44,380	46,600	577,330
125	Deductibility of charitable contributions, other than education and health	36,660	39,540	555,930
85	Allow 20-percent deduction to certain pass-through income	53,273	57,429	480,108
5	Reduced tax rate on active income of controlled foreign corporations	34,490	38,950	419,060
152	Self-Employed plans	24,120	26,680	414,930
171	Deductibility of nonbusiness State and local taxes other than on owner-occupied homes [17]	4,610	7,520	397,870
71	Treatment of qualified dividends	28,730	29,820	384,120
163	Social Security benefits for retired and disabled workers and spouses, dependents and survivors	29,980	31,020	371,010
169	Exclusion of interest on public purpose State and local bonds	24,080	25,100	316,730
150	Individual Retirement Accounts	20,620	23,590	307,800
79	Accelerated depreciation of machinery and equipment (normal tax method)	68,750	65,410	285,420
61	Deductibility of State and local property tax on owner-occupied homes [17]	6,250	6,650	220,840
9	Credit for increasing research activities	14,480	15,870	208,560
53	Exclusion of life insurance death benefits	14,350	15,550	192,010
103	Tax credits and deductions for postsecondary education expenses [7]	16,300	16,360	166,270
1	Exclusion of benefits and allowances to armed forces personnel	12,450	11,220	127,040
133	Deductibility of medical expenses	6,890	7,130	126,900
132	Medical Savings Accounts / Health Savings Accounts	7,810	8,460	109,890
77	Deferral of gains from like-kind exchanges	2,850	2,980	35,750
131	Self-employed medical insurance premiums	7,430	7,910	103,790
165	Exclusion of veterans death benefits and disability compensation	8,180	8,710	103,220
144	Exclusion of workers' compensation benefits	9,680	9,780	101,250
66	Credit for low-income housing investments	9,040	9,070	98,500
6	Deduction for foreign-derived intangible income dervied from trade or business within the United States	7,420	7,970	95,180
2	Exclusion of income earned abroad by U.S. citizens	7,280	7,640	91,520
65	Exception from passive loss rules for $25,000 of rental loss	6,030	6,390	78,840
135	Refundable Premium Assistance Tax Credit [11]	5,900	5,930	73,340
80	Expensing of certain small investments (normal tax method)	1,660	2,290	62,880
67	Accelerated depreciation on rental housing (normal tax method)	2,810	3,410	62,710
159	Additional deduction for the elderly	4,920	5,220	62,580
112	Deductibility of charitable contributions (education)	4,140	4,450	61,610
137	Deductibility of charitable contributions (health)	3,960	4,270	60,390
122	Exclusion of employee meals and lodging (other than military)	4,260	4,390	53,710
123	Credit for child and dependent care expenses	4,360	4,460	49,500
162	Earned income tax credit [15]	8,110	2,660	49,460
138	Tax credit for orphan drug research	1,550	1,880	43,090
106	Qualified tuition programs	2,200	2,420	39,440
134	Exclusion of interest on hospital construction bonds	2,810	2,930	36,950
102	Exclusion of scholarship and fellowship income (normal tax method)	2,840	2,960	36,580
153	Premiums on group term life insurance	2,810	2,930	35,550
16	Energy production credit [1]	3,240	3,320	32,980
18	Energy investment credit [1]	4,300	5,100	30,310
75	Carryover basis of capital gains on gifts	3,040	3,030	29,350
88	Exclusion of reimbursed employee parking expenses	2,201	2,271	25,337
108	Exclusion of interest on bonds for private nonprofit educational facilities	1,900	1,990	25,060
52	Exemption of credit union income	1,861	2,010	24,017
111	Parental personal exemption for students age 19 or over	0	0	23,550

Table 16–3. INCOME TAX EXPENDITURES RANKED BY TOTAL FISCAL YEAR 2019–2028 PROJECTED REVENUE EFFECT—Continued
(In millions of dollars)

	Provision	2019	2020	2019–2028
157	Special ESOP rules	2,070	2,130	23,410
105	Deductibility of student-loan interest	1,980	2,030	22,320
167	Exclusion of GI bill benefits	1,610	1,700	20,940
62	Deferral of income from installment sales	1,720	1,750	19,980
73	Capital gains exclusion of small corporation stock	1,240	1,410	17,590
7	Interest Charge Domestic International Sales Corporations (IC-DISCs)	1,280	1,340	16,100
156	Income of trusts to finance voluntary employee benefits associations	1,150	1,230	15,730
48	Capital gains treatment of certain agriculture income	1,380	1,330	15,450
164	Credit for certain employer contributions to social security	1,140	1,200	14,420
57	Exclusion of interest spread of financial institutions	2,250	1,170	14,240
59	Exclusion of interest on rental housing bonds	960	990	12,540
151	Low and moderate income savers credit	1,170	1,180	12,300
58	Exclusion of interest on owner-occupied mortgage subsidy bonds	920	960	12,080
113	Exclusion of employer-provided educational assistance	890	940	11,900
127	Exclusion of parsonage allowances	850	896	10,848
118	Employer provided child care exclusion	680	720	9,490
120	Assistance for adopted foster children	630	680	9,300
10	Expensing of exploration and development costs, fuels	850	820	8,800
172	Deferral of interest on U.S. savings bonds	850	840	8,370
121	Adoption credit and exclusion	630	700	7,640
93	Exclusion of interest for airport, dock, and similar bonds	570	610	7,600
15	Enhanced oil recovery credit	520	570	7,280
145	Exclusion of public assistance benefits (normal tax method)	580	600	6,620
11	Excess of percentage over cost depletion, fuels	290	410	6,420
96	New markets tax credit	1,320	1,280	6,350
22	Exclusion of utility conservation subsidies	450	470	5,570
126	Exclusion of certain foster care payments	500	520	5,500
166	Exclusion of veterans pensions	420	430	5,130
141	Distributions from retirement plans for premiums for health and long-term care insurance	420	430	5,090
116	Qualified school construction bonds [9]	600	570	4,790
89	Exclusion for employer-provided transit passes	363	383	4,707
42	Tax incentives for preservation of historic structures	140	240	4,520
39	Exclusion of interest on bonds for water, sewage, and hazardous waste facilities	340	350	4,410
117	Work opportunity tax credit	1,520	1,100	4,260
139	Special Blue Cross/Blue Shield tax benefits	290	310	4,010
32	Credit for residential energy efficient property	1,530	1,180	3,700
55	Tax exemption of insurance income earned by tax-exempt organizations	320	330	3,680
43	Carbon oxide sequestration credit	110	70	3,430
154	Premiums on accident and disability insurance	330	330	3,430
46	Expensing of certain multiperiod production costs	250	270	3,420
107	Exclusion of interest on student-loan bonds	250	260	3,290
21	Tax credits for clean-fuel burning vehicles and refueling property	640	450	3,240
3	Exclusion of certain allowances for Federal employees abroad	250	260	3,140
38	Excess of percentage over cost depletion, nonfuel minerals	250	250	2,780
100	Opportunity Zones	1,980	2,510	2,640
41	Expensing of multiperiod timber growing costs	200	210	2,580
28	Amortize all geological and geophysical expenditures over 2 years	180	180	2,410
114	Special deduction for teacher expenses	180	180	2,220
45	Expensing of certain capital outlays	150	160	2,060
25	Credit for investment in clean coal facilities	60	30	1,970
147	Exclusion of military disability pensions	160	160	1,850
143	Exclusion of railroad retirement (Social Security equivalent) benefits	220	210	1,830
35	Advanced nuclear power production credit	80	200	1,740
17	Marginal wells credit	0	70	1,690
161	Deductibility of casualty losses	0	0	1,650

Table 16–3. INCOME TAX EXPENDITURES RANKED BY TOTAL FISCAL YEAR 2019–2028 PROJECTED REVENUE EFFECT—Continued

(In millions of dollars)

	Provision	2019	2020	2019–2028
97	Credit to holders of Gulf Tax Credit Bonds.	170	170	1,590
82	Exclusion of interest on small issue bonds	120	120	1,560
49	Income averaging for farmers	110	110	1,550
13	Capital gains treatment of royalties on coal	140	130	1,540
40	Capital gains treatment of certain timber income	140	130	1,540
91	Exclusion of interest on bonds for Highway Projects and rail-truck transfer facilities	170	170	1,430
36	Reduced tax rate for nuclear decommissioning funds	100	100	1,210
86	Tonnage tax	90	90	1,070
94	Exemption of certain mutuals' and cooperatives' income	90	90	1,020
115	Discharge of student loan indebtedness	90	90	1,020
109	Credit for holders of zone academy bonds [8]	170	150	930
98	Recovery Zone Bonds [6]	90	90	860
51	Expensing of reforestation expenditures	50	60	780
76	Ordinary income treatment of loss from small business corporation stock sale	70	70	760
70	Exceptions from imputed interest rules	60	60	740
23	Credit for holding clean renewable energy bonds [4]	70	70	700
54	Exemption or special alternative tax for small property and casualty insurance companies	40	40	490
155	Income of trusts to finance supplementary unemployment benefits	30	40	490
101	Employee retention credit	200	60	480
47	Treatment of loans forgiven for solvent farmers	30	30	460
158	Additional deduction for the blind	40	40	460
168	Exclusion of interest on veterans housing bonds	30	30	420
110	Exclusion of interest on savings bonds redeemed to finance educational expenses	30	30	410
37	Expensing of exploration and development costs, nonfuel minerals	20	30	400
44	Deduction for endangered species recovery expenditures	30	30	390
69	Discharge of business indebtedness	10	50	360
104	Education Individual Retirement Accounts	40	40	360
33	Qualified energy conservation bonds [5]	30	30	300
136	Credit for employee health insurance expenses of small business [12]	70	50	250
119	Employer-provided child care credit	20	20	200
50	Deferral of gain on sale of farm refiners	15	15	175
34	Advanced Energy Property Credit	10	10	170
128	Indian employment credit	30	20	160
90	Tax credit for certain expenditures for maintaining railroad tracks	40	40	150
95	Empowerment zones	50	40	140
14	Exclusion of interest on energy facility bonds	10	10	120
87	Deferral of tax on shipping companies	12	12	120
129	Credit for employer differential wage payments	0	0	120
146	Exclusion of special benefits for disabled coal miners	20	20	120
99	Tribal Economic Development Bonds	10	10	100
124	Credit for disabled access expenditures	10	10	100
12	Exception from passive loss limitation for working interests in oil and gas properties	0	0	70
30	Credit for construction of new energy efficient homes	50	10	60
29	Allowance of deduction for certain energy efficient commercial building property	10	0	10
92	Investment credit for rehabilitation of structures (other than historic)	10	0	10
140	Tax credit for health insurance purchased by certain displaced and retired individuals [13]	10	0	10
4	Inventory property sales source rules exception	0	0	0
19	Alcohol fuel credits [2]	0	0	0
20	Bio-Diesel and small agri-biodiesel producer tax credits [3]	0	0	0
31	Credit for energy efficiency improvements to existing homes	0	0	0
56	Small life insurance company deduction	0	0	0
68	Discharge of mortgage indebtedness	0	0	0
81	Graduated corporation income tax rate (normal tax method)	0	0	0
83	Deduction for US production activities	0	0	0
160	Tax credit for the elderly and disabled	0	0	0

Table 16–3. INCOME TAX EXPENDITURES RANKED BY TOTAL FISCAL YEAR 2019–2028 PROJECTED REVENUE EFFECT—Continued

(In millions of dollars)

	Provision	2019	2020	2019–2028
170	Build America Bonds [16]	0	0	0
27	Natural gas distribution pipelines treated as 15-year property	70	70	–320
24	Deferral of gain from dispositions of transmission property to implement FERC restructuring policy	–120	–100	–410
84	Special rules for certain film and TV production	–250	–240	–1,330
26	Temporary 50% expensing for equipment used in the refining of liquid fuels	–460	–370	–1,410
78	Depreciation of buildings other than rental housing (normal tax method)	–7,600	–8,110	–102,520
8	Expensing of research and experimentation expenditures (normal tax method)	6,750	7,430	–110,850

See Table 16–1 footnotes for specific table information

ment wage income and cover expenses such as rent, education, and the cost of travel to and from the United States.

4. ***Inventory property sales source rules exception.***—The United States generally taxes the worldwide income of U.S. persons and business entities. Under the baseline tax system, taxpayers receive a credit for foreign taxes paid which is limited to the pre-credit U.S. tax on the foreign source income. In contrast, the sales source rules for inventory property under current law allow U.S. exporters to use more foreign tax credits by allowing the exporters to attribute a larger portion of their earnings to foreign sources than would be the case if the allocation of earnings was based on actual economic activity. This exception was repealed for tax years beginning after December 31, 2017. Under the new provision, gains, profits, and income from the sale or exchange of inventory property produced partly in, and partly outside, the United States is allocated and apportioned on the basis of the location of production with respect to the property.

5. ***Reduced tax rate on active income of controlled foreign corporations.***—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 TCJA (effective 1/1/2018), 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 exemptions 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.

6. ***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.

7. ***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 income from exports to be taxes at the qualified dividend rate of 20 percent.

General Science, Space, and Technology

8. ***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 tax 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

9. ***Credit for increasing research activities.***—The baseline tax system would uniformly tax all returns to investments and not allow credits for particular activi-

Table 16–4. PRESENT VALUE OF SELECTED TAX EXPENDITURES FOR ACTIVITY IN CALENDAR YEAR 2018
(In millions of dollars)

	Provision	2018 Present Value of Revenue Loss
8	Expensing of research and experimentation expenditures (normal tax method)	3,890
23	Credit for holding clean renewable energy bonds	0
10	Expensing of exploration and development costs - fuels	176
37	Expensing of exploration and development costs - nonfuels	18
41	Expensing of multiperiod timber growing costs	150
46	Expensing of certain multiperiod production costs - agriculture	–10
45	Expensing of certain capital outlays - agriculture	0
51	Expensing of reforestation expenditures	30
67	Accelerated depreciation on rental housing	6,500
78	Depreciation of buildings other than rental	–10,050
79	Accelerated depreciation of machinery and equipment	–9,850
78	Expensing of certain small investments (normal tax method)	120
109	Credit for holders of zone academy bonds	160
66	Credit for low-income housing investments	8,900
106	Qualified tuition programs	4,360
148	Defined benefit employer plans	41,892
149	Defined contribution employer plans	88,830
150	Exclusion of IRA contributions and earnings	1,780
150	Exclusion of Roth earnings and distributions	4,770
150	Exclusion of non-deductible IRA earnings	570
152	Exclusion of contributions and earnings for Self-Employed plans	5,620
169	Exclusion of interest on public-purpose bonds	14,870
	Exclusion of interest on non-public purpose bonds	3,840
172	Deferral of interest on U.S. savings bonds	240

ties, 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

10. ***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 generous for 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.

11. ***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 offers more generous tax treatment than would cost depletion, which would limit deductions to an investment's cost.

12. ***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, 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.

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.

13. ***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. For individuals, tax rates on regular income vary from 10 percent to 39.6 percent (plus a 3.8-percent surtax on high income taxpayers), depending on the taxpayer's income. In contrast, 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, and so benefit from the preferentially low 20-percent maximum tax rate on capital gains.

14. ***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.

15. ***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.

16. ***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, 2020. Facilities that begin construction in 2017 receive 80 percent of the credit, facilities that begin construction in 2018 receive 60 percent of the credit, and facilities that begin construction in 2019 receive 40 percent of the credit. Qualified facilities producing electricity from sources other than wind must begin construction before January 1, 2018. In addition to the electricity production credit, an 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 expired on December 31, 2017.

17. ***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.

18. ***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, small wind property 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, and 22 percent for property that begins construction in 2021 and in all cases that is placed in service before January 1, 2024. A 10-percent credit is available for geothermal or qualified solar property placed in service after December 31, 2023. 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.

19. ***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 provided an income tax credit for qualified cellulosic biofuel production which was renamed the Second generation biofuel producer credit. This provision expired on December 31, 2017.

20. ***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 allowed an income tax credit for Bio-diesel and for Bio-diesel derived from virgin sources. In lieu of the Bio-diesel 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 expired on December 31, 2016.

21. ***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.

22. ***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.

23. ***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.

24. ***Deferral of gain from dispositions of transmission property to implement FERC restructuring policy.***—The baseline tax system generally would tax gains from sale of property when realized. It would not allow an exception for particular activities or individuals. However, the Tax Code allowed electric utilities to defer gains from the sale of their transmission assets to a FERC-approved independent transmission company. The sale of property must have been made prior to January 1, 2017.

25. ***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.

26. ***Temporary 50-percent expensing for equipment used in the refining of liquid fuels.***—The baseline tax system allows the taxpayer to deduct the decline in the economic value of an investment over its economic life. However, the Tax Code provided for an accelerated recovery of the cost of certain investments in refineries by allowing partial expensing of the cost, thereby giving such investments a tax advantage. Qualified refinery property must have been placed in service before January 1, 2014.

27. ***Natural gas distribution pipelines treated as 15-year property.***—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 depreciation of natural gas distribution pipelines (placed in service between 2005 and 2011) over a 15 year period. These deductions are accelerated relative to deductions based on economic depreciation.

28. ***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.

29. ***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. This provision expired on December 31, 2017.

30. ***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.

31. ***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.

32. ***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 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.

33. ***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.

34. ***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 Treasury Department may award up to $2.3 billion in tax credits for qualified investments.

35. ***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 Treasury Department 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.

36. ***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 returns to investments made by Nuclear Decommissioning Reserve Funds.

Natural Resources and Environment

37. ***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.

38. ***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 revenue) 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 offers more generous tax treatment than would cost depletion, which would limit deductions to an investment's cost.

39. ***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.

40. ***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. For individuals, tax rates on regular income vary from 10 percent to 39.6 percent (plus a 3.8-percent surtax on high income taxpayers), depending on the taxpayer's 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).

41. ***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.

42. ***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 under current law for certified rehabilita-

tion activities. The taxpayer's recoverable basis must be reduced by the amount of the credit.

43. ***Industrial CO2 capture and sequestration tax 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 dioxide captured at a qualified facility and disposed of in secure geological storage. In addition, the provision allows a credit for qualified carbon dioxide 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 is not allowed after the end of the calendar year in which 75 million metric tons of qualified carbon dioxide are certified as having been taken into account.

44. ***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

45. ***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.

46. ***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 establishing orchards or structure improvements), thereby accelerating cost recovery.

47. ***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.

48. ***Capital gains treatment of certain income.***—For individuals, tax rates on regular income vary from 10 percent to 39.6 percent (plus a 3.8-percent surtax on high income taxpayers), depending on the taxpayer's 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.

49. ***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.

50. ***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.

51. ***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.

52. ***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.

53. ***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 excludes from tax amounts received under life insurance contracts if such amounts are paid by reason of the death of the insured.

54. ***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 $2.25 million of annual net written premiums generally may elect to pay tax only on their taxable investment income. Their underwriting income (premiums less insurance losses and expenses) is excluded from tax. The $2.25 million premium limit is indexed for inflation.

55. ***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 such exempt organizations as fraternal societies, voluntary employee benefit associations, and others are exempt from tax.

56. ***Small life insurance company deduction.***—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, small life insurance companies (with gross assets of less than $500 million) can deduct 60 percent of the first $3 million of otherwise taxable income. The deduction phases out for otherwise taxable income between $3 million and $15 million. This provision was repealed effective for taxable years beginning after December 31, 2017.

57. ***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 added of deposit services.

58. ***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.

59. ***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.

60. ***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.

61. ***Deduction for property taxes on real property.***—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).

62. ***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.

63. ***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.

64. ***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 allowing a deduction for some costs associated with such income, such as for mortgage interest and property taxes.

65. ***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.

66. ***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 70 percent 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.

67. ***Accelerated depreciation on rental housing.***—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 rules, and thus do not give rise to tax expenditures under reference tax law. Under normal law, in contrast, depreciation allowances reflect estimates of economic depreciation.

68. ***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 allowed 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 applied to debt discharged after January 1, 2007, and before January 1, 2018.

69. ***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.

70. ***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 law. Current law also includes exceptions for certain property worth more than $250,000. These are tax expenditure under reference tax law and normal law. 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.

71. ***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 (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).

72. ***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. For individuals, tax rates on regular income vary from 10 percent to 39.6 percent (plus a 3.8-percent surtax on high income taxpayers), depending on the taxpayer's income. In contrast, 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).

73. ***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.

74. ***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.

75. ***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.

76. ***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.

77. ***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.

78. ***Depreciation of buildings other than rental housing.***—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 rules, and thus do not give rise to tax expenditures under reference tax law. Under normal law, in contrast, depreciation allowances reflect estimates of economic depreciation.

79. ***Accelerated depreciation of machinery and equipment.***—Under an 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 rules, and thus do not give rise to tax expenditures under reference tax law. Under normal law, in contrast, depreciation allowances reflect estimates of economic depreciation.

80. ***Expensing of certain small investments.***—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, the Tax Code allows qualifying investments by small businesses in tangible property and certain computer software to be expensed rather than depreciated over time.

81. ***Graduated corporation income tax rate.***—Because the corporate rate schedule is part of reference tax law, it is not considered a tax expenditure under the reference tax law method. A flat corporation income tax rate is taken as the baseline under the normal tax method; therefore, the lower rate in effect in 2017 is considered a tax expenditure under this concept.

82. ***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.

83. ***Deduction for U.S. production activities.***—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 for a deduction equal to a portion of taxable income attributable to domestic production. This deduction was repealed by P.L. 115-97.

84. ***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 expired at the end of 2016.

85. ***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. 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

86. ***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.

87. ***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).

88. ***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 2018, the maximum amount of the parking exclusion is $260 per month. The tax expenditure estimate does not include any subsidy provided through employer-owned parking facilities. Beginning in 2018, parking expenses are no longer deductible to employers.

89. ***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 $260 per month in 2018. However, beginning in 2018, transit expenses are no longer deductible to employers.

90. ***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 track owned or leased. This provision applies to maintenance expenditures in taxable years beginning before January 1, 2017.

91. ***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

92. ***Investment credit for rehabilitation of structures.***—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 allows a 10-percent investment tax credit for the rehabilitation of buildings that are used for business or productive activities and that were erected before 1936 for other than residential purposes. The taxpayer's recoverable basis must be reduced by the amount of the credit. The credit is repealed for rehabilitation expenditures incurred after December 31, 2017.

93. ***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.

94. ***Exemption of certain mutuals' and cooperatives' income.***—Under the baseline tax system, corporations pay taxes on their profits under the regu-

lar 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 revenues are derived from patron service charges.

95. ***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, or write-offs faster than economic depreciation. In contrast, the Tax Code allowed qualifying businesses in designated economically depressed areas to receive tax benefits such as employment credits, increased expensing of investment in equipment, special tax-exempt financing, and certain capital gains incentives. A taxpayer's ability to accrue new tax benefits for empowerment zones expired on December 31, 2017.

96. ***New markets tax credit.***—The baseline tax system would not allow credits for particular activities, investments, or industries. However, the Tax Code allowed taxpayers who made qualified equity investments in a community development entity (CDE), which then made 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 $3.5 billion for each calendar year 2010 through 2019, the last year for which credit allocations are authorized.

97. ***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.

98. ***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.

99. ***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.

100. ***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 qualifying investments held at least 5 years, 10 percent of the deferred gain is excluded from income, and 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. Opportunity zone designations expire on December 31, 2028.

101. ***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 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 before January 1, 2018, 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

102. ***Exclusion of scholarship and fellowship income.***—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.

103. ***Tax credits and deductions for post-secondary education expenses.***—The baseline tax system would not allow credits for particular activities, investments, or industries. Under current law in 2018, however, there were two credits for certain post-secondary education expenses. A deduction for post-secondary expenses expired at the end of 2017. The American Opportunity Tax Credit allows a partially refundable credit of up to $2,500 per eligible student for qualified tuition and related expenses paid during each of the first four years of the student's post-secondary education. The credit is 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.

The Lifetime Learning Credit allows a non-refundable credit for 20 percent of an eligible student's qualified tuition and fees, up to a maximum credit per return of $2,000. In 2018, the credit is phased out ratably for taxpayers with modified AGI between $112,000 and $132,000 if married filing jointly ($56,000 and $66,000 for other taxpayers), indexed. The credit can be claimed in any year in which post-secondary education expenses are incurred. Only one credit can be claimed per qualifying student. The deduction for post-secondary education expenses provides a maximum deduction of $4,000 for qualified post-secondary education expenses for taxpayers with modified adjusted gross income up to $130,000 if married filing jointly ($65,000 for other taxpayers). Taxpayers with modified adjusted gross income up to $160,000 if married filing jointly ($80,000 for other taxpayers) could deduct up to $2,000 of qualified post-secondary education expenses. This provision expired on December 31, 2017.

104. ***Education Individual Retirement Accounts (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. While contributions to an education IRA are not tax-deductible under current law, investment income earned by education IRAs is not taxed when earned, and investment income from an education IRA is tax-exempt when withdrawn to pay for a student's education expenses. The maximum contribution to an education IRA in 2018 is $2,000 per beneficiary. In 2018, the maximum contribution is phased down ratably for taxpayers with modified AGI between $190,000 and $220,000 if married filing jointly ($95,000 and $110,000 for other taxpayers).

105. ***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 2018, the maximum deduction is phased down ratably for taxpayers with modified AGI between $135,000 and $165,000 if married filing jointly ($65,000 and $80,000 for other taxpayers).

106. ***Qualified tuition programs.***—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.

107. ***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.

108. ***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.

109. ***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 $400 million of these bonds with a tax credit was authorized to be issued each year in 2011 through 2016.

110. ***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 $117,250 and $147,250 if married filing jointly ($78,150 and $93,150 for other taxpayers) in 2018.

111. ***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. To be considered a dependent, a child would have to be under age 19. In contrast, the Tax Code allows taxpayers to claim personal exemptions for children aged 19 to 23, 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).

112. ***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 of adjusted gross income (60 percent between 2018 and 2025); a corporation's total charitable contributions generally may not exceed 10 percent of pre-tax income.

113. ***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.

114. ***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 adjusted gross income (AGI).

115. ***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.

116. ***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.

117. ***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, 2019, 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.

118. ***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, under current law, up to $5,000 of employer-provided child care is excluded from an employee's gross income even though the employer's costs for the child care are a deductible business expense.

119. ***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.

120. ***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.

121. ***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.

122. ***Exclusion of employee meals and lodging.***—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 meals and lodging are excluded from an employee's gross income even though the employer's costs for these items are a deductible business expense.

123. ***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. Expenditures up to a maximum $3,000 for one dependent and $6,000 for two or more dependents are eligible for the 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.

124. ***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.

125. ***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 of adjusted gross income (60 percent between 2018 and 2025); a corporation's total charitable contributions generally may not exceed 10 percent of pre-tax income.

126. ***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.

127. ***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.

128. ***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, 2017.

129. ***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

130. ***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) are not included in employee gross income even though they are deducted as a business expense by the employee.

131. ***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.

132. ***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 under 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 2018, $3,350 for taxpayers with individual coverage and $6,750 for taxpayers with family coverage). Thus, HSAs have largely replaced MSAs.

133. ***Deductibility of medical expenses.***—The baseline tax system would not allow a deduction for personal expenditures. In contrast, in tax years through 2012, 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 turns 65 before the end of the taxable year, the threshold remains at 7.5 percent of adjusted income. Beginning in 2017, the 10-percent threshold will apply to all taxpayers, including those over 65.

134. ***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.

135. ***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% and 400% 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.

136. ***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.

137. ***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.

138. ***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 50 percent of the costs for clinical testing required by the Food and Drug Administration for drugs that treat rare physical conditions or rare diseases. This rate is modified to 25 percent by TCJA for expenditures incurred or paid in tax years beginning after December 31, 2017.

139. ***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. Qualifying insurers may take as a deduction 100 percent of any net increase in their unearned premium reserves, instead of the 80 percent allowed other insurers. Qualifying insurers are also allowed a special deduction equal to the amount by which 25 percent of an insurer's 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.

140. ***Tax credit for health insurance purchased by certain displaced and retired individuals.***—The baseline tax system would not allow credits for particular activities, investments, or industries. In contrast, the Tax Code provides a refundable tax credit of 72.5 percent for the purchase of health insurance coverage by individuals eligible for Trade Adjustment Assistance and certain Pension Benefit Guarantee Corporation pension recipients. This provision will expire on December 31, 2019.

141. ***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.

Income Security

142. ***Child 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 17 can qualify for a $2,000 partially refundable per child 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 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 ($200,000 for single or head of household filers and $200,000 for married taxpayers filing separately). 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 ($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.

143. ***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 is not generally subject to the income tax unless the recipient's gross income reaches a certain threshold under current law. See provision number 158, Social Security benefits for retired workers, for discussion of the threshold.

144. ***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.

145. ***Exclusion of public assistance benefits.***—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.

146. ***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.

147. ***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.

148. ***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.

149. ***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 2018, an employee could exclude up to $18,500 of wages from AGI under a qualified arrangement with an employer's 401(k) plan. Employees age 50 or over could exclude up to $24,500 in contributions. The defined contribution plan limit, including both employee and employer contributions, is $55,000 in 2018. The tax on contributions made by both employees and employers and the investment income earned by these plans is deferred until withdrawn.

150. ***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 $5,500 in 2018; 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 who, or whose 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.

151. ***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 $63,000 for joint filers, $47,500 for head of household filers, and $31,500 for other filers in 2018.

152. ***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 $55,000 in 2018. 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.

153. ***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.

154. ***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.

155. ***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.

156. ***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.

157. ***Special ESOP rules.***—ESOPs are a special type of tax-exempt employee benefit plan. 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 his payment (deductible by him) 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.

158. ***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 $1,600 standard deduction if single, or $1,300 if married in 2018.

159. ***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 $1,600 standard deduction if single, or $1,300 if married in 2018.

160. ***Tax credit for the elderly and disabled.***—Under the baseline tax system, a credit targeted at a specific group within a given filing status or for particular activities would not be allowed. In contrast, the Tax Code allows taxpayers who are 65 years of age or older, or who are permanently disabled, to claim a non-refundable tax credit equal to 15 percent of the sum of their earned and retirement income. The amount to which the 15-percent rate is applied is limited to no more than $5,000 for single individuals or married couples filing a joint return where only one spouse is 65 years of age or older or disabled, and up to $7,500 for joint returns where both spouses are 65 years of age or older or disabled. These limits are reduced by one-half of the taxpayer's adjusted gross income over $7,500 for single individuals and $10,000 for married couples filing a joint return.

161. ***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.

162. ***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 2018, for a family with one qualifying child, the credit is 34 percent of the first $10,180 of earned income. The credit is 40 percent of the first $14,290 of income for a family with two qualifying children, and it is 45 percent of the first $14,290 of income for a family with three or more qualifying children. Low-income workers with no qualifying children are eligible for a 7.65 percent credit on the first $6,780 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 2018, the phase-down for married filers begins at incomes $5,690 ($5,680 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. This change is permanent.

Social Security

163. ***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 138, Exclusion of railroad Social Security equivalent benefits.

164. ***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

165. ***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.

166. ***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.

167. ***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.

168. ***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

169. ***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, and 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.

170. ***Build America Bonds.***—The baseline tax system would not allow credits for particular activities or targeted at specific group. 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.

171. ***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 61.). 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

172. ***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 A

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 (for example, the exclusion for up to $500,000 of capital gains on home sales). 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 (e.g., age, number of family members). 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, personal 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. Tax expenditures also 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 or administering the system of justice. 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 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, thereby reducing 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. Some policy objectives are achieved using multiple approaches. For example, minimum wage legislation, the earned income tax credit, and the food stamp program (SNAP) are regulatory, tax expenditure, and direct outlay programs, respectively, all having the objective of improving the economic welfare of low-wage workers and families.

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 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.

The Administration is working towards examining the objectives and effects of the wide range of tax expenditures in our 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 loans and grants. An evaluation would explore the possible relationships between use of the credits and the use of loans and grants, seeking to answer, for example, whether the use of credits reduce or increase the likelihood of the students applying for loans. Such an evaluation would allow stakeholders to determine the most effective program—whether it is a tax credit, a subsidized loan, or a grant.

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 that investments must yield to cover their costs) and effective tax rates. The impact of these provisions on the amounts of corresponding forms of investment (e.g., research spending, exploration activity, and equipment) might also be estimated. In some cases, such as research, there is evidence that the 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 still are ultimate goals, such as promoting the Nation's technological base, energy security, environmental quality, 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 (such as the effects of increased domestic fuel production on imports from various regions, or the effects of various energy sources on the environment).

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, as compared to foreign firms, could require data from foreign governments or firms that 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 competing 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.

Current Administration Proposals on Tax Expenditures

The Administration considers performance measurement, evaluations, and the economic effects of tax expenditures each year in its deliberation for the Budget, and proposals are informed by these analyses. The current Budget includes several proposals which include changing existing tax expenditures to improve and expand health savings accounts, establish education scholarships and to repeal tax credits for qualified plug-in electric vehicles. These proposals are described below.

Improve and Expand Access to Health Savings Accounts. The Administration proposes to 1) allow taxpayers enrolled in health plans with an actuarial value of 70 percent or below to make contributions to health savings accounts; 2) increase the maximum allowable annual out-of-pocket spending allowed by high-deductible or other Health Savings Account (HSA) qualifying plans to the level allowed for Patient Protection and Affordable Care Act (PPACA) plans; and 3) allow fees for fixed-fee and direct primary care arrangements to be paid out of HSAs.

Establish Education Freedom Scholarships. The Administration proposes to make available annually $5 billion worth of income tax credits for individual and corporate donations to State-authorized nonprofit education scholarship granting organizations (SGOs). (Taxpayers who claim the credit will not be allowed to claim an itemized deduction for the same contribution.) These SGOs will use donated funds to provide families with Education Freedom Scholarships that can be used on a range of educational activities such as tutoring, afterschool programs and tuition for private schools. States will decide family eligibility requirements and allowable uses of scholarship funds.

Repeal the Tax Credit for Qualified Plug-in Electric Vehicles. The tax code currently provides a non-refundable tax credit of up to $7,500 to the purchaser of a qualified plug-in electric drive motor vehicle. The credit phases-out for a manufacturer's vehicles over a one year period beginning with the second calendar quarter after which the manufacturer has sold a cumulative 200,000 qualifying vehicles. The Administration proposed to repeal the credit for vehicles placed in service after December 31, 2019.

APPENDIX B

TAX EXPENDITURE PRESENTATION UNDER ALTERNATIVE BASELINES

The president's Fiscal year 2006 Budget provided a presentation of the Treasury Department review of the tax expenditure budget. This appendix revisits the earlier review with a focus on current tax expenditures identified (1) using comprehensive income as a baseline tax system; and (2) using a consumption tax as a baseline tax system.

The first section of this appendix compares major tax expenditures in the current budget to those implied by a comprehensive income baseline. This comparison includes a discussion of negative tax expenditures. The second section compares the major tax expenditures in the current budget to those implied by a consumption tax baseline, and also discusses negative tax expenditures.

DIFFERENCES BETWEEN OFFICIAL TAX EXPENDITURES AND THOSE BASED ON COMPREHENSIVE INCOME

As discussed in the main body of the tax expenditure chapter, official tax expenditures are measured relative to normal law or reference tax law baselines that deviate from a uniform tax on a comprehensive concept of income. Consequently, tax expenditures identified in the budget can differ from those that would be identified if a comprehensive income tax were chosen as the baseline tax system. This appendix addresses this issue by comparing major tax expenditures listed in the current tax expenditure budget with those implied by a comprehensive income baseline. Many large tax expenditures would continue to be tax expenditures were the baseline taken to be comprehensive income, although some would be smaller. A comprehensive income baseline would also result in a number of additional tax provisions being counted as tax expenditures.

Current budgetary practice excludes from the list of official tax expenditures those provisions that over-tax certain items of income. This exclusion conforms to the view that tax expenditures are substitutes for direct Government spending programs. However, this treatment gives a one-sided picture of how current law deviates from the baseline tax system. Relative to comprehensive income, a number of current tax provisions would be negative tax expenditures. Some of these also might be negative tax expenditures under the reference tax law or normal law baselines, expanded to admit negative tax expenditures.

Treatment of Major Tax Expenditures from the Current Budget under a Comprehensive Income Tax Baseline

Comprehensive income, also called Haig-Simons income, is the real, inflation-adjusted, accretion to one's economic power arising between two points in time, e.g., the beginning and ending of the year. It includes all accretions to wealth, whether or not realized, whether or not related to a market transaction, and whether a return to capital or labor. Inflation adjusted capital gains (and losses) would be included in comprehensive income as they accrue. Business, investment, and casualty losses, including losses caused by depreciation, would be deducted. Implicit returns, such as those accruing to homeowners, also would be included in comprehensive income. A comprehensive income tax baseline would tax all sources of income once. Thus, it would not include a separate tax on corporate income that leads to the double taxation of corporate profits.

While comprehensive income can be defined on the sources side of the consumer's balance sheet, it sometimes is instructive to use the identity between the sources of wealth and the uses of wealth to redefine it as the sum of consumption during the period plus the change in net worth between the beginning and the end of the period.

Comprehensive income is widely held to be the idealized base for an income tax even though it is not a perfectly defined concept.[4] It suffers from conceptual ambiguities, some of which are discussed below, as well as practical problems in measurement and tax administration, e.g., how to implement a practicable deduction for economic depreciation or include in income the return earned on consumer durable goods, including housing, automobiles, and major appliances.

Furthermore, comprehensive income does not necessarily represent an ideal tax base; efficiency or equity might be improved by deviating from comprehensive income as a tax base, e.g., by reducing the tax on capital income in order to further spur economic growth or by subsidizing certain types of activities in order to correct for market failures or to improve the after-tax distribution of income. In addition, some elements of comprehensive income would be difficult or impossible to include in a tax system that is administrable.

Classifying individual tax provisions relative to a comprehensive income baseline is difficult, in part because of the ambiguity of the baseline. It also is difficult because of interactions between tax provisions (or their absence). These interactions mean that it may not always be appropriate to consider each provision in isolation. Nonetheless, Table 16–5 attempts such a classification for each of the 25 largest tax expenditures from the Budget.

We classify 15 of the 25 items as tax expenditures under a comprehensive tax base (those in panel A). Most of these give preferential tax treatment to the return on certain types of savings or investment. They are a result of

[4] See, e.g., David F. Bradford, Untangling the Income Tax (Cambridge, MA: Harvard University Press, 1986), pp. 15–31, and Richard Goode, "The Economic Definition of Income" in Joseph Pechman, ed., Comprehensive Income Taxation (Washington, D.C.: The Brookings Institution, 1977), pp. 1–29.

Table 16–5. COMPARISON OF CURRENT TAX EXPENDITURES WITH THOSE IMPLIED BY A COMPREHENSIVE INCOME TAX[1]

Description	Revenue Effect 2028
A. Tax Expenditure Under a Comprehensive Income Tax	
Exclusion of net imputed rental income on owner-occupied housing	210,190
Defined contribution employer plans	164,490
Capital gains (except agriculture, timber, iron ore, and coal)	148,780
Reduced tax rate on active income of controlled foreign corporations	77,270
Capital gains exclusion on home sales	76,070
Defined benefit employer plans	75,560
Self-Employed plans	69,680
Individual Retirement Accounts	44,170
Exclusion of interest on public purpose State and local bonds	38,990
Exclusion of veterans death beenfits and disability compensation	13,340
Credit for low-income housing investments	10,960
Exclusion of workers' compensation benefits	10,580
B. Possibly a Tax Expenditure Under a Comprehensive Income Tax, But With Some Qualifications	
Deductibility of nonbusiness state and local taxes other than on owner-occupied homes	132,330
Deductibility of mortgage interest on owner-occupied homes	129,090
Step-up basis of capital gains at death	79,050
Deductibility of State and local property tax on owner-occupied homes	65,030
Exclusion of Social Security benefits for retired workers	49,850
Child credit	21,220
Earned income tax credit	10,770
C. Uncertain	
Exclusion of employer contributions for medical insurance premiums and medical care	391,420
Deductibility of charitable contributions, other than education and health	88,800
Deductibility of medical expenses	24,200
Deductibility of self-employed medical insurance premiums	14,600
D. Probably Not a Tax Expenditure Under a Comprehensive Income Tax	
Exception from passive loss rules for $25,000 of rental loss	10,060

[1] The measurement of certain tax expenditures under a comprehensive income tax baseline may differ from the official budget estimate even when the provision would be a tax expenditure under both baselines.

Source: Table 16-1, Tax Expenditure Budget.

the explicitly hybrid nature of the existing tax system, and arise out of policy decisions that reflect discomfort with the high tax rate on capital income that would otherwise arise under the current structure of the income tax. Even these relatively clear cut items, however, can raise ambiguities particularly in light of the absence of integration of the corporate and individual tax systems. Given current law's corporate income tax, the reduction or elimination of individual level tax on income from investment in corporate equities might not be a tax expenditure relative to a comprehensive income baseline. Rather, an individual income tax preference might undo the corporate tax penalty (i.e., the double tax). A similar line of reasoning could be used to argue that, in the case of corporations, expensing[5] of R&E is not a tax expenditure because it serves to offset the corporate tax penalty.

The failure to tax net rental income from owner-occupied housing was considered as a tax expenditure for the first time in the FY 2006 Budget. Because net rental income (gross rents minus depreciation, interest, taxes, and other expenses) would be in the homeowner's tax base under a comprehensive income tax baseline, this item would be a tax expenditure relative to a comprehensive income baseline.

The exclusion of worker's compensation benefits also would be a tax expenditure under comprehensive income principles. Under comprehensive income tax principles, if the worker were to buy the insurance himself, he would be able to deduct the premium (since it represents a reduction in net worth) but should include in income the benefit when paid (since it represents an increase in net worth).[6] If the employer pays the premium, the proper

[5] Expensing means immediate deduction. Proper income tax treatment requires capitalization followed by annual depreciation allowances reflecting the decay in value of the associated R&E spending.

[6] Suppose a taxpayer buys a 1-year term unemployment insurance

Table 16–6. COMPARISON OF CURRENT TAX EXPENDITURES WITH THOSE IMPLIED BY A COMPREHENSIVE CONSUMPTION TAX [1]

Description	Revenue Effect 2028
A. Tax Expenditure Under a Consumption Base	
Exclusion of net imputed rental income on owner-occupied housing	210,190
Exclusion of workers' compensation benefits	10,580
B. Probably a Tax Expenditure Under a Consumption Base	
Deductibility of mortgage interest on owner-occupied homes	132,330
Deductibility of nonbusiness state and local taxes other than on owner-occupied homes	129,090
Child credit	21,220
Exclusion of Social Security benefits for retired workers	49,850
Earned income tax credit	10,770
Exclusion of veterans death beenfits and disability compensation	10,580
C. Uncertain	
Exclusion of employer contributions for medical insurance premiums and medical care	391,420
Deductibility of charitable contributions, other than education and health	88,800
Deductibility of State and local property tax on owner-occupied homes	65,030
Deductibility of medical expenses	24,200
Deductibility of self-employed medical insurance premiums	14,600
Credit for low-income housing investments	10,960
D. Not a Tax Expenditure Under a Consumption Base	
Defined benefit employer plans	75,560
Defined contribution employer plans	164,490
Capital gains exclusion on home sales	76,070
Step-up basis of capital gains at death	65,030
Capital gains (except agriculture, timber, iron ore, and coal)	148,780
Exclusion of interest on public purpose State and local bonds	76,070
Self-Employed plans	75,560
Reduced tax rate on active income of controlled foreign corporations (normal tax method)	77,270
Individual Retirement Accounts	44,170
Exception from passive loss rules for $25,000 of rental loss	10,060

[1] The measurement of certain tax expenditures under a consumption tax baseline may differ from the official budget estimate even when the provision would be a tax expenditure under both baselines.

Source: Table 16-1, Tax Expenditure Budget.

treatment would allow the employer a deduction and allow the employee to disregard the premium, but he would take the proceeds, if any, into income. Current law allows the employer to deduct the premium and excludes both the premium and the benefits from the employee's tax base.

Veteran's death and disability benefits seem likely to represent a tax expenditure. This is clearly the case to the extent they are seen as deferred wages or as transfers. It also is the case to the extent that they are seen as insurance benefits, since the premiums, which come in the form of foregone wages, were not included in taxable income.[7]

Panel B deals with items that probably are tax expenditures, but that raise issues. Current law allows deductions for home mortgage interest and for property taxes on owner-occupied housing. The tax expenditure budget includes both of these deductions. From one perspective, these two deductions would not be considered tax expenditures relative to a comprehensive tax base; a comprehensive base would allow both deductions. However, this perspective ignores current law's failure to impute gross rental income. Conditional on this failure, the deductions for interest and property taxes might be viewed as inappropriate, because they move the tax system away from rather than towards a comprehensive income tax

policy at the beginning of the year. At that time, he exchanges one asset, cash, for another, the insurance policy, so there is no change in net worth. But, at the end of the year, the policy expires and so is worthless, hence the taxpayer has a reduction in net worth equal to the premium. If the policy pays off during the year (i.e., the taxpayer has a work related injury), then the taxpayer would include the proceeds in income because they represent an increase in his net worth.

[7] The treatment of insurance premiums and benefits is discussed more completely below.

base.[8] Indeed, the sum of the tax expenditure for these two deductions, plus the tax expenditure for the failure to include net rental income, sums to the tax expenditure for owner-occupied housing relative to a comprehensive income tax base. Consequently, there is a strong argument for classifying them as tax expenditures relative to a comprehensive income baseline.

The deduction of nonbusiness State and local taxes other than on owner-occupied homes also is included in this section. These taxes include income, sales, and property taxes. The stated justification for this tax expenditure is that "Taxpayers may deduct State and local income taxes and property taxes even though these taxes primarily pay for services that, if purchased directly by taxpayers, would not be deductible."[9] The idea is that these taxes represent (or serve as proxies for) consumption expenditures for which current law makes no imputations to income.[10]

In contrast to the view in the official Budget, however, the deduction for State and local taxes might not be a tax expenditure if the baseline were comprehensive income. Properly measured comprehensive income would include the value of State and local government benefits received, but would allow a deduction for State and local taxes paid.[11] Thus, in this sense the deductibility of State and local taxes is consistent with comprehensive income tax principles; it should not be a tax expenditure. Nonetheless, imputing the value of State and local services is difficult and is not done under current law. Consequently, a deduction for taxes might sensibly be viewed as a tax expenditure relative to a comprehensive income baseline.[12]

To the extent that the personal and dependent care exemptions and the standard deduction properly remove from taxable income all expenditures that do not yield suitably discretionary consumption value, or otherwise appropriately adjust for differing taxpaying capacity, then the child care credit and the earned income tax credit would be tax expenditures. In contrast, a competing perspective views these credits as appropriate modifications that account for differing taxpaying capacity. Even accepting this competing perspective, however, one might question why these programs come in the form of credits rather than deductions.

The step-up of basis at death lowers the income tax on capital gains for those who inherit assets below what it would be otherwise. From that perspective it would be a tax expenditure under a comprehensive income baseline. Nonetheless, there are ambiguities. Under a comprehensive income baseline, all real inflation adjusted gains would be taxed as accrued, so there would be no deferred unrealized gains on assets held at death.

The lack of full taxation of Social Security benefits also is listed in panel B. Consider first Social Security retirement benefits. To the extent that Social Security is viewed as a pension, a comprehensive income tax would include in income all contributions to Social Security retirement funds (payroll taxes) and tax accretions to value as they arise (inside build-up).[13] Benefits paid out of prior contributions and the inside build-up, however, would not be included in the tax base because the fall in the value of the individual's Social Security account would be offset by an increase in cash. In contrast, to the extent that Social Security is viewed as a transfer program, all contributions should be deductible from the income tax base and all benefits received should be included in the income tax base.

A similar analysis applies to Social Security benefits paid to dependents and survivors. If these benefits represent transfers from the Government, then they should be included in the tax base. If the taxpaying unit consists of the worker plus dependents and survivors, then to the extent that Social Security benefits represent payments from a pension, the annual pension earnings should be taxed in the same way that earnings accruing to retirees are taxed. However, benefits paid to dependents and survivors might be viewed as a gift or transfer from the decedent, in which case the dependents and survivors should pay tax on the full amount of the benefit received. (In this case the decedent or his estate should pay tax on the pension income as well, to the extent that the gift represents consumption rather than a reduction in net worth.)

In addition, dependent and survivors benefits might be viewed in part as providing life insurance. In that case, the annual premiums paid each year, or the portion of Social Security taxes attributable to the premiums, should be deducted from income, since they represent a decline in net worth, while benefits should be included in income. Alternatively, taxing premiums and excluding benefits also would represent appropriate income tax policy.

In contrast to any of these treatments, current law excludes one-half of Social Security contributions (employer-paid payroll taxes) from the base of the income tax, makes no attempt to tax accretions, and subjects some, but not all, benefits to taxation. The difference between current law's treatment of Social Security benefits and their treatment under a comprehensive income tax would qualify as a tax expenditure, but such a tax expenditure differs in concept from that included in the official budget.

[8] If there were no deduction for interest and property taxes, the tax expenditure base (i.e., the proper tax base minus the actual tax base) for owner-occupied housing would equal the homeowner's net rental income: gross rents minus (depreciation + interest + property taxes + other expenses). With the deduction for interest and property taxes, the tax expenditure base rises to gross rents minus (depreciation + other expenses).

[9] Fiscal Year 2003 Budget of the United States Government, Analytical Perspectives (Washington, D.C.: U.S. Government Printing Office, 2002), p. 127.

[10] Property taxes on owner-occupied housing also might serve as a proxy for the value of untaxed local services provided to homeowners. As such, they would be listed in the tax expenditure budget (as configured, i.e., building on the estimate for the failure to tax net rents) twice, once because current law does not tax rental income and again as a proxy for government services received. Property taxes on other consumer durables such as automobiles also might be included twice, owing to current law's exclusion from income of the associated service flow.

[11] U.S. Treasury, Blueprints for Basic Tax Reform (Washington, D.C.: U.S. Government Printing Office, 1977), p. 92.

[12] Under the normal tax method employed by the Joint Committee on Taxation, the value of some public assistance benefits provided by State Governments is included as a tax expenditure, thereby raising a potential double counting issue.

[13] As a practical matter, this may be impossible to do. Valuing claims subject to future contingencies is very difficult, as discussed in Bradford, Untangling the Income Tax, pp. 23–24.

The tax expenditures in the official budget[14] reflect exemptions for lower income beneficiaries from the tax on 85 percent of Social Security benefits.[15] Historically, payroll taxes paid by the employee represented no more than 15 percent of the expected value of the retirement benefits received by a lower-earnings Social Security beneficiary. The 85-percent inclusion rate is intended to tax upon distribution the remaining amount of the retirement benefit payment the portion arising from the payroll tax contributions made by employers and the implicit return on the employee and employer contributions. Thus, the tax expenditure conceived and measured in the current budget is not intended to capture the deviation from a comprehensive income baseline, which would additionally account for the deferral of tax on the employer's contributions and on the rate of return (less an inflation adjustment attributable to the employee's payroll tax contributions). Rather, it is intended to approximate the taxation of private pensions with employee contributions made from after-tax income,[16] on the assumption that Social Security is comparable to such pensions. Hence, the official tax expenditure understates the tax advantage accorded Social Security retirement benefits relative to a comprehensive income baselineTo the extent that the benefits paid to dependents and survivors should be taxed as private pensions, the same conclusion applies: the official tax expenditure understates the tax advantage.

The deduction for U.S. production activities also raises some problems. To the extent it is viewed as a tax break for certain qualifying businesses ("manufacturers"), it would be a tax expenditure. In contrast, the deduction may prove to be so broad that it is available to most U.S. businesses, in which case it might not be seen as a tax expenditure. Rather, it would represent a feature of the baseline tax rate system, because the deduction is equivalent to a lower tax rate. In addition, to the extent that it is viewed as providing relief from the double tax on corporate profits, it might not be a tax expenditure.

The next category (panel C) includes items whose treatment is less certain. The proper treatment of some of these items under a comprehensive income tax is ambiguous, while others perhaps serve as proxies for what would be a tax expenditure under a comprehensive income base.[17] Consider, for example, the items relating to charitable contributions. Under existing law, charitable contributions are deductible, and this deduction is considered on its face a tax expenditure in the current budget.[18]

The treatment of charitable donations, however, is ambiguous under a comprehensive income tax. If charitable contributions are a consumption item for the giver, then they are properly included in his taxable income; a deduction for contributions would then be a tax expenditure relative to a comprehensive income tax baseline. In contrast, charitable contributions could represent a transfer of purchasing power from the giver to the receiver. As such, they would represent a reduction in the giver's net worth, not an item of consumption, and so properly would be deductible, implying that current law's treatment is not a tax expenditure. At the same time, however, the value of the charitable benefits received is income to the recipient. Under current law, such income generally is not taxed, and so represents a tax expenditure whose size might be approximated by the size of the donor's contribution.[19]

Medical expenditures may or may not be an element of income (or consumption). Some argue that medical expenditures don't represent discretionary spending, and so aren't really consumption. Instead, they are a reduction of net worth and should be excluded from the tax base. In contrast, others argue that there is no way to logically distinguish medical care from other consumption items. Those who view medical spending as consumption point out that there is choice in many health care decisions, e.g., whether to go to the best doctor, whether to have voluntary surgical procedures, and whether to exercise and eat nutritiously so as to improve and maintain one's health and minimize medical expenditures. This element of choice makes it more difficult to argue, at least in many cases, that medical spending is more "necessary" than, or otherwise different from, other consumption spending.

The exemption of full taxation of Social Security benefits paid to the disabled also raises some issues. Social Security benefits for the disabled most closely resemble either Government transfers or insurance. A comprehensive income tax would require the worker to include the benefit fully in his income and would allow him to deduct associated Social Security taxes. If viewed as insurance, he also could include the premium (i.e., tax) and exclude the benefit. The deviation between such treatment and current law's treatment (described above) would be a tax expenditure under a comprehensive income baseline.

In contrast, as described above, the official tax expenditure measures the benefit of exemption for low income beneficiaries from the tax on 85 percent of Social Security benefits. This measurement does not correspond closely to that required under a comprehensive income base. If the payment of the benefit is viewed as a transfer and divorced from the treatment of Social Security taxes, then the current tax expenditure understates the tax expenditure measured relative to a comprehensive income baseline. If the payment of the benefit is viewed as a trans-

[14] This includes the tax expenditure for benefits paid to workers, that for benefits paid to survivors and dependents, and that for benefits paid to dependents.

[15] The current budget does not include as a tax expenditure the absence of income taxation on the employer's contributions (payroll taxes) to Social Security retirement at the time these contributions are made.

[16] Private pensions allow the employee to defer tax on all inside build-up. They also allow the employee to defer tax on contributions made by the employer, but not on contributions made directly by the employee. Applying these tax rules to Social Security would require the employee to include in his taxable income benefits paid out of inside build-up and out of the employer's contributions, but would allow the employee to exclude from his taxable income benefits paid out of his own contributions.

[17] See, for example, Goode, The Economic Definition of Income, pp. 16–17, and Bradford, Untangling the Income Tax, pp. 19–21, and pp. 30–31.

[18] The item also includes gifts of appreciated property, at least part of which represents a tax expenditure relative to an ideal income tax, even if one assumes that charitable donations are not consumption.

[19] If recipients tend to be in lower tax brackets, then the tax expenditure is smaller than when measured at the donor's tax rates.

fer but the inability to deduct the employee's share of the Social Security tax is simultaneously considered, then it is less likely that the current tax expenditure overstates the tax expenditure relative to a comprehensive income baseline, and in some cases it may generate a negative tax expenditure. If the benefit is viewed as insurance and the tax as a premium, then the current tax expenditure overstates the tax expenditure relative to a comprehensive income baseline. Indeed, in the insurance model, the ability to exclude from tax only one-half of the premium might suggest that one-half of the payout should be taxed, so that the current tax rules impose a greater tax burden than that implied by a comprehensive income tax, i.e., a negative tax expenditure.[20]

The final category (panel D) includes items that would not be tax expenditures under a comprehensive income tax base. A tax based on comprehensive income would allow all losses to be deducted. Hence, the exception from the passive loss rules would not be a tax expenditure.

Major Tax Expenditures under a Comprehensive Income Tax That Are Excluded from the Current Budget

While most of the major tax expenditures in the current budget also would be tax expenditures under a comprehensive income base, there also are tax expenditures relative to a comprehensive income base that are not found on the existing tax expenditure list. These additional tax expenditures include the imputed return from certain consumer durables (e.g., automobiles), the imputed return to consumption of financial services (e.g., checking account services received in kind and paid for by accepting a below market interest rate on deposits), the difference between capital gains (and losses) as they accrue and capital gains as they are realized, private gifts and inheritances received, in-kind benefits from such Government programs as food-stamps, Medicaid, and public housing, the value of payouts from insurance policies,[21] and benefits received from private charities. Under some ideas of comprehensive income, the value of leisure and of household production of goods and services also would be included as tax expenditures. The personal exemption and standard deduction also might be considered tax expenditures, although they can be viewed differently, e.g., as elements of the basic tax rate schedule. The foreign tax credit also might be a tax expenditure, since a deduction for foreign taxes, rather than a credit, would seem to measure the income of U.S. residents properly.

Negative Tax Expenditures

Under current budgetary practice, negative tax expenditures, tax provisions that raise rather than lower taxes, are excluded from the official tax expenditure list. This exclusion conforms with the view that tax expenditures are intended to be similar to Government spending programs.

If attention is expanded from a focus on spending-like programs to include any deviation from the baseline tax system, negative tax expenditures would be of interest. Relative to a comprehensive income baseline, there are a number of important negative tax expenditures, some of which also might be viewed as negative tax expenditures under an expanded interpretation of the normal or reference tax law baseline. Among the more important negative tax expenditures is the corporation income tax, or more generally the double tax on corporate profits, which would be eliminated under a comprehensive income tax. The Jobs and Growth Tax Relief and Reconciliation Act of 2003 (JGTRRA) reduced the tax rate on dividends and capital gains to 15 percent, thus reducing the double tax compared to prior law. Nonetheless, as discussed later in the Appendix, current law still imposes a substantial double tax on corporate profits. The passive loss rules, restrictions on the deductibility of capital losses, and NOL carry-forward requirements each would generate a negative tax expenditure, since a comprehensive income tax would allow full deductibility of losses. If human capital were considered an asset, then its cost (e.g., certain education and training expenses, including perhaps the cost of college and professional school) should be amortizable, but it is not under current law.[22] Some restricted deductions under the individual AMT might be negative tax expenditures as might the phase-out of personal exemptions and of itemized deductions. The inability to deduct consumer interest also might be a negative tax expenditure, as an interest deduction may be required to properly measure income, as seen by the equivalence between borrowing and reduced lending.[23] As discussed above, the current treatment of Social Security payments to the disabled also might represent a negative tax expenditure, if viewed as payments on an insurance policy.

Current tax law also fails to index for inflation interest receipts, capital gains, depreciation, and inventories. This failure leads to negative tax expenditures because comprehensive income would be indexed for inflation. Current law, however, also fails to index for inflation the deduction for interest payments; this represents a (positive) tax expenditure.

The issue of indexing also highlights that even if one wished to focus only on tax policies that are similar to spending programs, accounting for some negative tax expenditures may be required. For example, the net subsidy created by accelerated depreciation is properly measured by the difference between depreciation allowances specified under existing tax law and economic depreciation, which is indexed for inflation.[24]

[20] In contrast, the passive loss rules themselves, which restrict the deduction of losses, would be a negative tax expenditure when compared to a comprehensive tax base.

[21] To the extent that premiums are deductible.

[22] Current law offers favorable treatment to some education costs, thereby creating (positive) tax expenditures. Current law allows expensing of that part of the cost of education and career training that is related to foregone earnings and this would be a tax expenditure under a comprehensive income baseline.

[23] See Bradford, Untangling the Income Tax, p. 41.

[24] Accelerated depreciation can be described as the equivalent of an interest free loan from the Government to the taxpayer. Under federal budget accounting principles, such a loan would be treated as an outlay

DIFFERENCES BETWEEN OFFICIAL TAX EXPENDITURES AND TAX EXPENDITURES RELATIVE TO A CONSUMPTION BASE

This section compares tax expenditures listed in the official tax expenditure budget with those implied by a comprehensive consumption tax baseline. It first discusses some of the difficulties encountered in trying to compare current tax provisions to those that would be observed under a comprehensive consumption tax. Next, it discusses which of the thirty largest official tax expenditures would be tax expenditures under the consumption tax baseline, concluding that about one-half of the top thirty official tax expenditures would remain tax expenditures under a consumption tax baseline. Most of those that fall off the list are tax incentives for saving and investment.

The section next discusses some major differences between current law and a comprehensive consumption tax baseline that are excluded from the current list of tax expenditures. These differences include the consumption value of owner-occupied housing and other consumer durables, benefits from in-kind Government transfers, and gifts. It concludes with a discussion of negative tax expenditures relative to a consumption tax baseline

Ambiguities in Determining Tax Expenditures Relative to a Consumption Baseline

A broad-based consumption tax is a combination of an income tax plus a deduction for net saving. This follows from the definition of comprehensive income as consumption plus the change in net worth. It therefore seems straightforward to say that current law's deviations from a consumption base are the sum of (a) tax expenditures on an income base associated with exemptions and deductions for certain types of income, plus (b) overpayments of tax, or negative tax expenditures, to the extent net saving is not deductible from the tax base. In reality, however, the situation is more complicated. A number of issues arise, some of which also are problems in defining a comprehensive income tax, but seem more severe, or at least only more obvious, for the consumption tax baseline.

It is not always clear how to treat certain items under a consumption tax. One problem is determining whether a particular expenditure is an item of consumption. Spending on medical care and charitable donations are two examples. The classification below suggests that medical spending and charitable contributions might be included in the definition of consumption, but also considers an alternative view.

There may be more than one way to treat various items under a consumption tax. For example, a consumption tax might ignore borrowing and lending by excluding from the borrower's tax base the proceeds from loans, denying the borrower a deduction for payments of interest and principal, and excluding interest and principal payments received from the lender's tax base. On the other hand, a consumption tax might include borrowing and lending in the tax base by requiring the borrower to add the proceeds from loans in his tax base, allowing the lender to deduct loans from his tax base, allowing the borrower to deduct payments of principal and interest, and requiring the lender to include receipt of principal and interest payments. In present value terms, the two approaches are equivalent for both the borrower and the lender; in particular both allow the tax base to measure consumption and both impose a zero effective tax rate on interest income. But which approach is taken obviously has different implications (at least on an annual flow basis) for the treatment of many important items of income and expense, such as the home mortgage interest deduction. The classification below suggests that the deduction for home mortgage interest could well be a tax expenditure, but takes note of alternative views.

Some exclusions of income are equivalent in many respects to consumption tax treatment that immediately deducts the cost of an investment while taxing the future cash-flow. For example, exempting investment income is equivalent to consumption tax treatment as far as the normal rate of return on new investment is concerned. This is because expensing generates a tax reduction that offsets in present value terms the tax paid on the investment's future normal returns. Expensing gives the income from a marginal investment a zero effective tax rate. However, a yield exemption approach differs from a consumption tax as far as the distribution of income and Government revenue is concerned. Pure profits in excess of the normal rate of return would be taxed under a consumption tax, because they are an element of cash-flow, but would not be taxed under a yield exemption tax system. Should exemption of certain kinds of investment income, and certain investment tax credits, be regarded as the equivalent of consumption tax treatment? The classification that follows takes a fairly broad view of this equivalence and considers many tax provisions that reduce or eliminate the tax on capital income to be roughly consistent with a broad-based consumption tax.

Looking at provisions one at a time can be misleading. The hybrid character of the existing tax system leads to many provisions that might make good sense in the context of a consumption tax, but that generate inefficiencies because of the problem of the "uneven playing field" when evaluated within the context of the existing tax rules. It is not clear how these should be classified. For example, many saving incentives are targeted to specific tax-favored sources of capital income. The inability to save on a similar tax-favored basis irrespective of the ultimate purpose to which the saving is applied potentially distorts economic choices in ways that would not occur under a broad-based consumption tax. As another example, under a consumption VAT based on the destination principle, there would be a rebate of the VAT on exports and a tax on imports. Does this mean that the extraterritorial income exclusion (the successor of the Foreign Sales Corporation provision) is not a tax expenditure? Resolution comes down to judgments about how broad is broad enough to be considered general, or whether it even matters at all that a provision is targeted in some way.

equal to the present value of the foregone interest.

The classification that follows views many savings incentives, even if targeted, as roughly consistent with a broad based consumption tax.

In addition, provisions can interact even once an appropriate treatment is determined. For example, suppose that it is determined that financial flows are out of the tax base. Then the deduction for home mortgage interest would seem to be a tax expenditure. However, this conclusion is cast into doubt because current law generally taxes interest income. When combined with the homeowners' deduction, this results in a zero tax rate on the interest flow, consistent with consumption tax treatment.

Capital gains would not be a part of a comprehensive consumption tax base. Proceeds from asset sales and sometimes borrowing would be part of the cash-flow tax base but—for transactions between domestic investors at a flat tax rate—would cancel out in the economy as a whole. How should existing tax expenditures related to capital gains be classified? The classification below generally views available capital gains tax breaks as consistent with a broad-based consumption tax because they lower the tax rate on capital income toward the zero rate that is consistent with a consumption-based tax.

Such considerations suggest that trying to compute the current tax's deviations from "the" base of a consumption tax is impossible because deviations cannot be uniquely determined, making it very difficult to do a consistent accounting of the differences between the current tax base and a consumption tax base. Nonetheless, Table 16–6 attempts a classification based on the judgments outlined above.

Treatment of Major Tax Expenditures under a Comprehensive Consumption Baseline

As noted above, the major difference between a comprehensive consumption tax and a comprehensive income tax is in the treatment of saving, or in the taxation of capital income. Consequently, many current tax expenditures related to preferential taxation of capital income would not be tax expenditures under a consumption tax. However, preferential treatment of items of income that is unrelated to moderately broad-based saving or investment incentives would remain tax expenditures under a consumption baseline. In addition, several official tax expenditures relating to items of income and expense are difficult to classify properly, while others may serve as proxies for properly measured tax expenditures.

Table 16–6 shows thirty large official tax expenditures from the Budget classified according to whether they would be considered a tax expenditure under a consumption tax. Two of the thirty items clearly would be a tax expenditure (shown in panel A) under a consumption tax, while an additional seven (those in panel B) probably would be tax expenditures.

A consumption tax would include in the homeowners' tax base the value of the implicit (gross) rental income from owner-occupied housing. Net rental income is a component of this, and so would be included as a tax expenditure, relative to a consumption tax baseline.[25]

Exclusion of workers' compensation benefits allows an exclusion from income that is unrelated to investment, and so should be included in the base of a comprehensive consumption tax.

Consider next the deductibility of home mortgage interest and of property taxes on owner-occupied housing. Both items would seem to be strong candidates for inclusion as a tax expenditure, given current law's failure to impute the consumption value of housing. That is, focusing on the homeowner's tax base, these deductions move the tax system away from rather than towards the proper treatment of housing services.[26]

However, with respect to the home mortgage interest deduction, some ambiguity is introduced by the taxation of interest income to lenders. In a sense, the homeowner's deduction offsets the lenders inclusion, leaving (for equal tax rates) no net tax due on the interest flow, as would be appropriate under a consumption tax. Hence, from the perspective of the entire tax system, it is less clear that the home mortgage interest deduction represents a tax expenditure.[27]

Some ambiguity also is introduced by the variable treatment of financial flows possible under a consumption tax. That is, the proper treatment of interest under a consumption tax depends on whether financial flows are in or out of the consumption tax base. If the loans are taken into income (as they would be under some types of consumption taxes), then the associated interest and principal payments should be deductible, otherwise not.

With respect to property taxes on housing as well as other State and local taxes, some ambiguity arises because the tax might not represent consumption—it might be considered a reduction in net worth. Considered alone, this argument perhaps has some merit. However, there are two problems with this argument when viewed from the context of the entire tax system. First, the deduction for property taxes would seem to be inappropriate when there is no imputation for the associated consumption value, as discussed above. Second, the current tax system does not impute the consumption value of State and local services, and tax payments might serve as a proxy for

[25] Suppose that the rental value of a house is $100 per year, and that depreciation is $20, interest is $15, property taxes are $10, and other expenses are $5. Net rental income is $50 (gross rents less all items of expense). Hence, net rental income is a component of the gross rent, which is the consumption value of the housing services. Under a real based cash flow tax, in which financial flows are outside the tax base, the homeowner's net tax base would be $85: gross rents minus (property taxes + other expenses), assuming that property taxes are viewed as a reduction in net worth and that he makes no new investment (which would be deductible).

[26] Using the figures from the example in the previous footnote, the homeowner would pay tax on gross rents minus property taxes minus other expenses, or on $85. If property taxes and mortgage interest were not deducted, then this would be the size of the tax expenditure. However, current law allows these deductions, which raises the tax expenditure base to $110.

[27] One must guard against double counting here, however, to the extent that current law's general taxation of capital income is calculated elsewhere in the tax expenditure budget as a negative tax expenditure.

that value, making their deduction unnecessary for the proper measurement of consumption.

The official tax expenditures for Social Security benefits reflects exceptions for low income taxpayers from the general rule that 85 percent of Social Security benefits are included in the recipient's tax base. The 85-percent inclusion is intended as a simplified mechanism for taxing Social Security benefits as if the Social Security program were a private pension with employee contributions made from after-tax income. Under these tax rules, income earned on contributions made by both employers and employees benefits from tax deferral, but employer contributions also benefit because the employee may exclude them from his taxable income, while the employee's own contributions are included in his taxable income. These tax rules give the equivalent of consumption tax treatment, a zero effective tax rate on the return, to the extent that the original pension contributions are made by the employer, but give less generous treatment to the extent that the original contributions are made by the employee. Income earned on employee contributions is taxed at a low, but positive, effective tax rate. Based on historical calculations, the 85-percent inclusion reflects roughly the outcome of applying these tax rules to a lower-income earner when one-half of the contributions are from the employer and one-half from the employee.

The current tax expenditure measures a tax benefit relative to a baseline that is somewhere between a comprehensive income tax and a consumption tax. The properly measured tax expenditure relative to a consumption tax baseline would include only those Social Security benefits that are accorded treatment more favorable than that implied by a consumption tax, which would correspond to including 50 percent of Social Security benefits in the recipient's tax base.

A similar analysis would apply to exclusion of Social Security benefits of dependents and retirees.

There is a strong case for viewing the child credit and the earned income tax credit as social welfare programs (transfers). As such, they would be tax expenditures relative to a consumption baseline. Nonetheless, these credits could alternatively be viewed as relieving tax on "nondiscretionary" consumption, and so not properly considered a tax expenditure.

The treatment of the items in panels C is less uncertain. Several of these items relate to the costs of medical care or to charitable contributions. As discussed in the previous section of the appendix, there is disagreement within the tax policy community over the extent to which medical care and charitable giving represent consumption items. Medical care is widely held to be consumption, except perhaps the medical care that actually raises, rather than simply sustains the individual's ability to work. Charitable giving, on the other hand, may be considered to be a reduction in net worth that should be excluded from the tax base because it does not yield direct satisfaction to taxpayer who makes the expenditure. In this case, the tax expenditure lies not with the individual making the charitable deduction, but with the exclusion from taxation of the amounts received by the recipient.

There also is the issue of how to tax medical insurance premiums. Under current law, employees do not have to include insurance premiums paid for by employers in their income. The self-employed also may exclude (via a deduction) medical insurance premiums from their taxable income. From some perspectives, these premiums should be in the tax base because they appear to represent consumption. Yet an alternative perspective would support excluding the premium from tax as long as the consumption tax base included the value of any medical services paid for by the insurance policy, because the premium equals the expected value of insurance benefits received. But even from this alternative perspective, the official tax expenditure might continue to be a tax expenditure under a consumption tax baseline because current law excludes the value of medical services paid with insurance benefits from the employee's taxable income.

If medical spending is not consumption, one approach to measuring the consumption base would ignore insurance, but allow the consumer to deduct the value of all medical services obtained. An alternative approach would allow a deduction for the premium but include the value of any insurance benefits received, while continuing to allow a deduction for a value of all medical services obtained. In either case, the official tax expenditure for the exclusion of employer provided medical insurance and expenses would not be a tax expenditure relative to a consumption tax baseline.

The extraterritorial income exclusion replaces the previous Foreign Sales Corporation program. It provides an exclusion from income for certain exports. To the extent that the program is viewed as a component of a destination based VAT it might not be a tax expenditure. In addition, to the extent that the exclusion reduces the income tax bias against investment it might be consistent with consumption tax principles (i.e., a low tax rate on capital income).

The taxation of Social Security benefits for the disabled also is difficult to classify. As discussed in this appendix above, these benefits generally ought to be taxed because they represent purchasing power. However, the associated Social Security taxes ought to be fully deductible, but they are not. Hence the proper treatment is unclear. Moreover, if the insurance model is applied, the taxation of Social Security benefits might be a negative tax expenditure.

The credit for low income housing acts to lower the tax burden on qualified investment, and so from one perspective would not be a tax expenditure under a consumption tax baseline. However, in some cases the credit is too generous; it can give a negative tax on income from qualified investment rather than the zero tax called for under consumption tax principles. In addition, the credit is very narrowly targeted. Consequently, it could be considered a tax expenditure relative to a consumption tax baseline.

The final panel (D) shows items that are not likely to be tax expenditures under a consumption base. Most of these relate to tax provisions that eliminate or reduce the tax on various types of capital income because a zero tax on capital income is consistent with consumption tax principles.

The deduction for U.S. production activities is not classified as a tax expenditure. This reflects the view that it represents a widespread reduction in taxes on capital income or an offset to the corporate income tax. In contrast to this classification, however, it would be a tax expenditure to the extent that it is viewed as a targeted tax incentive.

The exception from the passive loss rules probably would not be a tax expenditure because proper measurement of income, and hence of consumption, requires full deduction of losses.

Major Tax Expenditures under a Consumption Tax That Are Excluded from the Current Budget

Several differences between current law and a consumption tax are left off the official tax expenditure list. Additional tax expenditures include the imputed consumption value from consumer durables and financial services received in kind, private gifts and inheritances received, possibly benefits paid by insurance policies, in-kind benefits from such Government programs as food stamps, Medicaid, and public housing, and benefits received from charities. Under some ideas of a comprehensive consumption tax, the value of leisure and of household production of goods and services would be included as a tax expenditure.

A consumption tax implemented as a tax on cash flows would tax all proceeds from sales of capital assets when consumed, rather than just capital gains; because of expensing, taxpayers effectively would have a zero basis. The proceeds from borrowing would be in the base of a consumption tax that also allowed a deduction for repayment of principal and interest, but are excluded from the current tax base. The deduction of business interest expense might be a tax expenditure, since under some forms of consumption taxation interest is neither deducted from the borrower's tax base nor included in the lender's tax base. The personal exemption and standard deduction also might be considered tax expenditures, although they can be viewed differently, e.g., as elements of the basic tax rate schedule.

Negative Tax Expenditures

Importantly, current law also deviates from a consumption tax norm in ways that increase, rather than decrease, tax liability. These could be called negative tax expenditures. The official budget excludes negative tax expenditures on the theory that tax expenditures are intended to substitute for Government spending programs. Yet excluding negative tax expenditures gives a very one-sided look at the differences between the existing tax system and a consumption tax.

A large item on this list would be the inclusion of capital income in the current individual income tax base, including the income earned on inside-build up in Social Security accounts. The revenue from the corporation income tax, or more generally a measure of the double tax on corporate profits, also would be a negative tax expenditure. Depreciation allowances, even if accelerated, would be a negative tax expenditure since consumption tax treatment generally would require expensing. Depending on the treatment of loans, the borrower's inability to deduct payments of principal and the lender's inability to deduct loans might be a negative tax expenditure. The passive loss rules and NOL carry-forward provisions also might generate negative tax expenditures, because the change in net worth requires a deduction for losses (consumption = income – the change in net worth). If human capital were considered an asset, then its cost (e.g., certain education and training expenses, including perhaps costs of college and professional school) should be expensed, but it is not under current law. Certain restrictions under the individual AMT as well as the phase-out of personal exemptions and of itemized deductions also might be considered negative tax expenditures. Under some views, the current tax treatment of Social Security benefits paid to the disabled would be a negative tax expenditure.

SPECIAL TOPICS

17. 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 and provide economic support. This type of Federal spending is known as Federal grants-in-aid. The Federal Government's efforts to promote economic growth are critical to maintaining a healthy tax base for States and local governments and creating jobs for State residents.

In 2018 the Federal Government spent $697 billion on aid to State and local governments. Spending on grants-in-aid was 3.4 percent of GDP in 2018. These funds support activities that touch every American, such as education, transportation infrastructure, workforce initiatives, community development, and homeland security. Over the past 30 years, spending for Federal grants-in-aid has increased as a percentage of Federal outlays from 10.7 percent in 1989 to 17.0 percent in 2018. In that time grants for capital investment have remained under 3.0 percent of total spending, while payments for individuals have grown from 5.9 percent to 12.8 percent of total Federal outlays. Using FY 2012 constant dollars, grants for capital investment have decreased by $7 billion over the last 10 years, while payments for individuals have increased by $99 billion.[1]

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-in-aid are awarded as direct cash assistance, but Federal grants-in-aid can also include payments for grants-in-kind—non-monetary aid, such as commodities purchased for the National School Lunch Program—and Federal revenues shared with State and local governments, such as funds distributed to State and local law enforcement agencies from Federal asset forfeiture programs.

In its 2018 State Expenditure Report the National Association of State Budget Officers (NASBO) reports that 31.2 percent of total State spending, which is estimated to be about $2.0 trillion[2], in State fiscal year[3] 2018 came from Federal funds. "State spending from [F]ederal funds, excluding Medicaid, is estimated to grow by 4.5 percent in fiscal 2018, following a 2.0 percent growth rate in 2017 and a 0.9 percent decline in fiscal 2016."[4] Federal funds aid States particularly because many States have requirements in law or State constitutions to enact balanced budgets, limiting debt or debt service, and, in most cases, restricting the ability to carry over deficits. These restrictions create fiscal discipline, but also give States few options when facing shortfalls. State budgets are formulated based on revenue projections and when actual revenues come in lower than expected States may enact mid-year budget cuts or tap budget stabilization (rainy day) funds. Only some States may carry over a deficit under certain circumstances.

NASBO also looks at enacted State budgets to make projections for the coming year and at general fund[5] spending as an indication of State fiscal health. General funds are the largest category of State spending, accounting for an estimated 40.5 percent of State spending in 2018, followed by Federal funds.[6] According to the most recent report, State 2019 budgets reflect a strong fiscal position and sustained growth in revenues. State general fund spending grew by 3.7 percent in State fiscal year 2018 and is expected to grow by 4.3 percent in 2019.[7] Increasing revenues have allowed many States to continue to rebuild rainy day funds after the recession in 2009. Over the last several years, the remaining three States created a rainy day fund such that now all States have one. The median rainy day fund balance is expected to increase again in State fiscal year 2019 to 7.3 percent of general fund spending.[8]

This Budget slows the growth of grant spending over the 10-year budget window and, in particular, starts to rein in the growth of Medicaid, which accounts for 56 percent of total grant spending to State and local governments. The Budget provides $751 billion in outlays for aid to State and local governments in 2020, an increase of less than one percent from spending in 2019, which is estimated to be $750 billion. Total Federal grant spending to State and local governments is estimated to be 3.4 percent of GDP in 2020 and 16 percent of total Federal outlays.

Table 17-1, below, shows Federal grants-in-aid spending by decade, actual spending in 2018, and estimated spending in 2019 and 2020.

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[1] FY 2020 *Historical Tables*. Table 12.1 - Summary Comparison of Total Outlays for Grants to State and Local Governments: 1940 - 2023. *https://www.whitehouse.gov/omb/historical-tables/*.

[2] "2018 State Expenditure Report." National Association of State Budget Officers, 2018. p. 1, 3.

[3] According to "The Fiscal Survey of States" published by the National Association of State Budget Officers (Fall 2018, 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."

[4] "2018 State Expenditure Report." National Association of State Budget Officers, 2018. p. 2.

[5] A State general fund is "the predominant fund for financing a state's operations. Revenues are received from broad-based state taxes. However, there are differences in how specific functions are financed from state to state." 2018 State Expenditure Report. The National Association of State Budget Officers. 2018. p. 7

[6] "The Fiscal Survey of States." National Association of State Budget Officers, Fall 2018. p. 1-2.

[7] Ibid., p. 1-2.

[8] Ibid., p. IX, 66.

Table 17–1. TRENDS IN FEDERAL GRANTS TO STATE AND LOCAL GOVERNMENTS
(Outlays in billions of dollars)

	Actual									Estimate	
	1960	1970	1980	1990	2000	2005	2010	2015	2018	2019	2020
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	6.4	6.2	6.1
Agriculture	0.2	0.6	0.6	1.1	0.7	0.9	0.8	0.7	0.8	0.9	0.9
Transportation	3.0	4.6	13.0	19.2	32.2	43.4	61.0	60.8	64.8	67.2	68.6
Community and regional development	0.1	1.8	6.5	5.0	8.7	20.2	18.9	14.4	19.1	21.9	26.4
Education, training, employment, and social services	0.5	6.4	21.9	21.8	36.7	57.2	97.6	60.5	60.6	67.5	63.6
Health	0.2	3.8	15.8	43.9	124.8	197.8	290.2	368.0	421.1	453.9	452.8
Income security	2.6	5.8	18.5	36.9	68.7	90.9	115.2	101.1	110.6	114.2	110.1
Administration of justice	....	*	0.5	0.6	5.3	4.8	5.1	3.7	4.2	7.3	7.0
General government	0.2	0.5	8.6	2.3	2.1	4.4	5.2	3.8	4.1	5.3	4.9
Other	*	0.1	0.7	0.8	2.1	2.6	5.3	4.3	4.7	5.1	10.1
Total	**7.0**	**24.1**	**91.4**	**135.3**	**285.9**	**428.0**	**608.4**	**624.4**	**696.5**	**749.6**	**750.7**
B. Distribution of grants by BEA category:											
Discretionary	N/A	10.2	53.4	63.5	116.7	182.3	247.4	189.6	204.3	220.5	220.6
Mandatory	N/A	13.9	38.0	71.9	169.2	245.7	361.0	434.7	492.3	529.1	530.1
Total	**7.0**	**24.1**	**91.4**	**135.3**	**285.9**	**428.0**	**608.4**	**624.4**	**696.5**	**749.6**	**750.7**
C. Composition:											
Current dollars:											
Payments for individuals [1]	2.6	9.1	33.1	77.4	186.5	278.8	391.4	463.4	525.8	564.3	557.9
Physical capital [1]	3.3	7.1	22.6	27.2	48.7	60.8	93.3	77.2	79.9	84.2	93.6
Other grants	1.1	7.9	35.8	30.7	50.7	88.4	123.7	83.7	90.8	101.0	99.2
Total	**7.0**	**24.1**	**91.4**	**135.3**	**285.9**	**428.0**	**608.4**	**624.4**	**696.5**	**749.6**	**750.7**
Percentage of total grants:											
Payments for individuals [1]	37.4%	37.7%	36.2%	57.2%	65.3%	65.1%	64.3%	74.2%	75.5%	75.3%	74.3%
Physical capital [1]	47.3%	29.3%	24.7%	20.1%	17.0%	14.2%	15.3%	12.4%	11.5%	11.2%	12.5%
Other grants	15.3%	33.0%	39.1%	22.7%	17.7%	20.7%	20.3%	13.4%	13.0%	13.5%	13.2%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Constant (FY 2009) dollars:											
Payments for individuals [1]	16.0	44.0	81.8	123.4	239.6	322.6	408.5	447.6	483.4	507.6	490.9
Physical capital [1]	25.1	40.1	57.6	48.0	71.9	77.8	98.5	73.4	71.6	73.3	79.0
Other grants	13.7	67.6	144.4	67.5	77.6	111.1	130.5	78.3	80.0	86.4	82.2
Total	**54.8**	**151.7**	**283.7**	**238.9**	**389.1**	**511.6**	**637.6**	**599.3**	**635.1**	**667.3**	**652.1**
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%	17.0%	16.5%	15.8%
Domestic programs [2]	18.0%	23.2%	22.2%	17.1%	22.0%	23.5%	23.4%	21.2%	21.8%	21.5%	20.9%
State and local expenditures	14.2%	19.4%	26.4%	18.0%	21.0%	22.9%	25.6%	23.9%	24.3%	N/A	N/A
Gross domestic product	1.3%	2.3%	3.3%	2.3%	2.8%	3.3%	4.1%	3.5%	3.4%	3.5%	3.3%
E. As a share of total State and local gross investments:											
Federal capital grants	24.1%	24.6%	34.5%	21.0%	21.2%	21.3%	26.4%	22.1%	23.1%	N/A	N/A
State and local own-source financing	75.9%	75.4%	65.5%	79.0%	78.8%	78.7%	73.6%	77.9%	76.9%	N/A	N/A
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%		

N/A: Not available at publishing.
* 50 million or less.
[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.

The Federal budget classifies grants-in-aid by general area or function. Of the total proposed grant spending in 2020, 60 percent is for health programs, with most of the funding going to Medicaid. Beyond health programs, 15 percent of Federal aid is estimated to go to income security programs; 9 percent to transportation programs; 8 percent to education, training, and social services; and 7 percent for all other functions.

The Federal budget also classifies grant spending by BEA category—discretionary or mandatory.[9] Funding for discretionary grant programs is determined annually

[9] For more information on these categories, see Chapter 11, "Budget Concepts," in this volume.

through appropriations acts. Outlays for discretionary grant programs account for 29 percent of total grant spending. 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 account for 71 percent of total grant spending. Section B of Table 17-1 shows the distribution of grants between mandatory and discretionary spending.

In 2020, grants-in-aid provided from discretionary funding are estimated to have outlays of $221 billion, an increase of less than one percent from 2019. The three largest discretionary programs in 2020 are estimated to be Federal-aid Highways programs, with outlays of $44 billion; Tenant Based Rental Assistance, with outlays of $22 billion; and Education for the Disadvantaged, with outlays of $16 billion.[10]

In 2020, outlays for mandatory grant programs are estimated to be $530 billion, an increase of less than one percent from spending in 2019, which is estimated to be $529 billion. Medicaid is by far the largest mandatory grant program with estimated outlays of $418 billion in 2020. After Medicaid, the three largest mandatory grant programs by outlays in 2020 are: Child Nutrition programs, which include the School Breakfast Program, the National School Lunch Program and others, $25 billion; the Children's Health Insurance Fund, $17 billion; and the Temporary Assistance for Needy Families program, $15 billion.[11]

Federal spending by State for major grants-in-aid may be found on the OMB web site at *www.whitehouse.gov/omb/Analytical-Perspectives/*. This supplemental 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 35 individual tables showing State-by-State obligation data for each grant program. The programs shown in these State-by-State tables cover 95 percent of total grants-in-aid to State and local governments.

Below are highlights from the Budget listed by function followed by Table 17-2, which shows the Budget's funding level for grants in every budget account, organized by functional category, BEA category, and by Federal agency.

[10] 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.

[11] 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

In addition to the 2020 Budget proposals highlighted below, the President's Management Agenda (PMA) includes the Cross-Agency Priority (CAP) Goal: Results-Oriented Accountability for Grants to tackle the challenges of administering grants. This goal outlines an ambitious vision to maximize the value of grant funding for aid to State and local governments, but also for grants to individuals and other non-government entities. The CAP goal recognizes that as the rate of Federal aid to State and local governments slows, it is essential that Federal dollars be delivered to intended recipients as efficiently as possible. It does so by developing data standards and common business applications and by applying a risk-based, data-driven framework that balances compliance requirements with demonstrating successful results for the American taxpayer. To achieve this vision, the Administration has outlined four key strategies: standardize the grants management business process and data; build shared IT infrastructure; manage risk; and achieve program goals and objectives. Since the release of the PMA in March 2018, the 2018 Single Audit Compliance Supplement was significantly streamlined, allowing for further opportunity to refine the 2019 Single Audit Compliance Supplement with an increased focus on compliance requirements that inform performance. The CAP goal team has also publically released draft core grants management data standards for public comment. The final standards will help build future shared solutions that will increase access to and use of data to support powerful data analytics, setting the stage for risk-based performance management. More details regarding these accomplishments and other future milestones are available at *Performance.gov* (*https://www.performance.gov/*).

Natural Resources and Environment

The Budget includes $50 million for the Environmental Protection Agency to establish a new grant program to identify and help resolve environmental hazards in schools. Approximately 50 million American children spend their time in K-12 school facilities every day, and many of these buildings are old and contain environmental hazards that could pose a risk to children's health. Activities supported by this grant will result in safer and healthier school environments for American children. The Budget also proposes funds for Environmental Protection Agency grant programs established by the recently authorized America's Water Infrastructure Act (AWIA), which will assist in sewer overflow prevention, lead testing and drinking water fountain replacement in schools, and water infrastructure workforce investment.

The Budget includes the elimination of Abandoned Mine Land economic development grants, and National Wildlife Refuge Fund payments to local governments that are duplicative of other payment programs. The Budget also proposes to eliminate funding for several lower priority grant and education programs within the National Oceanic and Atmospheric Administration, including Sea Grant, Coastal Zone Management Grants, and the Pacific Coastal Salmon Recovery Fund.

Agriculture

The Budget prioritizes competitive research through the Department of Agriculture's flagship grant program, the Agriculture and Food Research Initiative (AFRI). The Budget requests $500 million for AFRI, an increase of $100 million above the 2018 enacted level and maintains formula-based research and extension grants at the level requested in the 2019 Budget. In 2020, the Budget also invests in our Nation's aging research infrastructure by proposing $50 million for a new competitive grant program to modernize agriculture research facilities at land grant universities.

Transportation

The Budget fully funds Highway Trust Fund-supported programs at levels consistent with the fifth and final year of the Fixing America's Surface Transportation (FAST) Act. In addition, the Budget includes $200 billion in budget authority for additional infrastructure investments. The Budget provides $1 billion to the Better Utilizing Investments to Leverage Development (BUILD) competitive grant program, which supports innovative projects that enhance quality of life and economic competitiveness in communities across the country, particularly in rural areas. The Budget also allocates $2 billion to the Infrastructure for Rebuilding America (INFRA) competitive grant program, which is a $1 billion increase above the FAST Act-authorized level. The Budget includes $300 million in competitive highway bridge grants, which will reward States that use innovative and efficient procurement practices to repair or replace rural bridges that are in poor condition. The Capital Investment Grant (CIG) program supports the construction of new, or extensions of, fixed guideway transit, commuter rail, light rail, and bus rapid transit projects. The Administration believes that the program needs to focus on projects that have high non-Federal funding commitments and provide the greatest impact to improving mobility and access for riders who depend on public transit. Therefore, the Budget includes $1.5 billion for the CIG program, which includes $500 million in funding for new projects.

Community and Regional Development

The Budget requests $290 million to promote healthy and lead-safe homes, $60 million above the 2019 estimated level. Research has shown that lead-based paint hazard control is an efficient and effective form of reducing and preventing lead exposure, generating high returns on investments due to increased lifetime earnings and reduced medical costs. This funding level also includes resources for enforcement, education, and research activities to further support this goal.

The Budget also helps to maintain and modernize rural utilities by providing critical support for infrastructure by funding water and wastewater grants within the Department of Agriculture. The Budget proposes $44 million for Agriculture's distance learning and telemedicine grants, of which $20 million will be dedicated to projects that combat the opioids crisis. In addition, the Budget also proposes $60 million in community facilities grants, which can be used to support treatment centers and other community needs.

The Budget proposes a $430 million all-hazards competitive grant program that will be rigorously evaluated to demonstrate how the Federal Emergency Management Agency is supporting communities to make the Nation safer and more resilient.

The Budget eliminates the Community Development Block Grant, and the Economic Development Administration, which provides small grants.

Education, Training, Employment, and Social Services

The Budget invests $15.9 billion in Title I grants, maintaining a historic level of funding for a program that provides critical additional support to students in high poverty schools. The program, which serves approximately 25 million students in nearly 60 percent of all public schools, is the foundation for the accountability system under the reauthorized Elementary and Secondary Education Act. The Budget also proposes $1.4 billion for Impact Aid programs that support school districts that educate federally-connected children, such as those living on military bases and Indian lands. Finally, the Budget maintains the Federal investment in the Individuals with Disabilities Education Act (IDEA) formula and discretionary grant programs. The Budget invests $13.2 billion for IDEA formula grants to States to support special education and early intervention services for more than 7 million children with disabilities and requests $226 million for discretionary grants to support research, demonstrations, technical assistance and dissemination, and personnel preparation and development.

The Budget provides approximately $700 million, an increase of $354 million compared to the 2019 Budget, in Departments of Education, Justice, and Health and Human Services (HHS) grants to give States and school districts resources to implement the Federal School Safety Commissions' recommendations, such as expanding access to mental healthcare, developing threat assessments, and improving school climate. At the Department of Education, the Budget requests $200 million for School Safety National Activities, which provide grants to States and schools to develop school emergency operation plans, offer counseling and emotional support in schools with pervasive violence, and implement evidence-based practices for improving behavioral outcomes.

The Budget proposes to restructure and streamline the TRIO and Gaining Early Awareness and Readiness for Undergraduate Programs (GEAR UP) programs by consolidating them into a $950 million State formula grant. These grants would support evidence-based postsecondary preparation programs designed to help low-income students progress through the pipeline from middle school to postsecondary opportunities. Given the statutory prohibition limiting the Department's ability to evaluate overall TRIO program effectiveness using the most rigorous methodologies, as well as budget constraints, the Budget supports a restructuring of the programs that leverages evidence-based activities and allows States more flexibility in meeting the unique needs of their students.

The Budget includes $1.3 billion for Career and Technical Education State grants. The recently reauthorized program helps ensure students have access to technical training including work-based learning during high school and a wide array of post-secondary options including certificate programs, community colleges, and apprenticeships.

The Budget eliminates Supporting Effective Instruction State Grants, 21st Century Community Learning Centers, and Federal Supplemental Educational Opportunity Grants.

Health

As part of the Ending HIV/AIDS Initiative, the Budget includes $120 million for the Health Resources and Services Administration to deliver additional care and treatment for people living with HIV through the Ryan White HIV/AIDS Program and to supply testing, evaluation, prescription of PrEP, and associated medical costs for people who are at risk for HIV infections through the Health Centers program. The Budget also prioritizes the reauthorization of the Ryan White program to ensure Federal funds are allocated to address the changing landscape of HIV across the United States.

The Budget includes $1.5 billion for State Opioid Response grants, which fund prevention, treatment, and recovery support services in all States and territories. The Budget also enables States to provide one year of postpartum Medicaid coverage for women with a substance use disorder to improve health outcomes for mothers and their infants.

The Budget includes $723 million for Community Mental Health Services Block Grant, which provides funding to every State to provide services to seriously mentally ill adults and children with serious emotional disturbances.

Beginning in 2021, the Market-Based Health Care Grant Program, Medicaid block grant, and per capita cap, set to grow at the Consumer Price Index, will support States as they transition to more sustainable health care programs and encourage them to pursue innovative ideas that aim to curb costs moving forward. The Budget also proposes to give States maximum flexibility over their Medicaid programs by transferring control of Medicaid transformation efforts locally where it belongs. The Administration recognizes that the only way to reform Medicaid and set it on a sound fiscal path is by putting States on equal footing with the federal government to implement comprehensive Medicaid financing reform through a per capita cap or block grant. A new Federal-State partnership is necessary to eliminate inefficient Medicaid spending, including repeal of the Medicaid expansion, and reducing financing gimmicks like provider taxes. The Budget will empower States to design State-based solutions that prioritize Medicaid dollars for the most vulnerable and support innovation.

The Budget takes numerous steps to cut wasteful Medicaid spending. The Budget calls for eliminating loopholes that some States use to shift costs to Federal taxpayers, and for the Centers for Medicare and Medicaid Services to issue guidance ensuring that State Medicaid supplemental payments to hospitals and other providers are supported by robust and timely data. Further, the Budget calls for realigning the Federal matching payments for State Medicaid eligibility workers with other administrative costs, providing a fair balance between Federal and State resources for these activities. In addition, the Budget extends current law reductions in Medicaid disproportionate share hospital payments, and proposes to limit reimbursement to Government providers to no more than the cost of providing services to Medicaid beneficiaries.

The Budget gives States additional flexibility around benefits and cost-sharing, such as increasing copayments for non-emergency use of the emergency department to encourage appropriate use of health care resources, as well as allowing States to consider savings and other assets when determining Medicaid eligibility. Additionally, the Budget will allow States to streamline appeals processes to help eliminate duplicative appeals and reduce beneficiary confusion. Further, the Budget will bolster the safety net available to States experiencing Children's Health Insurance Program (CHIP) funding shortfalls, while eliminating funding streams that do not support children's health.

Income Security

The Budget invests in a better future for Americans with a fully paid-for proposal to provide six weeks of paid family leave to new mothers and fathers, including adoptive parents, so all families can afford to take time to recover from childbirth and bond with a new child. Using the Unemployment Insurance (UI) system as a base, the proposal would allow States to establish paid parental leave programs in a way that is most appropriate for their workforce and economy.

The Budget proposes to combat improper payments in the UI program by providing grants to States to combat the top two root causes of improper payments in their programs. The Budget also reduces waste, fraud, and abuse in the UI program with a package of program integrity proposals. These proposals would require States to use the tools already at their disposal for combatting improper payments while expanding their authority to spend certain UI program funds on activities that reduce waste, fraud, and abuse in the system. The Budget also supports the UI Integrity Center of Excellence, which is developing a data hub to allow States to access a fraud analytics database to identify fraud as effectively as possible.

Within the Department of Housing and Urban Development (HUD), the Housing Voucher and project-based rental assistance (PBRA) programs benefit from leveraging both public and private financing to invest in long-term affordable housing stock. To advance this objective, the Budget requests $100 million for the Rental Assistance Demonstration, which supports the redevelopment of Public Housing units through conversion to Housing Voucher and PBRA units. Additional authorities in the Public Housing program, such as repositioning certain troubled public housing assets, would also assist in this effort. Recognizing this shift and that State and local governments should bear greater responsibility in providing affordable housing, the Budget does not request funding for the Public Housing Capital Fund.

The Budget also eliminates the HOME Investment Partnership Program, which has not been authorized since 1994. The Budget devolves responsibility to State and local governments, which are better positioned to assess local community needs and address unique market challenges. The Budget provides $2.6 billion for the Homeless Assistance Grant (HAG) programs. HAG primarily funds the Continuum of Care (CoC) program, which is a coordinated community-based network of programs to prevent and address local homelessness. HUD awards CoC grants through a competitive funding process that promotes cost-effective and evidence-based strategies. As a part of the total, the Budget requests $270 million for Emergency Solutions Grants, which would enable municipalities to support emergency shelter, rapid re-housing, and homelessness prevention.

The Budget requests $5.8 billion to serve all projected participants in the Special Supplemental Nutrition Program for Women, Infants, and Children (WIC). This program provides nutritious supplemental food packages, nutrition education, and health and immunization referrals to low-income and nutritionally at-risk pregnant and postpartum women, infants, and children. The Budget includes proposals to require able-bodied adults participating in the Supplemental Nutrition Assistance Program (SNAP) enter and re-enter the job market and work toward self-sufficiency. The Budget continues the America's Harvest Box proposal as outlined in last year's Budget to combine traditional SNAP EBT benefits with 100 percent American grown foods provided directly to households, ensuring that Americans in need have access to a nutritious diet while significantly reducing the cost to taxpayers. The Budget also includes proposals to reserve benefits for those most in need, promote efficiency in State operations, and strengthen program integrity.

The Budget improves consistency between work requirements in federally funded public assistance programs, including Medicaid and Temporary Assistance for Needy Families (TANF), by requiring that able-bodied, working-age individuals find employment, train for work, or volunteer (community service) in order to receive welfare benefits.

The Budget also supports States in providing key services to children and youth by increasing State flexibilities and reducing administrative burdens in foster care. These child welfare reforms focus on preventing the need for foster care unless absolutely necessary to ensure families can remain intact. In addition, the Budget promotes evidence-building and innovation to strengthen America's safety net, proposes improvements to the TANF program, and supports efforts to get noncustodial parents to work. Together, these proposals reflect the Administration's commitment to helping low-income families end dependency on Government benefits and promote the principle that gainful employment is the best pathway to financial self-sufficiency and family well-being.

The Budget maintains funding for Head Start and the Child Care and Development Block Grant at HHS. The Budget also proposes a $1 billion one-time mandatory investment for States to build the supply of care and stimulate employer investment in child care.

Administration of Justice

The Budget supports key State and local assistance programs, including $405 million for the Byrne Justice Assistance Grants Program, which provides State and local governments with crucial Federal funding to prevent and control crime. In addition, the Budget provides $100 million for the Violent Gang and Gun Crime Reduction/Project Safe Neighborhoods (PSN) program. PSN creates safer communities through sustained reductions in gang violence and gun crime by leveraging Federal, State, and local partnerships. The Budget further reflects the Administration's commitment to keeping children safe by providing $100 million in STOP School Violence Act funding. This critical program supports a variety of school safety programs including training for school personnel, preventative tip lines and threat assessments, and coordination between schools and law enforcement.

Finally, the Budget supports critical victim assistance programs, including $492 million in Violence Against Women Act funding and $77 million to support victims of human trafficking. In addition, through State and local assistance programs, the Budget provides $85 million for the Second Chance Act Grant program to reduce recidivism and help returning citizens lead productive lives. In addition, the Budget includes $330 million for opioid-related State and local assistance including $145 million for the Comprehensive Opioid Abuse Program to support treatment and recovery, diversion, and alternatives to incarceration programs; $75 million for Drug Courts, Mental Health Courts, and Veterans Treatment Courts; $30 million for Residential Substance Abuse Treatment; and $30 million for Prescription Drug Monitoring Programs.

OTHER SOURCES OF INFORMATION ON FEDERAL GRANTS-IN-AID

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 domestic assistance. *Grants.gov* hosts all open notices of opportunities to apply for Federal grants.

The *System for Award Management* hosted by the General Services Administration contains detailed Assistance Listings (formally 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 *https://beta.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 also contains contract and loan information and is updated twice per month.

The Federal Audit Clearinghouse maintains an online database *(https://harvester.census.gov/facweb/)* that provides access to summary information about audits 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 (NIPA), 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' web sites:

- USDA Current Research Information System, *https://cris.nifa.usda.gov/*
- DOD Medical Research Programs, *http://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*
- Department of Health and Human Services (HHS) Grants, *https://www.hhs.gov/grants/grants/index.html*
- HHS Tracking Accountability in Government Grants System (TAGGS), *http://taggs.hhs.gov/AdvancedSearch.cfm*
- National Institutes of Health (NIH) Grants and Funding, *https://grants.nih.gov/funding/index.htm*
- Department of Housing and Urban Development Grants, *https://www.hud.gov/program-offices/spm/geomgmt/grantsinfe*
- Department of Justice Grants, *https://www.justice.gov/grants*
- Department of Labor Employment and Training Administration (ETA), Grants Awarded, *http://www.doleta.gov/grants/grants_awarded.cfm*
- Department of Transportation Grants, *https://www.transportation.gov/grants*
- Environmental Protection Agency (EPA), *https://www.epa.gov/grants*
- National Library of Medicine (NLM), Health Services Research Projects in Progress (HSRProj), *https://wwwcf.nlm.nih.gov/hsr_project/home_proj.cfm*
- National Science Foundation (NSF) Awards, *http://www.nsf.gov/awardsearch/*
- Small Business Innovation Research (SBIR) and Small Business Technology Transfer (STTR) Awards, *https://www.sbir.gov/sbirsearch/award/all*

Table 17–2. FEDERAL GRANTS TO STATE AND LOCAL GOVERNMENTS—BUDGET AUTHORITY AND OUTLAYS
(In millions of dollars)

Function, Category, Agency and Program	Budget Authority			Outlays		
	2018 Actual	2019 Estimate	2020 Estimate	2018 Actual	2019 Estimate	2020 Estimate
Energy						
Discretionary:						
Department of Energy:						
Energy Programs:						
Energy Efficiency and Renewable Energy	341	347	....	253	278	320
Mandatory:						
Tennessee Valley Authority:						
Tennessee Valley Authority Fund	518	527	522	518	527	522
Total, Energy	**859**	**874**	**522**	**771**	**805**	**842**
Natural Resources and Environment						
Discretionary:						
Department of Agriculture:						
Farm Service Agency:						
Grassroots Source Water Protection Program	7	7	....	7	7	....
Natural Resources Conservation Service:						
Watershed Rehabilitation Program	44	15	....	16	16	....
Watershed and Flood Prevention Operations	280	690	43	50	124	8
Forest Service:						
State and Private Forestry	262	320	172	165	288	268
Department of Commerce:						
National Oceanic and Atmospheric Administration:						
Operations, Research, and Facilities	101	100	....	99	99	....
Pacific Coastal Salmon Recovery	65	65	....	60	79	71
Department of the Interior:						
Office of Surface Mining Reclamation and Enforcement:						
Regulation and Technology	69	69	44	64	68	51
Abandoned Mine Reclamation Fund	140	140	25	47	133	73
United States Geological Survey:						
Surveys, Investigations, and Research	4	4	....	4	4	....
United States Fish and Wildlife Service:						
Cooperative Endangered Species Conservation Fund	53	53	–31	32	45	14
State Wildlife Grants	64	64	31	62	63	64
National Park Service:						
National Recreation and Preservation	64	64	32	61	60	52
Land Acquisition and State Assistance	124	124	....	59	59	60
Historic Preservation Fund	147	97	33	70	130	102
Environmental Protection Agency:						
State and Tribal Assistance Grants	4,166	4,116	2,633	3,566	2,809	2,922
Hazardous Substance Superfund	21	24	22	212	199	234
Leaking Underground Storage Tank Trust Fund	88	83	40	84	78	68
Total, discretionary	**5,699**	**6,035**	**3,044**	**4,658**	**4,261**	**3,987**
Mandatory:						
Department of Commerce:						
National Oceanic and Atmospheric Administration:						
Gulf Coast Ecosystem Restoration Science, Observation, Monitoring, and Technology	6	6	5	5	13	4
Department of the Interior:						
Bureau of Land Management:						
Miscellaneous Permanent Payment Accounts	51	49	43	51	49	43
Office of Surface Mining Reclamation and Enforcement:						
Payments to States in Lieu of Coal Fee Receipts	....	....	....	20	30	30

Table 17–2. FEDERAL GRANTS TO STATE AND LOCAL GOVERNMENTS—BUDGET AUTHORITY AND OUTLAYS—Continued
(In millions of dollars)

Function, Category, Agency and Program	Budget Authority			Outlays		
	2018 Actual	2019 Estimate	2020 Estimate	2018 Actual	2019 Estimate	2020 Estimate
Abandoned Mine Reclamation Fund	194	188	141	193	204	279
United States Fish and Wildlife Service:						
Federal Aid in Wildlife Restoration	829	729	834	745	795	823
Cooperative Endangered Species Conservation Fund	75	70	72	75	70	72
Coastal Impact Assistance	....	....	....	1	1	....
Sport Fish Restoration	439	451	476	423	446	466
National Park Service:						
Land Acquisition and State Assistance	91	99	113	1	14	37
Departmental Offices:						
National Forests Fund, Payment to States	6	12	10	5	12	10
Leases of Lands Acquired for Flood Control, Navigation, and Allied Purposes	25	55	41	25	55	41
States Share from Certain Gulf of Mexico Leases	188	215	339	188	215	339
Corps of Engineers--Civil Works:						
South Dakota Terrestrial Wildlife Habitat Restoration Trust Fund	2	3	3	4	3	3
Total, mandatory	**1,906**	**1,877**	**2,077**	**1,736**	**1,907**	**2,147**
Total, Natural Resources and Environment	**7,605**	**7,912**	**5,121**	**6,394**	**6,168**	**6,134**
Agriculture						
Discretionary:						
Department of Agriculture:						
National Institute of Food and Agriculture:						
Extension Activities	418	418	....	413	515	300
National Institute of Food and Agriculture	....	....	728	....	....	298
Research and Education Activities	335	335	....	341	341	209
Agricultural Marketing Service:						
Payments to States and Possessions	1	1	1	....	1	1
Farm Service Agency:						
State Mediation Grants	4	4	3	4	4	3
Total, discretionary	**758**	**758**	**732**	**758**	**861**	**811**
Mandatory:						
Department of Agriculture:						
Agricultural Marketing Service:						
Payments to States and Possessions	79	85	85	57	73	77
Total, Agriculture	**837**	**843**	**817**	**815**	**934**	**888**
Commerce and Housing Credit						
Discretionary:						
Department of Commerce:						
National Oceanic and Atmospheric Administration:						
Fisheries Disaster Assistance	220	20	....	7	97	98
Mandatory:						
Department of Commerce:						
National Telecommunications and Information Administration:						
State and Local Implementation Fund	....	....	....	18	19	12
Department of the Treasury:						
Departmental Offices:						
State Small Business Credit Initiative	....	....	....	1	....	2
Federal Communications Commission:						
Universal Service Fund	1,618	1,353	1,600	1,840	1,917	1,802
Total, mandatory	**1,618**	**1,353**	**1,600**	**1,859**	**1,936**	**1,816**
Total, Commerce and Housing Credit	**1,838**	**1,373**	**1,600**	**1,866**	**2,033**	**1,914**

Table 17–2. FEDERAL GRANTS TO STATE AND LOCAL GOVERNMENTS—BUDGET AUTHORITY AND OUTLAYS—Continued
(In millions of dollars)

Function, Category, Agency and Program	Budget Authority			Outlays		
	2018 Actual	2019 Estimate	2020 Estimate	2018 Actual	2019 Estimate	2020 Estimate
Transportation						
Discretionary:						
Department of Transportation:						
Office of the Secretary:						
National Infrastructure Investments	1,475	1,475	975	449	564	850
Nationally Significant Freight Projects	....	....	1,025	....	....	....
Federal Aviation Administration:						
Payment to Grants-in-aid for Airports	1,000	1,000	....	1,000	1,000	....
Grants-in-aid for Airports (Airport and Airway Trust Fund)	....	....	....	3,036	3,987	4,137
Grants-in-aid for Airports (Airport and Airway Trust Fund) (non-add obligation limitations) [1]	*3,350*	*3,350*	*3,350*	....	....	....
Federal Highway Administration:						
Emergency Relief Program	1,374	....	....	765	637	633
Highway Infrastructure Programs	2,525	2,525	300	158	300	1,097
Appalachian Development Highway System	....	....	–40	4	6	4
Federal-aid Highways	....	....	....	42,577	43,211	43,947
Federal-aid Highways (non-add obligation limitations) [1]	*42,839*	*42,832*	*45,065*	....	....	....
Miscellaneous Appropriations	....	....	–117	25	18	8
Miscellaneous Highway Trust Funds	....	....	–52	9	10	6
Federal Motor Carrier Safety Administration:						
Motor Carrier Safety Grants	....	....	....	317	391	510
Motor Carrier Safety Grants (non-add obligation limitations) [1]	*562*	*562*	*388*	....	....	....
National Highway Traffic Safety Administration:						
Highway Traffic Safety Grants	....	....	....	636	649	633
Highway Traffic Safety Grants (non-add obligation limitations) [1]	*702*	*700*	*623*	....	....	....
Federal Railroad Administration:						
Northeast Corridor Improvement Program	....	....	....	....	6	7
Capital and Debt Service Grants to the National Railroad Passenger Corporation	....	....	....	62	4	2
Restoration and Enhancement Grants	20	20	545	....	....	545
Rail Safety Technology Program	....	....	....	3	....	....
Railroad Safety Grants	....	....	....	6	27	13
Grants to the National Railroad Passenger Corporation	....	....	....	5	....	3
Intercity Passenger Rail Grant Program	....	....	....	11	11	1
Rail Line Relocation and Improvement Program	....	....	–2	1	3	....
Capital Assistance for High Speed Rail Corridors and Intercity Passenger Rail Service	....	....	–53	73	80	221
Next Generation High-speed Rail	....	....	....	1	1	....
Pennsylvania Station Redevelopment Project	....	....	....	23	7	6
Northeast Corridor Grants to the National Railroad Passenger Corporation	647	647	323	642	647	323
National Network Grants to the National Railroad Passenger Corporation	1,284	1,284	608	1,283	1,284	611
Federal-State Partnership for State of Good Repair	248	247	....	....	....	5
Consolidated Rail Infrastructure and Safety Improvements	587	587	327	....	....	49
Federal Transit Administration:						
Job Access and Reverse Commute Grants	....	....	....	....	1	....
Washington Metropolitan Area Transit Authority	150	150	150	180	93	137
Formula Grants	....	....	....	14	25	25
Grants for Energy Efficiency and Greenhouse Gas Reductions	....	....	....	8	....	....
Capital Investment Grants	2,645	2,645	1,505	1,864	1,914	2,071
Public Transportation Emergency Relief Program	330	....	....	460	987	947
Transit Formula Grants	....	....	....	10,082	10,322	10,917
Transit Formula Grants (non-add obligation limitations) [1]	*11,024*	*11,033*	*11,450*	....	....	....
Pipeline and Hazardous Materials Safety Administration:						
Pipeline Safety	56	54	47	40	51	48
Trust Fund Share of Pipeline Safety	8	8	8	7	8	8
Total, discretionary	**12,349**	**10,642**	**5,549**	**63,741**	**66,244**	**67,764**
Total, obligation limitations (non-add) [1]	*58,477*	*58,477*	*60,876*	....	....	....

Table 17–2. FEDERAL GRANTS TO STATE AND LOCAL GOVERNMENTS—BUDGET AUTHORITY AND OUTLAYS—Continued
(In millions of dollars)

Function, Category, Agency and Program	Budget Authority			Outlays		
	2018 Actual	2019 Estimate	2020 Estimate	2018 Actual	2019 Estimate	2020 Estimate
Mandatory:						
Department of Homeland Security:						
United States Coast Guard:						
Boat Safety	106	110	117	116	104	105
Department of Transportation:						
Federal Aviation Administration:						
Grants-in-aid for Airports (Airport and Airway Trust Fund) [1]	4,190	4,185	3,190	....	....	....
Federal Highway Administration:						
Federal-aid Highways [1]	43,147	44,178	37,818	728	728	731
Miscellaneous Appropriations	251	135	....	251	135	....
Federal Motor Carrier Safety Administration:						
Motor Carrier Safety Grants [1]	375	382	388	....	....	....
National Highway Traffic Safety Administration:						
Highway Traffic Safety Grants [1]	638	649	560	....	....	....
Federal Transit Administration:						
Transit Formula Grants [1]	10,996	11,005	11,422	....	....	....
Total, mandatory	**59,703**	**60,644**	**53,495**	**1,095**	**967**	**836**
Total, Transportation	**72,052**	**71,286**	**59,044**	**64,836**	**67,211**	**68,600**
Community and Regional Development						
Discretionary:						
Department of Agriculture:						
Rural Utilities Service:						
Distance Learning, Telemedicine, and Broadband Program	622	704	244	35	141	366
Rural Water and Waste Disposal Program Account	1,216	1,051	446	496	764	1,034
Rural Housing Service:						
Rural Community Facilities Program Account	49	48	204	45	57	204
Rural Business-Cooperative Service:						
Rural Business Program Account	40	77	27	31	84	84
Department of Commerce:						
Economic Development Administration:						
Economic Development Assistance Programs	850	253	–35	240	240	446
Department of Homeland Security:						
Federal Emergency Management Agency:						
Federal Assistance	2,940	3,079	2,342	516	1,859	2,706
State and Local Programs	....	....	....	1,704	1,142	231
Disaster Relief Fund	36,045	6,383	15,414	9,715	10,239	11,341
National Flood Insurance Fund	10	....	....	10	....	....
Department of Housing and Urban Development:						
Community Planning and Development:						
Community Development Fund	31,345	5,042	....	5,889	6,818	9,434
Community Development Loan Guarantees Program Account	....	....	....	1	3	3
Brownfields Redevelopment	....	....	....	2	3	2
Office of Lead Hazard Control and Healthy Homes:						
Lead Hazard Reduction	230	230	290	95	145	178
Department of the Interior:						
Bureau of Indian Affairs:						
Operation of Indian Programs	159	149	178	88	149	178
Indian Guaranteed Loan Program Account	9	9	1	6	8	7
Denali Commission	30	15	....	15	18	27
Total, discretionary	**73,545**	**17,040**	**19,111**	**18,888**	**21,670**	**26,241**

Table 17–2. FEDERAL GRANTS TO STATE AND LOCAL GOVERNMENTS—BUDGET AUTHORITY AND OUTLAYS—Continued
(In millions of dollars)

Function, Category, Agency and Program	Budget Authority			Outlays		
	2018 Actual	2019 Estimate	2020 Estimate	2018 Actual	2019 Estimate	2020 Estimate
Mandatory:						
Department of Homeland Security:						
Federal Emergency Management Agency:						
National Flood Insurance Fund	157	....	....	93	....	....
Department of Housing and Urban Development:						
Community Planning and Development:						
Neighborhood Stabilization Program	....	....	....	21	58	46
Department of the Interior:						
Bureau of Indian Affairs:						
Indian Guaranteed Loan Program Account	9	17	....	9	20	....
Department of the Treasury:						
Fiscal Service:						
Gulf Coast Restoration Trust Fund	179	322	361	78	169	155
Total, mandatory	**345**	**339**	**361**	**201**	**247**	**201**
Total, Community and Regional Development	**73,890**	**17,379**	**19,472**	**19,089**	**21,917**	**26,442**
Education, Training, Employment, and Social Services						
Discretionary:						
Department of Education:						
Office of Elementary and Secondary Education:						
Indian Education	174	174	169	143	205	174
Impact Aid	1,409	1,441	1,367	1,464	1,340	1,392
Safe Schools and Citizenship Education	186	191	200	169	227	199
Education for the Disadvantaged	16,395	16,473	15,491	15,277	17,447	16,422
School Improvement Programs	5,028	5,116	2,351	4,060	4,846	5,082
Office of Innovation and Improvement:						
Innovation and Improvement	886	976	1,107	1,044	1,434	899
Office of English Language Acquisition:						
English Language Acquisition	688	689	689	652	766	695
Office of Special Education and Rehabilitative Services:						
Special Education	13,129	13,245	12,387	12,753	13,233	13,195
Rehabilitation Services	86	87	64	88	88	70
Office of Career, Technical, and Adult Education:						
Career, Technical and Adult Education	1,810	1,905	1,748	1,613	1,785	1,862
Office of Postsecondary Education:						
Higher Education	350	360	....	314	315	227
Institute of Education Sciences	28	26	....	26	32	32
Hurricane Education Recovery	2,693	....	....	233	1,791	668
Department of Health and Human Services:						
Administration for Children and Families:						
Promoting Safe and Stable Families	100	100	60	56	91	84
Children and Families Services Programs	12,283	11,881	10,829	10,651	10,859	11,161
Administration for Community Living:						
Aging and Disability Services Programs	1,816	1,838	1,710	1,812	2,075	2,102
Department of the Interior:						
Bureau of Indian Affairs:						
Operation of Indian Programs	75	94	....	60	90	68
Bureau of Indian Education:						
Operation of Indian Education Programs	....	....	94	....	....	38
Department of Labor:						
Employment and Training Administration:						
Training and Employment Services	3,008	2,790	2,751	2,724	2,878	2,834
State Unemployment Insurance and Employment Service Operations	201	92	81	37	47	76

Table 17–2. FEDERAL GRANTS TO STATE AND LOCAL GOVERNMENTS—BUDGET AUTHORITY AND OUTLAYS—Continued

(In millions of dollars)

Function, Category, Agency and Program	Budget Authority			Outlays		
	2018 Actual	2019 Estimate	2020 Estimate	2018 Actual	2019 Estimate	2020 Estimate
Unemployment Trust Fund	1,087	1,088	1,102	1,050	1,075	1,092
Corporation for National and Community Service:						
Operating Expenses	515	538	15	228	262	270
Corporation for Public Broadcasting	465	465	30	465	465	30
District of Columbia:						
District of Columbia General and Special Payments:						
Federal Payment for Resident Tuition Support	40	40	....	40	40	....
Federal Payment for School Improvement	45	45	90	45	45	90
Institute of Museum and Library Services:						
Office of Museum and Library Services: Grants and Administration	224	224	....	208	284	163
National Endowment for the Arts:						
Grants and Administration	47	48	....	44	48	42
Total, discretionary	**62,768**	**59,926**	**52,335**	**55,256**	**61,768**	**58,967**
Mandatory:						
Department of Education:						
Office of Special Education and Rehabilitative Services:						
Rehabilitation Services	3,225	3,304	3,603	3,005	3,434	3,447
Office of Career, Technical, and Adult Education:						
Career and Technical Education State Grants, H–1B Funded	....	....	114	....	....	6
Department of Health and Human Services:						
Administration for Children and Families:						
Promoting Safe and Stable Families	472	481	565	417	461	509
Social Services Block Grant	1,672	1,680	85	1,587	1,619	487
Department of Labor:						
Employment and Training Administration:						
TAA Community College and Career Training Grant Fund	....	....	....	124	38	....
Federal Unemployment Benefits and Allowances	398	401	300	202	180	201
Total, mandatory	**5,767**	**5,866**	**4,667**	**5,335**	**5,732**	**4,650**
Total, Education, Training, Employment, and Social Services	**68,535**	**65,792**	**57,002**	**60,591**	**67,500**	**63,617**
Health						
Discretionary:						
Department of Agriculture:						
Food Safety and Inspection Service:						
Salaries and Expenses	54	54	59	52	52	63
Department of Health and Human Services:						
Health Resources and Services Administration:						
Health Resources and Services	2,877	2,925	2,777	2,821	2,852	2,715
Indian Health Service:						
Contract Support Costs	763	822	855	754	882	855
Centers for Disease Control and Prevention:						
CDC-wide Activities and Program Support	3,435	3,435	3,435	1,193	1,193	1,193
Substance Abuse and Mental Health Services Administration	4,707	4,766	4,720	3,258	4,167	4,922
Departmental Management:						
Public Health and Social Services Emergency Fund	265	265	258	261	261	254
Department of Labor:						
Occupational Safety and Health Administration:						
Salaries and Expenses	111	113	102	111	113	102
Mine Safety and Health Administration:						
Salaries and Expenses	9	9	9	9	9	9
Total, discretionary	**12,221**	**12,389**	**12,215**	**8,459**	**9,529**	**10,113**

Table 17–2. FEDERAL GRANTS TO STATE AND LOCAL GOVERNMENTS—BUDGET AUTHORITY AND OUTLAYS—Continued
(In millions of dollars)

Function, Category, Agency and Program	Budget Authority			Outlays		
	2018 Actual	2019 Estimate	2020 Estimate	2018 Actual	2019 Estimate	2020 Estimate
Mandatory:						
Department of Health and Human Services:						
Health Resources and Services Administration:						
Maternal, Infant, and Early Childhood Home Visiting Programs	400	400	400	366	383	393
Centers for Medicare and Medicaid Services:						
Rate Review Grants	....	....	....	19	33	4
Affordable Insurance Exchange Grants	12	....	....	48	7	....
Cost-sharing Reductions [2]	....	81	1,456	....	81	1,456
Grants to States for Medicaid	410,017	411,084	403,285	389,157	418,681	418,151
Children's Health Insurance Fund	17,945	20,539	13,952	17,282	18,434	16,882
State Grants and Demonstrations	200	249	90	472	476	610
Child Enrollment Contingency Fund	2,337	4,632	500	....	200	....
Departmental Management:						
Pregnancy Assistance Fund	23	25	....	21	29	9
Payment to the State Response to the Opioid Abuse Crisis Account, CURES Act	500	....	....	500	....	....
Department of the Treasury:						
Internal Revenue Service:						
Refundable Premium Tax Credit [2]	5,011	5,791	5,202	4,793	6,009	5,202
Payment Where Small Business Health Insurance Tax Credit Exceeds Liability for Tax [2]	1	....	....	....	....	....
Total, mandatory	**436,446**	**442,801**	**424,885**	**412,658**	**444,333**	**442,707**
Total, Health	**448,667**	**455,190**	**437,100**	**421,117**	**453,862**	**452,820**
Income Security						
Discretionary:						
Department of Agriculture:						
Food and Nutrition Service:						
Commodity Assistance Program	349	322	55	322	322	177
Special Supplemental Nutrition Program for Women, Infants, and Children (WIC)	5,388	5,375	4,750	5,432	5,384	4,863
Department of Health and Human Services:						
Administration for Children and Families:						
Low Income Home Energy Assistance	3,640	3,690	....	3,425	3,692	1,396
Refugee and Entrant Assistance	687	515	524	648	515	496
Payments to States for the Child Care and Development Block Grant	5,200	5,264	5,264	3,526	4,792	5,001
Department of Homeland Security:						
Federal Emergency Management Agency:						
Federal Assistance	120	120	....	42	109	120
Emergency Food and Shelter	....	....	....	71	16	....
Department of Housing and Urban Development:						
Public and Indian Housing Programs:						
Public Housing Operating Fund	4,413	4,457	2,715	4,382	4,336	3,221
Revitalization of Severely Distressed Public Housing (HOPE VI)	....	....	....	18	30	....
Native Hawaiian Housing Block Grant	2	2	....	2	3	3
Tenant Based Rental Assistance	22,131	22,092	22,327	21,384	22,318	22,354
Public Housing Capital Fund	2,708	2,719	....	1,896	2,307	2,322
Native American Housing Block Grant	755	755	600	635	615	590
Housing Certificate Fund	....	....	....	–4	70	60
Choice Neighborhoods Initiative	150	150	....	58	162	134
Family Self-Sufficiency	75	75	75	71	74	75
Rental Assistance Demonstration	....	....	100	....	....	100
Community Planning and Development:						
Homeless Assistance Grants	1,340	1,340	1,386	1,088	1,268	1,334
Home Investment Partnership Program	1,362	1,362	....	944	1,031	1,097
Housing Opportunities for Persons with AIDS	375	375	330	352	361	380

Table 17–2. FEDERAL GRANTS TO STATE AND LOCAL GOVERNMENTS—BUDGET AUTHORITY AND OUTLAYS—Continued
(In millions of dollars)

Function, Category, Agency and Program	Budget Authority			Outlays		
	2018 Actual	2019 Estimate	2020 Estimate	2018 Actual	2019 Estimate	2020 Estimate
Rural Housing and Economic Development	....	....	....	1	1	....
Permanent Supportive Housing	....	....	....	....	5	....
Housing Programs:						
Project-based Rental Assistance	285	245	345	285	245	345
Department of Labor:						
Employment and Training Administration:						
Unemployment Trust Fund	2,660	2,534	2,669	2,951	2,431	2,602
Total, discretionary	**51,640**	**51,392**	**41,140**	**47,529**	**50,087**	**46,670**
Mandatory:						
Department of Agriculture:						
Agricultural Marketing Service:						
Funds for Strengthening Markets, Income, and Supply (section 32)	1,040	1,068	283	655	808	66
Food and Nutrition Service:						
Supplemental Nutrition Assistance Program	7,405	7,369	7,270	7,485	7,347	6,978
Commodity Assistance Program	20	24	25	19	15	25
Child Nutrition Programs	24,548	23,311	24,569	22,803	23,854	24,837
Department of Health and Human Services:						
Administration for Children and Families:						
Payments to States for Child Support Enforcement and Family Support Programs	4,395	4,322	4,340	4,137	4,235	4,356
Contingency Fund	608	608	....	666	597	63
Payments for Foster Care and Permanency	8,138	8,300	8,579	8,581	7,874	8,433
Child Care Entitlement to States	2,917	2,917	4,212	2,358	2,819	3,562
Temporary Assistance for Needy Families	16,734	16,734	15,234	16,414	16,533	15,140
Department of Housing and Urban Development:						
Public and Indian Housing Programs:						
Native American Housing Block Grant	2	....	....	2	....	....
Total, mandatory	**65,807**	**64,653**	**64,512**	**63,120**	**64,082**	**63,460**
Total, Income Security	**117,447**	**116,045**	**105,652**	**110,649**	**114,169**	**110,130**
Social Security						
Mandatory:						
Social Security Administration:						
Federal Disability Insurance Trust Fund	11	6	24	18	14	24
Veterans Benefits and Services						
Discretionary:						
Department of Veterans Affairs:						
Veterans Health Administration:						
Medical Community Care	1,312	1,428	1,514	1,312	1,428	1,514
Medical Services	600	640	640	600	640	640
Departmental Administration:						
Grants for Construction of State Extended Care Facilities	685	150	90	103	177	333
Grants for Construction of Veterans Cemeteries	45	45	45	46	47	94
Total, discretionary	**2,642**	**2,263**	**2,289**	**2,061**	**2,292**	**2,581**
Total, Veterans Benefits and Services	**2,642**	**2,263**	**2,289**	**2,061**	**2,292**	**2,581**
Administration of Justice						
Discretionary:						
Department of Housing and Urban Development:						
Fair Housing and Equal Opportunity:						
Fair Housing Activities	65	65	62	62	64	64
Department of Justice:						
Legal Activities and U.S. Marshals:						

Table 17–2. FEDERAL GRANTS TO STATE AND LOCAL GOVERNMENTS—BUDGET AUTHORITY AND OUTLAYS—Continued
(In millions of dollars)

Function, Category, Agency and Program	Budget Authority			Outlays		
	2018 Actual	2019 Estimate	2020 Estimate	2018 Actual	2019 Estimate	2020 Estimate
Assets Forfeiture Fund	21	–283	21	16	20	20
Drug Enforcement Administration:						
High Intensity Drug Trafficking Areas Program [3]	....	....	254	....	....	64
Office of Justice Programs:						
Research, Evaluation, and Statistics	68	17	17	59	9	4
State and Local Law Enforcement Assistance [4]	1,310	605	605	618	1,049	918
Juvenile Justice Programs	274	279	229	244	384	248
Community Oriented Policing Services [4]	255	230	....	149	76	174
Violence against Women Prevention and Prosecution Programs	454	451	....	431	479	466
Equal Employment Opportunity Commission:						
Salaries and Expenses	29	29	28	44	42	40
Federal Drug Control Programs:						
High Intensity Drug Trafficking Areas Program3	260	280	....	231	310	168
State Justice Institute:						
Salaries and Expenses	5	5	7	4	9	5
Total, discretionary	**2,741**	**1,678**	**1,223**	**1,858**	**2,442**	**2,171**
Mandatory:						
Department of Justice:						
Legal Activities and U.S. Marshals:						
Assets Forfeiture Fund	365	315	315	354	345	394
Office of Justice Programs:						
Crime Victims Fund	3,864	3,944	1,808	1,844	4,462	4,390
Department of the Treasury:						
Departmental Offices:						
Treasury Forfeiture Fund	232	58	114	139	54	78
Total, mandatory	**4,461**	**4,317**	**2,237**	**2,337**	**4,861**	**4,862**
Total, Administration of Justice	**7,202**	**5,995**	**3,460**	**4,195**	**7,303**	**7,033**
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	72	69	53	51	92	82
Department-Wide Programs:						
Payments in Lieu of Taxes	....	500	465	....	500	465
District of Columbia:						
District of Columbia Courts:						
Federal Payment to the District of Columbia Courts	285	265	271	273	262	268
Federal Payment for Defender Services in District of Columbia Courts	30	50	46	47	47	53
District of Columbia General and Special Payments:						
Federal Support for Economic Development and Management Reforms in the District	22	22	8	22	22	8
Election Assistance Commission:						
Election Reform Programs	380	380	....	380	....	....
Total, discretionary	**802**	**1,299**	**843**	**786**	**936**	**876**
Mandatory:						
Department of Agriculture:						
Forest Service:						
Forest Service Permanent Appropriations	289	80	77	282	88	77
Department of Energy:						
Energy Programs:						

Table 17–2. FEDERAL GRANTS TO STATE AND LOCAL GOVERNMENTS—BUDGET AUTHORITY AND OUTLAYS—Continued

(In millions of dollars)

Function, Category, Agency and Program	Budget Authority			Outlays		
	2018 Actual	2019 Estimate	2020 Estimate	2018 Actual	2019 Estimate	2020 Estimate
Payments to States under Federal Power Act	5	5	5	5	5	5
Department of the Interior:						
Office of Surface Mining Reclamation and Enforcement:						
Payments to States in Lieu of Coal Fee Receipts	106	103	47	112	155	171
United States Fish and Wildlife Service:						
National Wildlife Refuge Fund	9	8	9	7	8	10
Departmental Offices:						
Mineral Leasing and Associated Payments	1,525	3,385	3,035	1,525	3,385	3,035
National Petroleum Reserve, Alaska	25	19	20	25	19	20
Geothermal Lease Revenues, Payment to Counties	4	4	....	4	4	....
Insular Affairs:						
Assistance to Territories	28	28	28	21	25	22
Payments to the United States Territories, Fiscal Assistance	331	302	302	331	302	302
Department-Wide Programs:						
Payments in Lieu of Taxes	553	....	....	553	....	....
Department of the Treasury:						
Alcohol and Tobacco Tax and Trade Bureau:						
Internal Revenue Collections for Puerto Rico	446	413	423	446	413	423
Corps of Engineers--Civil Works:						
Permanent Appropriations	4	4	4	....	....	....
District of Columbia:						
District of Columbia Courts:						
District of Columbia Crime Victims Compensation Fund	12	5	7	8	6	6
Total, mandatory	**3,337**	**4,356**	**3,957**	**3,319**	**4,410**	**4,071**
Total, General Government	**4,139**	**5,655**	**4,800**	**4,105**	**5,346**	**4,947**
Allowances						
Mandatory:						
Allowances:						
Infrastructure Initiative	....	....	190,000	....	....	4,750
Total, Grants	**805,724**	**750,613**	**886,903**	**696,507**	**749,554**	**750,722**
Discretionary	**225,726**	**163,789**	**138,481**	**204,254**	**220,465**	**220,599**
Transportation obligation limitations (non-add) [1]	*58,477*	*58,477*	*60,876*	....	....	....
Mandatory	**579,998**	**586,824**	**748,422**	**492,253**	**529,089**	**530,123**

[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.

[2] Reflects budget authority and outlays for the Basic Health Program, under which a State may offer standard health plans to eligible individuals in lieu of offering such individuals coverage through an Exchange, and/or budget authority and outlays for State Innovation Waivers, as appropriate.

[3] For 2020, the Budget proposes to transfer High Intensity Drug Trafficking Areas Program from the Office of National Drug Control Policy to the Department of Justice. Budget authority for the High Intensity Drug Trafficking Areas Program in 2020 is included under the Drug Enforcement Administration account.

[4] For 2020, the Budget proposes to transfer the Community Oriented Policing Services account to the State and Local Law Enforcement Assistance account.

18. STRENGTHENING FEDERAL STATISTICS

The Federal Statistical System (FSS) has reliably and impartially informed the nation about its population, condition, and progress since its founding, beginning with the first constitutionally-mandated Census in 1790. The mission of the FSS is to collect and transform data into useful, objective information; making it readily and equitably available to government, private businesses, and the public. There are thirteen Principal Statistical Agencies (PSAs—see Table 18–1) and almost 100 non-PSA statistical units spread across the Executive Branch that generate statistics on such topics as the economy, workforce, energy, agriculture, foreign trade, education, housing, crime, transportation, and health. The PSAs are continuously developing new methods for collecting and combining data from multiple sources in order to expand and improve the quality and timeliness of statistical evidence needed to make important decisions in today's information-rich society. Agencies are increasing their collaborative efforts as demands grow for more high quality, reliable information to drive mission and meet the needs of the public.

Coordination of the Federal Statistical System

Although the Principal Statistical Agencies are spread across government, they share common principles and practices and operate as a closely-knit network. Many of the data products and publications generated by the FSS are the result of collaborative efforts involving multiple agencies. Through conferences, joint training sessions, and informal engagements, agencies share best practices and innovations in topics ranging from secure storage of confidential data to natural language processing of written responses. Because of its interconnected nature, the state of the system as a whole depends on the health of the individual member agencies. Changes to programs at one agency frequently impact many other agencies in the system.

Recognizing the importance of coordination and the interdependent nature of the statistical system, Congress used the Paperwork Reduction Act of 1995 (PRA) and the Confidential Information Protection and Statistical Efficiency Act of 2002 (CIPSEA) to create three important tools: the position of the Chief Statistician of the United States at the Office of Management and Budget, the Interagency Council on Statistical Policy (ICSP), and a consistent framework for protecting confidential respondent information. The PRA directs the Chief Statistician to coordinate the activities of the FSS to ensure its efficiency and effectiveness, integrity, objectivity, impartiality, utility and confidentiality of information collected for statistical purposes; ensure that budget proposals are consistent with system-wide priorities; and develop and oversee the implementation of Governmentwide statistical policies, principles, guidelines, and standards. The Chief Statistician chairs the ICSP, made up of the heads of the thirteen PSAs and one rotating member from a non-PSA agency that conducts significant statistical activity, currently the National Center for Veterans Analysis and Statistics. The ICSP provides strategic leadership for the FSS on system-wide priorities such as improving researcher access to confidential data while protecting privacy, increasing response rates on surveys while easing the cost and burden on respondents, and acquiring and maintaining a highly skilled workforce. CIPSEA provides a common statutory framework for the collection, handling, and dissemination of confidential data and allows agencies to assure respondents that their data will only be used for statistical and research purposes.

The recently enacted Foundations for Evidence-Based Policymaking Act of 2018 (Evidence Act) further emphasizes the importance of coordination of the evidence-building functions of the Federal Government, and includes several provisions to improve capacity and coordination at not only the thirteen principal statistical agencies, but also at the numerous other offices that conduct significant statistical activities in the performance of their regulatory, enforcement, program delivery, or scientific missions. The Evidence Act requires the head of each CFO Act agency to designate a statistical official to advise on statistical policy, techniques, and procedures, and specifies that these officials will serve as members of the ICSP, providing a forum for broader coordination across the FSS. The Act also requires each agency to produce an assessment of the coverage, quality, methods, effectiveness, and independence of the statistics, evaluation, research, and analysis efforts of the agency as part of their strategic plan, providing an opportunity for increased intra-agency coordination. The Act calls for the Chief Statistician to chair a new Advisory Committee on Data for Evidence Building to make recommendations on how to facilitate data sharing, enable data linkage, and develop privacy enhancing techniques to coordinate Federal data use for evidence building across agencies. Several provisions in the Evidence Act are designed to promote intra- and inter-agency sharing of government data for statistical purposes, including an update to CIPSEA that creates a presumption of accessibility of government data assets for statistical agencies and units, calls for the use of disclosure limitation techniques to expand the availability of less-restricted versions of confidential data sets, and the requirement of a standard application process for secure researcher access to CIPSEA-protected data.

Focus on the Value of Collaborative Evidence-Building

In addition to the implementation activities of the Evidence Act, several exciting interagency initiatives are underway that promise to strengthen collaboration and cooperation across government:

The President's Management Agenda, released in October 2018, includes a Cross-Agency Priority goal on Leveraging Data as a Strategic Asset. This goal is operationalized as a Federal Data Strategy designed to coordinate and integrate the Federal Government's approach to using data to deliver on mission, serve the public, and steward resources while respecting privacy and confidentiality. The Data Strategy is co-led by the Chief Statistician and many of the statistical agencies are providing staff, expertise, and best practices to the effort.

The Administration's Reform Plan and Reorganization Recommendations include a proposal to relocate the Bureau of Labor Statistics within the Commerce Department alongside the Bureau of the Census and the Bureau of Economic Analysis. Aligning these three agencies more closely will not only increase cost-effectiveness and reduce respondent burden, it will improve data quality and result in the creation of much needed new information products that help our understanding of the nation's economy.

The Federal Committee on Statistical Methodology and the Interagency Council on Statistical Policy are working to create a unified framework for transparent reporting of data quality for integrated data products, including appropriate statistical standards. Whether Federal statistics come from traditional household and establishment surveys and carefully designed administrative records systems or from sources not initially designed for statistical purposes, data quality must be communicated transparently and understood to provide the best available statistical information to the public and to ensure the statistics are used wisely. In addition, FCSM and the Confidential Data Access Committee will be revising and modernizing Statistical Policy Working Paper 22 (SPWP22), a manual for employing disclosure limitation techniques that protect the privacy and confidentiality of individuals and businesses. Once completed, SPWP22 will be an online repository of up to date information, recommendations, techniques, and tools for Federal agencies across government to leverage in their own efforts to better protect confidential data, while making it safely available for evidence-building. The work supports the Federal Data Strategy principles related to protecting and securing data.

Current Examples of Collaborative Evidence-Building

In addition to the highly interdependent relationships within the FSS, statistical agencies and units also work closely with non-statistical Federal agencies. By leveraging their expertise and infrastructure for data collection, storage, and analysis, The FSS helps agencies unlock the value of the data that they already collect and maintain by linking that data with other administrative or statistical data to create new insights. In turn, the statistical agencies rely on the data collected or generated by program implementation, regulatory, and other agencies in order to reduce burden on the public and increase the accuracy, timeliness, and granularity of their statistical products. The Evidence Act promotes this relationship in its new presumption that CIPSEA agencies, where employees take an oath to protect data confidentiality and face severe penalties for any violations, should be allowed access to program data unless specifically prohibited by statute. Some recent examples of interagency cooperation taking on real world problem-solving follow.

Post-prison employment. Research suggests that employment may reduce the likelihood of recidivism following an offender's release from a correctional institution, yet the nation lacks detailed information on post-prison employment activities of offenders. At the request of Congress, the *Bureau of Justice Statistics* partnered with data linkage experts at the *U.S. Census Bureau* to combine state prison data with data on employment and income to produce the first national-level estimates for post-prison employment, job stability, and time from release to employment.

Veterans food security. According to recent research, veterans overall experience lower rates of food insecurity than the general population. However veterans of the wars in Iraq and Afghanistan experience greater food insecurity and lack of access to sufficient food for a healthful lifestyle compared to other veterans and non-veterans. The *Economic Research Service* linked data from their Food Security Supplement on the *U.S. Census Bureau's* Current Population Survey with the *Department of Veteran's Affairs* administrative data on veterans in order to examine the prevalence and trends in food security among working-age veterans and their households. The combined survey and administrative data provides accurate and detailed information that helps Federal programs target their assistance more effectively and helps policymakers make smarter, better-informed decisions.

Veteran's education and careers. The *National Center for Science and Engineering Statistics* (NCSES) initiated the collection of veteran status data on the National Survey of College Graduates to enable investigation of the relationship between education and career pathways for veterans with four-year degrees.

NCSES also partnered with the *U.S. Census Bureau* to launch the Annual Business Survey, which combined four previously separate business surveys into a single platform: Survey of Business Owners, Annual Survey of Entrepreneurs, Micro-business Research and Development Survey, and a totally new Business Innovation Survey. This effort will produce timely estimates on minority-owned businesses, R&D, innovation, technology, and other characteristics.

Reducing respondent burden. The Decennial Census and the American Community Survey from the *U.S. Census Bureau* together provide the foundation for thousands of other surveys and studies across the Federal government and private industry. As non-survey data sources inform policies and business decisions, the demand for high quality and high granularity benchmark data will only increase. In addition to providing highly valuable benchmark studies, the *U.S. Census Bureau* partnered with the *National Center for Health Statistics* to redesign the National Health Interview Survey, which significantly reduced respondent burden while ensuring timely and salient health topics are covered.

Faster access to more information. A *U.S. Census Bureau* collaboration with the *Federal Reserve Bank of St. Louis* provides data users with access to *U.S. Census Bureau* economic indicator data at any time on any device. The *Statistics of Income* is finalizing a contract to join the *U.S. Census Bureau's* Federal Statistical Research Data Center (FSRDC) system and launch a pilot project using *Statistics Of Income* data, allowing researchers controlled access for statistical purposes.

Disparities in life expectancy by geography. Measuring mortality outcomes in small geographic areas is key to identifying health disparities within a population. In partnership with the *Robert Wood Johnson Foundation* and the *National Association of Public Health Statistics and Information Systems*, the *National Center for Health Statistics* produced estimates of life expectancy at birth for most of the census tracts in the United States for the period 2010-2015. These estimates show how life expectancy compares in different areas of the country and reveal differences in life expectancy at birth down to the census tract level. This information informs programs aimed at enabling people to live longer, healthier lives.

Highlights of 2020 Statistical Program Budget Proposals

The following highlights reflect the Administration's proposals for the programs of the PSAs, giving particular attention to new initiatives and to other program changes. More comprehensive budget and program information about the FSS, including its core programs, will be available in OMB's annual report, Statistical Programs of the United States Government, Fiscal Year 2020, when it is published later this year. Agencies with proposed budget increases include the Census Bureau and BEA. Agencies with proposed funding reductions include ERS, EIA, and NASS.

Bureau of the Census (Census Bureau), Department of Commerce: Funding is requested to provide continued support for ongoing Census Bureau programs and to: (1) conduct the major self-response and non-response operations of the 2020 Census, which includes internet, telephone and paper self-response options for nearly everybody, as well as field enumeration operations to count Americans living in special situations ; (2) deploy scaled and secured systems in support of peak operations for the 2020 Census; (3) release data to the Bureau of Economic Analysis for use in setting the baseline for Gross Domestic Products and other Principal Economic Indicators; (4) support further transformation of Census Bureau data dissemination through the Center for Enterprise Data Services and Consumer Information; (5) fund a research study conducted by the National Academics of Sciences, Engineering, and Medicine to evaluate and improve current U.S. poverty measurement methods and indicators; and (6) support research and increased partnership with third party data providers to accelerate data innovation and solve complex data challenges.

Bureau of Labor Statistics (BLS), Department of Labor: In FY 2020, BLS will continue to transform how it collects, analyzes, and delivers its data. BLS has met its core mandates in a constrained fiscal environment primarily through increasing use of technology and identifying efficiencies to improve data accuracy, lower respondent burden, and reach its customers better. For example, in FY 2020 the Office of Prices and Living Conditions will continue efforts to incorporate outlet data from the Consumer Expenditure Survey in sample selection for the Consumer Price Index. These data replace the Telephone Point of Purchase Survey, which is being eliminated as a stand-alone survey in order to improve survey efficiencies and reduce global respondent burden. BLS also will continue efforts to expand collection capabilities for additional data through the Electronic Data Interchange (EDI) Center. Furthermore, the Survey of Occupational Injuries and Illnesses will release data that incorporates a broader use of computer-assisted coding for some injuries and illnesses, and will deploy the neural network auto-coder for automatically assigning occupation, nature of injury, part of body, event that caused injury, and source of injury codes. In addition, in FY 2020, BLS requests funding for costs associated with a new lease for the national headquarters; the current lease expires in May 2022. BLS is working with the General Service Administration to address the lease expiration in an efficient manner in order to maintain critical production processes and assure the continued timely release of critical economic data.

Bureau of Economic Analysis (BEA), Department of Commerce: Bureau of Economic Analysis (BEA), Department of Commerce: Funding is requested to (1) support core programs, including the production of some of the Nation's most critical economic statistics—such as gross domestic product (GDP), (2) produce new measures of GDP for Puerto Rico consistent with BEA's methods for estimating GDP for the other four U.S. territories, and (3) participate in the development of a framework for a Federal Data Service, as outlined in the President's Management Agenda, that would improve external stakeholder data access and use, exploit new and nontraditional data sources, and foster the development of new data products.

Bureau of Justice Statistics (BJS), Department of Justice: Funding is requested to maintain BJS's core portfolio of statistical programs and analysis activities, expand the use of administrative records for statistical and research purposes, and support or enhance major program areas, including: (1) administer the Analysis of Publicly Available Court Data collection to assess how and what data courts make available, collect and report nationally representative data on felony sentences in state courts, and assess whether state courts can report more information on criminal cases; (2) use criminal history records to complete new national recidivism studies on prisoners released from state prisons, including the nature and frequency of contact with the justice system; (3) enhance BJS's National Crime Victimization Survey and its supplements through ongoing redesign efforts to improve the quality, accessibility, and relevance of victimization statistics; (4) enhance the use of state and local law enforcement data to produce detailed national estimates of the nature and incidence of reported crime by partnering with the FBI on the National Crime Statistics Exchange (NCS-X) Initiative; (5) continue redesign efforts to enhance BJS's Survey of Inmates in Local Jails and collaborate with the U.S. Census Bureau to administer the survey and produce more precise and timely national estimates of demographic and crime justice characteristics, mental and physical health conditions, and drug and alcohol use and abuse (in particular for prescription opioids) in the nation's jails; (6) facilitate the linkage of correction records obtained through BJS's National Corrections Reporting Program to other administrative data files, including housing, employment, income, and Medicaid and Medicare records, to research pre- and post-prison experiences of offenders in Federal and state correctional systems; and (7) explore new data acquisition and linkage opportunities with other Federal agencies to enable more detailed analyses in new areas for BJS's Federal Justice Statistics Program, for example on the role of immigration in the Federal criminal justice system.

Bureau of Transportation Statistics (BTS), Department of Transportation: Funding is requested to maintain and enhance its freight statistics programs, expand its statistics on transportation economics and finance, and explore the use of new data sources for more timely, granular statistics that reduce burden on respondents. For example, BTS is using location tracking data from the Coast Guard for ships to measure port performance.

Economic Research Service (ERS), Department of Agriculture: Funding is requested for ERS's core programs of research, data analysis, and market outlook. Proposals for ERS budget priorities include research that: (1) builds on unique or confidential data sources or investments at the Federal level; (2) provides coordination for a national perspective or framework; (3) requires sustained investment and large teams; (4) directly serves the U.S. Government's or USDA's long-term national goals; and (5) addresses questions with short-run payoff or that have immediate policy implications. ERS also seeks to cover the breadth of USDA programs (except forestry) and provide funding to ensure sustained expertise in the analysis of farming, commodity markets and trade, natural resources and the environment, rural communities, food safety, food markets, and nutrition. The USDA intends to relocate ERS out of the Washington DC area and move it organizationally under the Chief Economist in the Office of the Secretary during 2019.

Energy Information Administration (EIA), Department of Energy: Funding is requested to continue core statistical and analysis activities that produce reports critical to EIA's customer base, including: Weekly Natural Gas Storage Report, which is designated as one of the nation's Principal Federal Economic Indicators; Weekly Petroleum Status Report, which provides statistics on oil and petroleum product stocks, imports, and production; Short-Term Energy Outlook, which provides monthly forecasts of U.S. and global supply, consumption, trade, stocks, and prices with a horizon of 12 to 24 months; and the Annual Energy Outlook, which projects U.S. energy supply, consumption, and trade over a 25- to 30-year period.

National Agricultural Statistics Service (NASS), Department of Agriculture: Funding is requested to conduct the Census of Horticulture Specialties. This survey was last conducted for the 2015 growing season. NASS also plans to conduct the Organic Agriculture follow-on survey. In FY 2020 NASS plans to bring back the Mink survey, July Cattle survey and Rice Stocks.

National Center for Education Statistics (NCES), Department of Education: Funding is requested to provide support for NCES ongoing activities and to: (1) support the development of a new socio-economic status measure for individuals based on residential location; (2) support the continued development of digital based assessment for the National Assessment of Educational Progress (NAEP) and international assessments and to evaluate approaches to integrating NAEP information about students and National Teacher and Principal Survey information about teachers to both improve operational efficiency and available information linking teachers and students; (3) support for the continuation of the School Survey on Crime and Safety and the School Crime Supplement to the National Crime Victimization Survey, which are the primary sources of data on bullying in schools and school safety practices; (4) support to expand the scope and volume of NCES data products utilizing geospatial data collections and graphic presentations of data.

National Center for Health Statistics (NCHS), Department of Health and Human Services: Funding is requested to provide support for ongoing NCHS activities and to: (1) support innovative research in survey methods and new technologies for data collection and survey participation; (2) expand the collection of electronic health records in national health surveys of providers and facilities; (3) provide new opportunities for researchers to analyze changes in health status and health care utilization by continued linkages of survey data and administrative records; (4) implement the redesigned content and structure of the National Health Interview Survey; (5) test and implement modules to the National Health and Nutrition Examination Survey to address the growing need for information on infectious diseases and chronic health conditions; (6) enhance the quality and value of health data through improved access, visualization, and presentation tools; and (7) continue the development of high value data release efforts such as the Vital Statistics Rapid Release Program and the Provisional Drug Overdose Death Counts.

National Center for Science and Engineering Statistics (NCSES), National Science Foundation:

Funding is requested to maintain NCSES ongoing activities measuring research and development trends, the science and engineering workforce, U.S. competitiveness, and the condition and progress of STEM education. In addition, NCSES seeks to continue efforts to improve coverage, content, alternative data source usage, and data quality through: (1) incorporating a longitudinal design for the Survey of Doctorate Recipients; (2) identifying data sources to reliably measure the skilled technical workforce; (3) sustaining the measurement of research and development trends in microbusiness and the nonprofit sector; (4) assessing the possible fielding of a Federal laboratories survey; and (5) investigating non-traditional data source for estimation purposes.

Office of Research and Evaluation Statistics (ORES), Social Security Administration: Funding is requested to (1) conduct original research on Social Security programs and their beneficiaries, including publishing papers in the Social Security Bulletin; (2) continue providing policymakers and the public with objective, scientific, and methodologically sound information and analysis; (3) continue efforts to automate and modernize the production of statistical publications; (4) continue to leverage the expertise of researchers around the country through administering grants and contracts, such as the newly-awarded Retirement and Disability Research Consortium; (5) continue providing objective, secure data and statistics while protecting privacy through strict adherence to disclosure review policies.

Statistics of Income (SOI), Treasury Department: Funding is requested to provide support for ongoing SOI programs and to: (1) incorporate new tax law provisions enacted under the Tax Cuts and Jobs Act (TCJA) into its data correction and error resolution programs (2) develop timely, innovative web products for the public to provide prompt and illuminating insights into effects of various aspects of the TCJA; (3) seek new opportunities to integrate administrative data with SOI edited statistical data, part of an ongoing effort that has reduced cost, improved timeliness, and allowed for production of more detailed data on small geographic areas, while streamlining data processing and reducing or eliminating the need for some data items to be transcribed; (4) support innovative research with the potential to improve tax administration through a public call for proposals targeting experts within and outside Government; (5) integrate automated and modernized procedures into production of public corporate and partnership data releases that will also strengthen protection of taxpayer privacy; (6) work with other agencies to develop new data access models for expanding use of Federal statistical data for research and evidence-building purposes while strengthening protection of individual privacy; (7) assess existing data to identify opportunities to bring together data from multiple tax filing populations to provide more comprehensive and statistically useful information on broad economic sectors; (8) continue efforts to modernize SOI's public communications by developing new data visualizations, conducting social media outreach, continuing the redesign of the public Tax Stats web pages by implementing a comprehensive taxonomy to facilitate better search results for customers immediately and facilitate longer-run improvements; (9) continue efforts to address the impact of IRS' consolidation of its Submission Processing Centers, working to minimize the effects of the center closures on the quality and timeliness of SOI's statistical products; (10) explore automated approaches, such as optical character recognition and machine learning, to data editing to improve the availability and quality of IRS administrative data for statistical purposes.

Table 18–1. 2018–2020 BUDGET APPROPRIATIONS FOR PRINCIPLE STATISTICAL AGENCIES[1]
(In millions of dollars)

Agency	Actual	Estimate	
	2018	2019	2020
Bureau of Economic Analysis	$99.00	$100.99	$107.99
Bureau of Justice Statistics[2]	$98.51	$84.38	$95.82
Bureau of Labor Statistics[3]	$612.00	$615.00	$655.00
Bureau of Transportation Statistics	$26.0	$26.0	$26.0
Census Bureau	$2,830.10	$3,816.96	$6,165.85
Salaries and Expenses/Current Surveys and Programs[4]	$284.68	$269.13	$284.01
Periodic Censuses and Programs	$2,545.42	$3,547.83	$5,881.84
Economic Research Service	$86.49	$45.00	$61.00
Energy Information Administration	$125.00	$125.00	$118.00
National Agricultural Statistics Service[5]	$191.72	$191.72	$163.00
National Center for Education Statistics[6]	$296.20	$303.20	$303.20
Statistics	$109.50	$109.50	$109.50
Assessment	$149.00	$151.00	$151.00
National Assessment Governing Board	$7.70	$7.70	$7.70
National Center for Health Statistics	$159.86	$160.40	$155.00
National Center for Science and Engineering Statistics, NSF[7]	$62.43	$60.17	$57.7
Office of Research, Evaluation, and Statistics, SSA	$27.00	$30.00	$32.00
Statistics of Income Division, IRS	$33.67	$35.22	$34.7

[1] Reflects any rescissions and sequestration.
[2] Includes directly appropriated funds as well as funds transferred to BJS for research and statistical services; management and administrative (M&A) costs; and assessments for rescissions.
[3] Includes $40 for costs associated with the BLS headquarters physical move, including replication of space, furniture, fixtures, and equipment, as well as relocation of the BLS data center to a shared facillity.
[4] Current Surveys and Programs funds include discretionary and mandatory funds.
[5] Includes funds for the periodic Census of Agriculture of $63.4, $63.4, and $45 million in 2018, 2019, and 2020, respectively.
[6] Includes funds for salaries and expenses of $18, $18, and $18 million in 2018, 2019, and 2020, respectively, that are displayed in the Budget Appendix under the Institute of Education Sciences (IES). In addition, NCES manages the IES grant program for the State Longitudinal Data System which is funded at $5 million, $6 million, and $6 million in 2018, 2019, and 2020, respectively, and the EDFacts Initiative which is funded at $12 million, $11 million, and $11 million in 2018, 2019, and 2020 respectively.
[7] Includes funds for salaries and expenses of $9.0, $9.0, and $9.1 million in 2018, 2019, and 2020, respectively.

19. INFORMATION TECHNOLOGY

Federal Information Technology (IT) provides Americans with important services and information and is the backbone of how Government serves the public in the digital age. The President proposes spending nearly $88 billion on IT at agencies[1], which will be used to deliver critical citizen services, keep sensitive data and systems secure, and to further the vision for modern Government. This budget also supports the Modernize IT to Increase Productivity and Security (IT Modernization) Cross Agency Priority (CAP) Goal of the President's Management Agenda (PMA)[2], Federal laws that enable agency technology planning, oversight, funding, and accountability practices, and OMB guidance to agencies on the strategic use of IT to enable mission outcomes. It also supports the modernization of antiquated and often unsecured legacy systems; agency 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. These investments will, in alignment with the PMA, 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. This analysis excludes information on classified IT investments by the Department of Defense.

Federal Spending on IT

As shown in Table 19-1, the Federal Government Budget for IT at agencies is estimated to be $88 billion in FY 2020. This figure is an increase from the value reported for FY 2019. Table 19-2 displays IT spending for civilian agencies. The Department of Homeland Security (DHS) is the largest civilian agency in IT spending, while the bottom five agencies represent 1.3 percent of Federal civilian IT spending. Chart 19-1 shows trending information for Federal civilian IT spending through FY 2011.[3]

Table 19–1. OVERVIEW OF FEDERAL IT SPENDING
(In millions of dollars)

	FY 2018	FY 2019	FY 2020
Civilian Agencies	48,747	50,048	51,041
Department of Defense	36,285	37,924	36,749
Total	**85,031**	**87,972**	**87,790**

This analysis excludes Department of Defense classified spending.

[1] The scope of the analysis in this chapter refers to agencies represented on the IT Dashboard, located at https://www.itdashboard.gov/.

[2] See https://www.perfomance.gov/.

[3] Note that as of the FY 2020 CPIC guidance, IT related grants made to state and local governments are no longer included in agency IT investment submissions.

Table 19–2. ESTIMATED FY 2020 CIVILIAN FEDERAL IT SPENDING AND PERCENTAGE BY AGENCY
(In millions of dollars)

Agency	FY 2020	Percent of Total
Department of Homeland Security	$7,108	13.9%
Department of Veterans Affairs	$6,118	12.0%
Department of Health and Human Services	$5,646	11.1%
Department of the Treasury	$5,000	9.8%
Department of Commerce	$3,861	7.6%
Department of Justice	$2,995	5.9%
Department of Transportation	$3,699	7.2%
Department of Energy	$2,424	4.7%
Department of Agriculture	$2,217	4.3%
Department of State	$2,272	4.5%
National Aeronautics and Space Administration	$2,157	4.2%
Social Security Administration	$1,969	3.9%
Department of the Interior	$1,283	2.5%
Department of Education	$778	1.5%
Department of Labor	$756	1.5%
General Services Administration	$648	1.3%
U.S. Army Corps of Engineers	$555	1.1%
Department of Housing and Urban Development	$383	0.7%
Environmental Protection Agency	$343	0.7%
U.S. Agency for International Development	$168	0.3%
Office of Personnel Management	$174	0.3%
Nuclear Regulatory Commission	$163	0.3%
National Science Foundation	$132	0.3%
National Archives and Records Administration	$98	0.2%
Small Business Administration	$92	0.2%
Total	**$51,041**	**100.0%**

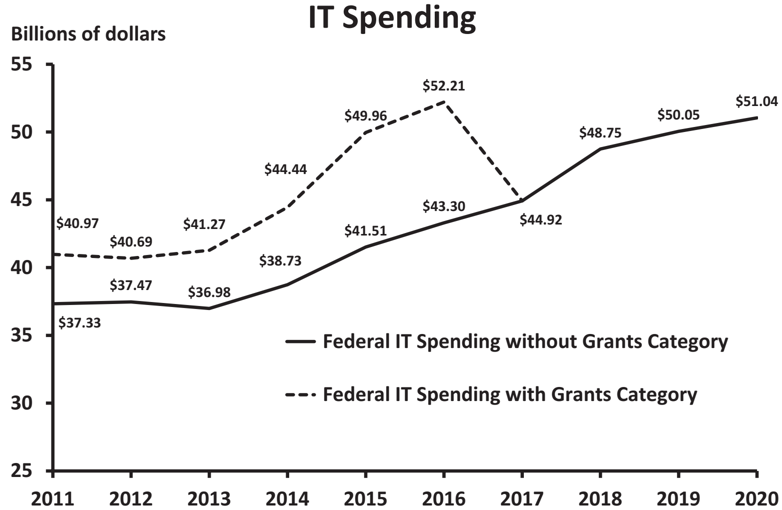
This analysis excludes the Department of Defense

IT Investments Overview

The FY 2020 budget includes funding for 7,653 IT investments at agencies. These investments support three main functions: mission delivery; IT infrastructure, IT security, and IT management; and administrative services, and mission support (see Chart 19-2). As Chart 19-3 shows, IT investments can vary widely in size and scope. As a result, the largest 100 investments at civilian agencies account for 44 percent of Federal IT spending.

Of those 7,653 IT investments, 584 are major IT investments. As outlined in A-11 and FY 2020 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 by CPIC

Chart 19-1. Trends in Federal Civilian IT Spending



Part 06—Grants to State and Local IT Investments" were excluded from 2011 – 2015 figures. Investments labeled "Part 04 - Grants and Other Transferred Funding" were excluded in 2016 figures. The 2017 – 2020 estimates did not include these types of investments.
This analysis excludes the Department of Defense

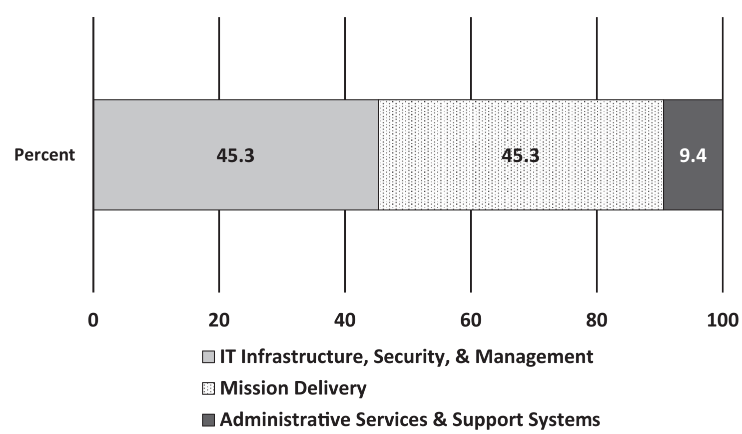
Guidance to submit Business Cases, which provide additional transparency regarding the cost, schedule, risk, and performance data related to its spending.

OMB requires that agency 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. The Agency CIO rates each investment based on his or her best judgment, using a set of pre-established criteria. As a rule, the evaluation should reflect the CIO's assessment of the investment's ability to accomplish its goals. Chart 19-4 summarizes the CIO risk ratings for all major civilian IT investments Government-wide. The IT Dashboard shows slight decreases in the general health of IT investments across Government, as denoted by the decreased proportion of CIO-rated "Green" ("Low Risk" to "Moderately Low Risk") investments. "Green" investments comprised 41 percent of all rated investments in 2019 compared to 58 percent in 2018 (assessments based on total life cycle of investments).

IT Modernization

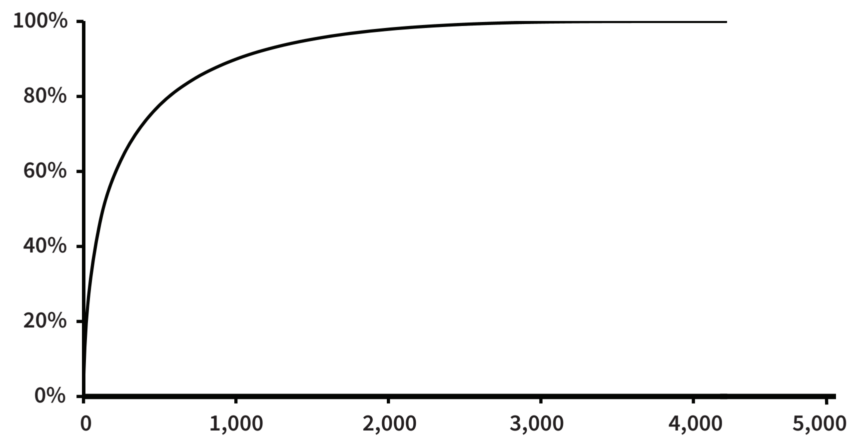
Due to the complexity of the IT landscape, agencies are often inefficient in acquiring, developing, and managing Federal IT investments. This is largely due to both legacy and homegrown, non-standards based systems designed to perform only one function rather than leveraging new commercial off the shelf technologies that allow efficient use of resources. These systems are costly for the federal Government to maintain and secure.

Chart 19-2. 2020 Federal Civilian IT Investment Portfolio Summary



This analysis excludes the Department of Defense

Chart 19-3. Percentage of 2020 Federal Civilian IT Spending by Number of Investments



This analysis excludes the Department of Defense

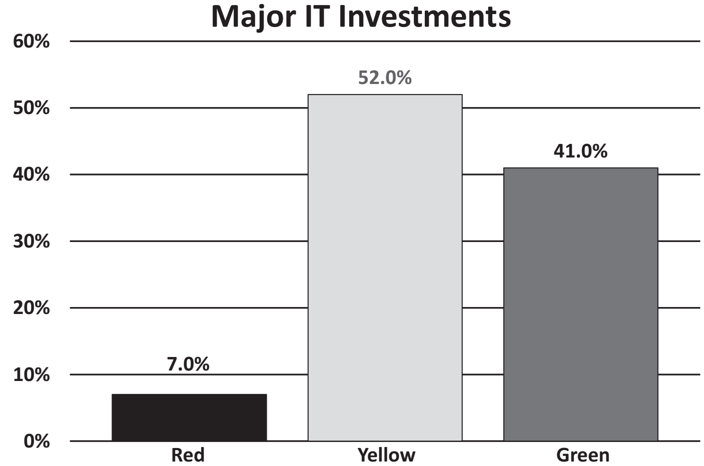
The *Report to the President on IT Modernization*[4] outlined 52 tasks, all of which were completed by December 2018. The outcomes from these activities informed the priorities and next steps included in the IT Modernization CAP Goal, which features a three pronged approach that focuses on enhancing federal IT and digital services, reducing cybersecurity risks to the federal mission, and by building a modern IT and cybersecurity workforce. Federal agencies are increasing efforts to modernize their IT in a way that 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. Though a substantial amount of work is still required, below are several specific detailed efforts of the Administration's IT modernization strategy.

OMB continues to support the adoption and evolution of the Federal IT Acquisition Reform Act (FITARA)[5] to provide agency CIOs with the authority, accountability, and support to deliver IT services across their agency enterprise. OMB continues to work with the Congress and the Government Accountability Office to improve the FITARA Scorecard to ensure consistent, effective metrics-based evaluation of agency progress and outcomes. Through the Chief Information Officers Council (CIO Council), OMB and agency CIOs will direct discreet projects, coordination efforts, and problem solving to unleash the effectiveness of CIOs.

[4] See *https://itmodernization.cio.gov/*.

[5] National Defense Authorization Act for Fiscal Year 2015, Title VIII, Subtitle D, H.R. 3979.

Chart 19-4. CIO Risk Ratings for Federal Civilian Major IT Investments



Technology Modernization Fund

The Technology Modernization Fund (TMF) is an innovative funding vehicle that gives agencies additional ways to deliver services to the American public more quickly, better secure sensitive systems and data, and use taxpayer dollars more efficiently.[6] The mission of the TMF is to enable agencies to reimagine and transform 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 to and compete for TMF funds. Effective evaluation, selection, and monitoring of approved projects by the TMF Board will provide strong incentives for agencies to develop comprehensive, high quality modernization plans. Funds will be distributed in an incremental manner, tied to milestones and objectives. Agencies that receive funds from the TMF will work with the General Services Administration (GSA) and the Office of Management and Budget (OMB) to ensure that projects make maximum use of commercial products and services in their planning and execution and have a high likelihood of success.

To date, the TMF has received nearly 50 proposals totaling over $500 million in requested funding. Of the $100 million appropriated to the TMF in its first year of operation, the Board has funded seven projects totaling almost $90 million, and continues to review additional projects in the pipeline. TMF funds will be repaid over a period not to exceed five years, aided through cost savings and avoidance, subject to a written agreement and the availability of out-year agency appropriations. In addition, incremental funds transfers will be tied to successful delivery of products. Successful projects will operate as proofs of concept and will provide valuable insights to the Board, which may recommend prioritizing the selection of more comprehensive modernization projects that can serve the interests of the Executive Branch as a whole. This Budget requests additional TMF funding to meet the demand generated by agencies and to invest strategically in modernizing agency systems through commercial solutions and improving the adoption and delivery of shared services.

Cloud Adoption

Keeping up with the fast paced innovation is critical to staying in front of the needs of Americans. Agency adaption of cloud solutions is essential to keep up with technology, but too few Federal agencies are able to move their services quickly to take advantage of the cloud. In 2018, the Administration released a draft version of its Cloud Smart document for public comment, which focuses on equipping agencies with the tools needed to make informed technology decisions in accordance with their mission needs, and leverages private sector solutions to provide the best services to the American people. As part of this strategy, OMB has also posted a draft memorandum for public comment which establishes a new Data Center Optimization Initiative (DCOI), focusing on achievable closure of data centers, areas for cost savings, and the reduction of agency reporting burden. The PMA also includes a focus on the adoption of cloud email services which are more secure and efficient than legacy on-premise solutions, setting a target of 95 percent of civilian email inboxes being hosted by cloud email services. The Federal Government has made significant improvements in this effort, where as of November 2018, 66 percent of email inboxes at Federal civilian CFO Act agencies are now hosted on cloud services, a 23 percent improvement from December 2017 (46 percent).

The Administration is also making significant efforts to reduce technical and process barriers to adopting cloud. In FY 2018, DHS and OMB conducted multiple pilots using commercial, off-the-shelf cloud technology to test alternative architectures that provide the cybersecurity controls required by the Trusted Internet Connection (TIC) program. OMB has released a draft version of the TIC policy update for public comment, which will enable agencies to utilize these alternative architectures and revolutionize the way agencies access the internet securely by removing barriers to cloud adoption. OMB and GSA are evaluating the best mechanisms for normalizing Federal security requirements for the Authority to Operate (ATO) process run by the Federal Risk and Authorization Management Program (FedRAMP), so that approval of cloud providers can be more readily reused. This evolution aims to make the program a more rapid, efficient, and effective in order to securely deploy commercial cloud technology.

Improving the IT & Cybersecurity Workforce

Maintaining and securing Federal IT requires a large, well-educated IT workforce. However, current Federal hiring practices are not in line with the needs to acquire the best talent industry has to offer. The Government needs more nimble and effective approaches to keep technologies and workforce skills current and to ensure that the Federal workforce can meet future needs. The FY 2020 President's Budget outlines a vision for change that would streamline the hiring and dismissal processes, modernize human resources technology, better utilize data to inform workforce management, rebalance labor-management relations, align Federal workforce management authorities with private sector best practices, and reduce unnecessary red tape to bring the Federal workforce into the 21st Century.

In addition to efforts to revamp hiring processes, OMB also looks to leverage the dedicated workforce already employed within Federal agencies. OMB along with the Department of Education, and the CIO Council announced the launch of the Federal Cybersecurity Reskilling Academy (FCRA) pilot program, an exciting new opportunity for federal employees to advance their careers and develop new skills in the fast growing field of cybersecurity.[7] This Academy is designed to give federal employees, who have no prior experience working in IT, hands-on training to become qualified Cyber Defense Analysts. The Academy received over 1,500 applicants for its initial pilot class of 25. OMB also continues to look for new and innovative ways to leverage top talent in the

[6] See *https://tmf.cio.gov/*.

[7] See *https://www.cio.gov/reskilling*.

private sector. Strategies include incentivizing cybersecurity talent to rotate into government to work on high priority IT and cybersecurity initiatives, encouraging improved disclosure and information sharing from security researchers, and developing more inclusive fora to bring best practices and new solutions to Federal technology and cybersecurity leaders.

This year, in celebration of Women's History Month, the Federal Government hosted a Women in Federal Information Technology and Cybersecurity event, bringing together the nation's top Federal information technology executives to celebrate the successes of women in Federal IT and to discuss strategies that engage, inspire, and motivate more women to pursue a career in IT.

Reduce Cybersecurity Risks to the Federal Mission

Strengthening the cybersecurity of Federal networks, systems, and data is one of the most important challenges we face as a nation. Risk management assessments carried out under the President's Executive Order 13800[8], *Strengthening the Cybersecurity of Federal Networks and Critical Infrastructure*, demonstrated that the majority of Federal agencies could not appropriately manage their cybersecurity risk. These assessments found enterprise-wide gaps in network visibility, IT tool standardization, and common operating procedures, all of which negatively affect Federal cybersecurity and put our nation at risk. Bold approaches are needed to improve Federal-wide governance processes and implement cybersecurity capabilities "commensurate with risk and magnitude of the harm"[9] that a compromise of Federal information systems and information would entail. As part of the larger effort to utilize modern solutions to drive more effective and efficient IT, the Federal Government will move to better utilize threat information in its decision-making processes, implement improved baseline security capabilities, and enhance accountability for the management of information security risks.

To protect privacy, prevent fraud, and mitigate high impact data breaches of Personally Identifiable Information (PII), the Federal Government is working to implement modern digital identity management processes, technologies, and remediation techniques. In FY 2018, OMB collected input on a draft Federal identity policy, receiving feedback from over 500 individuals and organizations and is currently incorporating the public's feedback.

The Continuous Diagnostics and Mitigation (CDM) Program is a dynamic approach to fortifying the cybersecurity of Government networks and systems. The CDM Program provides DHS, along with Federal Agencies, with capabilities and tools to identify cybersecurity risks on an ongoing basis, prioritize these risks based on potential impacts, and enable cybersecurity personnel to mitigate the most significant problems first. Congress established the CDM program to provide adequate, risk-based, and cost-effective cybersecurity and more efficiently allocate cybersecurity resources. This year, OMB issued M-19-02, which empowers agencies to use existing tools and capabilities acquired outside of CDM acquisition vehicles, provided the agency meets all CDM reporting requirements to the Federal Dashboard.

For more information on the Cybersecurity funding of Federal agencies, please see Chapter 24.

United States Digital Service

Americans expect and deserve their interactions with the Federal Government to be simple, fast, and helpful. The United States Digital Service (USDS) is among those leading the charge to enhance the Federal Government's most critical public-facing digital services through design and technology expertise. USDS recruits some of the country's top technical talent and partners directly with Federal agencies to ensure that critical services reach the public. USDS projects not only provide the public with better digital services, but also help streamline agency processes and save taxpayer dollars, leading to cost savings and a more efficient Federal workforce. Because of that, congressional investments in USDS have led to both better outcomes for the public and significant budget savings for agencies.

To successfully modernize technical systems, USDS developed an entirely new approach through the Digital Services Playbook.[10] In the past, the government has developed products without paying adequate attention to how the American people interact with those products. USDSworks with the people digitally interacting with the Federal Government e—such as farmers, service members, or doctors—to ensure that its tools and processes are meeting their needs. For instance, USDS partnered with the Department of Veterans Affairs (VA) to develop the new VA.gov, which digitizes the top 80% of tools veterans need and places it in one easy to access and understand location. USDS has dozens of similar projects underway across the Federal Government that not only help update and modernize legacy systems, but also change the culture of how the government delivers technical products.

USDS is also introducing modern best practices that can be replicated across the government. For instance, USDS is aggressively helping the VA and Centers for Medicare and Medicaid Services (CMS) migrate to the cloud. In addition, both of these agencies are at the forefront of leveraging industry standard technology known as application programming interfaces (APIs) that allow software to interact with other software. Through the Blue Button 2.0 initiative, CMS developed APIs that make it easy for Medicare recipients to manage their own health information and share it with doctors, caregivers, and others.

[8] *https://www.whitehouse.gov/presidential-actions/presidential-executive-order-strengthening-cybersecurity-federal-networks-critical-infrastructure/*.

[9] FISMA requires agencies to implement information security protections commensurate with the risk and magnitude of the harm resulting from the unauthorized access, use, disclosure, disruption, modification, or destruction of "information collected or maintained by or on behalf of [an] agency" and "information systems used or operated by an agency or by a contractor of an agency or other organization on behalf of an agency". 44 U.S.C. § 3554.

[10] See *https://playbook.cio.gov/*.

Importantly, USDS is helping drive the adoption and implementation of information security best practices. In a combined project with GSA, USDS launched Login.gov, which makes managing Federal benefits, services, and applications easier and more secure through the use of modern identity management solutions such as two-factor authentication. Since its launch, Login.gov has scaled to over 12 million users and it continues to grow rapidly as additional government agencies adopt it. Likewise, the USDS team at the Department of Defense (DOD) has successfully scaled the use of bug bounty and vulnerability disclosure programs that are commonplace at nearly all major technology companies. Bug bounty programs leverage private security researchers to identify and exploit system vulnerabilities in an approved environment, paying a bounty for each vulnerability identified. Bug bounties yield more prolific results than traditional approaches at a better price point, delivering both value and improved security. The DOD also pioneered a Vulnerability Disclosure Policy (VDP) that allows a pathway for anyone to report a security vulnerability to the department. At the time of this accountingt, more than 5,000 vulnerabilities have been discovered and reported. Other agencies including the Departments of Homeland Security, State, and CMS are pursuing their own VDPs and bug bounty programs, leveraging the knowledge and expertise that USDS pioneered within government.

In addition to enhancing technology solutions and integrating private sector best practices, USDS has also worked to improve Federal IT procurement practices. Traditional procurement practices often do not provide the flexibility required to buy and deliver modern digital services. Meanwhile, the pace of technological change continues to accelerate while citizen demand for Federal digital services increases. To meet this demand, the Office of Federal Procurement Policy (OFPP) and USDS developed the Digital IT Acquisition Professional Program (DITAP) training program to enhance digital service acquisition expertise across government agencies. Graduates of the training receive the Federal Acquisition Certification in Contracting Core-Plus Specialization in Digital Services (FAC-C-DS). By July 2019, 194 people will have graduated from the program. OFPP and USDS are working with Federal training institutions and training companies to scale this program to the rest of the government.

20. FEDERAL INVESTMENT

Federal investment is the portion of Federal spending intended to yield long-term benefits for the economy and the country. 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 and local 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 still increase income in the future or provide other long-term benefits.

[1] For more information on Federal grants to State and local governments see Chapter 17, "Aid to State and Local Governments," in this volume.

Most presentations in this volume combine investment spending with spending intended for current use. This chapter focuses solely on Federal and federally financed investment. It provides a comprehensive picture of Federal spending for physical capital, research and development, and education and training. The analysis in this chapter disregards spending for non-investment activities, and therefore, provides only a partial picture of Federal support for specific national needs, such as defense, which also include current use spending.

Total Federal investment spending was $487 billion in 2018. It is expected increase by 20 percent in 2019 to $582 billion. The Budget proposes a 1 percent increase over 2019 for a total of $589 billion in 2020.

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 health care 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, 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.

[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 21, "Research and Development," in this volume.

The budget further classifies investments as either grants to State and local governments (e.g. for highways or education), or "direct Federal programs." This "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 current purposes. This analysis classifies outlays based on the category in which the recipient jurisdictions are 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 20–1. The categories include major public physical investment, the conduct of research and

Table 20–1. COMPOSITION OF FEDERAL INVESTMENT OUTLAYS
(In billions of dollars)

Federal Investment	Actual	Estimate	
	2018	2019	2020
Major public physical capital investment:			
Direct Federal:			
National defense	146.0	161.3	183.4
Nondefense	34.6	45.9	46.3
Subtotal, direct major public physical capital investment	180.6	207.2	229.7
Grants to State and local governments	79.9	84.2	93.6
Subtotal, major public physical capital investment	260.5	291.4	323.3
Conduct of research and development:			
National defense	49.1	60.3	64.3
Nondefense	65.2	69.6	70.3
Subtotal, conduct of research and development	114.3	129.9	134.6
Conduct of education and training:			
Grants to State and local governments	56.1	62.8	59.7
Direct Federal	54.5	95.8	69.0
Subtotal, conduct of education and training	110.6	158.6	128.7
Total, major Federal investment outlays	**485.4**	**579.9**	**586.7**
MEMORANDUM			
Major Federal investment outlays:			
National defense	195.1	221.5	247.7
Nondefense	290.3	358.4	339.0
Total, major Federal investment outlays	485.4	579.9	586.7
Miscellaneous physical investment:			
Commodity inventories	–1.2	–1.1	–0.9
Other physical investment (direct)	2.8	3.2	3.0
Total, miscellaneous physical investment	1.5	2.1	2.0
Total, Federal investment outlays, including miscellaneous physical investment	487.0	582.0	588.7

development, and the conduct of education and training. Total major Federal investment outlays were $485 billion in 2018. They are estimated to increase 19 percent to $580 billion in 2019, and increase by 1 percent to $587 billion in 2020. For 2018 through 2020, defense investment outlays comprise about 40 percent of total major federal investment while nondefense investment comprises around 60 percent. In 2019, defense investment outlays are expected to increase by $26 billion, 14 percent, while nondefense investment outlays are expected to increase by $68 billion, 23 percent. In 2020, the Budget requests a defense investment increase of another $26 billion, or 12 percent, over 2019 and a decrease in nondefense investment of $19 billion, or 6 percent. The major factors contributing to these changes are described below.

Major Federal investment outlays will comprise an estimated 12 percent of total Federal outlays in 2020 and 2.6 percent of the Nation's gross domestic product. Budget authority and outlays for major Federal investment by subcategory may be found in Table 20–2 at the end of this chapter.

Physical investment. Outlays for major public physical capital (hereafter referred to as "physical investment outlays") were $260 billion in 2018 and are estimated to increase by 12 percent to $291 billion in 2019. In 2020, outlays for physical investment are estimated to increase by 11 percent to $323 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 two-thirds 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 national defense. Defense outlays for physical investment are estimated to be $183 billion in 2020, $22 billion higher than in 2019 due to increases for the procurement of weapons and other defense equipment.

Outlays for direct physical investment for nondefense purposes are estimated to be $46 billion in 2020, an increase of less than 1 percent over 2019. Outlays for 2020 include $26 billion for construction and renovation, about the same as 2019. This amount includes funds for construction and renovation of veterans' hospitals and Indian Health Service hospitals and clinics; water, power, and natural resources projects of the Corps of Engineers, and the Bureau of Reclamation within the Department of the Interior; energy projects of the Power Marketing Administrations within the Department of Energy, and the Tennessee Valley Authority; construction of office buildings by the General Services Administration; construction for the administration of justice programs (largely in Customs and Border Protection within the Department of Homeland Security); construction for embassy security; facilities for space and science programs of the National Aeronautics and Space Administration, Department of Energy, and National Science Foundation; and Postal Service facilities.

Outlays for grants to State and local governments for physical investment are estimated to be $94 billion in 2020, a 11 percent increase over the 2019 estimate of $84 billion. Grants for physical investment fund transportation programs, sewage treatment plants, community and regional development, public housing, and other State and tribal assistance. The increase in 2020 is mostly accounted for by the $5 billion in spending proposed by the Infrastructure Initiative.

Conduct of research and development. Outlays for the conduct of research and development were $114 billion in 2018. Outlays are estimated to increase by 14 percent to $130 billion in 2019, and increase by another 4 percent in 2020 to $135 billion. Nearly half of research and development outlays are for national defense, a trend which has remained consistent over the past decade. Much of this year's increase is due to a $3 billion increase in research and development within military programs accompanied by smaller increases in defense-related research and development at the Department of Energy and Department of Homeland Security. 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 $70 billion in 2020, less than $1 billion higher than 2019. Most investments in this area are funded through programs in the National Institutes of Health, the National Aeronautics and Space Administration, the Department of Energy, and the National Science Foundation.

A discussion of research and development funding can be found in Chapter 21, "Research and Development," in this volume.

Conduct of education and training. Outlays for the conduct of education and training were $111 billion in 2018. Outlays are estimated to increase by 43 percent to $159 billion in 2019, and decrease by 19 percent in 2020 to $129 billion. Grants to State and local governments for this category are estimated to be $60 billion in 2020, 46 percent of the total. They include education programs for the disadvantaged and individuals with disabilities, early care and education programs, training programs in the Department of Labor, and other education programs. Direct Federal education and training outlays in 2020 are estimated to be $69 billion, which is a decrease of $27 billion, or 28 percent, from 2019 primarily due to a one-time upward reestimate in 2019 in the Federal Direct Student Loan program. 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 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.

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 20–1. These items, all for physical investment, are generally unrelated to improving Government operations or enhancing economic activity.

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 $1.0 billion in 2020.

Outlays for other miscellaneous physical investment are estimated to be $3 billion in 2020. This category consists entirely of direct Federal outlays and includes primarily conservation programs.

Detailed Table on Investment Spending

Table 20-2 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 because it is generally unrelated to improving Government operations or enhancing economic activity.

Table 20–2. FEDERAL INVESTMENT BUDGET AUTHORITY AND OUTLAYS: GRANT AND DIRECT FEDERAL PROGRAMS
(In millions of dollars)

Description	Budget Authority			Outlays		
	2018 Actual	2019 Estimate	2020 Estimate	2018 Actual	2019 Estimate	2020 Estimate
GRANTS TO STATE AND LOCAL GOVERNMENTS						
Major public physical investment:						
Construction and rehabilitation:						
Transportation:						
Highways	47,094	46,635	37,696	44,449	44,977	46,354
Mass transportation	14,121	13,800	13,077	12,608	13,342	14,097
Rail transportation	2,766	2,765	1,203	2,110	2,070	1,241
Air and other transportation	6,665	6,660	5,190	4,485	5,551	4,987
Subtotal, transportation	70,646	69,860	57,166	63,652	65,940	66,679
Other construction and rehabilitation:						
Pollution control and abatement	3,402	3,400	2,265	3,147	2,532	2,745
Community and regional development	33,760	6,716	932	6,835	8,190	11,458
Housing assistance	4,979	4,988	600	3,556	4,154	4,146
Other	1,863	1,670	190,711	826	1,126	6,067
Subtotal, other construction and rehabilitation	44,004	16,774	194,508	14,364	16,002	24,416
Subtotal, construction and rehabilitation	114,650	86,634	251,674	78,016	81,942	91,095
Other physical assets	2,915	2,963	2,086	1,857	2,279	2,532
Subtotal, major public physical investment	**117,565**	**89,597**	**253,760**	**79,873**	**84,221**	**93,627**
Conduct of research and development:						
Agriculture	335	335	326	341	341	364
Other	185	185	183	82	82	77
Subtotal, conduct of research and development	**520**	**520**	**509**	**423**	**423**	**441**
Conduct of education and training:						
Elementary, secondary, and vocational education	42,327	40,332	35,676	37,506	43,072	40,718
Higher education	564	400	....	355	477	278
Research and general education aids	764	763	30	743	829	267
Training and employment	3,406	3,191	3,165	3,050	3,096	3,041
Social services	14,139	13,817	13,038	11,994	12,671	12,975
Agriculture	418	418	402	413	515	443
Other	1,871	1,592	1,820	2,073	2,131	2,003
Subtotal, conduct of education and training	**63,489**	**60,513**	**54,131**	**56,134**	**62,791**	**59,725**
Subtotal, grants for investment	**181,574**	**150,630**	**308,400**	**136,430**	**147,435**	**153,793**
DIRECT FEDERAL PROGRAMS						
Major public physical investment:						
Construction and rehabilitation:						
National defense:						
Military construction and family housing	10,256	9,697	19,587	6,350	7,237	8,401
Atomic energy defense activities and other	1,411	1,864	2,033	754	1,534	1,721
Subtotal, national defense	11,667	11,561	21,620	7,104	8,771	10,122
Nondefense:						
International affairs	1,885	1,664	1,000	886	1,185	1,293
General science, space, and technology	2,006	2,018	1,740	1,336	1,980	1,902
Water resources projects	19,387	4,066	2,378	1,892	4,904	5,922
Other natural resources and environment	2,090	1,664	1,407	1,249	1,456	1,670
Energy	2,320	3,228	–2,891	2,123	2,623	2,223
Postal service	662	868	899	567	618	797
Transportation	200	96	72	183	109	116
Veterans hospitals and other health facilities	4,389	6,260	4,096	3,688	4,246	4,628
Administration of justice	3,186	3,066	5,479	1,064	2,977	2,640
GSA real property activities	1,539	1,358	12,312	1,278	1,602	2,293
Other construction	5,283	4,221	1,474	4,002	3,993	2,373
Subtotal, nondefense	42,947	28,509	27,966	18,268	25,693	25,857

Table 20–2. FEDERAL INVESTMENT BUDGET AUTHORITY AND OUTLAYS: GRANT AND DIRECT FEDERAL PROGRAMS—Continued

(In millions of dollars)

Description	Budget Authority			Outlays		
	2018 Actual	2019 Estimate	2020 Estimate	2018 Actual	2019 Estimate	2020 Estimate
Subtotal, construction and rehabilitation	54,614	40,070	49,586	25,372	34,464	35,979
Acquisition of major equipment:						
National defense:						
Department of Defense	176,984	181,016	178,407	138,477	152,101	172,864
Atomic energy defense activities	745	639	682	434	429	465
Subtotal, national defense	177,729	181,655	179,089	138,911	152,530	173,329
Nondefense:						
General science and basic research	505	585	368	467	503	422
Postal service	910	981	5,403	841	1,041	1,792
Air transportation	4,102	3,977	3,977	3,306	4,438	4,434
Water transportation (Coast Guard)	3,257	2,528	1,215	1,346	2,104	2,252
Other transportation (railroads)	19	2	2	2	2	2
Hospital and medical care for veterans	2,757	3,304	2,382	1,771	2,692	2,455
Federal law enforcement activities	1,233	1,194	1,453	1,317	1,428	1,362
Department of the Treasury (fiscal operations)	241	386	510	294	418	500
National Oceanic and Atmospheric Administration	2,031	2,093	1,348	1,518	2,190	2,110
Other	5,045	4,623	5,007	5,289	5,011	4,840
Subtotal, nondefense	20,100	19,673	21,665	16,151	19,827	20,169
Subtotal, acquisition of major equipment	197,829	201,328	200,754	155,062	172,357	193,498
Purchase or sale of land and structures:						
National defense	–34	–37	–35	–39	–33	–29
Natural resources and environment	283	288	81	242	258	221
Other	155	159	159	–14	170	28
Subtotal, purchase or sale of land and structures	404	410	205	189	395	220
Subtotal, major public physical investment	**252,847**	**241,808**	**250,545**	**180,623**	**207,216**	**229,697**
Conduct of research and development:						
National defense:						
Defense military	52,335	55,810	59,463	44,185	53,976	57,303
Atomic energy and other	6,729	6,408	7,218	4,959	6,290	6,995
Subtotal, national defense	59,064	62,218	66,681	49,144	60,266	64,298
Nondefense:						
International affairs	238	231	78	238	231	231
General science, space, and technology:						
NASA	11,060	10,016	10,618	10,121	9,889	10,772
National Science Foundation	5,824	5,812	5,255	5,207	5,298	5,274
Department of Energy	4,843	4,979	4,472	4,350	4,838	4,768
Subtotal, general science, space, and technology	21,727	20,807	20,345	19,678	20,025	20,814
Energy	4,079	4,294	1,451	3,008	3,612	3,057
Transportation:						
Department of Transportation	845	952	878	780	903	930
NASA	560	565	575	507	558	581
Other transportation	49	49	26	22	46	30
Subtotal, transportation	1,454	1,566	1,479	1,309	1,507	1,541
Health:						
National Institutes of Health	35,276	37,020	32,585	31,667	34,430	35,588
Other health	1,892	1,887	832	1,554	1,412	964
Subtotal, health	37,168	38,907	33,417	33,221	35,842	36,552
Agriculture	1,739	1,800	1,738	1,578	1,823	2,033
Natural resources and environment	2,275	2,311	1,721	2,311	2,504	2,134
National Institute of Standards and Technology	630	629	525	645	679	602
Hospital and medical care for veterans	1,286	1,342	1,325	1,191	1,283	1,293
All other research and development	1,708	1,764	1,446	1,593	1,676	1,640
Subtotal, nondefense	72,304	73,651	63,525	64,772	69,182	69,897
Subtotal, conduct of research and development	**131,368**	**135,869**	**130,206**	**113,916**	**129,448**	**134,195**

Table 20–2. FEDERAL INVESTMENT BUDGET AUTHORITY AND OUTLAYS: GRANT AND DIRECT FEDERAL PROGRAMS—Continued

(In millions of dollars)

Description	Budget Authority			Outlays		
	2018 Actual	2019 Estimate	2020 Estimate	2018 Actual	2019 Estimate	2020 Estimate
Conduct of education and training:						
Elementary, secondary, and vocational education	1,480	1,392	1,194	1,200	1,431	1,086
Higher education	34,959	73,485	42,862	32,083	70,997	44,849
Research and general education aids	2,316	2,323	2,183	2,250	2,233	2,211
Training and employment	2,496	2,553	1,894	2,116	2,636	2,343
Health	2,007	2,048	1,198	1,841	1,832	1,686
Veterans education, training, and rehabilitation	13,980	10,096	14,322	12,703	14,154	14,478
General science and basic research	883	861	779	762	846	843
National defense	....	....	....	1	....	....
International affairs	664	658	322	672	703	625
Other	1,099	1,118	818	822	983	896
Subtotal, conduct of education and training	**59,884**	**94,534**	**65,572**	**54,450**	**95,815**	**69,017**
Subtotal, direct Federal investment	**444,099**	**472,211**	**446,323**	**348,989**	**432,479**	**432,909**
Total, Federal investment	**625,673**	**622,841**	**754,723**	**485,419**	**579,914**	**586,702**

21. RESEARCH AND DEVELOPMENT

The American innovation ecosystem is the envy of the world. Federal research and development (R&D) strengthens the U.S. innovation base and contributes to job growth, national security, and continued prosperity. While recognizing the continued importance of R&D spending to support innovation, fiscal prudence demands a more focused approach to the Federal R&D budget in the context of America's multi-sector R&D enterprise. This approach prioritizes maintaining peace through strength and ensures U.S. leadership in the Industries of the Future. The President's 2020 Budget provides $134.1 billion for Federal R&D, including the conduct of R&D and investments in R&D facilities and equipment. It continues support of investments in basic research, early-stage applied research, and technology transfer efforts for Agencies to accomplish their missions and support the President's priorities while reducing spending in lower priority areas. Table 21-1 shows a breakout of FY 2020 R&D funding by Agency.

Table 21–1. TOTAL FEDERAL R&D FUNDING BY AGENCY AT THE BUREAU OR ACCOUNT LEVEL

(Mandatory and discretionary budget authority [1,2,] dollar amounts in millions)

	2018 Actual	2019 Estimate [3]	2020 Proposed	Dollar Change: 2019 to 2020	Percent Change: 2019 to 2020
By Agency					
Agriculture	2,618	2,666	2,464	–202	–8%
Agriculture Research Service	1,387	1,421	1,275	–146	–10%
Animal and Plant Health Inspection Service	39	34	34	0	0%
Economic Research Service	87	87	61	–26	–30%
Forest Service	272	269	229	–40	–15%
National Agricultural Statistics Service	9	9	9	0	0%
National Institute of Food and Agriculture	824	846	856	10	1%
Commerce	2,029	2,194	1,694	–500	–23%
Bureau of the Census	122	165	138	–27	–16%
National Institute of Standards and Technology	975	973	898	–75	–8%
National Oceanic and Atmospheric Administration	923	1,048	650	–398	–38%
National Telecommunications and Information Administration	9	8	8	0	0%
Defense [4]	52,386	55,832	59,463	3,631	7%
Military Construction	38	22	0	–22	–100%
Military Personnel	467	416	435	19	5%
Defense Health Program	1,616	1,774	376	–1,398	–79%
Research, Development, Test, and Evaluation	50,265	53,620	58,652	5,032	9%
Education	257	258	224	–34	–13%
Institute of Education Sciences	230	230	197	–33	–14%
Office of Innovation and Improvement	1	0	0	0	n/a
Office of Postsecondary Education	1	1	0	–1	0%
Office of Special Education and Rehabilitative Services	24	24	24	0	0%
Office of Career, Technical, and Adult Education	1	3	3	0	0%
Energy	17,482	17,793	14,718	–3,075	–17%
Fossil Energy Research and Development	683	682	551	–131	–19%
Science	6,200	6,517	5,475	–1,042	–16%
Electricity Delivery	172	136	163	27	20%
Nuclear Energy	1,172	1,293	742	–551	–43%
Energy Efficiency and Renewable Energy	1,757	1,842	322	–1,520	–83%
Advanced Research Projects Agency--Energy [5]	354	366	–287	–653	–178%
Cybersecurity, Energy Security, and Emergency Response	0	49	36	–13	n/a
Defense Environmental Cleanup	38	28	13	–15	–54%
National Nuclear Security Administration	7,093	6,873	7,701	828	12%

Table 21–1. TOTAL FEDERAL R&D FUNDING BY AGENCY AT THE BUREAU OR ACCOUNT LEVEL—Continued

(Mandatory and discretionary budget authority [1,2], dollar amounts in millions)

	2018 Actual	2019 Estimate [3]	2020 Proposed	Dollar Change: 2019 to 2020	Percent Change: 2019 to 2020
Power Marketing Administration	13	7	2	–5	–71%
Environmental Protection Agency	492	489	285	–204	–42%
Science and Technology	476	473	266	–207	–44%
Hazardous Substance Superfund	15	15	18	3	20%
Inland Oil Spill Programs	1	1	1	0	0%
Health and Human Services	36,942	38,647	33,693	–4,954	–13%
Administration for Children and Families	5	4	5	1	25%
Centers for Disease Control and Prevention	437	435	435	0	0%
Centers for Medicare and Medicaid Services	20	20	0	–20	–100%
Departmental Management	131	154	18	–136	–88%
Food and Drug Administration	495	410	410	0	0%
Health Resources and Services Administration	30	30	26	–4	–13%
National Institutes of Health [6]	35,824	37,594	32,799	–4,795	–13%
Homeland Security	725	737	507	–230	–31%
Science and Technology	589	588	369	–219	–37%
Transportation Security Administration	20	20	21	1	5%
United States Coast Guard	31	31	7	–24	–77%
United States Secret Service	2	0	11	11	n/a
Management Directorate	3	3	0	–3	–100%
Cybersecurity and Infrastructure Security Agency	15	15	31	16	107%
Countering Weapons of Mass Destruction Office	65	80	68	–12	–15%
Interior	885	884	753	–131	–15%
Bureau of Land Management	21	25	19	–6	–24%
Bureau of Reclamation	90	100	84	–16	–16%
Bureau of Safety and Environmental Enforcement	27	21	21	0	0%
Department-Wide Programs	3	3	0	–3	–100%
National Park Service	26	27	26	–1	–4%
Office of Surface Mining Reclamation and Enforcement	1	1	1	0	0%
United States Fish and Wildlife Service	33	33	15	–18	–55%
United States Geological Survey	600	592	482	–110	–19%
Bureau of Ocean Energy Management	79	77	100	23	30%
Bureau of Indian Affairs	5	5	5	0	0%
National Aeronautics and Space Administration	11,755	10,698	11,280	582	5%
Science	5,983	6,154	5,974	–180	–3%
Aeronautics	560	565	575	10	2%
Low Earth Orbit and Spaceflight Operations	2,227	1,586	1,611	25	2%
Safety, Security and Mission Services	272	272	242	–30	–11%
Deep Space Exploration Systems	1,864	1,288	1,883	595	46%
Construction and Environmental Compliance and Restoration	135	117	87	–30	–26%
Exploration Technology	714	716	908	192	27%
National Science Foundation	6,327	6,315	5,760	–555	–9%
Research and Related Activities	5,687	5,684	5,079	–605	–11%
Education and Human Resources	457	448	458	10	2%
Major Research Equipment and Facilities Construction	183	183	223	40	22%
Transportation	1,043	1,146	1,076	–70	–6%
Federal Aviation Administration	471	571	510	–61	–11%
Federal Highway Administration	376	376	404	28	7%
Federal Motor Carrier Safety Administration	9	9	9	0	0%
Federal Railroad Administration	43	45	23	–22	–49%
Federal Transit Administration	28	28	28	0	0%
Maritime Administration	0	0	3	3	n/a
National Highway Traffic Safety Administration	76	76	65	–11	–14%
Office of the Secretary	19	19	13	–6	–32%
Pipeline and Hazardous Materials Safety Administration	21	22	21	–1	–5%

Table 21–1. TOTAL FEDERAL R&D FUNDING BY AGENCY AT THE BUREAU OR ACCOUNT LEVEL—Continued
(Mandatory and discretionary budget authority [1,2,] dollar amounts in millions)

	2018 Actual	2019 Estimate [3]	2020 Proposed	Dollar Change: 2019 to 2020	Percent Change: 2019 to 2020
Smithsonian Institution	357	336	315	–21	–6%
Veterans Affairs	1,286	1,342	1,325	–17	–1%
Medical Care Support	563	563	563	0	0%
Medical and Prosthetic Research	723	779	762	–17	–2%

[1] This table shows funding levels for Departments or Independent Agencies with more than $200 million in R&D activities in 2020.
[2] The Experimental Development definition is used in this table across all three fiscal years.
[3] The FY 2019 Estimate column applies the main FY 2020 President's Budget volume approach of estimating the FY 2019 level using FY 2019 enacted appropriations where available and annualized Continuing Resolution for agencies without enacted appropriations prior to Feb. 15, 2019.
[4] Totals for Experimental Development spending in FY 2018–2020 do not include DOD Budget Activity 07 (Operational System Development) due to a change in the definition of development first implemented in the FY 2018 Budget. These DOD Budget Activity 07 funds support development efforts to upgrade systems that have been fielded or have received approval for full rate production and anticipate production funding in the current or subsequent fiscal year.
[5] The -$287 million in FY 2020 for ARPA-E is the result of a one-time cancellation of unobligated balances.
[6] NIH includes Agency for Healthcare Research and Quality (AHRQ) funding as the FY 2020 Budget proposes that AHRQ be consolidated within NIH as a new institute.

I. PRIORITIES FOR FEDERAL RESEARCH AND DEVELOPMENT

The President's Budget provides support for Federal R&D to keep America strong, safe, and prosperous. This section highlights key areas of R&D funding in the 2020 Budget.

Security of the American People

As adversaries leverage American R&D outcomes and emerging technologies to threaten the Nation, it is imperative that we invest in R&D to strengthen our security. The National Security Strategy, as well as the 2018 National Defense Strategy, prioritize investments in technologies that ensure we will be able to keep the American people safe. The President's 2020 Budget continues to encourage programs with dual-use potential to be leveraged for Federal nonmilitary advancements. The Department of Defense (DoD) will invest more than $59 billion in research, engineering, and prototyping activities in 2020 to maintain technical superiority and promote U.S. national security innovation, including in priority areas of trusted and assured microelectronics; hypersonics research for non-nuclear weapons; kinetic and non-kinetic technologies able to disrupt and defeat missiles prior to launch; missile detection, defeat, and defense capabilities; and R&D to advance the Industries of the Future.

The 2020 Budget also supports critical investments to protect the Nation at the Department of Homeland Security (DHS) and the Department of Health and Human Services (HHS). At DHS, the President's Budget requests $120 million in R&D funding to further detect and defend against radiological, nuclear, chemical, and biological threats; $57 million in R&D to improve border surveillance and law enforcement capabilities to detect and interdict illegal activity; and $37 million for cybersecurity R&D. To bolster transportation security, the 2020 Budget will invest $82 million in R&D to counter emerging threats to our aviation, surface, and intermodal transportation systems. At HHS, the Budget provides over $1 billion to develop enhanced medical countermeasures to respond to public health emergencies.

American Leadership in the Industries of the Future

The unique science and technology enterprise of the United States has positioned the Nation to pursue, realize, and dominate in emerging technologies. The private sector responds to new opportunities and markets, bringing forward ideas, products, and services that outperform existing technologies or, in some cases, create new industries. Federal contributions in early-stage R&D can help lay the technical and scientific foundation for truly revolutionary new technologies, particularly those that require sustained support before becoming attractive for private sector investment. The President's 2020 Budget prioritizes investments for four key Industries of the Future: artificial intelligence, quantum information sciences, advanced communication networks (including fifth generation networks and beyond), and advanced manufacturing.

Artificial intelligence (AI) is transforming every segment of American life, with applications ranging from medical diagnostics and precision agriculture, to autonomous transportation and national defense. The Administration has taken a forward-looking approach to fortify American leadership in AI, including considerations about its effective and ethical use. It formed the National Science and Technology Council's Select Committee on AI to coordinate the wide range of Federal R&D efforts, and Federal agencies continue to advance the development and use of AI across multiple domains. The President recently signed an Executive Order (EO) launching the American AI Initiative, which will take a multipronged approach to accelerating our national leadership in AI. The FY 2020 Budget funding for this Initiative includes approximately $850 million at the Department of Energy (DOE), National Institutes of Health (NIH), National Institute of Standards and Technology (NIST), and National Science Foundation (NSF).

Quantum information science (QIS) has the potential to revolutionize our scientific knowledge, improve our industrial base, and provide substantial economic and national security benefits. QIS applications are expected to affect many areas of technology within the next two decades. Recognizing the potential of QIS, the President recently signed into law the National Quantum Initiative Act and will establish a 10-year plan to accelerate the development of QIS and technology applications. The FY 2020 Budget funding for this Initiative includes approximately $430 million at the DoD, DOE, NIST, and NSF.

American leadership in emerging wireless networks is a critical global advantage, both for the economy and national security. U.S. leadership in fourth generation (4G) networks has led to significant GDP growth and job creation. Deploying fifth generation (5G) wireless connectivity is even more imperative because it will enable a wide range of transformational technologies, from smart cities to the Internet of Things. The 2020 Budget supports R&D to manage spectrum, secure networks, and increase access to high-speed internet.

Advanced manufacturing—which includes both new manufacturing methods and the production of new products enabled by cutting-edge technologies—is an engine of America's economic power and a pillar of its national security. The 2020 Budget prioritizes R&D aimed at advances in manufacturing and the integration of those advances into the domestic supply chain to reduce U.S. reliance on foreign sources of critical products. Budget priorities include intelligent manufacturing systems, materials and processing technologies, advances in semiconductor design and fabrication, and innovations in food and agricultural manufacturing.

II. FEDERAL R&D 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. Starting with the FY 2018 Budget, OMB implemented a refinement to the categories by more narrowly defining "development" as "experimental development" to better align with the data collected by the National Science Foundation on its multiple R&D surveys, and to be consistent with international standards. An explanation of this change is included below. Please note that R&D cross-cuts in specific topical areas as mandated by law will be reported separately in forthcoming Supplements to the President's 2020 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 20-2 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 towards 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. For example, to better align with National Science Foundation R&D surveys and international standards, starting with the FY 2018 Budget OMB narrowed the definition of development to "experimental development." This definition, unlike the previous definition of development, excludes user demonstrations of a system for a specific use case and pre-production development (i.e., non-experimental work on a product or system before it goes into full production). Because of this earlier change, the experimental development amounts reported are significantly lower than the development amounts shown in past Budgets.[1]

[1] The change in definition of experimental development reduces R&D spending compared to what it would have been under the previous definition by approximately $40.6 billion in the FY 2020 Budget.

Table 21–2. FEDERAL RESEARCH AND DEVELOPMENT SPENDING

(Mandatory and discretionary budget authority [1], dollar amounts in millions)

	2018 Actual	2019 Estimate [2]	2020 Proposed	Dollar Change: 2019 to 2020	Percent Change: 2019 to 2020
By Agency					
Defense [3]	52,386	55,832	59,463	3,631	7%
Health and Human Services	36,942	38,647	33,693	–4,954	–13%
Energy	17,482	17,793	14,718	–3,075	–17%
NASA	11,755	10,698	11,280	582	5%
National Science Foundation	6,327	6,315	5,760	–555	–9%
Agriculture	2,618	2,666	2,464	–202	–8%
Commerce	2,029	2,194	1,694	–500	–23%
Veterans Affairs	1,286	1,342	1,325	–17	–1%
Transportation	1,043	1,146	1,076	–70	–6%
Interior	885	884	753	–131	–15%
Homeland Security	725	737	507	–230	–31%
Smithsonian Institution	357	336	315	–21	–6%
Environmental Protection Agency	492	489	285	–204	–42%
Education	257	258	224	–34	–13%
Other	1,181	1,258	540	–718	–57%
TOTAL	**135,765**	**140,595**	**134,097**	**–6,498**	**–5%**
Basic Research					
Defense	2,282	2,545	2,337	–208	–8%
Health and Human Services	18,278	19,172	16,785	–2,387	–12%
Energy	5,005	5,155	4,647	–508	–10%
NASA	3,636	4,948	4,538	–410	–8%
National Science Foundation	5,066	5,060	4,568	–492	–10%
Agriculture	1,085	1,116	1,073	–43	–4%
Commerce	222	222	192	–30	–14%
Veterans Affairs	530	553	546	–7	–1%
Transportation	....	....	....	....	....
Interior	77	77	68	–9	–12%
Homeland Security	47	42	23	–19	–45%
Smithsonian Institution	277	267	269	2	1%
Environmental Protection Agency	....	....	....	....	....
Education	58	67	66	–1	–1%
Other	53	54	52	–2	–4%
SUBTOTAL	**36,616**	**39,278**	**35,164**	**–4,114**	**–10%**
Applied Research					
Defense	5,690	6,190	5,440	–750	–12%
Health and Human Services	18,414	19,187	16,624	–2,563	–13%
Energy	7,998	7,813	6,410	–1,403	–18%
NASA	2,112	2,743	2,864	121	4%
National Science Foundation	758	752	687	–65	–9%
Agriculture	1,072	1,099	1,037	–62	–6%
Commerce	963	996	757	–239	–24%
Veterans Affairs	727	758	749	–9	–1%
Transportation	697	703	634	–69	–10%
Interior	669	664	548	–116	–17%
Homeland Security	188	189	98	–91	–48%
Smithsonian Institution	....	....	....	....	....
Environmental Protection Agency	415	415	220	–195	–47%
Education	124	119	107	–12	–10%
Other	880	942	268	–674	–72%
SUBTOTAL	**40,707**	**42,570**	**36,443**	**–6,127**	**–14%**

Table 21–2. FEDERAL RESEARCH AND DEVELOPMENT SPENDING—Continued

(Mandatory and discretionary budget authority [1], dollar amounts in millions)

	2018 Actual	2019 Estimate [2]	2020 Proposed	Dollar Change: 2019 to 2020	Percent Change: 2019 to 2020
Experimental Development					
Defense [3]	44,363	47,075	51,686	4,611	10%
Health and Human Services	35	35	35	0	0%
Energy	2,549	2,598	1,952	–646	–25%
NASA	5,872	2,890	3,791	901	31%
National Science Foundation	....	....	....	....	....
Agriculture	180	180	174	–6	–3%
Commerce	211	278	179	–99	–36%
Veterans Affairs	29	31	30	–1	–3%
Transportation	302	403	404	1	0%
Interior	137	137	135	–2	–1%
Homeland Security	490	506	386	–120	–24%
Smithsonian Institution	....	....	....	....	....
Environmental Protection Agency	74	74	65	–9	–12%
Education	75	72	51	–21	–29%
Other	248	262	220	–42	–16%
SUBTOTAL	**54,565**	**54,541**	**59,108**	**4,567**	**8%**
Facilities and Equipment					
Defense	51	22	0	–22	–100%
Health and Human Services	215	253	249	–4	–2%
Energy	1,930	2,227	1,709	–518	–23%
NASA	135	117	87	–30	–26%
National Science Foundation	503	503	505	2	0%
Agriculture	281	271	180	–91	–34%
Commerce	633	698	566	–132	–19%
Veterans Affairs	....	....	....	....	....
Transportation	44	40	38	–2	–5%
Interior	2	6	2	–4	–67%
Homeland Security	....	....	....	....	....
Smithsonian Institution	80	69	46	–23	–33%
Environmental Protection Agency	3	0	0	0	n/a
Education	....	....	....	....	....
Other	....	....	....	....	....
SUBTOTAL	**3,877**	**4,206**	**3,382**	**–824**	**–20%**

[1] This table shows funding levels for Departments or Independent Agencies with more than $200 million in R&D activities in 2020.

[2] The FY 2019 Estimate column applies the main FY 2020 President's Budget volume approach of estimating the FY 2019 level using FY 2019 enacted appropriations where available and annualized Continuing Resolution for agencies without enacted appropriations prior to Feb. 15, 2019.

[3] Totals for Experimental Development spending in FY 2018–2020 do not include DOD Budget Activity 07 (Operational System Development) due to a change in the definition of development first implemented in the FY 2018 Budget. These DOD Budget Activity 07 funds support development efforts to upgrade systems that have been fielded or have received approval for full rate production and anticipate production funding in the current or subsequent fiscal year.

III. OTHER SOURCES OF FEDERAL SUPPORT FOR R&D

The President's 2020 Budget seeks to build on strong private sector R&D investment by prioritizing Federal resources on areas that industry is not likely to support over later-stage applied research and development that the private sector is better equipped to pursue. A key means of stimulating private sector investment and bridging Federal government research with industry development is through the transfer of technology. Federal technology transfer seeks to help domestic companies develop and commercialize products derived from government-funded R&D, which can lead to greater productivity from U.S. R&D investments and ultimately promote the Nation's economic growth. Recognizing the benefits of this mechanism, the 2020 Budget sustains funding for technology transfer efforts where appropriate. In addition, the Administration launched a new initiative to enable and enhance the Federal government's transition of discoveries from laboratory to market as a Cross-Agency Priority Goal under the President's Management Agenda (PMA).

Because much of the Federally funded R&D is conducted outside of the government, the Administration seeks to reduce the associated burdens to funding recipients and partners in order to promote greater effectiveness and efficiency in our Federal spending. A significant effort to reduce the administrative and regulatory burdens associated with Federal R&D funding is currently underway through an interagency working group on research regulation (as required by the Research and Development Efficiency Act), which is examining ways to reduce the administrative burden on those performing Federally funded research. More broadly, beyond just R&D, the Administration launched a Cross-Agency Priority Goal under the PMA aimed at reducing administrative burdens for all Federal grant recipients and promoting results-oriented accountability.

The Federal Government also stimulates private investment in R&D through tax preferences. Historically, dating back to the 1950s, the private sector has performed the majority of U.S. R&D. As of 2017, it is estimated that businesses performed 73% of total U.S. R&D.[2] The research and experimentation (R&E) tax credit, which was made permanent through the Protecting Americans from Tax Hikes Act of 2015 (P.L. 114-113) and modified in the Tax Cut and Jobs Act of 2017 (P.L. 115-97), essentially provides a credit to qualified research expenses. R&E tax credit claims have at least doubled over the past two decades, growing from an estimated $4.4 billion in 1997 to $11.3 billion in 2013.[3] The manufacturing and the professional, scientific, and technical services sectors account for about 70% of total claims in 2013.

[2] NSF National Center for Science and Engineering Statistics (Feb 2019). National Patterns of R&D Resources: 2016-2017 Data Update. NSF-19-309.

[3] IRS Statistics of Income Division (Sept 2016). 1990-2013 Corporate Returns Data.

22. 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.

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.

I. CREDIT IN VARIOUS SECTORS

Housing Credit Programs

Through housing credit programs, the Federal Government promotes homeownership among various target groups, including low- and moderate-income people, veterans, and rural residents. In times of economic crisis, the Federal Government's role and target market can expand dramatically.

Federal Housing Administration

The Federal Housing Administration (FHA) guarantees mortgage loans to provide access to homeownership for people who may have difficulty obtaining a conventional mortgage. FHA has been a primary facilitator of mortgage credit for first-time and minority buyers, 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 can make only a modest down-payment, but show that they are creditworthy and have sufficient income to afford the house they want to buy. In 2018, 83 percent of FHA purchase mortgages were obtained by first-time homebuyers. Of all FHA loans (purchase and refinance), 34 percent served minority borrowers and 57 percent served low- to moderate-income borrowers.

In addition to traditional single-family "forward" mortgages, FHA insures "reverse" mortgages for seniors and loans for the construction, rehabilitation, and refinancing of multifamily housing, hospitals and other health care facilities.

FHA and the Single-Family Mortgage Market

FHA's share of the mortgage market tends to fluctuate with economic conditions and other factors. In the early 2000s, FHA's market presence diminished greatly as low interest rates increased the affordability of mortgage financing and more borrowers used emerging non-prime mortgage products, including subprime and Alt-A mortgages. Many of these products had risky and hard-to-understand features such as low "teaser rates" offered for periods as short as the first two years of the mortgage, high loan-to-value ratios (with some mortgages exceeding the value of the house), and interest-only loans with balloon payments that require full payoff at a set future date. The Alt-A mortgage made credit easily available by waiving documentation of income or assets. This competition eroded the market share of FHA's single-family purchase and refinance loans, reducing it from 9 percent in 2000 to less than 2 percent in 2005.

During the financial crisis, starting at the end of 2007, the availability of credit guarantees from the FHA and Government National Mortgage Association (which supports the secondary market for Federally-insured housing loans by guaranteeing securities backed by mortgages guaranteed by FHA, VA, and USDA) was an important factor countering the tightening of private-sector credit. FHA's share of the mortgage market increased to a peak of 18 percent in 2009. Since then, FHA market share has declined (12 percent in 2018) but remains higher than it was in the early 2000s.

FHA Home Equity Conversion Mortgages

Home Equity Conversion Mortgages (HECMs) 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 also 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 therefore is weighted toward the end of the mortgage, while forward mortgage risk is concentrated in the first 10 years. FHA lowered the share of home equity a homeowner can borrow against (the "principal limit factors") in 2018 and more recently instituted a second appraisal requirement in certain instances to mitigate the risk of losses on HECMs.

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 2018, the MMI Fund had $1,265 billion in total mortgages outstanding and a capital ratio of 2.76%, remaining above the 2% statutory minimum for the fourth straight year and increasing from the 2017 revised level of 2.18 percent. Although improvements have been made, the HECM portfolio continues to have a negative impact on the MMI Fund, offsetting the positive capital position of the forward mortgage portfolio. While the 2018 capital ratio for forward mortgages was 3.93%, the HECM portfolio had a capital ratio of –18.83%. 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 2018.[1]

FHA's new origination volume in 2018 was $209 billion for forward mortgages and $16 billion for HECMs, and the Budget projects $205 billion and $14 billion, respectively, for 2020.

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 health care 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 health care facilities and may also translate into more affordable rents/lower health care costs for consumers.

GISRI's new origination loan volume for all programs in 2018 was $21 billion and the Budget projects $20 billion for 2020. Total mortgages outstanding in the FHA GISRI Fund were $160 billion at the end of 2018.

VA Housing 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 housing program effectively substitutes the Federal guarantee for the borrower's down payment, making the lending terms more favorable than loans without a VA guarantee. VA does not guarantee the entire mortgage loan to veterans, but provides a 100 percent guarantee on the first 25 percent of losses upon default. The number of loans that VA guaranteed reached a new record level in 2018, as mortgage rates remained low and the strong economy provided opportunities for returning veterans to purchase homes. The continued historically low interest rate environment of 2018 allowed 67,347 Veteran borrowers to lower interest rates on their home mortgages through refinancing. VA provided approximately $40 billion in guarantees to assist 610,513 borrowers in 2018. This followed $47 billion and 740,389 borrowers in 2017.

Approximately 4.16 percent of active VA-guaranteed loans were delinquent at any time during 2018. 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 compromise sales or deeds-in-lieu of foreclosure. These joint efforts helped resolve over 87 percent of defaulted VA-guaranteed loans and assisted over 104,752 Veterans retain homeownership and/or avoid foreclosure in 2018. These actions resulted in $2.6 billion in avoided guaranteed claim payments.

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.

Historically, RHS has offered both direct and guaranteed homeownership loans. In recent years, the portfolio has shifted to more efficient loan guarantees, an indication the direct loan program has achieved its goal of graduating borrowers to commercial credit and lowering costs to the taxpayer. The single family housing guaranteed loan program was authorized in 1990 at $100 million and has grown into a $24 billion loan program annually. The shift to guaranteed lending is in part attributable to the mortgage banking industry offering historically low mortgage rates, resulting in instances where the average 30-year fixed commercial mortgage rate has been at or below the average borrower rate for the RHS single family direct loan. Furthermore, financial markets have become more efficient and have increased the reach of mortgage credit to lower credit qualities and incomes. The number of rural areas isolated from broad credit availability has shrunk as access to high speed broadband has increased and correspondent lending has grown.

Education Credit Programs

The Department of Education (ED) direct student loan program is one of the largest Federal credit programs with $1.084 trillion in Direct Loan principal outstanding at the end of 2018. The Federal student loan programs

[1] *https://www.hud.gov/sites/dfiles/Housing/documents/2018fhaannualreportMMIFund.pdf*

provide students and their families with the funds to help meet postsecondary education costs. Because funding for 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 (Public Law 103–66). The enactment of the Student Aid and Fiscal Responsibility Act (SAFRA) of 2010 (Public Law 111–152) ended the guaranteed loan program (FFEL). 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 provides loan capital directly to over 6,000 institutions, which then disburse loan funds to students. Loans are available to students and parents of students regardless of income. 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 Federal Government does not charge interest while the borrowers are in school and during certain deferment periods for Direct Subsidized Stafford loans—which are available only to undergraduate borrowers from low and moderate income families.

The Direct Loan program offers a variety of repayment plans including income-driven ones for all student borrowers, regardless of the type of loan. Depending on the plan, monthly payments are capped at no more than between 10 and 15 percent of borrower discretionary income and balances remaining after 20 to 25 years are forgiven. In addition, under current law, borrowers who work in public service professions while making 10 years of qualifying payments are eligible for Public Service Loan Forgiveness (PSLF).

The 2020 President's Budget includes several policy proposals for this program. For a detailed description of these proposals, please see the Federal Direct Student Loan Program Account section of the Budget Appendix.

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

Congress created the U.S. Small Business Administration (SBA) in 1953 as an independent agency of the Federal Government to aid, counsel, assist and protect the interests of small business concerns; preserve free competitive enterprise; and maintain and strengthen the overall economy of the Nation. The SBA began making direct business loans and guaranteeing bank loans to small business owners, and providing inexpensive and immediate disaster relief to those hard-hit by natural disasters. By 1958, The Investment Company Act had established the Small Business Investment Company (SBIC) Program, under which the SBA continues to license, regulate, and guarantee funds for privately-owned and operated venture capital investment firms. The SBA continues to complement credit markets by guaranteeing access to affordable credit provided by private lenders for those that cannot attain it elsewhere.

The SBA has grown significantly since its creation, both in terms of its total assistance provided and its array of programs offered to micro-entrepreneurs and small business owners. From its Washington, DC headquarters, it leverages its field personnel and diverse network of private sector and nonprofit partners across each U.S. State and territory. The SBA ensures that small businesses across America have the tools and resources needed to start and develop their operations, drive U.S. competitiveness, help grow the economy, and promote economic security.

In 2018, the SBA provided $25.4 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. Through the 504 Certified Development Company (CDC) and Refinance Programs, the SBA also supported $4.8 billion in guaranteed loans for fixed-asset financing and 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.

The SBA also creates opportunities for very small and emerging businesses to grow. Through the 7(m) Direct Microloan program, which supports non-profit intermediaries that provide loans of up to $50,000 to rising entrepreneurs, the SBA provided $72 million in direct lending to the smallest of small businesses and startups. By supporting innovative financial instruments such as the SBA's SBIC program that partners with private investors to finance small businesses through professionally managed investment funds, the SBA supported $5.5 billion in venture capital investments in small businesses in 2018.

SBA continues to be a valuable source for American communities who need access to low-interest loans to recovery quickly in the wake of disaster. In 2018, the SBA delivered $7.0 billion in disaster relief lending to businesses, homeowners, renters, and property owners.

For a detailed description of the 2020 President's Budget policy proposals for these programs, please see the SBA Business Loans Program Account and Disaster Loans Program Account sections of the Budget Appendix.

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 over 1,100 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 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 $1.5 billion in bond guarantee commitments to 26 CDFIs, over $795 million of which has been disbursed to help finance affordable housing, charter schools, commercial real estate, and community health care facilities in 25 States and the District of Columbia. The Budget continues to propose reforms such as reducing the minimum bond size to increase participation.

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 guaranteed rather than direct lending.

In 2018, FSA provided loans and loan guarantees to more than 35,000 family farmers totaling $5.5 billion. In recent years, FSA assistance has been at record levels from a downturn in the agricultural economy. The average size of farm ownership loans remained consistent over the past few years, with new customers receiving the bulk of the direct loans. Direct and guaranteed loan programs provided assistance totaling $2.6 billion to more than 19,700 beginning farmers although the number of beginning farmer loans decreased slightly by one percent. The majority of assistance provided in the operating loan program during 2018 was to beginning farmers. Sixty-four percent of direct operating loans were made to beginning farmers. A beginning farmer is an individual or entity who: has not operated a farm for more than 10 years; substantially participates in the 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 members must be related by blood or marriage, and all entity members must be eligible beginning farmers.

Loans for socially disadvantaged farmers totaled $765 million, of which $436 million was in the farm ownership program and $329 million in the farm operating program. Lending to minority and women farmers was a significant portion of overall assistance provided, with $765 million in loans and loan guarantees provided to more than 7,600 farmers. Though loan assistance provided to beginning and socially disadvantaged farmers decreased slightly in 2018 compared to 2017, the trend in lending to underserved groups has remained relatively stable as a percentage of total loans made.

FSA recently released a new Microloan program to increase lending to small niche producers and minorities. This program has been expanded to include guaranteed as well as direct loans. 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 three credit programs: Title XVII (a loan guarantee program to support innovative energy technologies), the Advanced Technology Vehicle Manufacturing loan program (a direct loan program to support advanced automotive technologies), and the Tribal Energy Loan Guarantee Program (a loan guarantee program to support tribal energy development). 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. Congress provided DOE $4 billion in loan volume authority in 2007, and the 2009 Consolidated Appropriations Act provided an additional $47 billion in loan volume authority, allocated as follows: $18.5 billion for nuclear power facilities, $2 billion for "front-end" nuclear enrichment activities, $8 billion for advanced fossil energy technologies, and $18.5 billion for energy efficiency, renewable energy, and transmission and distribution projects. The 2011 appropriations reduced the available loan volume authority for energy efficiency, renewable energy, and transmission and distribution projects by $17 billion and provided $170 million in credit subsidy to support renewable energy or energy efficient end-use energy technologies. From 2014 to 2015, DOE issued three loan guarantees totaling over $8 billion to support the construction of two new commercial nuclear power reactors. DOE has not issued any Title XVII loan guarantees since 2015.

The American Reinvestment and Recovery Act of 2009 (Public Law 111–5) amended the program's authorizing statute and provided $2.5 billion in 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. Prior to expiration, DOE issued loan guarantees to 28 projects totaling over $16 billion in loan volume. Four projects withdrew prior to any disbursement of funds.

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, 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 5 loans totaling over $8 billion to support the manufacturing of advanced technology vehicles. DOE has not issued any ATVM loans since 2011.

Title XXVI of the Energy Policy Act of 1992, as amended (Public Law 102-486, Public Law 109-58) authorizes DOE to guarantee up to $2 billion in loans to Indian tribes for energy development. In 2017, Congress appropriated $8.5 million in credit subsidy to support tribal energy development. DOE issued a solicitation in 2018, but has not yet issued any loan guarantees under this authority.

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 2018, RUS delivered $3.93 billion in direct electrification loans (including $2.93 billion in FFB Electric Loans, $233 million in refinancing pilot program loans, $750 million in electric underwriting, and $21.5 million rural energy savings loans), $161.9 million in direct telecommunications loans and $19.9 million in direct broadband loans.

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 health care clinics, police stations, and water systems, as well as to assist rural businesses and cooperatives in creating new community infrastructure (e.g., educational and health care networks) and to diversify the rural economy and employment opportunities. In 2018, RD provided $1.98 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 $1.9 billion in water and wastewater direct loans, and guaranteed $1.22 billion in rural business loans, which will help create and save jobs in rural America.

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. During 2018, EPA solicited the second round of loans, selecting thirty nine entities with projects in sixteen States to apply for up to $5 billion in WIFIA loans. Those projects will leverage more than $5 billion in private capital, in addition to other funding sources, to help finance a total of over $10 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 recycling projects.

Transportation Infrastructure

Federal credit programs offered through the Department of Transportation (DOT) 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, both managed in DOT's Build America Bureau. The Bureau combines the TIFIA and RRIF loan programs, Private Activity Bonds (PABs), and the Nationally Significant Freight and Highway Projects (INFRA) grant program all under one roof. The Bureau serves as the single point of contact and coordination for States, municipalities, and project sponsors looking to utilize Federal transportation expertise, apply for Federal transportation credit and grant programs, and explore ways to access private capital in public-private partnerships.

Established by the Transportation Equity Act of 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, and intermodal 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. Each dollar of subsidy provided for TIFIA can provide approximately $14 in credit assistance, and leverage additional non-Federal transportation infrastructure investment. The Fixing America's Surface Transportation (FAST) Act of 2015 (Public Law 114–94) authorizes TIFIA at $300 million in 2019.

DOT has also provided direct loans and loan guarantees to railroads since 1976 for facilities maintenance, rehabilitation, acquisitions, and refinancing. Federal assistance was created to provide financial assistance to the financially-challenged portions of the rail industry. However, following railroad deregulation in 1980, the industry's financial condition began to improve, larger railroads were able to access private credit markets, and interest in Federal credit support began to decrease.

Also established by TEA–21 in 1998, the RRIF program may provide loans or loan guarantees with an interest rate equal to the Treasury rate for similar-term securities. TEA–21 also stipulates that non-Federal sources pay the subsidy cost of the loan (a "Credit Risk Premium"), 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. Since its inception, over $5.1 billion in direct loans have been made under the RRIF program.

The FAST Act included programmatic changes to enhance the RRIF program to mirror the qualities of TIFIA, including broader eligibility, a loan term that can be as long as 35 years from project completion, and a fully subordinated loan under certain conditions. Additionally, in 2016 Congress appropriated $1.96 million to assist Class II and Class III Railroads in preparing and applying for direct loans and loan guarantees.

In the Consolidated Appropriations Act, 2018 (2018 Omnibus) (Public Law 115-141), for the first time in RRIF's history, the Congress appropriated $25 million in subsidy budget authority for direct loans and loan guarantees to the RRIF program. This appropriation would allow DOT to issue RRIF loans without requiring credit risk premiums from borrowers to cover the subsidy costs of the loans. The 2018 Omnibus also requires DOT to return credit risk premiums to borrowers in individual fiscal year cohorts that have fully satisfied their loan obligations. However, in the Department of Defense and Labor, Health and Human Services, and Education Appropriations Act, 2019 and Continuing Appropriations Act, 2019 (Public Law 115-245), and the Save Our Seas Act of 2018 (Public Law 115-265), Congress subsequently repealed the 2018 Omnibus definition of RRIF cohorts as loans issued in individual fiscal years and directed DOT to administratively define RRIF cohorts and then return credit risk premiums to eligible borrowers. DOT subsequently defined three broad RRIF cohorts, covering fiscal years 1998 through 2015 (the years in which return of credit risk premiums is allowed by the RRIF statute, as amended by the FAST Act), and has begun the process of returning credit risk premiums to borrowers in cohorts that have fully satisfied their loan obligations.

International Credit Programs

Currently, seven Federal agencies—USDA, the Department of Defense, the Department of State, the Department of the Treasury, the Agency for International Development (USAID), the Export-Import Bank (ExIm), and the Overseas Private Investment Corporation (OPIC)—provide direct loans, loan guarantees, and insurance to a variety of private and sovereign borrowers. 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. The Better Utilization of Investments Leading to Development (BUILD) Act of 2018 (Public Law 115-254), discussed further below, made significant changes to modernize and consolidate several of these functions to promote efficiency and transparency.

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. 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, as well as 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 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.

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 long term 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 Tunisia, Jordan, Ukraine, 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. On October 5, 2018, President Trump signed into law the BUILD Act. The legislation consolidates, modernizes and reforms the U.S. government's "development finance" capabilities – primarily the Overseas Private Investment Corporation and USAID's Development Credit Authority – into the U.S. International Development Finance Corporation (DFC), consistent with the President's June 2018 Government Reorganization reform plan. Starting in fiscal year 2020, the DFC will provide 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, meet national security objectives, and open markets for U.S. trade. These programs will allow the U.S. government to better partner with allies and deliver financially-sound alternatives to state-led initiatives from countries like China.

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 Treasury Department 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. In its Strategic Plan for the Conservatorships of Fannie Mae and Freddie Mac, released in 2014, FHFA outlined three key goals for conservatorship: 1) maintain, in a safe and sound manner, foreclosure prevention activities and credit availability for new and refinanced mortgages to foster liquid, efficient, competitive and resilient national housing finance markets; 2) reduce taxpayer risk through increasing the role of private capital in the mortgage market; and 3) build a new single-family securitization infrastructure for use by Fannie Mae and Freddie Mac and adaptable for use by other participants in the secondary market in the future.

On September 7, 2008, the U.S. 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. Based on the financial results reported by each company as of December 31, 2012, 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, 2018, $191.5 billion has been invested in Fannie Mae and Freddie Mac

The PSPAs also require that Fannie Mae and Freddie Mac pay quarterly dividends to Treasury, equal to the GSE's positive net worth above a capital reserve amount of $3 billion for each company. Through December 31, 2018, the GSEs have paid a total of $292.3 billion in dividend payments to Treasury on the senior preferred stock. The Budget estimates additional dividend receipts of $182.1 billion from January 1, 2019, through 2029.

The Temporary Payroll Tax Cut Continuation Act of 2011 (Public Law 112–78) required that Fannie Mae and Freddie Mac increase their credit guarantee fees on single-family mortgage acquisitions between 2012 and 2021 by an average of at least 0.10 percentage points. Revenues generated by this fee increase are remitted directly to the Treasury for deficit reduction and are not included in the PSPA amounts. The Budget proposes to increase this fee by 0.10 percentage points for single-family mortgage acquisitions from 2020 through 2021, and then extend the 0.20 percentage point fee for acquisitions through 2024. This proposal will help to level the playing field for private lenders seeking to compete with Fannie Mae and Freddie Mac. With this proposal, combined with the existing authority under the Temporary Pay-roll Tax Cut Continuation Act, the Budget estimates resulting deficit reductions of $83.6 billion from 2012 through 2029.

In addition, in 2014 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. These set-asides were suspended by FHFA in November 2008 and reinstated effective January 1, 2015. The 2020 Budget again proposes to eliminate the 0.042 percentage point set-aside and discontinue funding for these funds, resulting in an increase to the estimated PSPA dividends.

Future of Fannie Mae and Freddie Mac

The Administration's government reform plan (Delivering Government Solutions in the 21st Century[2]) sets forth a vision for a reformed housing finance system that ensures more transparency and accountability to taxpayers and minimizes the risk of taxpayer-funded bailouts, while maintaining responsible and sustainable support for homeowners. Housing finance reform continues to be a priority for the Administration, including the further development of a framework that will enable comprehensive changes. As part of this process, the Administration has publicly expressed its desire to work with Members of Congress and other stakeholders to develop the policies necessary to facilitate this framework, including ending the conservatorships of Fannie Mae and Freddie Mac, promoting competition in the secondary housing finance market, and establishing an explicit limited Federal guarantee for which the government is fully compensated. Any reform of the housing system likely will impact the cash flows attributable to Fannie Mae and Freddie Mac in the 2020 Budget projections in ways that cannot be estimated at this time.

The Farm Credit System (Banks and Associations)

The Farm Credit System (FCS or System) is a Government-sponsored enterprise composed of a nationwide network of borrower-owned cooperative lending institutions originally authorized by Congress in 1916. The FCS's mission is providing sound and dependable credit to American farmers, ranchers, producers or harvesters of aquatic products, their cooperatives, and farm-related businesses. In addition, the System serves 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 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 has remained stable at 17.4 percent on September 30, 2018, compared with 17.3 percent on September 30, 2017. Capital consisted of $53.3 billion in unrestricted capital and $4.9 billion in restricted capital in the Farm Credit Insurance Fund, which is held by the Farm Credit System Insurance Corporation (FCSIC). For the first nine months of calendar year 2018, net income equaled $4.0billion compared with $3.7 billion for the same period of the previous year.

Over the 12-month period ending September 30, 2018, nonperforming loans as a percentage of total loans outstanding increased from 0.84 percent to 0.92 percent. System assets grew 4.2 percent during the year ending September 30, 2018, primarily due to increases in real estate mortgage loans and from continued demand from new and existing customers.

The number of FCS institutions continues to decrease because of consolidation. As of September 30, 2018, the System consisted of four banks and 69 associations, compared with seven banks and 104 associations in September 2002. Of the 73 FCS banks and associations rated, 68 of them had one of the top two examination ratings (1 or 2 on a 1 to 5 scale) and accounted for 98.1 percent of gross Systems assets. Five FCS institutions had a rating of 3.

From 2016 to 2017, dollar volume outstanding for total System loans grew by 3.1 percent. Loan dollar volume outstanding to young farmers grew by 4.8 percent, to beginning farmers by 5.3 percent, and to small farmers by 2.0 percent. Young, beginning, and small farmers are not mutually exclusive groups and, thus, cannot be added across categories. While the dollar volume of loans outstanding grew, the number of total System loans outstanding declined by 3.2 percent. The number of loans

[2] *https://www.performance.gov/GovReform/Reform-and-Reorg-Plan-Final.pdf*

outstanding to young farmers declined by 1.9 percent but remained the same for beginning farmers, and the number of loans outstanding to small farmers declined by 2.3 percent. The System's overall new loan dollar volume declined by 0.9 percent in 2017. New loan dollar volume to young farmers declined by 1.5 percent, to beginning farmers by 1.8 percent, and to small farmers by 4.2 percent.

For total System loans, the number of new loans made in 2017 dropped by 9.8 percent compared with 2016. The number of loans to young and small farmers dropped by 8.5 percent, and the number of new loans made to beginning farmers dropped by 6.8 percent. The loans to young farmers in 2017 represented 17.3 percent of all loans the System made during the year and 11.8 percent of the dollar volume of loans made. The loans made to beginning farmers in 2017 represented 22.5 percent of all System loans made during the year and 16.2 percent of the dollar volume of loans made. The loans in 2017 to small farmers represented 41.8 percent of all loans made during the year and 15.2 percent of the dollar volume of loans made.

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. In 2018, continued downward pressure on grain and soybean prices due to large supplies relative to demand, along with trade issues, has stressed less efficient producers and those renting a large share of their acreage. Low cash grain prices have helped control feed costs for livestock, poultry, and dairy farmers, and they have benefited from relatively strong demand. Nevertheless, robust production in the livestock sector will likely lead to lower prices and profit margins in coming months. The general economy continues to expand, which benefits demand for high-value agricultural products as well as the housing-related sectors such as timber and nurseries. However, interest rates are beginning to rise from historically low levels, which increases costs for System borrowers and could slow the economy if they rise too fast. Overall, the agricultural sector remains subject to risks such as changes in farmland values, which have declined since 2014 in the Midwest; rising interest rates; continued volatility in commodity prices; and weather-related catastrophes.

The 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. On September 30, 2018, the assets in the Insurance Fund totaled $4.9 billion. As of September 30, 2018, the Insurance Fund as a percentage of adjusted insured debt was 2.10 percent. This was slightly above the statutory secure base amount of 2 percent. During the first nine months of calendar year 2018, outstanding insured System obligations increased to 269.9 billion, or 1.4% greater than December 31, 2017.

Federal Agricultural Mortgage Corporation (Farmer Mac)

Farmer Mac was established in 1988 as a Federally chartered instrumentality of the United States and an institution of the FCS 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 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. In May 2008, the Food, Conservation and Energy Act of 2008 (2008 Farm Bill) 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, 2018, Farmer Mac's total outstanding program volume (loans purchased and guaranteed, standby loan purchase commitments, and AgVantage bonds purchased and guaranteed) amounted to $189.5 billion, which represents an increase of 4.8 percent from the level a year ago. Of total program activity, $15.6 billion were on-balance sheet loans and guaranteed securities, and $4.0 billion were off-balance-sheet obligations. Total assets were $18.5 billion, with non-program investments (including cash and cash equivalents) accounting for $2.3 billion of those assets. Farmer Mac's net income attributable to common stockholders ("net income") for the first three quarters of calendar year 2018 was $75.3.6 million. Net income increased compared to the same period in 2017 during which Farmer Mac reported net income of $54.6 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, 2018, the FDIC insured $7.4 trillion of deposits at 5,479 commercial banks and thrifts, and the NCUA insured nearly $1.4 trillion of shares at 5,436 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 (P.L. 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), allowing NCUA to segregate the losses of corporate credit unions and providing a mechanism for assessing those losses to Federally-insured credit unions over an extended period of time; On September 28, 2017, the NCUA Board voted unanimously to close the TCCUSF effective October 1, 2017, ahead of its sunset date of June 30, 2021, the assets and liabilities of the TCCUSF were distributed into the SIF;
- 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, 2018, the FDIC DIF balance stood at $100.2 billion, a one-year increase of $9.7 billion. The growth in the DIF balance is primarily a result of assessment revenue inflows. The reserve ratio on September 30, 2018, was 1.36 percent.

As of September 30, 2018, the number of insured institutions on the FDIC's "problem list" (institutions with the highest risk ratings) totaled 71, which represented a decrease of nearly 92 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 SIF ended September 2017 with assets of $15.8 billion and an equity ratio of 1.35 percent. On September 28, 2017, NCUA raised the normal operating level of the SIF equity ratio to 1.39 percent and lowered it to 1.38 percent on December 13, 2018. If the ratio exceeds the normal operating level, a distribution is normally paid to insured credit unions to reduce the equity ratio. The transfer from the TCCUSF to the SIF raised liquid assets in the SIF by nearly $1.9 billion. However, costs from the failure of several credit unions in 2017 and 2018 and a distribution of SIF capital to credit unions of $736 million approved by the NCUA Board on February 15, 2018, resulted in net outflows from the SIF of $110 million from October 1, 2017 through September 30, 2018.

The health of the credit union industry has markedly improved since the financial crisis. As of September 30, 2018, NCUA reserved $156 million in the SIF to cover potential losses, a decrease of 46 percent from the $286 million reserved as of September 30, 2017. The ratio of insured shares in problem institutions to total insured shares increased slightly from 0.84 percent in September 2017 to 0.91 percent in September 2018. However, this is still a significant reduction from a high of 5.7 percent in December 2009.

Restoring the Deposit Insurance Funds

Pursuant to the Dodd-Frank Act, the restoration period for the FDIC's DIF reserve ratio to reach 1.35 percent was extended to 2020. (Prior to the Act, the DIF reserve ratio was required to reach the minimum target of 1.15 percent by the end of 2016.) On March 25, 2016, the FDIC published a final rule to implement this requirement no later than 2019. The Dodd-Frank Act placed the responsibility for the cost of increasing the reserve ratio to 1.35 percent on large banks (generally, those with $10 billion or more in assets). FDIC regulations provide that since the reserve ratio exceeds 1.35 percent, surcharges on insured depository institutions (IDIs) with total consolidated assets of $10 billion or more will cease. Once the reserve ratio reaches 1.38 percent, small IDIs will receive assessment credits for the portion of their assessments that contributed to the growth in the reserve ratio from 1.15 to 1.35 percent.

Budget Outlook

The Budget estimates DIF net outlays of -$65.9 billion over the current 10-year budget window (2020–2029). This $65.9 billion in net inflows to the DIF is $3.7 billion lower than estimated over the previous 10-year window (2019–2028) for the 2018 President's Budget. Growth in the DIF balance, in the size of the banking sector and the impact of higher interest rate accounted for most of this change, as the latest public data on the banking industry led to minimal changes in projections of failed assets as a share of the banking system, or to the receivership proceeds, resolution outlays, and premiums necessary to reach the 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 distinct insurance programs: single-employer plans and multiemployer plans.

Single-Employer Program

Under the single-employer program, PBGC pays benefits, up to a guaranteed level, when a company's plan closes without enough assets to pay future benefits. PBGC's claims exposure is the amount by which qualified 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 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 strengthen plan funding 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 some 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, usually through the bankruptcy process, PBGC becomes trustee of the plan, applies legal limits on payouts, and pays benefits. The amount of benefit paid is determined after taking into account (a) the benefit that a beneficiary had accrued in the terminated plan, (b) the availability of assets from the terminated plan to cover benefits, and (c) the legal maximum benefit level set in statute. In 2019, the maximum annual payment guaranteed under the single-employer program was $67,295 for a retiree aged 65. This limit is indexed for inflation.

Since 2000, PBGC's single-employer program has incurred substantial losses from underfunded plan terminations. Nine of the ten largest plan termination losses were concentrated between 2001 and 2009. The other occurred in the early 1990s.

Multiemployer Plans

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's role in the multi-employer program is more like that of a re-insurer; if a company sponsoring a multiemployer plan fails, its liabilities are assumed by the other employers in the collective bargaining agreement, not by PBGC, although employers can withdraw from a plan for an exit fee. PBGC becomes responsible for insurance coverage when the plan runs out of money to pay benefits at the statutorily guaranteed level, which usually occurs after all contributing employers have withdrawn from the plan, leaving the plan without a source of income. PBGC provides insolvent multiemployer plans with financial assistance in the form of loans sufficient to pay guaranteed benefits and administrative expenses. Since multiemployer plans 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 the benefit that a participant would have received under the insolvent plan, subject to the legal multiemployer maximum set in statute. The maximum guaranteed amount depends on the participant's years of service and the rate at which benefits are accrued. 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. This limit has been in place since 2011 and is not adjusted for inflation or cost-of-living increases.

In recent years, many multiemployer pension plans have become severely underfunded as a result of unfavorable investment outcomes, employers withdrawing from plans, and demographic challenges. In 2001, only 15 plans covering about 80,000 participants were under 40 percent funded using estimated market rates. By 2011, this had grown to almost 200 plans covering almost 1.5 million participants. While many plans have benefited from an improving economy and will recover, a small number of plans are severely underfunded and, absent any changes, projected to become insolvent within ten years.

As of November 15, 2018, the single-employer program reported a positive net position of $2.4 billion, while the multiemployer program reported a long-term actuarial deficit of $53.9 billion. The challenges facing the multiemployer program are immediate.. In its 2018 Annual Report, PBGC reported that it had just $2 billion in accumulated assets from premium payments made by multiemployer plans, which it projected would be depleted by 2025. If the program runs out of cash, the only funds available to support benefits would be the premiums that continue to be paid by remaining plans; this could result in benefits being cut much more deeply, to a small fraction of current guarantee levels.

To address the problems facing the multiemployer program and the millions of Americans who rely on those plans for their retirement security, the Congress passed The Multiemployer Pension Reform Act, which was included in the Consolidated and Further Continuing Appropriations Act signed on December 16, 2014. The law includes significant reforms to the multiemployer pension plan system, including provisions that allow trustees of multiemployer plans facing insolvency to apply to the Department of Treasury to reduce benefits by temporarily or permanently suspending benefits. The law does not allow suspensions for individuals over age 80 or for those receiving a disability retirement benefit. A participant or beneficiary's monthly benefit cannot be reduced below 110 percent of the PBGC guarantee. It also increases PBGC premiums from $12 per person to $26 beginning in 2015 and indexes premiums to inflation thereafter. While the legislation was an important first step, it will not be enough to improve PBGC's solvency for more than a very short period of time. PBGC projects that it is likely to become insolvent by 2025, extending its projected insolvency date by three years compared to the 2013 projection.

In addition, Congress enacted premium increases in the single-employer program as part of the Bipartisan Budget Act of 2015 (BBA). By increasing both the flat-rate and variable-rate premiums, the Act will raise an estimated $4 billion over the 10-year budget window. This additional revenue will improve the financial outlook for the single-employer program, which was already projected to see a large reduction in its deficit over the next 10 years.

Premiums

PBGC's combined liabilities exceeded assets by $51.5 billion at the end of 2018. While the single-employer program's financial position is projected to continue improving over the next 10 years, in part because Congress has raised premiums in that program several times, the multiemployer program is projected to run out of funds in 2025. Particularly in the multiemployer program, premium rates remain much lower than what a private financial institution would charge for insuring the same risk and well below what is needed to ensure PBGC's solvency.

The Budget includes two policy proposals to reform PBGC premiums. For an in-depth discussion of these proposals, please see the Labor chapter of the Budget Appendix.

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 2018, the program had over five million policies worth $1.31 trillion in force in 22,337 communities. The program is currently authorized until May 31, 2019.

Congress established NFIP in 1968 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. However, structures built prior to flood mapping and NFIP floodplain management requirements are eligible for discounted premiums. Currently, FEMA estimates that approximately 20 percent of the total policies in force pay less than fully actuarial rates while continuing to be at relatively high risk of flooding.

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 minor physical mitigation efforts. 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 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. 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 (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) 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. In 2019, FEMA began utilizing its administrative authority to accelerate the premium increases required by BW-12 and HFIAA so that policyholders recognize the flood risk they face and to encourage financial soundness of the program.

The 2018-2022 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 sets out three overarching goals: Building a culture of preparedness, Readying the nation for catastrophic events, and Reducing the complexity of FEMA. While the NFIP supports all three goals, it is central to building a culture of preparedness. To that end, FMEA 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. Doubling the number of properties covered by flood insurance (either 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 (A&O) 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 2020 Budget, the payments to the companies are projected to be $2.5 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 2018, the 10 principal crops (barley, corn, cotton, grain sorghum, peanuts, potatoes, rice, soybeans, tobacco, and wheat) accounted for over 79 percent of total liability, and approximately 86 percent of the total U.S. planted acres of those 10 crops 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, NOAA or USGS). 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 2018, there were 28,279 Rainfall Index policies earning premiums, covering over 98 million acres of pasture, rangeland and forage. In 2018, there was about $2.4billion in liability, with $470 million in indemnities paid to livestock producers who purchased coverage.

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. 2018 was the first fiscal year where buy-up coverage for prevented planting was 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 through internal development, and through the section 508(h) authority in the Federal Crop Insurance Act, where the private sector is allowed to develop and submit new concepts for policies or plan of insurance. In 2018 a new dairy plan of insurance was approved under this authority. That coupled with the lifting of the $20 million cap on livestock insurance products enhanced the options for risk management for dairy. Other significant products implemented in 2018 include an insurance policy for triticale and a new insurance option that covers the replacement cost of sugarcane. For more information and additional crop insurance program details, please reference RMA's web site (*https://www.rma.usda.gov/*).

Insurance against Security-Related Risks

Terrorism Risk Insurance

The Terrorism Risk Insurance Program (TRIP) was authorized by the Terrorism Risk Insurance Act of 2002 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, and is currently set to expire on December 31, 2020. Each successive reauthorization has included programmatic reforms to limit the Federal Government's risk exposure and to facilitate, over the longer term, full transition of support for terrorism risk insurance to the private sector. The most recent reauthorization, the Terrorism Risk Insurance Extension Act of 2015 (P.L. 114–1), made several program changes to reduce potential Federal liability. Over the first five extension years, the loss threshold that triggers Federal assistance is increased by $20 million each year to $200 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 requires Treasury to recoup 140 percent of all Federal payments made under the program up to a mandatory recoupment amount, which increases by $2 billion each year until 2019 when the threshold is set at $37.5 billion. Effective January 1, 2020, the mandatory recoupment amount will be 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 $29 million over the 2020–2024 period and $133 million over the 2020–2029 period.

Aviation War Risk Insurance

In December 2014, 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 December 31, 2018. 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.

Chart 22-1. Face Value of Federal Credit Outstanding

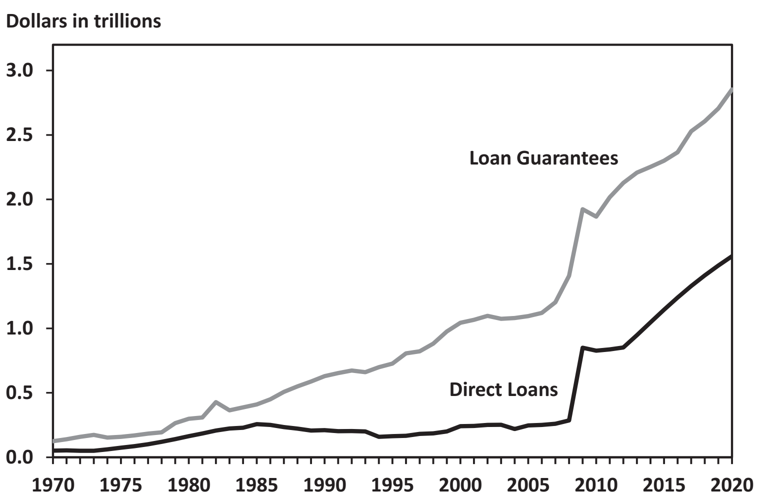


Table 22–1. ESTIMATED FUTURE COST OF OUTSTANDING FEDERAL CREDIT PROGRAMS[1]

(In billions of dollars)

Program	Outstanding 2017	Estimated Future Costs of 2017 Outstanding[2]	Outstanding 2018	Estimated Future Costs of 2018 Outstanding[2]
Direct Loans:[2]				
Federal Student Loans	1,038	39	1,122	64
Education Temporary Student Loan Purchase Authority	63	–3	57	*
Farm Service Agency, Rural Development, Rural Housing	57	4	58	4
Rural Utilities Service and Rural Telephone Bank	52	2	53	2
Housing and Urban Development	27	15	31	15
Export-Import Bank	22	1	19	2
Advanced Technology Vehicle Manufacturing, Title 17 Loans	14	1	14	1
Transportation Infrastructure Finance and Innovation Act Loans	13	*	15	*
International Assistance	8	2	8	2
Disaster Assistance	6	1	9	2
Other direct loan programs[3]	27	7	23	8
Total direct loans	1,328	69	1,411	100
Guaranteed Loans:[2]				
FHA Mutual Mortgage Insurance Fund	1,228	13	1,265	14
Department of Veterans Affairs (VA) Mortgages	604	11	664	9
Federal Student Loan Guarantees	176	4	157	3
FHA General and Special Risk Insurance Fund	156	8	158	5
Farm Service Agency, Rural Development, Rural Housing	145	1	149	1
Small Business Administration (SBA) Business Loan Guarantees[4]	121	3	129	3
Export-Import Bank	50	1	42	1
International Assistance	27	3	26	4
Other guaranteed loan programs[3]	16	2	16	1
Total guaranteed loans[4]	2,524	44	2,606	39
Total Federal credit	**3,851**	**113**	**4,017**	**139**

* $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. 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 22–2. DIRECT LOAN SUBSIDY RATES, BUDGET AUTHORITY, AND LOAN LEVELS, 2018–2020
(Dollar amounts in millions)

Agency and Program Account	2018 Actual			2019 Estimated			2020 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	0.09	2	2,281	1.44	49	3,465	1.91	65	3,416
Farm Storage Facility Loans Program Account	–1.27	–3	246	–0.53	–2	309	–0.23	–1	309
Rural Electrification and Telecommunications Loans Program Account	–4.66	–191	4,092	–3.29	–142	4,316	–3.76	–115	3,050
Distance Learning, Telemedicine, and Broadband Program	16.75	3	20	23.39	27	114	23.17	64	279
Rural Water and Waste Disposal Program Account	0.17	3	1,909	–0.27	–7	2,500	4.56	55	1,200
Rural Community Facilities Program Account	–8.10	–161	1,987	–7.61	–210	2,761	–4.96	–124	2,500
Multifamily Housing Revitalization Program Account	54.68	9	16	49.23	8	17	....	....	....
Rural Housing Insurance Fund Program Account	5.50	65	1,201	10.17	83	815	–1.85	–*	2
Rural Microenterprise Investment Program Account	9.98	1	6	9.52	*	3	....	....	....
Intermediary Relending Program Fund Account	23.09	4	19	22.01	4	19	....	....	....
Rural Economic Development Loans Program Account	12.92	7	57	13.35	6	43	....	....	....
Commerce:									
Fisheries Finance Program Account	–9.74	–5	50	–9.31	–12	124	–8.48	–11	124
Education:									
College Housing and Academic Facilities Loans Program Account	3.19	8	253	8.08	23	285	9.50	27	280
TEACH Grant Program Account	23.06	30	131	28.37	29	102	28.79	31	104
Federal Direct Student Loan Program Account	–2.82	–4,142	147,090	0.43	667	155,468	–0.31	–484	158,747
Energy:									
Title 17 Innovative Technology Loan Guarantee Program	....	....	....	–2.69	–100	3,703	....	....	....
Homeland Security:									
Disaster Assistance Direct Loan Program Account	98.56	610	619	95.88	298	311	74.61	48	65
Housing and Urban Development:									
FHA-Mutual Mortgage Insurance Program Account	....	....	....	0.00	....	1	0.00	....	1
FHA-General and Special Risk Program Account	–8.18	–49	599	–14.38	–104	726	....	....	....
State:									
Repatriation Loans Program Account	53.26	1	2	40.45	1	2	41.34	1	2
Transportation:									
Federal-aid Highways	7.90	143	1,807	[2] 6.30	267	4,237	[2] 5.72	242	4,233
Railroad Rehabilitation and Improvement Program	0.00	....	220	0.00	....	600	0.00	....	600
Treasury:									
Community Development Financial Institutions Fund Program Account	–4.10	–6	152	[2] 0.48	3	525	[2] 0.00	....	500
Veterans Affairs:									
Veterans Housing Benefit Program Fund	2.20	*	6	–1.45	–1	47	11.60	6	54
Native American Veteran Housing Loan Program Account	–15.92	–1	5	–9.38	–1	11	–3.76	–1	11
Environmental Protection Agency:									
Water Infrastructure Finance and Innovation Program Account	0.68	7	1,038	[2] 0.98	55	5,612	[2] 0.91	20	2,193
International Assistance Programs:									
Foreign Military Financing Loan Program Account	13.55	150	1,105	....	....	....	[2] 0.00	....	4,000
Overseas Private Investment Corporation Program Account	–7.02	–26	372	–12.83	–75	588	....	....	....
Development Finance Institution, Program Account	....	....	....	....	....	....	–11.78	–277	2,350
Small Business Administration:									
Disaster Loans Program Account	12.54	548	4,373	12.29	381	3,100	13.62	150	1,100
Business Loans Program Account	8.91	3	36	8.77	3	36	9.29	4	40
Total	**N/A**	–2,990	169,692	**N/A**	1,250	189,840	**N/A**	–300	185,160

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 22–3. LOAN GUARANTEE SUBSIDY RATES, BUDGET AUTHORITY, AND LOAN LEVELS, 2018–2020
(Dollar amounts in millions)

Agency and Program Account	2018 Actual			2019 Estimated			2020 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	0.26	8	3,204	0.43	25	5,709	0.19	8	4,515
Commodity Credit Corporation Export Loans Program Account	–0.19	–4	1,978	–0.43	–24	5,500	–0.39	–21	5,500
Rural Water and Waste Disposal Program Account	0.46	*	25	0.38	*	26	....	....	....
Rural Community Facilities Program Account	3.27	6	177	2.89	5	187	–0.51	–3	500
Rural Housing Insurance Fund Program Account	–0.74	–126	17,012	–0.76	–140	18,467	–0.61	–128	21,085
Rural Business Program Account	4.06	50	1,223	2.32	31	1,343	2.05	23	1,122
Rural Energy for America Program	3.87	11	274	4.46	22	495	....	....	....
Biorefinery Assistance Program Account	23.60	42	180	21.76	72	330	14.93	36	242
Health and Human Services:									
Health Center Facility Loan Guarantee Program	2.69	*	7	2.71	*	3	2.57	2	60
Housing and Urban Development:									
Indian Housing Loan Guarantee Fund Program Account	0.37	3	551	0.26	3	880	0.11	1	880
Native Hawaiian Housing Loan Guarantee Fund Program Account	–0.28	–*	17	–0.32	–*	23	–0.34	–*	23
Native American Housing Block Grant	11.50	*	2	11.26	2	17	6.25	2	32
Community Development Loan Guarantees Program Account	0.00	....	59	0.00	....	125	....	....	....
FHA-Mutual Mortgage Insurance Program Account	–2.99	–6,732	225,400	–3.03	–6,642	219,330	–2.10	–4,583	218,615
FHA-General and Special Risk Program Account	–3.21	–653	20,352	–2.81	–570	20,271	–2.84	–573	20,172
Interior:									
Indian Guaranteed Loan Program Account	6.50	8	123	5.34	6	106	....	....	....
Veterans Affairs:									
Veterans Housing Benefit Program Fund	0.27	415	153,866	0.07	108	153,753	–0.30	–474	158,024
International Assistance Programs:									
Foreign Military Financing Loan Program Account	....	....	....	....	....	....	0.00	....	4,000
Loan Guarantees to Israel Program Account	....	....	....	0.00	....	2,000	0.00	....	1,814
Development Credit Authority Program Account	3.60	14	389	6.74	55	815	....	....	....
Overseas Private Investment Corporation Program Account	–8.27	–199	2,410	[2] 11.32	–300	2,646	....	....	....
Development Finance Corporation Program Account	....	....	....	....	....	....	[2] –2.26	–57	2,506
Small Business Administration:									
Business Loans Program Account	0.00	....	31,131	0.00	....	48,000	–0.35	–150	42,500
Export-Import Bank of the United States:									
Export-Import Bank Loans Program Account	–0.10	–4	3,323	–5.61	–929	16,574	–4.87	–1,121	23,030
Total	**N/A**	**–7,161**	**461,703**	**N/A**	**–8,276**	**496,600**	**N/A**	**–7,038**	**504,620**
ADDENDUM: SECONDARY GUARANTEED LOAN COMMITMENT LIMITATIONS									
Government National Mortgage Association:									
Guarantees of Mortgage-backed Securities Loan Guarantee Program Account	–0.40	–1,740	434,976	–0.44	–1,914	435,000	–0.29	–1,184	408,000
Small Business Administration:									
Secondary Market Guarantee Program	0.00	....	7,999	0.00	....	12,000	–0.04	–5	12,000
Total, secondary guarantee loan commitments	**N/A**	**–1,740**	**442,975**	**N/A**	**–1,914**	**447,000**	**N/A**	**–1,189**	**420,000**

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 22–4. SUMMARY OF FEDERAL DIRECT LOANS AND LOAN GUARANTEES[1]

(In billions of dollars)

	Actual								Estimate	
	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Direct Loans:										
Obligations	296.3	191.1	174.4	174.0	181.3	175.6	180.0	169.7	189.8	185.2
Disbursements	186.7	170.0	157.5	155.4	161.4	158.5	164.4	151.9	167.2	167.6
Budget authority:										
New subsidy budget authority[2]	–15.7	–27.2	–29.8	–22.4	4.9	–9.0	–1.0	–2.4	1.6	–0.3
Reestimated subsidy budget authority[2,3]	–66.8	16.8	–19.7	–0.8	10.1	8.0	32.5	–10.3	29.9	....
Total subsidy budget authority	**–82.5**	**–10.4**	**–49.4**	**–23.2**	**15.1**	**–1.1**	**31.5**	**–12.8**	**31.6**	**–0.3**
Guaranteed Loans										
Commitments[4]	446.7	479.7	536.6	350.8	478.3	537.6	530.2	461.7	496.6	505.0
Lender disbursements[4]	384.1	444.3	491.3	335.6	461.6	517.6	520.6	465.1	468.8	480.6
Budget authority:										
New subsidy budget authority[2]	–7.4	–6.9	–17.9	–13.7	–11.9	–7.5	–8.8	–5.4	–6.4	–6.4
Reestimated subsidy budget authority[2,3]	–4.0	–4.9	20.8	1.2	–1.1	–13.6	16.8	9.4	–20.2	....
Total subsidy budget authority	**–11.4**	**–11.8**	**2.8**	**–12.5**	**–13.1**	**–21.1**	**8.0**	**4.0**	**–26.6**	**–6.4**

[1] As authorized by statute, table includes TARP and SBLF equity purchases, and International Monetary Fund (IMF) transactions resulting from the 2009 Supplemental Appropriations 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 interest on reestimate.

[4] To avoid double-counting, the face value of GNMA and SBA secondary market guarantees and the TARP FHA Letter of Credit program are excluded from the totals.

23. BUDGETARY EFFECTS OF THE TROUBLED ASSET RELIEF PROGRAM

This chapter reports on the cost and budgetary effects of Treasury's Troubled Asset Relief Program (TARP), consistent with Sections 202 and 203 of the Emergency Economic Stabilization Act (EESA) of 2008 (P.L. 110–343), as amended. The cost estimates in this report reflect transactions as of September 30, 2018, and expected future transactions as reflected in the Budget and required under EESA. Where noted, a descriptive analysis of additional transactions that occurred after September 30, 2018, is provided. For information on subsequent TARP program developments, please consult the Treasury Department's TARP Monthly Reports to Congress. EESA authorized Treasury to purchase or guarantee troubled assets and other financial instruments to restore liquidity and stability to the financial system of the United States while protecting taxpayers. On October 3, 2010, Treasury's general authority to make new TARP commitments expired. Treasury continues to manage existing investments and is authorized to expend previously-committed TARP funds pursuant to obligations entered into prior to October 3, 2010. Subsequently, in December 2015, the Consolidated Appropriations Act, 2016 (P.L. 114-113) granted Treasury limited authority to make an additional $2.0 billion in commitments through the TARP Hardest Hit Fund (HHF).

Treasury's current estimate of TARP's lifetime deficit cost for its $454.5 billion in cumulative obligations is $32.5 billion (see Tables 23–1 and 23–6). Section 123 of EESA requires TARP costs to be estimated on a net present value basis, adjusted to reflect a premium for market risk. As investments are liquidated, their actual costs (including any market risk effects) become known and are reflected in reestimates. It is likely that the total cost of TARP to taxpayers will eventually be marginally lower than current estimates as the forecast market risk premiums and estimates are replaced by actual costs, but the total cost will not be fully known until all TARP investments have been extinguished.

A description of the market impact of TARP programs, followed by a detailed analysis of the assets purchased through TARP, is provided at the end of this report.

Method for Estimating the Cost of TARP Transactions

Under EESA, Treasury has purchased different types of financial instruments with varying terms and conditions. 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 (FCRA) of 1990; as amended (2 U.S.C. 661 et seq.), with an EESA-required adjustment to the discount rate for market risks. Costs for the incen-

Table 23–1. CHANGE IN PROGRAMMATIC COSTS OF TROUBLED ASSET RELIEF PROGRAM

(In billions of dollars)

TARP Programs	2019 Budget		2020 Budget		Change from 2019 Budget to 2020 Budget	
	TARP Obligations [1]	Estimated Cost (+) / Savings (–)	TARP Obligations [1]	Estimated Cost (+) / Savings (–)	TARP Obligations [1]	Estimated Cost (+) / Savings (–)
Equity Programs	335.8	5.7	335.8	5.7	....	–*
Structured and Direct Loan Programs	76.2	16.7	76.2	16.7	....	–*
Guarantee Programs [2]	5.0	–3.9	5.0	–3.9	....	....
TARP Housing Programs [3]	37.4	32.5	33.4	32.8	–4.0	0.2
Total programmatic costs [4]	**454.5**	**51.1**	**450.5**	**51.3**	**–4.0**	**0.2**
Memorandum:						
Deficit impact with interest on reestimates [5]		***32.3***		***32.5***		***0.2***

*$50 million or less.

[1] TARP obligations are net of cancellations.

[2] The total assets supported by the Asset Guarantee Program were $301 billion.

[3] TARP obligations include FHA Refinance Letter of Credit first loss coverage of eligible FHA insured mortgages.

[4] Total programmatic costs of TARP exclude interest on reestimates.

[5] The total deficit impact of TARP as of November 30, 2018 includes $17.43 billion in subsidy cost for TARP investments in AIG. Additional proceeds of $17.55 billion resulting from Treasury holdings of non-TARP shares in AIG are not included.

Table 23–2. TROUBLED ASSET RELIEF PROGRAM CURRENT VALUE [1]

(In billions of dollars)

	Actual										Estimate										
	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Financing Account Balances:																					
Troubled Asset Relief Program Equity Purchase Financing Account	105.4	76.9	74.9	13.6	6.6	0.9	0.4	0.4	0.1	*	*	*	–*	–*	–*	–*	–*	–*	–*	–*	–*
Troubled Asset Relief Program Direct Loan Financing Account	23.9	42.7	28.5	17.9	3.1	–0.2	–0.1	*	–*	–*	–*	–*	–*	–*	–*	–*	–*	–*	–*	–*	–*
Troubled Assets Insurance Financing Fund Guaranteed Loan Financing Account	0.6	2.4	0.8	0.8	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Troubled Assets Relief Program FHA Refinance Letter of Credit Financing Account	....	....	–*	–*	–*	–*	–*	–*	–*	–*	–*	–*	–*	–*	–*	–*	–*	–*	–*	–*	–*
Total Financing Account Balances	**129.9**	**122.0**	**104.1**	**32.2**	**9.7**	**0.7**	**0.3**	**0.4**	**0.1**	*****	**–***	**–***	**–***	**–***	**–***	**–***	**–***	**–***	**–***	**–***	**–***

* $50 million or less.

[1] Current value as reflected in the 2020 Budget. Amounts exclude housing activity under the Making Home Affordable program and the Hardest Hit Fund as these programs are reflected on a cash basis.

tive payments under TARP housing programs, other than loss sharing under the Federal Housing Administration (FHA) Refinance program, involve financial instruments without any provision for future returns and are recorded on a cash basis.[1]

For each of these instruments, cash flow models[2] are used to estimate future cash flows to and from the Government over the life of a program or facility. Consistent with the requirement under FCRA to reflect the lifetime present value cost, subsidy cost estimates are reestimated every year an instrument is outstanding, with a final closing reestimate once an instrument is fully liquidated. Reestimates update the cost for actual transactions, and updated future expectations. When all investments in a given cohort are liquidated, their actual costs (including any market risk effects) become known and are reflected in final closing reestimates.

TARP Program Costs and Current Value of Assets

This section provides the special analysis required under Sections 202 and 203 of EESA, including estimates of the cost to taxpayers and the budgetary effects of TARP transactions as reflected in the Budget.[3] This section also explains the changes in TARP costs, and includes alternative estimates as prescribed under EESA. Additionally, this section includes a comparison of the current cost estimates with previous estimates provided by OMB and by the Congressional Budget Office (CBO).

Table 23–1 summarizes the cumulative and anticipated activity under TARP, and the estimated lifetime budgetary cost reflected in the Budget, compared to estimates from the 2019 Budget. The direct impact of TARP on the deficit is projected to be $32.5 billion, up $0.2 billion from the $32.3 billion estimate in the 2019 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 $51.3 billion, a figure that excludes interest on reestimates.[4] The final subsidy cost of TARP is likely to be marginally lower than the current estimate because projected cash flows are discounted using a risk adjustment to the discount rate as required by EESA. This requirement adds a premium to current estimates of TARP costs on top of other risks already reflected in the estimated cash flows with the public. Over time, the added risk premium for uncertainty on future estimated TARP cash flows is returned to the General Fund through subsidy reestimates as actual cash flows become known. TARP's overall cost to taxpayers will not be fully known until all TARP investments are extinguished.

Current Value of Assets

The current value of future cash flows related to TARP transactions can also be measured by the balances in the program's non-budgetary credit financing accounts. Under the FCRA budgetary accounting structure, the net debt or cash balances in non-budgetary credit financing accounts at the end of each fiscal year reflect the present value of anticipated cash flows to and from the public.[5] Therefore,

[1] 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 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.

[2] The basic methods for each of these models are outlined in chapter 21 of the *Analytical Perspectives* volume of the 2015 Budget, "Financial Stabilization Efforts and Their Budgetary Effects."

[3] The analysis does not assume the effects on net TARP costs of a recoupment proposal required by Section 134 of EESA.

[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] For example, to finance a loan disbursement to a borrower, a direct loan financing account receives the subsidy cost from the program account, and borrows from the Treasury the difference between the face value of the loan and the subsidy cost. As loan and interest payments

the net debt or cash balances reflect the expected present value of the asset or liability. Future collections from the public—such as proceeds from stock sales, or payments of principal and interest—are financial assets, just as future payments to the public are financial liabilities. The current year reestimates true-up assets and liabilities, setting the net debt or cash balance in the financing account equal to the present value of future cash flows.[6]

Table 23–2 shows the actual balances of TARP financing accounts as of the end of each fiscal year through 2018, and projected balances for each subsequent year through 2029.[7] Based on actual net balances in financing accounts at the end of 2009, the value of TARP assets totaled $129.9 billion. As of September 30, 2018, total TARP net asset value has decreased to $26 million as repayments, repurchases, and other liquidations have reduced the inventory of TARP assets. Estimates in 2019 and beyond reflect estimated TARP net asset values over time, and future anticipated transactions. The overall balance of the financing accounts is estimated to continue falling over the next few years, as TARP investments continue to wind down.

The value of TARP equity purchases reached a high of $105.4 billion in 2009, and has since declined significantly with the wind down of American International Group (AIG) funding and repayments from all large financial institutions. Remaining equity investments are concentrated in only two programs, the Capital Purchase Program (CPP) and the Community Development Capital Initiative (CDCI). The value of the TARP equity portfolio is anticipated to continue declining as the few remaining participants repurchase stock and assets are sold. TARP direct loans were fully liquidated in 2014. The FHA Refinance Letter of Credit financing account reflects net cash balances, showing the reserves set aside to cover TARP's share of default claims for FHA Refinance mortgages over the life of the letter of credit facility which expires in December 2022. These reserves are projected to fall as claims are paid and as TARP coverage expires.

Estimate of the Deficit, Debt Held by the Public, and Gross Federal Debt, Based on the EESA Methodology

The estimates of the deficit and debt in the Budget reflect the impact of TARP as estimated under FCRA and Section 123 of EESA. The deficit estimates include the budgetary costs for each program under TARP, administrative expenses, certain indirect interest effects of credit programs, and the debt service cost to finance the program. As shown in Table 23-3, direct activity under TARP is expected to increase the 2019 deficit by $2.6 billion. This reflects estimated TARP programmatic and administrative outlays of $1.8 billion, and $0.8 billion in interest effects. The estimates of U.S. Treasury debt attributable to TARP include borrowing to finance both the deficit impacts of TARP activity and the cash flows to and from the Government reflected as a means of financing in the TARP financing accounts. Estimated debt due to TARP at the end of 2019 is $34.1 billion.

Debt held by the public net of financial assets reflects the cumulative amount of money the Government has borrowed from the public for the program and not repaid, minus the current value of financial assets acquired with the proceeds of this debt, such as loan assets, or equity held by the Government. While debt held by the public is one useful measure for examining the impact of TARP, it provides incomplete information on the program's effect on the Government's financial condition. Debt held by the public net of financial assets provides a more complete picture of the Government's financial position because it reflects the net change in the Government's balance sheet due to the program.

Debt net of financial assets due to TARP is estimated to be $34.1 billion as of the end of 2019. This is $0.2 billion lower than the projected debt held net of financial assets for 2019 that was reflected in the 2019 Budget. However, debt net of financial assets is anticipated to continue increasing annually, as debt is incurred to finance TARP housing program costs and debt service.

Under FCRA, the financing account earns and pays interest on its Treasury borrowings at the same interest rate used to discount cash flows for the credit subsidy cost. Section 123 of EESA requires an adjustment to the discount rate used to value TARP subsidy costs to account for market risks. However, actual cash flows as of September 30, 2018, already reflect the effect of any incurred market risks to that point, and therefore actual financing account interest transactions reflect the FCRA Treasury interest rates, with no additional risk adjustment.[8] Future cash flows reflect a risk adjusted discount rate and the corresponding financing account interest rate, consistent with the EESA requirement. For ongoing TARP credit programs, the risk adjusted discount rates on future cash flows result in subsidy costs that are higher than subsidy costs estimated under FCRA.

Estimates on a Cash Basis

The value to the Federal Government of the assets acquired through TARP is the same whether the costs of acquiring the assets are recorded in the Budget on a cash basis, or a credit basis. As noted above, the Budget records the cost of equity purchases, direct loans, and guarantees as the net present value cost to the Government, discounted at the rate required under FCRA and adjusted for market risks as required under Section 123 of EESA. Therefore, the net present value cost of the assets is reflected on-budget, and the gross value of these assets is

from the public are received, the value is realized and these amounts are used to repay the financing account's debt to Treasury.

[6] For a full explanation of FCRA budgetary accounting, please see chapter 11, "Budget Concepts," in this volume.

[7] Reestimates for TARP are calculated using actual data through September 30, 2018, and updated projections of future activity. Thus, the full impacts of TARP reestimates are reflected in the 2019 financing account balances.

[8] As TARP transactions wind down, the final lifetime cost estimates under the requirements of Section 123 of EESA will reflect no adjustment to the discount rate for market risks, as these risks have already been realized in the actual cash flows. Therefore, the final subsidy cost for TARP transactions will equal the cost per FCRA, where the net present value costs are estimated by discounting cash flows using Treasury rates.

Table 23–3. TROUBLED ASSET RELIEF PROGRAM EFFECTS ON THE DEFICIT AND DEBT [1]
(Dollars in billions)

	Actual										Estimate										
	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Deficit Effect:																					
Programmatic and administrative expenses	151.3	–109.6	–37.3	24.6	–8.5	–3.6	2.9	4.3	4.2	2.3	1.8	1.2	0.9	0.7	0.4	*	*	*	*	*	*
Interest effects [2, 3]	*	*	*	*	*	*	*	0.1	0.2	0.5	0.8	1.2	1.2	1.3	1.3	1.4	1.4	1.5	1.5	1.6	1.6
Total deficit impact	**151.3**	**–109.6**	**–37.3**	**24.7**	**–8.5**	**–3.6**	**2.9**	**4.3**	**4.4**	**2.8**	**2.6**	**2.3**	**2.1**	**2.1**	**1.7**	**1.4**	**1.4**	**1.5**	**1.5**	**1.6**	**1.6**
Debt held by the public:																					
Deficit impact	151.3	–109.6	–37.3	24.7	–8.5	–3.6	2.9	4.3	4.4	2.8	2.6	2.3	2.1	2.1	1.7	1.4	1.4	1.5	1.5	1.6	1.6
Net disbursements of credit financing accounts	129.9	–7.9	–17.8	–71.9	–22.5	–9.0	–0.4	0.1	–0.3	–*	–*	–*	–*	–*	–*	....	....	....	....	....	....
Total change in debt held by the public	281.2	–117.5	–55.1	–47.2	–31.0	–12.6	2.5	4.5	4.1	2.8	2.6	2.3	2.1	2.1	1.7	1.4	1.4	1.5	1.5	1.6	1.6
Debt held by the public	**281.2**	**163.6**	**108.5**	**61.3**	**30.3**	**17.6**	**20.2**	**24.6**	**28.7**	**31.5**	**34.1**	**36.4**	**38.5**	**40.6**	**42.3**	**43.7**	**45.1**	**46.6**	**48.1**	**49.7**	**51.3**
As a percent of GDP	2.0%	1.1%	0.7%	0.4%	0.2%	0.1%	0.1%	0.1%	0.1%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%
Debt held by the public	281.2	163.6	108.5	61.3	30.3	17.6	20.2	24.6	28.7	31.5	34.1	36.4	38.5	40.6	42.3	43.7	45.1	46.6	48.1	49.7	51.3
Less financial assets net of liabilities	129.9	122.0	104.1	32.2	9.7	0.7	0.3	0.4	0.1	*	–*	–*	–*	–*	–*	–*	–*	–*	–*	–*	–*
Debt held by the public net of financial assets	**151.3**	**41.6**	**4.4**	**29.0**	**20.5**	**17.0**	**19.9**	**24.2**	**28.6**	**31.5**	**34.1**	**36.4**	**38.6**	**40.6**	**42.4**	**43.8**	**45.1**	**46.6**	**48.1**	**49.7**	**51.3**

* $50 million or less.
[1] Table reflects the deficit effects of the TARP program, including administrative costs and interest effects.
[2] Projected Treasury interest transactions with credit financing accounts are based on the market-risk adjusted rates. Actual credit financing account interest transactions reflect the appropriate Treasury rates under the FCRA.
[3] Includes estimated debt service effects of all TARP transactions that affect borrowing from the public.

reflected in the financing accounts.[9] If these purchases were instead presented in the Budget on a cash basis, the Budget would reflect outlays for each disbursement (whether a purchase, a loan disbursement, or a default claim payment), and offsetting collections as cash is received from the public, with no obvious indication of whether the outflows and inflows leave the Government in a better or worse financial position, or what the net value of the transaction is.

Revised Estimate of the Deficit, Debt Held by the Public, and Gross Federal Debt Based on the Cash-basis Valuation

The estimated effects of TARP transactions on the deficit and debt, as calculated on a cash basis, are reflected in Table 23–4. For comparison, the estimates in Table 23–3 reflect TARP transactions' effects as calculated consistent with FCRA and Section 123 of EESA.

If TARP transactions were reported on a cash basis, the annual budgetary effects would include the full amount of Government disbursements for activities such as equity purchases and direct loans, offset by cash inflows from dividend payments, redemptions, and loan repayments occurring in each year. For loan guarantees, the deficit would show fees, claim payouts, or other cash transactions associated with the guarantees as they occurred. Updates to estimates of future performance would affect the deficit in the year that they occur, and there would not be credit reestimates.

Under cash basis reporting, the 2019 deficit would be $31 million lower than the $2.6 billion estimate now reflected in the Budget. Under FCRA, the marginal change in the present value attributable to better-than-expected future inflows from the public would be recognized up front in a downward reestimate, in contrast to a cash-

[9] For MHA programs and HHF, Treasury's purchases of financial instruments do not result in the acquisition of assets with potential for future cash flows, and therefore are recorded on a cash basis.

Table 23–4. TROUBLED ASSET RELIEF PROGRAM EFFECTS ON THE DEFICIT AND DEBT CALCULATED ON A CASH BASIS [1]
(Dollars in billions)

	Actual										Estimate										
	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Deficit Effect:																					
Programmatic and administrative expenses	278.4	–122.3	–58.1	–48.9	–31.6	–12.8	2.5	4.4	3.9	2.2	1.7	1.2	0.8	0.7	0.4	*	–*	*	–*	*	*
Debt service [2]	2.8	4.7	3.0	1.7	0.6	0.2	*	0.1	0.2	0.5	0.9	1.2	1.3	1.3	1.4	1.4	1.4	1.5	1.5	1.6	1.6
Total deficit impact	**281.2**	**–117.5**	**–55.1**	**–47.2**	**–31.0**	**–12.6**	**2.5**	**4.5**	**4.1**	**2.8**	**2.6**	**2.3**	**2.1**	**2.1**	**1.7**	**1.4**	**1.4**	**1.5**	**1.5**	**1.6**	**1.6**

* $50 million or less.
[1] Table reflects deficit effect of budgetary costs, substituting estimates calculated on a cash basis for estimates calculated under FCRA and Sec. 123 of EESA.
[2] Includes estimated debt service effects of all TARP transactions affecting borrowing from the public.

based treatment that would show the annual marginal changes in cash flows. 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. Because debt held by the public and debt net of financial assets are the same on a cash and present value basis, these data are not repeated in Table 23–4.

Table 23–5. TROUBLED ASSET RELIEF PROGRAM REESTIMATES

(In billions of dollars)

TARP Program and Cohort Year	Original subsidy rate	Current reestimate rate	Current reestimate amount	Net lifetime reestimate amount, excluding interest	TARP disbursements as of 09/30/2018
Equity Programs:					
Automotive Industry Financing Program (AIFP) - Equity:					
2009	54.52%	2.39%	....	–6.5	12.5
2010	30.25%	–16.81%	....	–1.6	3.8
Capital Purchase Program (CPP):					
2009	26.99%	–6.84%	–*	–65.8	204.6
2010	5.77%	2.23%	*	–*	0.3
AIG Investment Program (AIG):					
2009	82.78%	21.88%	....	–38.5	67.8
Public-Private Investment Program (PPIP) - Equity:					
2009	34.62%	–20.41%	....	–0.3	0.7
2010	22.97%	–51.03%	–*	–3.7	5.5
Targeted Investment Program (TIP):					
2009	48.85%	–8.47%	....	–23.2	40.0
Community Development Capital Initiative (CDCI):					
2010	48.06%	14.05%	–*	–0.2	0.6
Subtotal Equity Programs			**–***	**–139.8**	**335.8**
Structured and Direct Loan Programs:					
Automotive Industry Financing Program (AIFP) - Debt:					
2009	58.75%	21.69%	–*	–19.9	63.4
Public Private Investment Program (PPIP) - Debt:					
2009	–2.52%	–0.29%	....	*	1.4
2010	–10.85%	1.84%	....	1.3	11.0
Small Business 7(a) program (SBA 7(a)):					
2010	0.48%	–1.35%	....	–*	0.4
Term-Asset Backed Securities Loan Facility (TALF):[1]					
2009	–104.23%	–605.59%	....	–0.4	0.1
Subtotal Structured and Direct Loan Programs			**–***	**–18.9**	**76.2**
Guarantee Programs:[2]					
Asset Guarantee Program (AGP):[3]					
2009	–0.25%	–1.20%	....	–1.4	301.0
FHA Refinance Letter of Credit:[4]					
2011	1.26%	*8%	–*	–*	0.1
2012	4.00%	0.40%	–*	–*	0.2
2013	2.48%	0.33%	–*	–*	0.2
2015	1.64%	0.55%	–*	–*	0.1
2017[5]	0.80%	0.76%	–*	–*	*
Subtotal Guarantee Program			–*	–1.4	301.6
Total TARP			**–***	**–160.1**	**713.7**

* $50 million or less.

[1] The Term-Asset Backed Securities Loan Facility original subsidy rate reflects the anticipated collections for Treasury's $20 billion commitment, as a percent of estimated lifetime disbursements of roughly $0.1 billion.

[2] Disbursement amounts for Guarantee Programs reflect the face value of the assets supported by the guarantees.

[3] The TARP obligation for this program was $5 billion, the maximum contingent liability while the guarantee was in force.

[4] The FHA Refinance Letter of Credit, which is considered a TARP Housing Program, is also a guarantee program subject to FCRA.

[5] The FHA Refinance Letter of Credit 2017 cohort was only open from September 30, 2016 to December 31, 2016.

Table 23–6. DETAILED TARP PROGRAM LEVELS AND COSTS
(In billions of dollars)

Program	2019 Budget		2020 Budget	
	TARP Obligations	Subsidy Costs	TARP Obligations	Subsidy Costs
Equity Purchases:				
Capital Purchase Program (CPP)	204.9	–8.4	204.9	–8.4
AIG Investment Program (AIG)	67.8	17.4	67.8	17.4
Targeted Investment Program (TIP)	40.0	–3.6	40.0	–3.6
Automotive Industry Financing Program (AIFP) - Equity	16.3	2.8	16.3	2.8
Public-Private Investment Program (PPIP) - Equity	6.2	–2.5	6.2	–2.5
Community Development Capital Initiative (CDCI)	0.6	0.1	0.6	0.1
Subtotal equity purchases	335.8	5.7	335.8	5.7
Structured and Direct Loan Programs:				
Automotive Industry Financing Program (AIFP) - Debt	63.4	17.1	63.4	17.1
Term Asset-Backed Securities Loan Facility (TALF)	0.1	–0.6	0.1	–0.6
Public-Private Investment Program (PPIP) - Debt	12.4	0.1	12.4	0.1
Small Business 7(a) Program (SBA 7(a))	0.4	*	0.4	*
Subtotal direct loan programs	76.2	16.7	76.2	16.7
Guarantee Programs:				
Asset Guarantee Program (AGP) [1]	5.0	–3.9	5.0	–3.9
Subtotal asset guarantees	5.0	–3.9	5.0	–3.9
TARP Housing Programs:				
Making Home Affordable (MHA) Programs	27.8	22.9	23.8	23.2
Hardest Hit Fund (HHF)	9.6	9.6	9.6	9.6
Subtotal non-credit programs	37.4	32.5	33.4	32.8
FHA Refinance Letter of Credit	*	*	*	*
Subtotal TARP housing programs	37.4	32.5	33.4	32.8
Totals	**454.5**	**51.1**	**450.5**	**51.3**
Memorandum:				
Interest on reestimates		–18.8		–18.8
Deficit impact with interest on reestimates [2]		***32.3***		***32.5***

* $50 million or less.
[1] The total assets supported by the Asset Guarantee Program were $301 billion.
[2] Total programmatic costs of TARP exclude interest on reestimates of $18.8 billion in both the 2019 Budget and the 2020 Budget. Interest on reestimates is an adjustment that accounts for the time between the original subsidy costs and current estimates; such adjustments impact the deficit but are not direct programmatic costs.

Portion of the Deficit Attributable to TARP, and the Extent to Which the Deficit Impact is Due to a Reestimate

Table 23–3 shows the portion of the deficit attributable to TARP transactions. The major components of TARP's $2.6 billion deficit effects in 2019 are as follows:

- Outlays for TARP housing programs are estimated at $1.7 billion in 2019, which includes outlays under MHA and HHF. Outlays for TARP housing programs are estimated to continue to decline gradually through 2024.
- Administrative expense outlays for TARP are estimated at $101 million in 2019, and are expected to decrease annually thereafter as TARP winds down. Outlays for the Special Inspector General for TARP are estimated at $35 million in 2019.
- TARP reestimates and interest on reestimates will decrease the deficit by $25.9 million in 2019.
- Interest transactions with credit financing accounts include interest paid to Treasury on borrowing by the financing accounts, offset by interest paid by Treasury on the financing accounts' uninvested balances. Although the financing accounts are non-budgetary, Treasury payments to these accounts and receipt of interest from them are budgetary transactions and therefore affect net outlays and the deficit. For TARP financing accounts, projected interest transactions are based on the market risk adjusted rates used to discount the cash flows. The projected net financing account interest paid to Treasury at market risk adjusted rates is $119 million in 2019 and generally declines over time as the financing accounts repay borrowing from Treasury through investment sale proceeds and repayments on TARP equity purchases and direct loans.

The full impact of TARP on the deficit includes the estimated cost of Treasury borrowing from the public—debt service—for the outlays listed above. Debt service is estimated at $907 million for 2019 and then expected to increase to $1.6 billion by 2029, 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.

Analysis of TARP Reestimates

The costs of outstanding TARP assistance are reestimated annually by updating cash flows for actual experience and new assumptions, and adjusting for any changes by either recording additional subsidy costs (an upward technical and economic reestimate) or by reducing subsidy costs (a downward reestimate). The reestimated dollar amounts to be recorded in 2019 reflect TARP disbursements through September 30, 2018, while reestimated subsidy rates reflect the full lifetime costs, including anticipated future disbursements.[10] Detailed information on upward and downward reestimates to program costs is reflected in Table 23–5.

The current reestimate of -$26 million reflects a decrease in estimated TARP costs from the 2019 Budget. This decrease was due in large part to improved market conditions and continued progress winding down TARP investments over the past year.

Differences Between Current and Previous OMB Estimates

As shown in Table 23–6, the 2019 Budget reflects a total TARP deficit impact of $32.5 billion. This is an increase of $0.2 billion from the 2019 Budget projection of $32.3 billion. This decrease is predominantly due to increased estimated outlays within TARP housing programs.

The estimated 2019 TARP deficit impact reflected in Table 23–6 differs from the programmatic cost of $51.3 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 23–6.

Differences Between OMB and CBO Estimates

Table 23–7 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—March 2018."[11]

CBO estimates the total cost of TARP at $32 billion, based on estimated lifetime TARP disbursements of $444 billion. The Budget reflects a total deficit cost of $33 billion, based estimated disbursements of $444 billion. CBO and OMB cost estimates for TARP have generally converged over time as TARP equity programs have wound down, differences in assumptions for the future performance of equity investments in the program have been eliminated, and divergent assumptions regarding estimated demand and participation rates in TARP housing programs have been replaced by actuals.

TARP Market Impact

TARP provided support to the financial sector through the Capital Purchase Program, Targeted Investment Program, Asset Guarantee Program, and the Community Development Capital Initiative which strengthened the financial position of the Nation's financial institutions. TARP's intervention in the auto industry through the Automotive Industry Financing Program was effectively wound down in 2014; however, Treasury retains the right to receive proceeds from Chrysler and General Motors (GM) liquidation trusts. TARP housing programs provided assistance to millions of homeowners including more than 1.7 million borrowers who received permanent mortgage modifications through the Home Affordable Modification Program (HAMP) as of November 30, 2018.

[10] The current reestimated dollar amounts also include the $0.5 million PPIP post-closure recovery received in December 2017.

[11] Available at: *www.cbo.gov/system/files/115th-congress- 2017-2018/reports/53617-tarp-march2018.pdf*

Table 23–7. COMPARISON OF CBO AND OMB TARP COSTS

(In billions of dollars)

Program	Estimates of Deficit Impact[1]	
	CBO Cost Estimate[2]	OMB Cost Estimate
Capital Purchase Program	–16	–16
Targeted Investment Program & Asset Guarantee Program	–8	–8
AIG assistance	15	15
Automotive Industry Financing Program	12	12
Term Asset-Backed Securities Loan Facility	–1	–1
Public-Private Investment Programs[3]	–3	–3
Other programs[4]	*	*
TARP housing programs	32	33
Total	**32**	**33**

* Amounts round to less than $1 billion.

[1] Totals include interest on reestimates.

[2] CBO estimates from March 2018, available at *www.cbo.gov/system/files/115th-congress–2017–2018/reports/53617-tarp-march2018.pdf*

[3] Includes both debt and equity purchases.

[4] "Other programs" reflects an aggregate cost for CDCI and small business programs.

Description of Assets Purchased Through TARP, by Program

Capital Purchase Program (CPP): Pursuant to EESA, Treasury created the CPP in October 2008 to restore confidence throughout the financial system by ensuring that the Nation's financial institutions had a sufficient capital cushion against potential future losses and to support lending to creditworthy borrowers. Treasury purchased $204.9 billion in preferred stock in 707 financial institutions under CPP. As of November 30, 2018, Treasury had received approximately $199.7 billion in principal repayments and $27.1 billion in revenues from dividends, interest, warrants, gains/other interest and fees. CPP cash proceeds of $226.8 billion now exceed Treasury's initial investment by 21.9 billion. As of November 30, 2018, $23 million remained outstanding under the program among three remaining CPP institutions.

Community Development Capital Initiative (CDCI): The CDCI program provided lower-cost capital to Community Development Financial Institutions (CDFIs), which operate in markets underserved by traditional financial institutions. In February 2010, Treasury released program terms for the CDCI program, under which participating institutions received capital investments of up to 5 percent of risk-weighted assets and pay dividends to Treasury of as low as 2 percent per annum. The dividend rate increased to 9 percent after eight years. TARP capital of $570 million was committed to the CDCI program. As of November 30, 2018, Treasury has received $579 million in cash back on its CDCI investments and $29 million remains outstanding under the program among eight remaining CDCI Institutions.

Capital Assistance Program (CAP): In 2009, Treasury worked with Federal banking regulators to develop a comprehensive "stress test" to assess the health of the nation's 19 largest bank holding companies. Treasury also announced it would provide capital under TARP through the Capital Assistance Program (CAP) to institutions that participated in the stress tests as well as others. Only one TARP institution (Ally Financial) required additional funds under the stress tests, but it received them through AIFP, not CAP. CAP closed on November 9, 2009, without making any investments and did not incur any losses to taxpayers. Following the release of the stress test results, banks were able to raise hundreds of billions of dollars in private capital.

American International Group (AIG) Investments: During the financial crisis, the Federal Reserve Bank of New York (FRBNY) and Treasury provided financial support to AIG in order to mitigate broader systemic risks that would have resulted from the disorderly failure of the company. In September 2008, prior to the enactment of TARP, the FRBNY provided an $85 billion line of credit to AIG and received preferred shares that entitled it to 79.8 percent of the voting rights of AIG's common stock. After TARP was enacted, FRBNY and Treasury continued to work to facilitate AIG's execution of its plan to sell certain of its businesses in an orderly manner, promote market stability, and protect the interests of the U.S. Government and taxpayers. As of December 31, 2008, when purchases ended, Treasury had purchased $40 billion in preferred shares from AIG through TARP and later extended a $29.8 billion line of credit, of which AIG drew down $27.8 billion, in exchange for additional preferred stock. The remaining $2 billion obligation was canceled.

AIG executed a recapitalization plan with FRBNY, Treasury, and the AIG Credit Facility Trust in 2011 that allowed for the acceleration of the Government's exit from its 92 percent ownership stake in AIG.[12] Following the restructuring, Treasury executed a multi-year process of liquidating its position, and fully exited its investment in AIG in 2013.[13] In total, TARP's AIG commitments totaled $67.8 billion and, with the program closed, yielded $55.3 billion in total cash back. Treasury also collected net proceeds of $17.6 billion for its non-TARP shares in AIG. Total AIG-related proceeds exceeded disbursements by $5.0 billion for Treasury as a whole.

Targeted Investment Program (TIP): The goal of TIP was to stabilize the financial system by making investments in institutions that are critical to the functioning of the financial system. Under TIP, Treasury purchased $20 billion in preferred stock from Citigroup and $20 billion in preferred stock from Bank of America. Treasury also received stock warrants from each company. Both Citigroup and Bank of America repaid their TIP investments in full in December 2009. In total, TARP's TIP commitments totaled $40 billion and, with the program closed, yielded $44.4 billion in total cash back.

Asset Guarantee Program (AGP): The AGP was created to provide Government assurances for assets held by financial institutions that were critical to the functioning of the Nation's financial system. Under the AGP, Treasury and FDIC committed to provide support to two institutions – Bank of America and Citigroup. Bank of America, however, ultimately decided not to participate, and paid TARP a termination fee of $276 million. TARP, in conjunction with the Federal Reserve, and the FDIC agreed to share potential losses on a $301.0 billion pool of Citigroup's covered assets. As a premium for the guarantee to Citigroup, TARP received $4.0 billion of Citigroup preferred stock, which was reduced by $1.8 billion upon early termination of the agreement. TARP completed the wind-down of the AGP in 2013, and received more than $4.1 billion in proceeds from the AGP without disbursing any claim payments.

Automotive Industry Support Programs: In December 2008, Treasury established several programs to prevent the collapse of the domestic automotive industry. Through the Automotive Industry Financing Program (AIFP), TARP made emergency loans to Chrysler, Chrysler Financial, and GM. Additionally, TARP bought equity in Ally Financial, formerly GMAC, and assisted Chrysler and GM during their bankruptcy proceedings.

[12] Treasury's investment in AIG common shares consisted of shares acquired in exchange for preferred stock purchased with TARP funds (TARP shares) and shares received from the trust created by FRBNY for the benefit of Treasury as a result of its loan to AIG (non-TARP shares).

[13] A summary of the deal terms and transactions can be found in the *Analytical Perspectives* volume of the 2014 Budget.

Treasury has liquidated its AIFP holdings and AIFP is effectively wound down. In total, of the $12.4 billion committed to Chrysler, TARP was repaid $11.1 billion in total cash back.[14] In December 2013, TARP sold its last remaining shares in GM, recouping a total of $39.0 billion from TARP's $49.5 billion investment in GM.[15] In total, Treasury recovered $19.6 billion on its investment in Ally Financial, roughly $2.4 billion more than the original investment of $17.2 billion. Through the Auto Supplier Support Program (Supplier Program) and the Auto Warranty Commitment Program (Warranty Program), Treasury disbursed $1.1 billion in direct loans to GM and Chrysler to support auto parts manufacturers and suppliers. Both the Supplier and Warranty Programs have closed and, in aggregate, these investments yielded $1.2 billion in total cash back. TARP's AIFP disbursements—including the GM, Chrysler, Ally (GMAC), Supplier, and Warranty Programs—totaled $79.7 billion and, with all programs effectively wound down, AIFP yielded $70.5 billion in total cash back.

TARP maintains an interest in the ongoing bankruptcy proceedings of the automotive entities it invested in. In March 2018, TARP received a payment of $12.9 million and in December 2018, TARP received a payment of $0.4 million both from GM bankruptcy proceedings. Additional future payments are possible, but not anticipated.

Term Asset-Backed Securities Loan Facility (TALF): The TALF was a joint initiative with the Federal Reserve that provided financing loans to private investors to facilitate the restoration of secondary credit markets. Treasury provided protection to the Federal Reserve through a loan to TALF's special purpose vehicle (SPV), which was originally available to purchase up to $20 billion in assets that would be acquired in the event of default on Federal Reserve financing. In March 2009 Treasury disbursed $0.1 billion of this amount to the TALF SPV to implement the program and the loss-coverage was subsequently reduced. In 2013, Treasury and the Federal Reserve determined that Treasury's commitment was no longer necessary because the accumulated fees collected through TALF exceeded the total principal amount of TALF loans outstanding. In total, Treasury had accumulated income of $685 million from TALF and the program is closed.

Small Business 7(a) Program (SBA 7(a)): In March 2009, Treasury and the Small Business Administration (SBA) announced a Treasury program to purchase SBA-guaranteed securities (pooled certificates) to re-start the secondary market in these loans. Through a pilot program, Treasury purchased 31 SBA-guaranteed securities with an aggregate face value of approximately $368 million. In 2012, Treasury completed the final disposition of its SBA 7(a) securities portfolio. The SBA 7(a) Program received total proceeds of $376 million, representing a gain of approximately $8 million to taxpayers.

Public Private Investment Program (PPIP): Treasury announced the Legacy Securities Public-Private Investment Partnership (PPIP) on March 23, 2009, to help restart the market for legacy mortgage-backed securities. Under the Program, Public-Private Investment Funds (PPIFs) were established by private sector fund managers for the purchase of eligible legacy securities from banks, insurance companies, mutual funds, pension funds, and other eligible sellers as defined under EESA. In total, after obligating $18.6 billion, and with all PPIFs closed, PPIP investments yielded $22.5 billion in total cash back. In 2018 TARP received a payment of $0.2 million from a PPIP-related legal settlement. Additional future payments are possible, but not anticipated.

TARP Housing Programs: In February 2009 Treasury created three housing programs utilizing up to $50 billion in TARP funding. The Government-Sponsored Enterprises, Fannie Mae and Freddie Mac, participated in the housing programs both as Treasury's financial agents, and by implementing similar policies for their own mortgage portfolios. Following the enactment of the 2010 Dodd-Frank Wall Street Reform Act, Treasury reduced its commitments to TARP housing programs to $45.6 billion. These programs are:

- Making Home Affordable (MHA);
- Housing Finance Agency (HFA) Hardest-Hit Fund (HHF); and
- Federal Housing Administration (FHA) Refinance Program.[16]

Making Home Affordable (MHA): Programs under MHA included the Home Affordable Modification Program (HAMP), FHA-HAMP, the Second Lien Modification Program, and Rural Development-HAMP.[17] MHA also included the Home Affordable Foreclosure Alternatives Program, which provided short sale and deed-in-lieu of foreclosure opportunities to borrowers, as well as assistance to borrowers who are unemployed or underwater (owe more than their home is worth). On December 31, 2016 the application window for MHA closed. As of October 31, 2018, TARP has paid $19.8 billion in MHA-related incentive payments and an additional $3.2 billion in TARP funds have been committed but not yet disbursed.

HFA Hardest-Hit Fund (HHF): The $9.6 billion HHF provides the eligible entities of HFAs from 18 states and the District of Columbia with flexible funding to implement programs to prevent foreclosures and bring stability to local housing markets. In December 2015, P.L. 114-113 provided limited authority for Treasury to obligate up to $2 billion in additional HHF funds through December

[14] Chrysler repayments of $11.1 billion include $560 million in proceeds from the sale of Treasury's 6 percent fully diluted equity interest in Chrysler to Fiat and Treasury's interest in an agreement with the United Automobile Worker's retiree trust that were executed on July 21, 2011.

[15] This excludes the $884 million loan to GM that was converted to GMAC common stock.

[16] The FHA Refinance Program is supported by Treasury through TARP via a letter of credit to cover a share of any losses on these particular FHA Refinance loans. This program has also been referred to as the FHA Short Refinance Program or Option in other reporting.

[17] For additional information on MHA programs, visit: *https://www.makinghomeaffordable.gov/pages/default.aspx*.

31, 2017; Treasury allocated $2 billion in additional HHF funds to eighteen currently participating jurisdictions in 2016. Participating jurisdictions have until 2021 to utilize HHF funds.

FHA Refinance Program: FHA administers this program with TARP's support. The Program was initiated in September 2010 to allow eligible borrowers who were current on their mortgages but owed more than their home was worth, to refinance into an FHA-guaranteed loan if the lender wrote off at least 10 percent of the existing loan. Treasury committed $27 million through a letter of credit agreement to cover a share of any losses on the loans and administrative expenses. The Program eligibility window closed on December 31, 2016, and the letter of credit expires in December 2022.

24. CYBERSECURITY FUNDING

Cybersecurity is an important component of the Administration's IT modernization efforts, and the President remains dedicated to securing the Federal enterprise from cyber-related threats. Assessments of the Federal Government's overall cybersecurity risk continue to find the Federal enterprise to be at risk. Cybersecurity budgetary priorities will continue to seek to reduce this risk based on data-driven, risk-based assessments of the threat environment and the current Federal cybersecurity posture. The President's Budget includes an estimated $17.4 Billion which supports the protection of Federal information systems and our nation's most valuable information including the personal information of the American public. This budget funds activities in support of the President's Executive Order 13800 on Strengthening the Cybersecurity of Federal Networks and Critical Infrastructure,[1] the outcomes of the Report to the President on Federal IT Modernization, the Modernize IT to Increase Productivity and Security (IT Modernization) Cross Agency Priority (CAP) Goal of the President's Management Agenda (PMA),[2] and the National Cybersecurity Strategy.[3]

National Cybersecurity Strategy

In September 2018, the White House released the National Cyber Strategy, which reinforces ongoing work and provides strategic direction for the Federal Government to take action on short and long-term improvements to cybersecurity for the government, private sector, and individuals. The National Cyber Strategy recognizes that private and public entities have struggled to secure their systems as adversaries have increased the frequency and sophistication of their malicious cyber activities, and directs the Federal Government to do its part to ensure a secure cyber environment for our country.

Data Collection Methodology and Adjustments

Section 630 of the Consolidated Appropriations Act, 2017 (Pub. L. No. 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 efforts, including cybersecurity activities and funding for all Federal agencies, not just those carried out by the Department of Homeland Security (DHS) and Department of Defense (DOD).

Agencies provide funding data at a level of detail sufficient to consolidate information to determine total governmental spending on cybersecurity. OMB provided the following guidance to agencies regarding the reporting of cybersecurity budget information for each fiscal year (FY): FY 2018 Actual levels should reflect the actual budgetary resources available for that year; FY 2019 Estimate levels should reflect the estimated budgetary resources available that year, assuming for those agencies that at the time the budget was prepared were operating under the Continuing Appropriations Act, 2019 (Division C of P.L. 115–245, as amended) that the amounts included for 2019 should reflect the annualized level provided by the continuing resolution; and FY 2020 President's Budget levels should reflect final policy decisions included in the President's Budget. Agencies were directed to coordinate responses between their Chief Financial Officers, Chief Information Officers, and Chief Information Security Officers. Submissions were assessed against prior cybersecurity budget submissions and historical security performance.

Federal Budget Authority

The FY 2020 President's Budget includes $17.4 billion of budget authority for cybersecurity-related activities, an $790 million (5 percent) increase above the FY 2019 estimate. Due to the sensitive nature of some activities, this amount does not represent the entire cyber budget. The DOD was the largest contributor to the budget authority for cybersecurity-related activities submitted in the President's Budget with $9.6 billion in cybersecurity funding in FY 2020.

Agencies reported cybersecurity budget authority in FY 2020 in order to fulfill their responsibilities for protecting information and information systems commensurate with the risk and magnitude of potential harm. However, a number of agencies also have cybersecurity-related spending that is not dedicated to the protection of their own networks, serving instead a broader cybersecurity mission. For instance, to ensure a consistent baseline level of information security, there are a number of programs that provide tools and capabilities government-wide, such as DHS's Continuous Diagnostics and Mitigation (CDM) program. Additionally, numerous programs exist that further enhance national and Federal cybersecurity focused on areas such as standards, research, and the investigation of cyber-crimes rather than specific technical capabilities.

Table 24-2 provides an overview of civilian CFO Act Agency cybersecurity spending as aligned to the NIST Cybersecurity Framework functions, Identify, Protect,

[1] *https://www.whitehouse.gov/presidential-actions/presidential-executive-order-strengthening-cybersecurity-federal-networks-critical-infrastructure/.*

[2] See *https://www.perfomance.gov/.*

[3] *https://www.whitehouse.gov/wp-content/uploads/2018/09/National-Cyber-Strategy.pdf*

Table 24–1. AGENCY CYBERSECURITY FUNDING TOTALS
(In millions of dollars)

	FY 2018	FY 2019	FY 2020
Department of Agriculture	262	480	311
Department of Commerce	350	403	392
Department of Defense	8,048	8,734	9,643
Department of Education	104	139	143
Department of Energy	448	520	557
Department of Health & Human Services	359	474	460
Department of Homeland Security	1,859	1,921	1,919
Department of Housing & Urban Development	15	35	25
Department of Justice	821	824	881
Department of Labor	93	93	94
Department of State	362	363	400
Department of the Interior	88	103	111
Department of the Treasury	445	505	522
Department of Transportation	185	224	232
Department of Veterans Affairs	386	530	513
Environmental Protection Agency	21	44	45
General Services Administration	72	79	80
National Aeronautics & Space Administration	171	169	171
National Science Foundation	247	239	224
Nuclear Regulatory Commission	25	32	29
Office of Personnel Management	38	45	47
Small Business Administration	9	16	16
Social Security Administration	167	225	205
U.S. Agency for International Development	44	68	44
Non-CFO Act Agencies	362	382	372
Total	**14,978**	**16,645**	**17,435**

Detect, Respond, and Recover. Table 24-3 provides a more detailed view of the information presented in Table 24-1. In addition to total cybersecurity budget amounts, the table provides amounts at the bureau level to give greater insight into the structure of agency cybersecurity budgets. Due to the sensitivity of the information, the cybersecurity budget information for DOD has not been broken out in this way.

Non-Federal Cybersecurity Spending

The most recent and comprehensive study of State-level cybersecurity spending revealed that the majority of States allocate between zero and two percent of their total IT budgets to cybersecurity.[4] [5] It also revealed that cybersecurity spending has not increased to meet increasing cybersecurity challenges, with the majority of respondents reporting such budgets remaining flat or increasing less than five percent since 2014. Recent research also indicates that State and local governments rely heavily on inter-agency collaboration and Federal programs to fund their cybersecurity activities, with 49 percent of State CISOs reporting they seek alternative funding sources from intra-state agencies or programs, and 47 percent reporting a heavy reliance on DHS-specific programs.[6] According to the Federal Emergency Management Administration (FEMA)'s 2017 National Preparedness Report, 82 percent of States report that cybersecurity is a high priority but only 13 percent rate themselves as proficient, which marks a three percent decline from 2012.[7] However, States also report cybersecurity as the biggest growth area for IT spending moving forward.[8]

Table 24–2. NIST FRAMEWORK FUNCTION CIVILIAN CFO ACT AGENCY FUNDING TOTALS
(In millions of dollars)

NIST Framework Function	FY 2020
Identify	2,258
Protect	2,671
Detect	962
Respond	1,316
Recover	213
Total	**7,420**

This analysis excludes Department of Defense spending.

While it is difficult to estimate how much the U.S. private sector spends on cybersecurity, the research firm Gartner releases routine estimates of cybersecurity spending globally and forecasts that cybersecurity spending is anticipated to rise more than 12 percent in 2018 to $114 billion.[9] The firm further forecasted that information security spending would increase 8.7 percent in FY 2019 to $124 billion. A similar report from Gartner in early 2017 noted that private entities are moving away from a prevention-only focus and moving toward a defense-in-depth approach by enhancing capabilities to detect and respond to cybersecurity incidents. The International Data Corporation predicts that spending will continue to grow, and at a faster rate than overall IT spending, reaching $101.6 billion in 2020.[10]

Additional Information

The President's Budget is also required to include an analysis of fee-based cybersecurity costs as well as gross and net appropriations or obligational authority and outlays. Agencies have not historically reported their cybersecurity budgets in this manner, and OMB continues to work with the broader Federal community to capture this information in a way that is helpful to both agencies and Congress.

[4] OMB does not collect any cybersecurity expenditure data from State, local, or private entities directly.

[5] Source: Doug Robinson and Srini Subramanian, 2016 Deloitte-NASCIO Cybersecurity Study, "State Governments at Risk: Turning Strategy and Awareness into Progress," September 20, 2016, at *https://www.nascio.org/Portals/0/Publications/Documents/2016/2016-Deloitte-NASCIO-Cybersecurity-Study.pdf*.

[6] Source: Robinson and Subramanian.

[7] Source: Federal Emergency Management Agency, Department of Homeland Security, 2017 National Preparedness Report, at: *www.fema.gov/media-library-data/1503926640648-0b64216b808eb42a93ba96fe8888d113/2017NationalPreparednessReport_508_COMPLIANT.pdf*.

[8] Source: Paul Lipman, "4 Critical Challenges to State and Local Government Cybersecurity Efforts (Industry Perspective)," July 17, 2015, at *http://www.govtech.com/opinion/4-Critical-Challenges-to-State-and-Local-Government-Cybersecurity-Efforts.html.*

[9] Source: Gartner, "Gartner Forecasts Worldwide Information Security Spending to Exceed $124 billion in FY 2019," August 15, 2018, at *www.gartner.com/en/newsroom/press-releases/2018-08-15-gartner-forecasts-worldwide-information-security-spending-to-exceed-124-billion-in-2019*.

[10] Source: International Data Corporation, "Worldwide Semiannual Security Spending Guide," October 12, 2016, at *https://www.idc.com/getdoc.jsp?containerId=IDC_P33461*.

Table 24–3. CIVILIAN AGENCY CYBERSECURITY FUNDING BY BUREAU
(In millions of dollars)

Organization	FY 2018	FY 2019	FY 2020
CFO Act Agencies	**$6,568.1**	**$7,529.3**	**$7,419.8**
Department of Agriculture	**$261.7**	**$480.4**	**$310.7**
Agricultural Marketing Service	$1.4	$2.2	$2.2
Agricultural Research Service	$3.3	$4.7	$4.6
Animal & Plant Health Inspection Service	$1.6	$1.8	$1.9
Departmental Management	$182.8	$382.2	$218.2
Economic Research Service	$0.1	$0.8	$0.8
Farm Service Agency	$8.1	$10.3	$6.4
Food and Nutrition Service	$3.9	$4.0	$4.0
Food Safety & Inspection Services	$7.1	$8.0	$8.3
Foreign Agricultural Service	$1.5	$0.9	$0.9
Forest Service	$16.7	$24.9	$24.2
National Agricultural Statistics Service	$2.0	$1.9	$2.0
National Appeals Division	*	*	*
National Institute of Food and Agriculture	$0.7	$0.7	$0.6
Natural Resources Conservation	$6.1	$11.9	$13.9
Office of Chief Economist	$0.2	$0.2	$0.2
Office of Civil Rights	$0.1	$0.1	$0.1
Office of Communications	$1.7	$0.8	$0.8
Office of Inspector General	$0.7	$0.9	$1.0
Office of the General Counsel	*	*	
Office of the Secretary	$14.6	$14.8	$14.5
Risk Management Agency	$1.2	$1.9	$0.8
Rural Development	$7.9	$7.4	$5.3
Department of Commerce	**$349.7**	**$403.3**	**$391.6**
Bureau of Industry and Security	$3.5	$3.5	$3.5
Bureau of the Census	$76.7	$120.5	$96.2
Departmental Management	$31.7	$28.2	$28.3
Economic and Statistical Analysis	$2.3	$2.2	$2.2
International Trade Administration	$7.3	$7.3	$10.9
National Institution of Standards & Technology	$105.0	$103.8	$103.6
National Oceanic & Atmospheric Administration	$65.6	$66.2	$74.3
National Technical Information Service	$2.4	$2.5	$2.9
National Telecom/Information Administration	$2.9	$4.1	$3.7
US Patent and Trademark Office	$52.2	$64.9	$65.9
Department of Education	**$103.8**	**$139.0**	**$142.6**
Departmental Management	$30.9	$37.7	$35.3
Institute of Education Science	$4.2	$4.1	$4.1
Office of Federal Student Aid	$68.7	$97.2	$103.3
Department of Energy	**$447.9**	**$519.7**	**$557.1**
Departmental Administration	$92.9	$94.9	$79.5
Energy Programs	$151.1	$171.4	$175.5
Environment & Other Defense Activities	$45.1	$52.2	$63.4
National Nuclear Security Administration	$138.0	$178.4	$215.8
Power Marketing Administration	$20.7	$22.8	$23.0
Department of Health & Human Services	**$359.0**	**$474.5**	**$460.2**
Administration for Children & Families	$7.2	$5.7	$5.7
Administration on Aging	$0.9	$1.0	$0.7
Agency for Healthcare Research	$2.4	$2.4	$2.6
Centers for Disease Control	$58.6	$68.7	$48.4
Centers for Medicare and Medicaid Services	$44.4	$93.4	$80.5
Departmental Management	$49.8	$92.6	$68.1
Food and Drug Administration	$37.0	$34.2	$57.9
Health Resources & Services Administration	$12.5	$14.7	$16.1
Indian Health Service	$10.1	$9.8	$9.8
National Institutes of Health	$102.4	$114.8	$126.3

Table 24–3. CIVILIAN AGENCY CYBERSECURITY FUNDING BY BUREAU—Continued
(In millions of dollars)

Organization	FY 2018	FY 2019	FY 2020
Office of Inspector General	$1.6	$1.8	$2.1
Program Support Center	$29.7	$32.7	$38.7
Substance Abuse and Mental Health Administration	$2.4	$2.7	$3.2
Department of Homeland Security	**$1,858.9**	**$1,921.1**	**$1,919.1**
Customs and Border Protection	$41.3	$42.4	$67.4
Department of Management and Operations	$99.8	$166.0	$170.9
Domestic Nuclear Detection Office	$1.0	$1.0	$1.0
Federal Emergency Management Agency	$22.9	$21.8	$32.9
Federal Law Enforcement Training Center	$1.0	$1.0	$1.0
Immigration and Customs Enforcement	$156.6	$176.7	$178.9
National Protection and Program Directorate	$1,095.8	$994.8	$1,025.2
Office of Inspector General	$2.4	$2.7	$2.8
Office of the Under Secretary for Management	$99.8	$140.8	$143.5
Science and Technology	$93.2	$104.2	$28.1
Transportation Security Administration	$64.8	$74.1	$74.1
United States Citizenship & Immigration Services	$38.9	$49.9	$47.6
United States Coast Guard	$141.4	$145.6	$145.6
Department of Housing & Urban Development	**$14.9**	**$34.6**	**$25.2**
Department of Justice	**$820.8**	**$823.7**	**$881.2**
Bureau of Alcohol, Tobacco, Firearms, and Explosives	$3.6	$3.7	$6.8
Drug Enforcement Administration	$22.3	$22.3	$22.3
Federal Bureau of Investigation	$691.0	$680.0	$732.0
Federal Prison System	$9.2	$9.2	$9.3
General Administration	$4.9	$11.3	$8.5
Legal Activities & US Marshals	$72.7	$79.9	$84.6
National Security Division	$12.2	$12.4	$12.7
Office of Justice Programs	$4.9	$5.0	$5.0
Department of Labor	**$92.9**	**$93.2**	**$94.1**
Bureau of Labor Statistics	$9.5	$7.7	$7.7
Departmental Management	$44.7	$48.9	$49.0
Employee Benefits Security Administration	$4.2	$0.5	$0.5
Employment & Training Administration	$5.6	$5.2	$4.9
Mine Safety and Health Administration	$1.5	$1.4	$1.5
Occupation Safety & Health Administration	$2.1	$3.8	$4.2
Office of Federal Contract Compliance Programs	*	$0.1	$0.1
Office of Labor Management Standards	$0.1	$0.1	$0.1
Office of Workers' Compensation	$2.1	$2.1	$2.1
Pension Benefit Guaranty Corporation	$22.0	$21.4	$21.2
Wage and Hour Division	$1.0	$2.1	$2.9
Department of State	**$361.5**	**$363.0**	**$399.5**
Administration of Foreign Affairs	$361.5	$362.0	$398.5
Other	$0	$1.0	$1.0
Department of the Interior	**$87.9**	**$103.1**	**$111.2**
Bureau of Indian Affairs	$8.5	$9.3	$10.9
Bureau of Land Management	$6.2	$9.8	$9.9
Bureau of Ocean Energy Management	$0.7	$0.8	$0.9
Bureau of Reclamation	$13.3	$15.9	$17.3
Bureau of Safety Environmental Enforcement	$1.4	$1.7	$1.8
Departmental Offices	$0.3	$0.3	$0.3
Department-Wide Programs	$25.4	$24.3	$23.9
National Park Service	$13.0	$17.4	$18.7
Office of Inspector General	$0.2	$0.2	$0.2
Office of Insular Affairs	*	*	*
Office of Natural Resources Revenue	$0.2	$0.3	$0.5
Office of Surface Mining Reclamation	$1.1	$1.6	$1.6
Office of the Solicitor	$1.1	$1.7	$0.8

Table 24–3. CIVILIAN AGENCY CYBERSECURITY FUNDING BY BUREAU—Continued

(In millions of dollars)

Organization	FY 2018	FY 2019	FY 2020
Office of the Special Trustee for American Indians	$0.7	$0.9	$1.2
US Fish and Wildlife Service	$7.5	$8.6	$10.8
US Geological Survey	$8.3	$10.4	$12.2
Department of the Treasury	**$445.3**	**$504.7**	**$522.0**
Alcohol & Tobacco Tax and Trade Bureau	$3.6	$3.4	$4.6
Bureau of Engraving and Printing	$10.5	$10.8	$11.3
Comptroller of the Currency	$32.5	$28.6	$29.5
Departmental Offices	$68.4	$90.6	$86.9
Financial Crimes Enforcement Network	$5.3	$5.7	$5.7
Fiscal Service	$23.9	$22.9	$24.2
Internal Revenue Service	$292.0	$331.0	$349.0
United States Mint	$9.2	$11.7	$10.8
Department of Transportation	**$184.8**	**$224.0**	**$232.3**
Federal Aviation Administration	$137.7	$178.5	$194.3
Federal Highway Administration	$2.2	$2.5	
Federal Motor Carrier Safety Administration	$3.2	$1.7	$1.4
Federal Railroad Administration	$1.6	$1.6	$1.7
Federal Transit Administration	$1.2	$1.0	$1.0
Maritime Administration	$1.2	$1.5	$1.2
National Highway Traffic Safety Administration	$4.3	$4.8	$4.7
Office of Inspector General	$0.2	$0.2	$0.2
Office of the Secretary	$32.3	$31.0	$26.7
Pipeline and Hazardous Materia	$0.9	$1.2	$1.2
St Lawrence Seaway Develop Corporation	$0.1	$0.1	$0.1
Department of Veterans Affairs	**$385.9**	**$529.7**	**$513.1**
Environmental Protection Agency	**$21.1**	**$44.1**	**$44.6**
General Services Administration	**$71.6**	**$79.2**	**$79.6**
General Activities	$56.2	$62.1	$62.6
Real Property Activities	$0.1	$0.1	$0.1
Supply & Technology Activities	$15.3	$16.9	$16.9
National Aeronautics & Space Administration	**$170.7**	**$168.6**	**$171.4**
National Science Foundation	**$246.7**	**$238.9**	**$224.3**
Nuclear Regulatory Commission	**$24.6**	**$31.5**	**$28.9**
Office of Personnel Management	**$38.5**	**$44.6**	**$46.9**
Small Business Administration	**$9.1**	**$16.4**	**$15.6**
Social Security Administration	**$167.1**	**$224.6**	**$204.9**
U.S. Agency for International Development	**$43.8**	**$67.6**	**$43.5**
Non-CFO Act Agencies	**$361.8**	**$381.6**	**$371.7**
Access Board	**$0.4**	**$0.5**	**$0.5**
American Battle Monuments Commission	**$0.5**	**$0.3**	**$0.3**
Armed Forces Retirement Home	**$0.8**	**$0.8**	**$0.8**
U.S. Agency for Global Media	**$4.9**	**$5.6**	**$6.4**
Chemical Safety and Hazard Investigation Board	**$0.1**	**$0.1**	**$0.2**
Commission on Civil Rights	**$0.4**	**$0.4**	**$0.4**
Commodity Futures Trading Commission	**$6.1**	**$6.3**	**$9.8**
Consumer Product Safety Commission	**$3.0**	**$2.9**	**$2.9**
Corporation for National and Community Service	**$3.4**	**$3.5**	**$3.7**
Council of the Inspectors General on Integrity and Efficiency	*	**$0.6**	**$0.6**
Court Services and Offender Supervision Agency for the District	**$3.8**	**$3.5**	**$3.6**
Defense Nuclear Facilities Safety Board	**$0.7**	**$0.8**	**$0.7**
Equal Employment Opportunity Commission	**$4.5**	**$4.1**	**$3.9**
Export-Import Bank of the United States	**$2.6**	**$3.1**	**$3.3**
Farm Credit Administration	**$3.0**	**$3.0**	**$3.3**
Federal Communications Commission	**$8.9**	**$10.5**	**$10.9**
Federal Deposit Insurance Corporation	**$98.0**	**$109.8**	**$109.8**
Federal Election Commission	**$1.0**	**$1.0**	**$1.0**

Table 24–3. CIVILIAN AGENCY CYBERSECURITY FUNDING BY BUREAU—Continued
(In millions of dollars)

Organization	FY 2018	FY 2019	FY 2020
Federal Financial Institutions Examination Council	*	**$0.1**	**$0.1**
Federal Labor Relations Authority	*	*	*
Federal Maritime Commission	**$0.2**	**$0.1**	**$0.2**
Federal Retirement Thrift Investment Board	**$35.6**	**$41.4**	**$30.8**
Federal Trade Commission	**$9.3**	**$8.3**	**$10.6**
Gulf Coast Ecosystem Restoration Council	**$0.2**	**$0.2**	**$0.2**
Institute of Museum and Library Services	**$0.3**	**$0.3**	**$0.0**
International Assistance Programs	**$18.0**	**$18.6**	**$19.1**
African Development Foundation	$1.0	$1.0	$1.0
Inter-American Foundation	$0.4	$0.4	$0.4
Millennium Challenge Corporation	$1.7	$1.7	$1.8
Overseas Private Investment Corporation	$3.3	$3.4	$3.5
Peace Corps	$10.4	$10.9	$11.2
Trade and Development Agency	$1.3	$1.3	$1.3
International Trade Commission	**$3.0**	**$3.2**	**$2.8**
Marine Mammal Commission	**$0.1**	**$0.1**	**$0.1**
Merit Systems Protection Board	**$0.2**	**$0.5**	**$1.3**
Morris K. Udall and Stewart L. Udall Foundation	*	*	*
National Archives and Records Administration	**$7.6**	**$10.5**	**$8.1**
National Credit Union Administration	**$5.0**	**$8.2**	**$9.8**
National Endowment for the Arts	**$2.3**	**$1.9**	**$1.9**
National Endowment for the Humanities	**$0.6**	**$0.7**	**$0.7**
National Labor Relations Board	**$1.6**	**$1.6**	**$1.6**
National Transportation Safety Board	**$0.7**	**$1.4**	**$1.6**
Nuclear Waste Technical Review Board	**$0.3**	**$0.3**	**$0.3**
Occupational Safety and Health Review Commission	**$1.0**	**$1.3**	**$1.3**
Office of Government Ethics	**$0.5**	**$0.5**	**$0.4**
Office of Special Counsel	**$0.8**	**$0.6**	**$0.6**
Presidio Trust	**$0.7**	**$0.7**	**$0.7**
Privacy and Civil Liberties Oversight Board	**$0.5**	**$1.3**	**$1.5**
Securities and Exchange Commission	**$69.5**	**$63.3**	**$57.5**
Selective Service System	**$1.2**	**$1.3**	**$1.3**
Smithsonian Institution	**$9.5**	**$9.0**	**$10.0**
Surface Transportation Board	**$1.1**	**$0.9**	**$0.9**
Tennessee Valley Authority	**$38.2**	**$37.3**	**$34.5**
U.S. Army Corps of Engineers	**$10.6**	**$10.8**	**$11.9**
United States Holocaust Memorial Museum	**$1.4**	**$1.4**	**$1.5**
United States Institute of Peace	**$0.3**	**$0.3**	**$0.3**
Total	**$6,929.9**	**$7,910.9**	**$7,791.5**

* $50 thousand or less

25. FEDERAL DRUG CONTROL FUNDING

The FY 2020 Budget supports $34.6 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 25–1. DRUG CONTROL FUNDING FY 2018–FY 2020
(Dollars in millions)

Department/Agency	FY 2018 Final	FY 2019 CR [1]	FY 2020 President's Budget
Department of Agriculture:			
U.S. Forest Service	14.800	15.000	14.800
Office of Rural Development	54.000	29.000	46.000
Total USDA	**68.800**	**44.000**	**60.800**
Court Services and Offender Supervision Agency for D.C.:	**$54.654**	**$55.668**	**$55.997**
Department of Defense:			
Drug Interdiction and Counterdrug Activities [2] (incl. OPTEMPO, DSCA, and OCO)	1,335.151	1,312.591	1,249.023
Defense Health Program	84.589	100.901	89.654
Total DOD	**1,419.740**	**1,413.492**	**1,338.677**
Department of Education:			
Office of Elementary and Secondary Education	**60.912**	**54.767**	**55.504**
Federal Judiciary:	**1,112.536**	**1,146.717**	**1,197.305**
Department of Health and Human Services:			
Administration for Children and Families	40.000	40.000	60.000
Centers for Disease Control and Prevention	475.579	475.579	475.579
Centers for Medicare and Medicaid Services	7,500.000	7,910.000	8,420.000
Health Resources and Services Administration	644.000	664.000	664.000
Indian Health Service	113.056	114.734	122.715
National Institute on Alcohol Abuse and Alcoholism	55.891	57.780	49.737
National Institute on Drug Abuse	1,374.374	1,419.844	1,296.379
Substance Abuse and Mental Health Services Administration (incl. DFC in FY 2020) [3, 4]	4,122.574	4,140.271	4,134.249
Total HHS	**14,325.474**	**14,822.208**	**15,222.659**
Department of Homeland Security:			
Customs and Border Protection	3,096.398	3,104.050	3,761.469
Federal Emergency Management Agency	85.000	85.000	55.000
Federal Law Enforcement Training Center	49.305	53.446	57.126
Immigration and Customs Enforcement	631.846	560.797	591.221
U.S. Coast Guard	1,922.900	1,389.622	1,644.461
Total DHS	**5,785.449**	**5,192.915**	**6,109.277**
Department of Housing and Urban Development:			
Office of Community Planning and Development	**554.975**	**554.975**	**576.221**
Department of the Interior:			
Bureau of Indian Affairs	17.216	17.216	19.762
Bureau of Land Management	5.100	5.100	5.100
National Park Service	3.300	3.300	3.160
Total DOI	**25.616**	**25.616**	**28.022**
Department of Justice:			
Assets Forfeiture Fund	225.654	226.313	222.313
Bureau of Prisons	3,417.611	3,417.611	3,364.868
Criminal Division	37.447	37.447	39.508
Drug Enforcement Administration (incl. HIDTA in FY 2020) [5]	2,582.791	2,584.443	2,976.295

Table 25–1. DRUG CONTROL FUNDING FY 2018–FY 2020—Continued

(Dollars in millions)

Department/Agency	FY 2018 Final	FY 2019 CR [1]	FY 2020 President's Budget
Organized Crime Drug Enforcement Task Force	542.850	542.850	550.458
Office of Justice Programs	487.209	487.209	415.676
U.S. Attorneys	81.353	81.353	85.693
Unites States Marshals Service	789.114	813.552	858.757
Total DOJ	**8,164.029**	**8,190.778**	**8,513.568**
Department of Labor:			
Employment and Training Administration	6.000	6.000	6.000
Office of Workers' Compensation Programs	4.180	7.769	7.769
Total DOL	**10.180**	**13.769**	**13.769**
Office of National Drug Control Policy:			
Operations	18.400	18.400	16.400
High Intensity Drug Trafficking Areas Program [5]	280.000	280.000	0.000
Other Federal Drug Control Programs [4]	117.093	117.093	12.101
Total ONDCP	**415.493**	**415.493**	**28.501**
Department of State: [6]			
Bureau of International Narcotics and Law Enforcement Affairs	387.454	387.454	381.595
United States Agency for International Development	104.845	104.845	70.518
Total DOS	**492.299**	**492.299**	**452.113**
Department of the Transportation:			
Federal Aviation Administration	30.479	32.600	34.163
National Highway Traffic Safety Administration	7.571	3.221	6.700
Total DOT	**38.050**	**35.821**	**40.863**
Department of the Treasury:			
Internal Revenue Service	63.076	60.257	60.257
Department of Veterans Affairs:			
Veterans Health Administration	767.422	793.572	823.741
Total Federal Drug Budget [7]	**$33,358.705**	**$33,312.347**	**$34,577.274**

[1] The following Departments in the report reflect enacted funding for FY 2019: Department of Defense, Department of Health and Human Services (except for the Indian Health Service), Department of Housing and Urban Development, Department of Labor, and Department of Veterans Affairs.

[2] Due to statutory changes included in the FY 2017 National Defense Authorization Act that consolidated the Department of Defense's (DOD) security sector assistance authorities, funding for building foreign partner counter-drug enforcement capacities is now included in DOD's Defense Security Cooperation Agency's budget request.

[3] Includes budget authority and funding through evaluation set-aside authorized by Section 241 of the Public Health Service (PHS) Act.

[4] The FY 2020 funding level for SAMHSA includes $100 million for the Drug-Free Communities (DFC) program. For FY 2018 and FY 2019, DFC is included under the Office of National Drug Control Policy heading.

[5] The FY 2020 funding level for DEA includes $254 million for the High Intensity Drug Trafficking Areas (HIDTA) program. For FY 2018 and FY 2019, HIDTA is included under the Office of National Drug Control Policy heading.

[6] Funding for FY 2019 and FY 2020 is a mechanical calculation that does not reflect decisions on funding priorities.

[7] Detail may not sum to total due to rounding.

TECHNICAL BUDGET ANALYSES

26. 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. It can be a useful tool in budgeting, however. 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, either for the Government's overall fiscal health or for individual tax and spending programs.

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 provided one year at a time in annual appropriations acts. Mandatory programs are not generally subject to annual appropriations, but many operate under multi-year 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, the baseline has been constructed using a variety of concepts and measures. Throughout the 1990s, the baseline was calculated using a detailed set of rules enacted through amendments to the Balanced Budget and Emergency Deficit Control Act of 1985 (BBEDCA) made by the Budget Enforcement Act of 1990 (BEA). The BBEDCA baseline rules lapsed after the enforcement provisions of the BEA expired in 2002, but even after the lapse they were largely adhered to in practice until they were officially reinstated through amendments to BBEDCA enacted in the Budget Control Act of 2011 (BCA).

The Administration believes 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. These adjustments, which affect tax receipts and the Highway Trust Fund, allow the baseline to provide a more realistic outlook for receipts and for the highway program than a baseline following the BBEDCA rules. These baseline adjustments are discussed in more detail below.

Table 26–1. CATEGORY TOTALS FOR THE ADJUSTED BASELINE

(In billions of dollars)

	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Receipts	3,330	3,438	3,643	3,874	4,126	4,415	4,742	5,026	5,306	5,592	5,923	6,275
Outlays:												
Discretionary:												
Defense	623	674	671	674	674	686	698	712	731	749	767	787
Non-defense	639	685	669	654	658	662	672	682	697	712	727	743
Subtotal, discretionary	1,262	1,359	1,340	1,328	1,332	1,348	1,371	1,394	1,427	1,461	1,494	1,530
Mandatory:												
Social Security	982	1,041	1,102	1,166	1,235	1,309	1,387	1,468	1,553	1,642	1,737	1,835
Medicare	582	645	702	762	861	892	920	1,038	1,121	1,202	1,385	1,361
Medicaid and CHIP	406	437	443	461	486	516	542	573	612	648	686	723
Other mandatory	552	660	640	658	702	703	705	741	786	812	878	851
Subtotal, mandatory	2,522	2,783	2,887	3,047	3,284	3,419	3,554	3,821	4,073	4,304	4,685	4,769
Net interest	325	394	482	548	611	666	709	749	789	828	868	903
Total, outlays	4,109	4,536	4,709	4,923	5,228	5,434	5,634	5,963	6,290	6,593	7,048	7,202
Unified deficit(+)/surplus(–)	779	1,098	1,067	1,049	1,102	1,019	891	937	984	1,000	1,125	927
On-budget	(785)	(1,100)	(1,047)	(1,021)	(1,062)	(965)	(823)	(854)	(898)	(903)	(1,024)	(809)
Off-budget	(–6)	(–2)	(20)	(28)	(40)	(54)	(68)	(83)	(86)	(98)	(101)	(118)
Memorandum:												
BBEDCA baseline deficit	779	1,098	1,067	1,049	1,112	1,035	909	939	844	739	836	613
Extension of expiring tax provisions	....	....	....	....	....	....	....	17	158	275	296	311
Assume Highway Trust Fund outlays conform to Highway Trust Fund revenues	....	....	....	....	–10	–16	–17	–18	–19	–21	–22	–23
Related debt service	....	....	....	....	-0	-1	-1	-1	1	7	16	25
Adjusted baseline deficit	779	1,098	1,067	1,049	1,102	1,019	891	937	984	1,000	1,125	927

*Less than $500 million.

Table 26–1 shows estimates of receipts, outlays, and deficits under the Administration's adjusted baseline for 2018 through 2029.[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. A memorandum bank details 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, and the Administration's adjusted baseline also provides exceptions to produce a more realistic deficit outlook. Exceptions in BBEDCA and the Administration's adjusted baseline 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 2019 through 2029, 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 Patient-Centered Outcomes Research Trust Fund, which expire on September 30, 2019;
  - — taxes deposited in the Sport Fish Restoration and Boating Resources Trust Fund, which expire on September 30, 2020; and
  - — taxes deposited in the Highway Trust Fund and the Leaking Underground Storage Tank Trust Fund, which expire on September 30, 2022.
- While BBEDCA requires the extension of trust fund excise taxes, it otherwise bases the receipt estimates on current law. Individual income tax and estate tax provisions of the recently enacted Tax Cuts and Jobs Act that expire after tax year 2025 are assumed to expire according to current law in the BBEDCA baseline. However, the Administration's adjusted baseline extends these provisions permanently. This results in a more realistic outlook for receipts and the deficit, reflecting the likely extension of these provisions.
- 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.[3] For the budget year and beyond, the spending authority in the current year is adjusted for inflation, using specified inflation rates.[4] The definition attempts to keep discretionary spending for each program roughly level in real terms.

[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] For programs enacted after the Balanced Budget Act of 1997, programs that are explicitly temporary in nature expire in the baseline as provided by current law even if their current year outlays exceed the $50 million threshold.

[3] At the time the baseline for the Budget was prepared, five of the annual appropriations bills for 2019 had been enacted and the programs and activities provided for in the seven remaining 2019 annual appropriations bills were operating under a continuing resolution (Public Law 115-245, as amended). See the note at the beginning of this volume for additional details.

[4] The Administration's baseline uses the same inflation rates for dis-

BBEDCA also imposes caps through 2021 on budget authority for the defense function and for the aggregate of the non-defense functions. These caps were initially established by the BCA, and subsequent legislation later amended the caps through 2019. The baseline includes allowances that bring the inflated baseline calculated for individual discretionary accounts down to the level of the defense and non-defense caps. After 2021, these allowances assume that discretionary spending grows with inflation from the 2021 cap levels.

BBEDCA allows for adjustments to the discretionary caps for disaster relief spending, emergency requirements, Overseas Contingency Operations (OCO), wildfire, and certain program integrity activities. The adjustments are permitted provided that such funding is designated in legislation by the Congress and, where appropriate, subsequently so by the President. Current adjustments include the following:

- Disaster relief and emergency requirements.—The BBEDCA baseline projects forward the $7.4 billion of continuing disaster relief funding for disasters pursuant to Stafford Act declarations for the Department of Homeland Security in 2019. This funding is increased thereafter by the BBEDCA inflation rates and that estimated stream falls below the projected funding ceiling for such appropriations determined by a formula included in BBEDCA. The baseline also inflates the $1.7 billion of enacted emergency funding provided to the Department of Housing and Urban Development for emergency response and recovery efforts to natural disasters.

- OCO.—The BBEDCA baseline reflects the level of OCO appropriations (both continuing and full-year) included in the 2019 enacted appropriations Acts and 2019 continuing resolution inflated at the BBEDCA inflation rates.

- Program integrity activities.—The baseline assumes enacted levels provided in the 2019 Labor, HHS, and Education appropriations Act for the program integrity cap adjustments authorized in BBEDCA through 2021, and inflates those amounts after the cap adjustments expire in 2021. Additionally, the baseline assumes savings in mandatory benefit payments from enacting the program integrity cap adjustments at their full levels after 2019.

In addition to the cap adjustments specified in BBEDCA, the 21st Century Cures Act permitted funds to be appropriated each year and not count towards the discretionary caps so long as the appropriations were specified for the authorized purposes. These amounts are included in the baseline outside of the discretionary cap totals and adjusted for inflation in the budget year and beyond.

As noted above, the Administration believes an adjustment to the BBEDCA baseline for the Highway Trust Fund is needed to better represent the outlook for the program under current law. Under the BBEDCA baseline, obligation limitations for the Highway Trust Fund are inflated from the annualized level in the Continuing Appropriations Act, 2019 (Division C of Public Law 115-245, as amended), resulting in outlays that exceed available balances in the fund starting in 2022. By contrast, the Administration's adjusted baseline assumes Highway Trust Fund outlays are limited starting in 2022 to levels that can be supported with existing Highway Trust Fund tax receipts. This presentation shows a reduction in total Highway Trust Fund outlays of $146 billion over the 2022-2029 window as would be required by law.

Joint Committee Enforcement.—The Joint Select Committee process under the BCA stipulated that, absent intervening legislation, enforcement procedures would be invoked annually to reduce the levels of discretionary and mandatory spending to accomplish certain deficit reduction. The BBEDCA baseline includes the effects of the across-the-board reductions ("sequestration") already invoked by Joint Committee sequestration orders for 2013 through 2019, as well as the discretionary cap reductions and mandatory sequestration order for 2020 issued with the transmittal of the 2020 Budget.[5] Further Joint Committee enforcement—consisting of mandatory sequestration and discretionary cap reductions for 2020 and 2021—is reflected in the BBEDCA baseline in the form of allowances in the amount of the required reductions. As with the allowances to reach the unreduced BBEDCA caps, after 2021, the allowances for the Joint Committee cap reductions assume that the reduced level of discretionary spending grows with inflation from the 2021 levels. Pursuant to subsequent legislation, the BBEDCA baseline also includes the extension of mandatory sequestration through 2027 at the rate required for 2021 by the BCA.[6]

Economic Assumptions

As discussed above, an important purpose of the baseline is to serve as a benchmark against which pol-

cretionary spending as required by BBEDCA, despite the fact that this allows for an overcompensation for Federal pay inherent in the BBEDCA definition. At the time the BEA was enacted, it failed to account for the nearly contemporaneous enactment of the Federal Employees Compensation Act of 1991 that shifted the effective date of Federal employee pay raises from October to January. This oversight was not corrected when the baseline definition was reinstated by the BCA amendments to BBEDCA. Correcting for this error would have only a small effect on the discretionary baseline.

[5] The effects of past sequestration reductions are reflected in the detailed schedules for the affected budget accounts, while the 2020 reductions are reflected in allowance accounts due to the timing of the preparation of the detailed budget estimates and the issuance of the 2020 sequestration order. See Chapter 11, "Budget Process," of this volume for a more thorough discussion of the Joint Committee sequestration procedures.

[6] The Bipartisan Budget Act of 2013 (P.L. 113-67) extended mandatory sequestration through 2023, at the rate required for 2021 by the BCA. The Military Retired Pay Restoration Act (P.L. 113-82) extended mandatory sequestration through 2024. The Bipartisan Budget Act of 2015 (P.L. 114-74) extended mandatory sequestration through 2025. The Bipartisan Budget Act of 2018 (P.L. 115-123) further extended mandatory sequestration through 2027. This Act also specified for 2027 that the Medicare program should be reduced by 4.0 percent for the first half of the sequestration period and zero for the second half of the period.

Table 26–2. SUMMARY OF ECONOMIC ASSUMPTIONS
(Fiscal years; in billions of dollars)

	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Gross Domestic Product (GDP):												
Levels, in billions of dollars:												
Current dollars	20,236	21,289	22,410	23,558	24,753	26,007	27,326	28,700	30,116	31,580	33,116	34,727
Real, chained (2012) dollars	18,433	19,016	19,617	20,218	20,824	21,449	22,092	22,747	23,398	24,053	24,726	25,418
Percent change, year over year:												
Current dollars	5.0	5.2	5.3	5.1	5.1	5.1	5.1	5.0	4.9	4.9	4.9	4.9
Real, chained (2012) dollars	2.7	3.2	3.2	3.1	3.0	3.0	3.0	3.0	2.9	2.8	2.8	2.8
Inflation measures (percent change, year over year):												
GDP chained price index	2.2	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Consumer price index (all urban)	2.4	2.2	2.2	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
Unemployment rate, civilian (percent)	4.0	3.6	3.6	3.7	3.8	4.0	4.1	4.2	4.2	4.2	4.2	4.2
Interest rates (percent):												
91-day Treasury bills	1.7	2.6	3.1	3.2	3.2	3.1	3.0	3.0	3.0	3.0	3.0	3.0
10-year Treasury notes	2.7	3.3	3.6	3.8	3.8	3.8	3.7	3.7	3.7	3.7	3.7	3.7
MEMORANDUM:												
Related program assumptions:												
Automatic benefit increases (percent):												
Social security and veterans pensions	2.0	2.8	2.2	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
Federal employee retirement	2.0	2.8	2.2	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
Supplemental Nutrition Assistance Program	....	....	0.7	2.3	2.2	2.3	2.3	2.3	2.3	2.3	2.3	2.3
Insured unemployment rate	1.3	1.2	1.2	1.2	1.2	1.2	1.2	1.3	1.3	1.3	1.3	1.3

icy proposals are measured. By convention, President's Budgets construct 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.

While this estimating approach has the virtue of simplicity, it offers an incomplete view of the effects of proposals, because it fails to capture the fact that 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 26–2. 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 26–2, and assumptions about baseline caseload projections for the major benefit programs are shown in Table 26–3. 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. Although these adjustments are applied at the account level, they have no effect in the aggregate because discretionary baseline

Table 26–3. BASELINE BENEFICIARY PROJECTIONS FOR MAJOR BENEFIT PROGRAMS

(Annual average, in thousands)

	Actual	Estimate										
	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Farmers receiving Federal payments	1,011	1,006	1,001	996	991	986	981	976	971	966	962	957
Federal direct student loans	8,448	8,595	8,658	8,736	8,807	8,870	8,964	9,026	9,085	9,131	9,185	9,215
Federal Pell Grants	6,557	6,997	7,166	7,352	7,530	7,704	7,881	8,068	8,259	8,452	8,710	8,914
Medicaid/Children's Health Insurance Program [1]	80,222	81,976	83,876	85,054	86,108	87,055	87,936	88,654	89,464	90,284	91,113	90,954
Medicare-eligible military retiree health benefits	2,406	2,429	2,451	2,473	2,495	2,518	2,543	2,569	2,593	2,614	2,633	2,633
Medicare [2]:												
Hospital insurance	59,226	60,715	62,385	64,188	66,023	67,838	69,615	71,397	73,156	74,856	76,482	78,028
Supplementary medical insurance:												
Part B	54,440	55,752	57,239	58,848	60,497	62,151	63,742	65,347	66,954	68,489	69,964	71,365
Part D	45,412	46,723	48,199	49,769	51,392	52,985	54,511	56,003	57,436	58,773	60,040	61,248
Prescription Drug Plans and Medicare:												
Advantage Prescription Drug Plans	43,877	45,388	47,056	48,808	50,456	52,024	53,525	54,992	56,400	57,713	58,958	60,144
Retiree Drug Subsidy	1,535	1,334	1,144	962	936	961	986	1,011	1,036	1,059	1,082	1,104
Managed Care Enrollment [3]	20,943	22,434	23,739	24,641	25,590	26,521	27,432	28,325	29,200	30,036	30,827	31,571
Railroad retirement	512	507	501	495	488	481	474	466	459	451	444	436
Federal civil service retirement	2,698	2,726	2,754	2,781	2,808	2,834	2,855	2,875	2,897	2,918	2,939	2,958
Military retirement	2,323	2,334	2,342	2,352	2,361	2,369	2,397	2,401	2,403	2,403	2,400	2,394
Unemployment insurance	5,323	5,203	5,563	5,722	5,891	6,029	6,111	6,199	6,245	6,274	6,296	6,310
Supplemental Nutrition Assistance Program	40,324	40,818	37,751	37,537	37,397	37,282	37,188	37,030	36,804	36,535	36,297	36,029
Child nutrition	34,668	35,290	35,661	35,973	36,218	36,451	36,615	36,782	36,931	37,083	37,235	37,389
Foster care, Adoption Assistance and Guardianship Assistance	629	651	710	744	791	830	860	892	924	955	988	1,227
Supplemental security income (SSI):												
Aged	1,119	1,120	1,129	1,138	1,148	1,159	1,171	1,187	1,203	1,218	1,233	1,248
Blind/disabled	6,924	6,846	6,805	6,769	6,769	6,795	6,829	6,866	6,894	6,917	6,941	6,966
Total, SSI	8,043	7,966	7,934	7,907	7,917	7,954	8,000	8,053	8,097	8,135	8,175	8,214
Child care and development fund [4]	2,069	2,473	2,321	2,241	2,194	2,113	2,045	1,986	1,928	1,872	1,816	1,768
Social security (OASDI):												
Old age and survivors insurance	51,791	53,273	54,832	56,345	57,860	59,412	60,995	62,523	64,007	65,440	66,973	68,418
Disability insurance	10,352	10,239	10,144	10,091	10,082	10,103	10,145	10,242	10,353	10,475	10,519	10,558
Total, OASDI	62,143	63,512	64,976	66,436	67,942	69,515	71,140	72,765	74,360	75,915	77,492	78,976
Veterans compensation:												
Veterans	4,653	4,849	5,033	5,193	5,340	5,483	5,624	5,761	5,894	6,023	6,147	6,268
Survivors (non-veterans)	418	432	443	456	471	486	503	521	540	560	580	602
Total, Veterans compensation	5,071	5,281	5,477	5,649	5,810	5,970	6,127	6,282	6,434	6,583	6,727	6,870
Veterans pensions:												
Veterans	267	258	256	256	257	258	260	262	263	265	267	269
Survivors (non-veterans)	196	189	187	187	187	189	190	191	193	194	196	197
Total, Veterans pensions	463	448	444	443	444	447	450	453	456	459	463	466

[1] Medicaid enrollment excludes territories.

[2] Medicare figures (Hospital Insurance, Part B, and Part D) do not sum to total Medicare enrollment due to enrollment in multiple programs.

[3] Enrollment figures include only beneficiaries who receive both Part A and Part B services through managed care.

[4] 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.

levels are constrained to the BBEDCA caps, as reduced for Joint Committee enforcement.

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 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 26–4, available on the Internet 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.[7] Many other important assump-

[7] All discretionary programs with continuing or enacted appropriations in the current year, including costs for overseas contingency operations in Iraq and Afghanistan and other recurring international activities, are assumed to continue, and are therefore not presented in Table 26-4.

Table 26–5. RECEIPTS BY SOURCE IN THE PROJECTION OF ADJUSTED BASELINE
(In billions of dollars)

	2018 Actual	Estimate										
		2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Individual income taxes	1,683.5	1,698.4	1,821.8	1,945.7	2,081.1	2,235.6	2,391.9	2,563.8	2,747.5	2,938.7	3,145.6	3,358.8
Corporation income taxes	204.7	216.2	255.6	284.3	314.1	370.2	417.7	442.9	428.3	417.7	427.8	432.2
Social insurance and retirement receipts	1,170.7	1,242.4	1,295.5	1,368.5	1,442.5	1,516.0	1,597.5	1,681.0	1,775.1	1,865.3	1,977.5	2,080.1
On-budget	(316.0)	(331.3)	(346.3)	(364.7)	(383.1)	(401.8)	(422.7)	(444.7)	(469.2)	(493.0)	(521.9)	(549.5)
Off-budget	(854.7)	(911.1)	(949.3)	(1,003.7)	(1,059.4)	(1,114.2)	(1,174.8)	(1,236.4)	(1,305.9)	(1,372.2)	(1,455.6)	(1,530.6)
Excise taxes	95.0	98.7	108.3	110.8	114.3	107.1	135.7	125.9	129.5	133.4	122.0	142.2
Estate and gift taxes	23.0	19.3	19.3	20.4	21.8	23.3	24.9	26.5	28.0	29.4	30.7	31.9
Customs duties	41.3	69.5	48.4	45.2	48.2	51.0	53.8	56.7	59.6	62.5	65.5	68.6
Miscellaneous receipts	111.7	93.2	93.7	99.3	103.9	111.5	121.2	129.9	138.4	145.8	153.8	161.8
Total, receipts	**3,329.9**	**3,437.6**	**3,642.6**	**3,874.2**	**4,126.0**	**4,414.7**	**4,742.7**	**5,026.7**	**5,306.3**	**5,592.8**	**5,922.9**	**6,275.5**
On-budget	(2,475.2)	(2,526.5)	(2,693.3)	(2,870.5)	(3,066.5)	(3,300.5)	(3,567.8)	(3,790.3)	(4,000.4)	(4,220.6)	(4,467.3)	(4,744.9)
Off-budget	(854.7)	(911.1)	(949.3)	(1,003.7)	(1,059.4)	(1,114.2)	(1,174.8)	(1,236.4)	(1,305.9)	(1,372.2)	(1,455.6)	(1,530.6)

tions must be made in order to calculate the baseline estimates. These include assumptions about the timing and substance of regulations that will be issued over the projection period, the use of administrative discretion provided under current law, and other assumptions about the way programs operate, including actions under OMB Memorandum M-05-13, "Budget Discipline for Agency Administrative Actions." Table 26–4 lists many of these assumptions and their effects on the baseline estimates. It is not intended to be an exhaustive listing; the variety and complexity of Government programs are too great to provide a complete list. Instead, some of the more important assumptions are shown.

Current Services Receipts, Outlays, and Budget Authority

Receipts.—Table 26–5 shows the Administration's baseline receipts by major source. Table 26–6 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 26–7 shows the growth from 2019 to 2020 and average annual growth over the five-year and ten-year periods for certain discretionary and major mandatory programs. Tables 26–8 and 26–9 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 26–12 at *https://www.whitehouse.gov/omb/analytical-perspectives/*.

Budget authority.—Tables 26–10 and 26–11 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 26–12 at *https://www.whitehouse.gov/omb/analytical-perspectives/*.

Table 26–6. EFFECT ON RECEIPTS OF CHANGES IN THE SOCIAL SECURITY TAXABLE EARNINGS BASE
(In billions of dollars)

	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Social security (OASDI) taxable earnings base increases:										
$132,900 to $136,800 on Jan. 1, 2020	2.1	5.5	6.1	6.8	7.5	8.3	9.2	10.2	11.3	12.5
$136,800 to $141,000 on Jan. 1, 2021	....	2.4	6.2	6.8	7.6	8.4	9.4	10.3	11.5	12.7
$141,000 to $147,000 on Jan. 1, 2022	....	....	3.6	9.1	10.1	11.2	12.4	13.8	15.3	16.9
$147,000 to $154,200 on Jan. 1, 2023	....	....	....	4.4	11.0	12.2	13.6	15.0	16.8	18.6
$154,200 to $162,000 on Jan. 1, 2024	....	....	....	....	4.8	12.0	13.3	14.7	16.4	18.2
$162,000 to $170,400 on Jan. 1, 2025	....	....	....	....	....	5.2	12.9	14.3	15.9	17.7
$170,400 to $178,500 on Jan. 1, 2026	....	....	....	....	....	....	5.0	12.5	13.9	15.4
$178,500 to $187,500 on Jan. 1, 2027	....	....	....	....	....	....	....	5.5	14.0	15.5
$187,500 to $196,500 on Jan. 1, 2028	....	....	....	....	....	....	....	....	5.6	14.0
$196,500 to $206,100 on Jan. 1, 2029	....	....	....	....	....	....	....	....	....	6.1

Table 26–7. CHANGE IN OUTLAY ESTIMATES BY CATEGORY IN THE ADJUSTED BASELINE
(In billions of dollars)

	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	Change 2019 to 2020		Change 2020 to 2024		Change 2020 to 2029	
												Amount	Percent	Amount	Average Annual Rate	Amount	Average Annual Rate
Outlays:																	
Discretionary:																	
Defense	674	671	674	674	686	698	712	731	749	767	787	–3	–0.5%	24	0.7%	112	1.6%
Non-defense	685	669	654	658	662	672	682	697	712	727	743	–16	–2.3%	–13	–0.4%	58	0.8%
Subtotal, discretionary	1,359	1,340	1,328	1,332	1,348	1,371	1,394	1,427	1,461	1,494	1,530	–19	–1.4%	12	0.2%	171	1.2%
Mandatory:																	
Farm programs	30	14	16	17	17	16	17	18	18	19	19	–16	–54.3%	–14	–11.3%	–11	–4.4%
GSE support	–25	–23	–22	–22	–21	–19	–19	–18	–18	–18	–18	2	–9.1%	6	–4.9%	7	–3.3%
Medicaid	419	426	446	470	499	525	554	593	628	664	703	7	1.7%	106	4.6%	285	5.3%
Other health care	120	108	105	110	113	117	122	127	133	139	143	–12	–10.0%	–3	–0.5%	23	1.8%
Medicare	645	702	762	861	892	920	1,038	1,121	1,202	1,385	1,361	57	8.8%	275	7.4%	716	7.8%
Federal employee retirement and disability	149	154	159	169	169	169	180	185	191	202	195	5	3.5%	21	2.6%	47	2.8%
Unemployment compensation	27	27	29	30	32	33	35	37	39	41	43	1	2.5%	7	4.5%	16	4.9%
Other income security programs	284	284	290	301	305	305	315	328	333	343	335	–*	–0.1%	21	1.4%	51	1.7%
Social Security	1,041	1,102	1,166	1,235	1,309	1,387	1,468	1,553	1,642	1,737	1,835	61	5.8%	346	5.9%	793	5.8%
Veterans programs	116	126	132	150	148	146	167	177	187	213	194	10	8.6%	30	4.7%	78	5.3%
Other mandatory programs	74	73	71	74	68	67	69	69	71	84	85	–1	–1.6%	–8	–2.1%	11	1.4%
Undistributed offsetting receipts	–97	–106	–107	–111	–111	–112	–128	–118	–121	–124	–127	–9	9.7%	–15	2.9%	–30	2.8%
Subtotal, mandatory	2,783	2,887	3,047	3,284	3,419	3,554	3,821	4,073	4,304	4,685	4,769	104	3.7%	771	5.0%	1,987	5.5%
Net interest	394	482	548	611	666	709	749	789	828	868	903	89	22.5%	316	12.5%	509	8.7%
Total, outlays	4,536	4,709	4,923	5,228	5,434	5,634	5,963	6,290	6,593	7,048	7,202	174	3.8%	1,098	4.4%	2,666	4.7%

*Less than $500 million.

Table 26–8. OUTLAYS BY FUNCTION IN THE ADJUSTED BASELINE

(In billions of dollars)

Function	2018 Actual	Estimate										
		2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
National Defense:												
Department of Defense—Military	600.7	652.2	651.7	655.4	656.0	666.8	678.6	692.1	709.7	727.4	745.6	764.1
Other	30.4	32.3	31.2	31.0	31.3	31.6	32.2	32.7	33.3	34.0	34.7	35.4
Total, National Defense	631.2	684.6	682.9	686.4	687.3	698.4	710.8	724.8	743.1	761.4	780.3	799.5
International Affairs	49.0	54.3	56.6	58.1	62.4	61.1	62.0	62.5	63.9	65.5	67.0	68.5
General Science, Space, and Technology	31.5	33.8	35.3	36.4	37.3	37.5	38.4	38.3	39.3	40.2	41.0	41.9
Energy	2.2	3.2	5.5	6.2	4.2	3.7	2.4	3.1	3.2	3.8	5.9	7.0
Natural Resources and Environment	39.1	39.9	46.8	49.3	51.0	50.4	52.1	49.6	50.2	50.7	51.9	52.9
Agriculture	21.8	38.1	20.9	23.6	24.5	24.4	24.1	24.8	26.4	26.3	27.5	27.8
Commerce and Housing Credit	–9.5	–27.2	–5.6	–6.5	–3.8	–3.0	0.1	3.3	4.8	5.8	6.9	7.8
On-Budget	(–8.0)	(–26.3)	(–6.2)	(–8.6)	(–6.5)	(–4.4)	(–0.1)	(3.0)	(4.6)	(5.5)	(6.6)	(7.5)
Off-Budget	(–1.5)	(–0.9)	(0.6)	(2.0)	(2.7)	(1.4)	(0.3)	(0.3)	(0.3)	(0.3)	(0.3)	(0.3)
Transportation	92.8	98.9	103.0	106.6	98.4	95.5	96.7	98.0	98.7	100.2	103.0	105.7
Community and Regional Development	42.2	33.0	34.9	27.3	30.5	30.3	28.1	28.8	29.0	29.9	28.8	27.9
Education, Training, Employment, and Social Services	95.5	142.5	122.6	126.1	131.7	134.3	136.7	139.5	141.7	144.4	147.1	149.2
Health	551.2	607.3	606.6	624.4	655.4	688.8	720.0	756.6	802.3	843.8	888.8	933.6
Medicare	588.7	651.2	708.9	769.4	868.9	900.3	927.9	1,046.8	1,130.0	1,211.2	1,394.2	1,370.5
Income Security	495.3	533.2	539.8	555.0	579.5	585.0	588.7	613.0	634.6	647.8	673.7	662.5
Social Security	987.8	1,047.0	1,107.9	1,172.4	1,241.4	1,315.4	1,393.9	1,475.5	1,560.6	1,649.3	1,744.3	1,842.6
On-Budget	(35.8)	(36.3)	(39.7)	(43.5)	(47.4)	(51.5)	(55.9)	(60.8)	(73.9)	(82.7)	(89.5)	(96.7)
Off-Budget	(952.0)	(1,010.6)	(1,068.2)	(1,128.9)	(1,194.0)	(1,263.9)	(1,337.9)	(1,414.7)	(1,486.8)	(1,566.7)	(1,654.8)	(1,745.9)
Veterans Benefits and Services	178.9	200.5	215.8	225.1	245.5	247.1	248.0	271.7	284.6	297.7	326.5	311.8
Administration of Justice	60.4	71.8	70.8	69.7	70.1	71.4	72.0	74.0	75.9	78.8	84.8	87.1
General Government	23.9	26.8	30.7	28.3	29.2	29.7	30.1	31.2	31.6	32.2	33.4	33.9
Net Interest	325.0	393.6	482.1	548.4	611.5	666.5	709.1	748.5	788.9	828.4	868.1	902.6
On-Budget	(408.8)	(476.3)	(563.8)	(628.9)	(689.5)	(743.2)	(783.9)	(822.5)	(862.2)	(902.9)	(942.9)	(976.2)
Off-Budget	(–83.8)	(–82.7)	(–81.6)	(–80.6)	(–78.0)	(–76.7)	(–74.8)	(–74.0)	(–73.3)	(–74.5)	(–74.7)	(–73.6)
Allowances	....	0.2	–50.1	–76.0	–86.4	–92.3	–95.3	–98.6	–101.2	–103.5	–101.3	–104.0
Undistributed Offsetting Receipts:												
Employer share, employee retirement (on-budget)	–69.2	–72.3	–80.1	–82.6	–84.8	–85.1	–85.3	–87.3	–89.4	–91.5	–93.7	–95.9
Employer share, employee retirement (off-budget)	–18.2	–18.0	–18.2	–18.8	–19.5	–20.0	–20.5	–21.3	–22.0	–22.6	–23.5	–23.9
Rents and royalties on the Outer Continental Shelf	–4.6	–5.4	–5.4	–5.3	–6.2	–5.9	–6.2	–6.8	–6.7	–7.0	–7.2	–7.4
Sale of major assets	–5.9	–1.1	–2.7	–0.1	–0.7	–0.1	–0.1	–12.7	–*	–*	–*	–*
Other undistributed offsetting receipts	–5.9	–1.1	–2.7	–0.1	–0.7	–0.1	–0.1	–12.7	–*	–*	–*	–*
Total, Undistributed Offsetting Receipts	–97.9	–96.9	–106.3	–106.7	–111.2	–111.0	–112.1	–128.1	–118.1	–121.1	–124.4	–127.2
On-Budget	(–79.7)	(–78.9)	(–88.1)	(–87.9)	(–91.8)	(–91.0)	(–91.6)	(–106.8)	(–96.1)	(–98.5)	(–100.9)	(–103.3)
Off-Budget	(–18.2)	(–18.0)	(–18.2)	(–18.8)	(–19.5)	(–20.0)	(–20.5)	(–21.3)	(–22.0)	(–22.6)	(–23.5)	(–23.9)
Total	**4,109.0**	**4,535.6**	**4,709.2**	**4,923.4**	**5,227.5**	**5,433.6**	**5,633.8**	**5,963.4**	**6,289.5**	**6,592.8**	**7,047.6**	**7,201.7**
On-Budget	(3,260.5)	(3,626.7)	(3,740.1)	(3,891.8)	(4,128.3)	(4,265.1)	(4,390.8)	(4,643.7)	(4,897.8)	(5,123.0)	(5,490.7)	(5,553.1)
Off-Budget	(848.6)	(908.9)	(969.1)	(1,031.6)	(1,099.2)	(1,168.6)	(1,242.9)	(1,319.7)	(1,391.7)	(1,469.8)	(1,556.9)	(1,648.6)

* Less than $500 million.

Table 26–9. OUTLAYS BY AGENCY IN THE ADJUSTED BASELINE

(In billions of dollars)

Agency	2018 Actual	Estimate										
		2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Legislative Branch	4.7	5.8	5.3	5.4	5.5	5.6	5.8	6.0	6.1	6.3	6.5	6.7
Judicial Branch	7.8	8.0	8.4	8.7	8.9	9.2	9.4	9.7	10.0	10.3	10.6	10.9
Agriculture	136.7	156.0	138.9	145.5	149.5	152.6	154.1	158.9	163.8	164.8	167.4	165.8
Commerce	8.6	13.2	15.1	14.3	14.0	12.8	12.9	13.2	13.6	14.0	14.3	14.7
Defense—Military Programs	600.7	652.2	700.2	726.0	736.5	752.8	768.9	785.6	806.3	826.9	847.9	869.4
Education	63.7	108.3	87.1	89.9	95.1	97.1	98.9	101.2	102.8	105.2	107.3	108.8
Energy	26.5	31.6	34.0	35.2	34.3	33.7	33.4	34.6	35.0	36.2	38.8	40.4
Health and Human Services	1,120.5	1,236.6	1,307.6	1,395.4	1,525.2	1,590.4	1,647.9	1,802.1	1,930.5	2,062.4	2,257.5	2,268.2
Homeland Security	68.4	62.3	61.0	53.5	56.0	58.0	59.6	61.8	63.4	66.0	72.8	75.4
Housing and Urban Development	54.7	32.1	51.6	53.1	56.3	55.8	54.1	54.6	55.8	56.8	56.3	56.1
Interior	13.2	12.1	14.4	15.0	16.1	15.6	15.8	16.4	16.2	16.5	17.0	17.6
Justice	34.5	41.4	40.6	39.1	38.3	38.4	38.2	39.2	40.2	41.2	42.2	43.4
Labor	39.6	37.1	39.0	42.4	44.3	46.6	48.6	48.8	57.1	56.8	59.2	61.7
State	26.4	29.7	29.2	31.3	32.5	32.4	32.9	33.7	34.5	35.4	36.2	37.0
Transportation	78.5	83.4	87.0	90.1	81.6	78.2	78.9	79.6	79.7	80.6	81.7	83.0
Treasury	629.5	709.5	794.8	860.3	929.8	990.9	1,041.6	1,087.7	1,127.5	1,192.8	1,240.4	1,275.2
Veterans Affairs	178.5	199.9	215.4	224.7	245.0	246.7	247.5	271.2	284.1	297.1	326.0	311.2
Corps of Engineers—Civil Works	5.1	8.5	10.5	11.4	12.5	11.3	12.2	9.2	9.3	9.0	9.2	9.0
Other Defense Civil Programs	55.4	62.2	63.0	64.9	72.0	68.7	65.7	73.9	78.6	78.4	86.5	77.5
Environmental Protection Agency	8.1	7.0	7.9	8.5	8.9	9.2	9.6	9.9	10.1	10.4	10.7	10.9
Executive Office of the President	0.4	0.4	0.4	0.4	0.5	0.5	0.5	0.5	0.5	0.5	0.6	0.6
General Services Administration	–0.6	–1.3	0.3	–0.1	0.1	0.1	*	–*	–*	*	*	*
International Assistance Programs	21.6	24.3	26.6	25.9	28.8	27.6	27.8	27.5	28.0	28.7	29.4	30.0
National Aeronautics and Space Administration	19.8	21.0	22.0	21.8	21.9	22.4	22.9	23.4	24.0	24.5	25.1	25.6
National Science Foundation	7.2	7.2	7.4	8.2	8.7	8.9	9.2	8.4	8.8	8.9	9.1	9.3
Office of Personnel Management	98.8	102.5	108.5	111.5	116.3	120.2	125.0	129.5	134.8	140.0	145.5	151.1
Small Business Administration	0.0	0.2	0.8	0.7	0.7	0.8	0.8	0.8	0.8	0.8	0.9	0.9
Social Security Administration	1,039.9	1,104.4	1,166.7	1,232.2	1,307.4	1,378.7	1,454.1	1,542.5	1,629.6	1,720.2	1,822.5	1,912.2
On-Budget	(87.9)	(93.8)	(98.4)	(103.4)	(113.4)	(114.8)	(116.2)	(127.8)	(142.8)	(153.5)	(167.7)	(166.3)
Off-Budget	(952.0)	(1,010.6)	(1,068.2)	(1,128.9)	(1,194.0)	(1,263.9)	(1,337.9)	(1,414.7)	(1,486.8)	(1,566.7)	(1,654.8)	(1,745.9)
Other Independent Agencies	9.0	25.3	25.9	29.8	33.6	35.9	37.8	40.3	41.3	42.5	43.8	45.2
On-Budget	(10.5)	(26.2)	(25.3)	(27.8)	(30.9)	(34.5)	(37.6)	(40.1)	(41.0)	(42.2)	(43.6)	(44.9)
Off-Budget	(–1.5)	(–0.9)	(0.6)	(2.0)	(2.7)	(1.4)	(0.3)	(0.3)	(0.3)	(0.3)	(0.3)	(0.3)
Allowances		0.2	–106.8	–166.0	–188.2	–201.5	–209.7	–217.8	–225.8	–243.1	–215.1	–214.2
Undistributed Offsetting Receipts	–248.0	–245.8	–253.4	–255.6	–264.4	–266.0	–270.7	–289.0	–276.9	–297.4	–302.8	–301.9
On-Budget	(–102.0)	(–100.8)	(–99.8)	(–99.3)	(–97.5)	(–96.7)	(–95.3)	(–95.3)	(–95.3)	(–97.2)	(–98.2)	(–97.5)
Off-Budget	(–146.0)	(–145.0)	(–153.6)	(–156.2)	(–166.9)	(–169.3)	(–175.4)	(–193.7)	(–181.6)	(–200.2)	(–204.6)	(–204.4)
Total	**4,109.0**	**4,535.6**	**4,709.2**	**4,923.4**	**5,227.5**	**5,433.6**	**5,633.8**	**5,963.4**	**6,289.5**	**6,592.8**	**7,047.6**	**7,201.7**
On-Budget	(3,304.5)	(3,670.9)	(3,793.9)	(3,948.7)	(4,197.7)	(4,337.6)	(4,471.0)	(4,742.2)	(4,984.2)	(5,226.0)	(5,597.1)	(5,659.9)
Off-Budget	(804.6)	(864.7)	(915.3)	(974.7)	(1,029.8)	(1,096.0)	(1,162.8)	(1,221.2)	(1,305.4)	(1,366.7)	(1,450.4)	(1,541.7)

* Less than $500 million.

Table 26–10. BUDGET AUTHORITY BY FUNCTION IN THE ADJUSTED BASELINE

(In billions of dollars)

Function	2018 Actual	Estimate										
		2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
National Defense:												
Department of Defense—Military	694.5	693.1	628.7	644.4	659.8	675.7	692.2	709.2	726.5	744.6	763.1	782.0
Other	32.3	33.2	29.9	30.4	31.0	31.6	32.3	32.9	33.6	34.3	35.0	35.8
Total, National Defense	726.8	726.2	658.5	674.8	690.9	707.3	724.5	742.1	760.2	778.9	798.2	817.8
International Affairs	80.3	75.4	66.1	67.2	66.3	66.9	69.2	71.2	72.4	75.1	77.5	76.3
General Science, Space, and Technology	34.4	34.5	35.2	35.9	36.7	37.5	38.3	39.1	40.0	40.8	41.7	42.6
Energy	6.0	6.2	6.0	6.2	4.6	3.8	2.6	3.6	3.5	4.3	6.2	7.6
Natural Resources and Environment	63.9	42.3	47.2	44.4	45.4	46.6	47.6	48.6	49.6	50.8	51.9	53.3
Agriculture	15.1	35.5	21.6	23.5	24.5	24.6	24.3	25.1	26.7	26.7	27.9	28.2
Commerce and Housing Credit	11.5	1.3	5.6	5.1	7.4	10.3	14.9	17.6	19.3	20.9	22.2	23.3
On-Budget	(11.2)	(1.1)	(5.4)	(4.8)	(7.1)	(10.1)	(14.6)	(17.3)	(19.1)	(20.7)	(21.9)	(23.0)
Off-Budget	(0.3)	(0.3)	(0.3)	(0.3)	(0.3)	(0.3)	(0.3)	(0.3)	(0.3)	(0.3)	(0.3)	(0.3)
Transportation	104.6	103.2	98.7	107.4	108.7	110.0	111.3	112.6	114.1	115.5	118.7	120.5
Community and Regional Development	100.5	23.6	24.1	24.6	25.1	25.6	26.2	26.7	27.3	28.3	28.8	29.3
Education, Training, Employment, and Social Services	107.6	142.9	125.4	130.2	133.9	136.5	138.9	141.8	144.0	146.8	149.5	150.8
Health	594.3	604.6	615.0	641.4	673.4	703.2	728.9	766.1	813.2	853.6	893.1	940.1
Medicare	606.3	695.3	729.6	769.0	868.5	900.4	928.0	1,046.8	1,130.0	1,207.8	1,401.1	1,370.7
Income Security	513.2	540.4	548.0	562.0	581.1	593.0	601.9	624.0	639.6	655.3	674.7	676.4
Social Security	989.7	1,052.5	1,113.5	1,178.0	1,247.4	1,321.8	1,400.6	1,482.5	1,567.9	1,657.1	1,752.4	1,851.0
On-Budget	(35.8)	(36.3)	(39.7)	(43.5)	(47.4)	(51.5)	(55.9)	(60.8)	(73.9)	(82.7)	(89.5)	(96.7)
Off-Budget	(953.9)	(1,016.2)	(1,073.8)	(1,134.5)	(1,200.0)	(1,270.3)	(1,344.7)	(1,421.7)	(1,494.0)	(1,574.5)	(1,662.9)	(1,754.2)
Veterans Benefits and Services	192.4	194.8	215.4	224.2	238.0	250.1	262.5	275.2	288.2	301.5	316.0	331.1
Administration of Justice	66.4	63.3	72.7	66.9	68.7	70.6	72.5	74.4	76.2	79.2	85.1	87.6
General Government	25.7	27.8	29.1	29.4	30.8	30.9	31.4	32.6	33.1	34.0	34.9	35.7
Net Interest	325.0	393.6	482.1	548.4	611.5	666.5	709.1	748.5	788.9	828.4	868.1	902.6
On-Budget	(408.8)	(476.3)	(563.8)	(628.9)	(689.5)	(743.2)	(783.9)	(822.5)	(862.2)	(902.9)	(942.9)	(976.2)
Off-Budget	(–83.8)	(–82.7)	(–81.6)	(–80.6)	(–78.0)	(–76.7)	(–74.8)	(–74.0)	(–73.3)	(–74.5)	(–74.7)	(–73.6)
Allowances	....	0.2	–90.0	–90.5	–93.6	–96.0	–98.2	–101.0	–103.3	–105.7	–101.9	–105.9
Undistributed Offsetting Receipts:												
Employer share, employee retirement (on-budget)	–69.2	–72.3	–80.1	–82.6	–84.8	–85.1	–85.3	–87.3	–89.4	–91.5	–93.7	–95.9
Employer share, employee retirement (off-budget)	–18.2	–18.0	–18.2	–18.8	–19.5	–20.0	–20.5	–21.3	–22.0	–22.6	–23.5	–23.9
Rents and royalties on the Outer Continental Shelf	–4.6	–5.4	–5.4	–5.3	–6.2	–5.9	–6.2	–6.8	–6.7	–7.0	–7.2	–7.4
Sale of major assets	....	....	....	....	....	....	....	....	....	....	....	....
Other undistributed offsetting receipts	–5.9	–1.1	–2.7	–0.1	–0.7	–0.1	–0.1	–12.7	–*	–*	–*	–*
Total, Undistributed Offsetting Receipts	–97.9	–96.9	–106.3	–106.7	–111.2	–111.0	–112.1	–128.1	–118.1	–121.1	–124.4	–127.2
On-Budget	(–79.7)	(–78.9)	(–88.1)	(–87.9)	(–91.8)	(–91.0)	(–91.6)	(–106.8)	(–96.1)	(–98.5)	(–100.9)	(–103.3)
Off-Budget	(–18.2)	(–18.0)	(–18.2)	(–18.8)	(–19.5)	(–20.0)	(–20.5)	(–21.3)	(–22.0)	(–22.6)	(–23.5)	(–23.9)
Total	**4,465.7**	**4,666.9**	**4,697.5**	**4,941.6**	**5,258.2**	**5,498.4**	**5,722.3**	**6,049.5**	**6,373.0**	**6,678.1**	**7,121.7**	**7,311.7**
On-Budget	(3,613.6)	(3,751.2)	(3,723.2)	(3,906.1)	(4,155.4)	(4,324.6)	(4,472.6)	(4,722.8)	(4,973.9)	(5,200.5)	(5,556.7)	(5,654.8)
Off-Budget	(852.2)	(915.7)	(974.3)	(1,035.4)	(1,102.8)	(1,173.9)	(1,249.7)	(1,326.7)	(1,399.0)	(1,477.6)	(1,565.0)	(1,657.0)
MEMORANDUM												
Discretionary Budget Authority:												
National Defense	700.9	716.0	646.7	662.3	678.5	695.2	712.2	729.8	747.8	766.3	785.3	804.9
International Affairs	56.2	55.9	57.8	59.0	60.2	61.5	62.9	64.3	65.7	67.1	68.6	70.1
Domestic	665.7	564.9	509.6	521.8	534.9	548.4	562.3	576.5	591.1	606.0	621.4	637.1
Total, Discretionary	1,422.8	1,336.7	1,214.1	1,243.1	1,273.6	1,305.1	1,337.4	1,370.6	1,404.5	1,439.4	1,475.3	1,512.1

* Less than $500 million.

Table 26–11. BUDGET AUTHORITY BY AGENCY IN THE ADJUSTED BASELINE

(In billions of dollars)

Agency	2018 Actual	Estimate										
		2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Legislative Branch	5.0	5.1	5.2	5.4	5.5	5.7	5.9	6.0	6.2	6.4	6.6	6.8
Judicial Branch	7.9	8.0	8.2	8.5	8.8	9.1	9.3	9.6	9.9	10.2	10.5	10.8
Agriculture	142.5	160.7	146.2	148.6	152.4	156.0	157.9	163.0	168.1	169.2	171.6	170.2
Commerce	18.3	11.4	11.8	12.1	12.4	12.8	13.1	13.4	13.8	14.2	14.5	14.9
Defense—Military Programs	694.5	693.1	712.5	730.7	748.6	767.1	786.2	805.8	825.9	846.8	868.2	890.2
Education	72.1	108.0	89.6	93.8	97.0	98.9	100.6	102.9	104.5	106.8	109.0	109.7
Energy	31.5	33.7	34.1	34.7	34.0	33.9	33.8	35.4	35.7	37.1	39.5	41.4
Health and Human Services	1,176.4	1,280.2	1,338.8	1,411.4	1,541.5	1,603.2	1,654.5	1,809.7	1,939.8	2,070.3	2,260.5	2,273.6
Homeland Security	103.0	53.4	55.4	56.3	57.8	59.3	61.0	62.6	64.4	67.4	74.6	76.9
Housing and Urban Development	81.3	53.0	55.0	56.0	57.0	58.0	59.0	60.0	61.0	62.0	63.1	64.2
Interior	15.0	13.0	14.4	14.6	15.7	15.3	15.4	16.2	16.2	16.7	17.1	17.6
Justice	36.6	34.3	41.7	35.6	36.5	37.4	38.4	39.4	40.4	41.4	42.5	43.7
Labor	43.2	41.7	42.7	44.7	46.2	48.0	50.0	52.4	54.5	56.8	59.2	61.6
State	29.9	29.8	31.0	31.7	32.4	33.1	33.9	34.6	35.4	36.2	37.0	37.9
Transportation	88.1	87.7	82.6	90.9	91.6	92.4	93.2	94.0	94.8	95.7	96.5	97.4
Treasury	633.5	708.8	794.6	860.9	931.0	991.8	1,043.0	1,089.1	1,128.9	1,194.5	1,241.8	1,276.8
Veterans Affairs	191.8	194.4	215.0	223.8	237.5	249.6	262.0	274.7	287.7	301.0	315.4	330.5
Corps of Engineers—Civil Works	24.2	6.9	7.1	7.3	7.5	7.7	7.9	8.1	8.3	8.5	8.7	8.9
Other Defense Civil Programs	60.1	62.2	63.2	65.1	67.1	68.9	71.1	74.1	78.9	78.7	80.7	83.9
Environmental Protection Agency	8.8	8.7	8.9	9.1	9.4	9.6	9.9	10.1	10.3	10.6	10.9	11.1
Executive Office of the President	0.4	0.4	0.4	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.6	0.6
General Services Administration	–0.5	–0.8	0.3	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.4
International Assistance Programs	49.0	43.9	33.5	34.0	32.2	32.0	33.4	34.6	35.0	36.9	38.4	36.3
National Aeronautics and Space Administration	20.8	20.7	21.2	21.7	22.2	22.7	23.2	23.7	24.2	24.8	25.3	25.9
National Science Foundation	7.9	7.9	8.0	8.2	8.3	8.5	8.7	8.9	9.0	9.2	9.4	9.6
Office of Personnel Management	101.6	104.1	108.6	114.2	119.6	124.4	129.3	134.3	139.4	144.8	150.2	155.9
Small Business Administration	0.8	–*	0.7	0.7	0.8	0.8	0.8	0.8	0.8	0.8	0.9	0.9
Social Security Administration	1,040.2	1,110.4	1,171.9	1,236.7	1,313.2	1,385.1	1,461.1	1,549.5	1,636.9	1,727.9	1,830.3	1,920.5
On-Budget	(86.2)	(94.2)	(98.1)	(102.2)	(113.2)	(114.8)	(116.4)	(127.8)	(142.8)	(153.5)	(167.5)	(166.3)
Off-Budget	(953.9)	(1,016.2)	(1,073.8)	(1,134.5)	(1,200.0)	(1,270.3)	(1,344.7)	(1,421.7)	(1,494.0)	(1,574.5)	(1,662.9)	(1,754.2)
Other Independent Agencies	30.0	31.8	33.6	36.8	39.9	43.1	46.2	48.3	49.9	51.4	52.8	54.5
On-Budget	(29.8)	(31.5)	(33.4)	(36.5)	(39.6)	(42.9)	(46.0)	(48.0)	(49.6)	(51.1)	(52.5)	(54.3)
Off-Budget	(0.3)	(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	–185.4	–196.9	–204.3	–210.7	–216.6	–223.7	–231.1	–251.7	–211.9	–219.0
Undistributed Offsetting Receipts	–248.0	–245.8	–253.4	–255.6	–264.4	–266.0	–270.7	–289.0	–276.9	–297.4	–302.8	–301.9
On-Budget	(–102.0)	(–100.8)	(–99.8)	(–99.3)	(–97.5)	(–96.7)	(–95.3)	(–95.3)	(–95.3)	(–97.2)	(–98.2)	(–97.5)
Off-Budget	(–146.0)	(–145.0)	(–153.6)	(–156.2)	(–166.9)	(–169.3)	(–175.4)	(–193.7)	(–181.6)	(–200.2)	(–204.6)	(–204.4)
Total	**4,465.7**	**4,666.9**	**4,697.5**	**4,941.6**	**5,258.2**	**5,498.4**	**5,722.3**	**6,049.5**	**6,373.0**	**6,678.1**	**7,121.7**	**7,311.7**
On-Budget	(3,657.6)	(3,795.5)	(3,777.0)	(3,963.0)	(4,224.8)	(4,397.2)	(4,552.8)	(4,821.3)	(5,060.3)	(5,303.6)	(5,663.2)	(5,761.7)
Off-Budget	(808.1)	(871.5)	(920.5)	(978.5)	(1,033.3)	(1,101.3)	(1,169.5)	(1,228.2)	(1,312.7)	(1,374.5)	(1,458.5)	(1,550.1)

* Less than $500 million.

27. 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. Many 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 11, "Budget Concepts," in this volume.

[2] See Chapter 15 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,

[3] Deposit funds are discussed briefly in Chapter 12 of this volume, "Coverage of the Budget."

Table 27–1. RECEIPTS, OUTLAYS AND SURPLUS OR DEFICIT BY FUND GROUP

(In billions of dollars)

	2018 Actual	Estimate					
		2019	2020	2021	2022	2023	2024
Receipts:							
Federal funds cash income:							
From the public	2,467.5	2,477.6	2,629.2	2,818.5	2,980.8	3,206.5	3,458.9
From trust funds	1.1	1.0	1.1	1.1	1.1	1.2	1.2
Total, Federal funds cash income	2,468.5	2,478.6	2,630.3	2,819.6	2,981.9	3,207.6	3,460.1
Trust funds cash income:							
From the public	1,426.5	1,512.0	1,577.2	1,659.6	1,746.1	1,837.2	1,940.7
From Federal funds:							
Interest	150.2	148.9	147.4	150.2	156.0	159.4	164.4
Other	589.5	613.8	661.3	694.7	731.7	774.8	823.9
Total, Trust funds cash income	2,166.2	2,274.6	2,385.9	2,504.5	2,633.8	2,771.3	2,929.1
Offsetting collections from the public and offsetting receipts:							
Federal funds	–377.6	–352.3	–350.1	–383.4	–371.8	–380.5	–389.2
Trust funds	–927.2	–963.2	–1,021.3	–1,063.8	–1,115.4	–1,177.0	–1,247.4
Total, offsetting collections from the public and offsetting receipts	–1,304.8	–1,315.6	–1,371.4	–1,447.2	–1,487.1	–1,557.5	–1,636.6
Unified budget receipts:							
Federal funds	2,090.9	2,126.2	2,280.2	2,436.2	2,610.1	2,827.2	3,070.8
Trust funds	1,239.0	1,311.4	1,364.6	1,440.7	1,518.5	1,594.3	1,681.7
Total, unified budget receipts	3,329.9	3,437.7	3,644.8	3,876.9	4,128.6	4,421.5	4,752.5
Outlays:							
Federal funds cash outgo	3,401.8	3,679.5	3,835.8	3,989.6	4,092.1	4,209.3	4,298.7
Trust funds cash outgo	2,012.0	2,165.2	2,281.2	2,402.8	2,572.5	2,678.3	2,790.9
Offsetting collections from the public and offsetting receipts:							
Federal funds	–377.6	–352.3	–350.1	–383.4	–371.8	–380.5	–389.2
Trust funds	–927.2	–963.2	–1,021.3	–1,063.8	–1,115.4	–1,177.0	–1,247.4
Total, offsetting collections from the public and offsetting receipts	–1,304.8	–1,315.6	–1,371.4	–1,447.2	–1,487.1	–1,557.5	–1,636.6
Unified budget outlays:							
Federal funds	3,024.2	3,327.2	3,485.7	3,606.2	3,720.3	3,828.8	3,909.4
Trust funds	1,084.8	1,202.0	1,259.9	1,339.0	1,457.1	1,501.3	1,543.5
Total, unified budget outlays	4,109.0	4,529.2	4,745.6	4,945.2	5,177.5	5,330.1	5,453.0
Surplus or deficit(–):							
Federal funds	–933.3	–1,200.9	–1,205.5	–1,170.0	–1,110.2	–1,001.6	–838.6
Trust funds	154.2	109.4	104.7	101.7	61.3	93.0	138.2
Total, unified surplus/deficit(–)	–779.1	–1,091.5	–1,100.8	–1,068.3	–1,048.8	–908.6	–700.5

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).

which is available for future expenditures. The 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 a 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.

Income and Outgo by Fund Group

Table 27–1 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 27–1 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 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 they are instead recorded on the outlay side of the budget. 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.

[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."

[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 27–1 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 27–1 includes postage stamp fees and the Fund's outgo is gross disbursements, including disbursements financed by those fees.

[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 11 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 27–2. COMPARISON OF TOTAL FEDERAL FUND AND TRUST FUND RECEIPTS TO UNIFIED BUDGET RECEIPTS, FISCAL YEAR 2018
(In billions of dollars)

Gross Federal fund and Trust fund cash income:	
Federal funds	2,796.9
Trust funds	2,225.4
Total, gross Federal fund and Trust fund cash income	5,022.3
Deduct: intrabudgetary offsetting collections (from funds within same fund group):	
Federal funds	–295.8
Trust funds	–52.2
Subtotal, intrabudgetary offsetting collections	–348.0
Deduct: intrafund receipts (from funds within same fund group):	
Federal funds	–32.6
Trust funds	–7.0
Subtotal, intrafund receipts	–39.6
Federal fund and Trust fund cash income net of intrabudgetary offsetting collections and intrafund receipts:	
Federal funds	2,468.5
Trust funds	2,166.2
Total, Federal fund and Trust fund cash income net of intrafund receipts	4,634.7
Deduct: offsetting collections from the public:	
Federal funds	–244.4
Trust funds	–22.2
Subtotal, offsetting collections from the public	–266.6
Deduct other offsetting receipts:	
Federal fund receipts from Trust funds	–1.1
Trust fund receipts from Federal funds:	
Interest in receipt accounts	–150.2
General fund payments to Medicare Parts B and D	–318.1
Employing agencies' payments for pensions, Social Security, and Medicare	–79.0
General fund payments for unfunded liabilities of Federal employees' retirement funds	–126.4
Transfer of taxation of Social Security and RRB benefits to OASDI, HI, and RRB	–60.7
Other receipts from Federal funds	–5.4
Subtotal, Trust fund receipts from Federal funds	–739.7
Proprietary receipts:	
Federal funds	–119.6
Trust funds	–159.4
Subtotal, proprietary receipts	–279.0
Offsetting governmental receipts:	
Federal funds	–12.5
Trust funds	–5.9
Subtotal, offsetting governmental receipts	–18.4
Subtotal, other offsetting receipts	–1,038.2
Unified budget receipts:	
Federal funds	2,090.9
Trust funds	1,239.0
Total, unified budget receipts	3,329.9
Memorandum:	
Gross receipts: [1]	
Federal funds	2,256.7
Trust funds	2,151.0
Total, gross receipts	4,407.7

[1] Gross income excluding offsetting collections.

As shown in Table 27–1, 37 percent of all governmental receipts were deposited in trust funds in 2018 and the remaining 63 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 account for 26 percent of total 2018 outlays, they account for 32 percent of 2018 outlays net of interfund transactions.

Because the income for Federal funds and trust funds recorded in Table 27–1 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 27–1 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 27–2 reconciles, for fiscal year 2018, 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 27–3 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 27–1 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 27–1. 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 $52 billion in 2018. Table 27–3, therefore, provides a more complete summary of trust fund income and outgo.

The trust funds group ran a surplus of $154 billion in 2018, and is expected to continue to run surpluses over the next several years. The resulting growth in trust fund balances continues a trend that has persisted over the past several decades.

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 par-

Table 27–3. INCOME, OUTGO, AND BALANCES OF TRUST FUNDS GROUP
(In billions of dollars)

	2018 Actual	Estimate					
		2019	2020	2021	2022	2023	2024
Balance, start of year	5,033.8	5,188.1	5,297.8	5,402.9	5,504.6	5,566.0	5,659.0
Adjustments to balances	–0.3	....	....	....	....	....	....
Total balance, start of year	5,033.5	5,188.1	5,297.8	5,402.9	5,504.6	5,566.0	5,659.0
Income:							
Governmental receipts	1,239.0	1,311.4	1,364.6	1,440.7	1,518.5	1,594.3	1,681.7
Offsetting governmental	5.9	1.2	2.6	*	*	*	*
Proprietary	179.5	198.5	209.0	218.0	226.7	242.0	258.2
From Federal funds:							
Interest	153.3	151.0	149.8	152.7	158.7	162.5	167.8
Other	640.7	667.0	716.5	753.1	792.8	838.3	890.5
Total income during the year	2,218.4	2,329.1	2,442.5	2,564.6	2,696.8	2,837.1	2,998.3
Outgo (–)	–2,064.2	–2,219.6	–2,337.8	–2,462.9	–2,635.4	–2,744.2	–2,860.2
Change in fund balance:							
Surplus or deficit(–):							
Excluding interest	0.9	–41.6	–45.1	–51.0	–97.3	–69.5	–29.7
Interest	153.3	151.0	149.8	152.7	158.7	162.5	167.8
Subtotal, surplus or deficit (–)	154.2	109.4	104.7	101.7	61.3	93.0	138.2
Borrowing, transfers, lapses, & other adjustments	0.4	0.4	0.4	....	....	....	....
Total change in fund balance	154.6	109.8	105.1	101.7	61.3	93.0	138.2
Balance, end of year	5,188.1	5,297.8	5,402.9	5,504.6	5,566.0	5,659.0	5,797.1

* $50 million or less.

Note: In contrast to Table 27-–1, income also includes income that is offset within expenditure accounts as offsetting collections from Federal sources, instead of being deposited in receipt accounts.

ticipants 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. [10]

Due to advance funding and economic growth (both real and nominal), trust fund balances increased from $205 billion in 1982 to $5.2 trillion in 2018. Based on the estimates in the 2020 Budget, which include the effect of the Budget's proposals, the balances are estimated to increase by approximately 12 percent by the year 2024, rising to $5.8 trillion. 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."

Although total trust fund balances are growing, the balances of some major individual funds are declining. Social Security and Medicare face particular challenges due to the decline in the ratio of active workers paying payroll taxes relative to retired workers receiving Social Security and Medicare benefits. Within the 2018-2024 window presented in Table 27–3, the Social Security and Medicare trust funds will begin to run deficits and their balances will consequently begin to fall. In the longer run, absent changes in the laws governing these programs, the funds will become unable to meet their obligations in full. For further discussion of the longer-term outlook of Social Security and Medicare, and the Federal budget as

[10] 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.

a whole, see Chapter 3 of this volume, "Long-Term Budget Outlook."

Table 27–4 shows estimates of income, outgo, surplus or deficit, and balances for 2018 through 2024 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 27–3 for 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 27–4 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 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 investment.

- 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 27–5 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 27–4. INCOME, OUTGO, AND BALANCES OF MAJOR TRUST FUNDS

(In billions of dollars)

	2018 Actual	Estimate					
		2019	2020	2021	2022	2023	2024
Airport and Airway Trust Fund							
Balance, start of year	15.1	17.0	17.7	17.9	19.4	22.4	26.4
Adjustments to balances	....	....	....	....	....	....	....
Total balance, start of year	15.1	17.0	17.7	17.9	19.4	22.4	26.4
Income:							
Governmental receipts	15.8	16.3	17.2	18.1	19.0	19.9	20.9
Offsetting governmental	....	....	....	....	....	....	....
Proprietary	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Intrabudgetary:							
Intrafund	....	....	....	....	....	....	....
Interest	0.3	0.4	0.5	0.5	0.6	0.7	0.9
Other intrabudgetary	1.0	1.1	0.1	0.1	0.1	0.1	0.1
Total income during the year	17.2	17.8	17.8	18.7	19.7	20.8	21.9
Outgo (–)	–15.3	–17.1	–17.6	–17.1	–16.8	–16.7	–16.4
Change in fund balance:							
Surplus or deficit(–):							
Excluding interest	1.6	0.4	–0.3	1.0	2.3	3.3	4.6
Interest	0.3	0.4	0.5	0.5	0.6	0.7	0.9
Subtotal, surplus or deficit (–)	1.9	0.7	0.1	1.6	2.9	4.0	5.5
Borrowing, transfers, lapses, & other adjustments	1.0	....	....	....	....	....	....
Total change in fund balance	1.9	0.7	0.1	1.6	2.9	4.0	5.5
Balance, end of year	17.0	17.7	17.9	19.4	22.4	26.4	31.9
Civil Service Retirement and Disability Fund							
Balance, start of year	905.1	923.0	939.4	958.5	969.5	979.6	989.3
Adjustments to balances	....	....	....	....	....	....	....
Total balance, start of year	905.1	923.0	939.4	958.5	969.5	979.6	989.3
Income:							
Governmental receipts	4.5	4.9	5.1	7.5	10.2	12.9	15.2
Offsetting governmental	....	....	....	....	....	....	....
Proprietary	....	....	....	....	....	....	....
Intrabudgetary:							
Intrafund	....	....	....	....	....	....	....
Interest	25.6	25.4	24.3	24.7	24.9	25.5	26.6
Other intrabudgetary	73.8	74.1	79.3	70.5	68.8	67.1	65.9
Total income during the year	103.9	104.4	108.7	102.7	103.9	105.4	107.7
Outgo (–)	–86.0	–88.0	–89.6	–91.7	–93.8	–95.6	–97.5
Change in fund balance:							
Surplus or deficit(–):							
Excluding interest	–7.7	–9.0	–5.1	–13.7	–14.8	–15.7	–16.4
Interest	25.6	25.4	24.3	24.7	24.9	25.5	26.6
Subtotal, surplus or deficit (–)	17.9	16.4	19.1	11.0	10.1	9.7	10.1
Borrowing, transfers, lapses, & other adjustments	....	....	....	....	....	....	....
Total change in fund balance	17.9	16.4	19.1	11.0	10.1	9.7	10.1
Balance, end of year	923.0	939.4	958.5	969.5	979.6	989.3	999.5
Employees and Retired Employees Health Benefits Funds							
Balance, start of year	26.0	27.4	27.6	27.8	28.8	30.2	32.2
Adjustments to balances	*	....	....	....	....	....	....
Total balance, start of year	26.0	27.4	27.6	27.8	28.8	30.2	32.2
Income:							
Governmental receipts	....	....	....	....	....	....	....

Table 27–4. INCOME, OUTGO, AND BALANCES OF MAJOR TRUST FUNDS—Continued

(In billions of dollars)

	2018 Actual	Estimate 2019	2020	2021	2022	2023	2024
Offsetting governmental	....	....	....	....	....	....	....
Proprietary	16.4	16.9	17.7	19.1	20.6	21.8	23.1
Intrabudgetary:							
Intrafund	....	....	....	....	....	....	....
Interest	0.3	0.4	0.5	0.5	0.6	0.9	1.1
Other intrabudgetary	37.8	38.8	40.6	43.9	46.2	48.4	51.1
Total income during the year	54.5	56.0	58.8	63.6	67.4	71.1	75.3
Outgo (–)	–53.2	–55.8	–58.6	–62.5	–66.1	–69.1	–73.2
Change in fund balance:							
Surplus or deficit(–):							
Excluding interest	1.0	–0.2	–0.2	0.5	0.8	1.1	0.9
Interest	0.3	0.4	0.5	0.5	0.6	0.9	1.1
Subtotal, surplus or deficit (–)	1.3	0.2	0.2	1.0	1.4	2.0	2.1
Borrowing, transfers, lapses, & other adjustments	0.1	....	....	....	....	....	....
Total change in fund balance	1.3	0.2	0.2	1.0	1.4	2.0	2.1
Balance, end of year	27.4	27.6	27.8	28.8	30.2	32.2	34.2
Employees Life Insurance Fund							
Balance, start of year	45.5	46.5	47.6	48.9	50.3	51.9	53.8
Adjustments to balances	....	....	....	....	....	....	....
Total balance, start of year	45.5	46.5	47.6	48.9	50.3	51.9	53.8
Income:							
Governmental receipts	....	....	....	....	....	....	....
Offsetting governmental	....	....	....	....	....	....	....
Proprietary	2.9	3.1	3.1	3.2	3.3	3.4	3.5
Intrabudgetary:							
Intrafund	....	....	....	....	....	....	....
Interest	0.7	0.8	0.9	1.0	1.2	1.4	1.5
Other intrabudgetary	0.6	0.6	0.6	0.6	0.6	0.6	0.6
Total income during the year	4.2	4.4	4.6	4.8	5.1	5.4	5.6
Outgo (–)	–3.3	–3.3	–3.3	–3.4	–3.5	–3.5	–3.6
Change in fund balance:							
Surplus or deficit(–):							
Excluding interest	0.2	0.4	0.4	0.4	0.5	0.5	0.5
Interest	0.7	0.8	0.9	1.0	1.2	1.4	1.5
Subtotal, surplus or deficit (–)	0.9	1.1	1.3	1.4	1.6	1.9	2.0
Borrowing, transfers, lapses, & other adjustments	....	....	....	....	....	....	....
Total change in fund balance	0.9	1.1	1.3	1.4	1.6	1.9	2.0
Balance, end of year	46.5	47.6	48.9	50.3	51.9	53.8	55.8
Foreign Military Sales Trust Fund							
Balance, start of year	33.1	33.6	33.6	33.6	33.7	30.7	29.7
Adjustments to balances	....	....	....	....	....	....	....
Total balance, start of year	33.1	33.6	33.6	33.6	33.7	30.7	29.7
Income:							
Governmental receipts	....	....	....	....	....	....	....
Offsetting governmental	....	....	....	....	....	....	....
Proprietary	32.2	43.1	47.4	46.7	43.5	44.3	44.4
Intrabudgetary:							
Intrafund	....	....	....	....	....	....	....
Interest	....	....	....	....	....	....	....
Other intrabudgetary	....	....	....	....	....	....	....
Total income during the year	32.2	43.1	47.4	46.7	43.5	44.3	44.4
Outgo (–)	–31.7	–43.1	–47.4	–46.6	–46.5	–45.3	–45.4

Table 27–4. INCOME, OUTGO, AND BALANCES OF MAJOR TRUST FUNDS—Continued

(In billions of dollars)

	2018 Actual	Estimate 2019	2020	2021	2022	2023	2024
Change in fund balance:							
Surplus or deficit(–):							
Excluding interest	0.5	*	*	0.1	–3.0	–1.0	–1.0
Interest	....	....	....	....	....	....	....
Subtotal, surplus or deficit (–)	0.5	*	*	0.1	–3.0	–1.0	–1.0
Borrowing, transfers, lapses, & other adjustments	....	....	....	....	....	....	....
Total change in fund balance	0.5	*	*	0.1	–3.0	–1.0	–1.0
Balance, end of year	33.6	33.6	33.6	33.7	30.7	29.7	28.7
Foreign Service Retirement and Disability Fund							
Balance, start of year	18.8	19.2	19.6	20.0	20.4	20.8	21.2
Adjustments to balances	....	....	....	....	....	....	....
Total balance, start of year	18.8	19.2	19.6	20.0	20.4	20.8	21.2
Income:							
Governmental receipts	*	*	*	*	*	*	*
Offsetting governmental	....	....	....	....	....	....	....
Proprietary	....	....	....	....	....	....	....
Intrabudgetary:							
Intrafund	*	*	*	*	*	*	*
Interest	0.5	0.6	0.6	0.6	0.6	0.6	0.6
Other intrabudgetary	0.8	0.8	0.8	0.8	0.8	0.8	0.8
Total income during the year	1.4	1.4	1.4	1.4	1.4	1.4	1.5
Outgo (–)	–1.0	–1.0	–1.0	–1.0	–1.0	–1.0	–1.1
Change in fund balance:							
Surplus or deficit(–):							
Excluding interest	–0.2	–0.1	–0.2	–0.2	–0.2	–0.2	–0.2
Interest	0.5	0.6	0.6	0.6	0.6	0.6	0.6
Subtotal, surplus or deficit (–)	0.4	0.4	0.4	0.4	0.4	0.4	0.4
Borrowing, transfers, lapses, & other adjustments	....	....	....	....	....	....	....
Total change in fund balance	0.4	0.4	0.4	0.4	0.4	0.4	0.4
Balance, end of year	19.2	19.6	20.0	20.4	20.8	21.2	21.6
Highway Trust Fund							
Balance, start of year	56.3	44.5	31.9	18.0	3.3	....	....
Adjustments to balances	....	....	....	....	....	....	....
Total balance, start of year	56.3	44.5	31.9	18.0	3.3	....	....
Income:							
Governmental receipts	42.6	42.8	43.3	43.4	43.5	43.5	43.5
Offsetting governmental	*	*	*	*	*	*	*
Proprietary	0.2	....	....	....	....	....	....
Intrabudgetary:							
Intrafund	0.1	....	....	....	....	....	....
Interest	0.7	0.9	0.6	0.1	0.1	....	....
Other intrabudgetary	0.1	0.4	0.4	0.4	0.4	0.4	0.4
Total income during the year	43.8	44.1	44.3	44.0	44.0	43.9	43.9
Outgo (–)	–55.6	–56.7	–58.1	–58.7	–47.3	–43.9	–43.9
Change in fund balance:							
Surplus or deficit(–):							
Excluding interest	–12.5	–13.5	–14.4	–14.8	–3.4	....	....
Interest	0.7	0.9	0.6	0.1	0.1	....	....
Subtotal, surplus or deficit (–)	–11.8	–12.6	–13.8	–14.7	–3.3	....	....
Borrowing, transfers, lapses, & other adjustments	*	....	–0.1	....	....	....	....
Total change in fund balance	–11.8	–12.6	–13.9	–14.7	–3.3	....	....
Balance, end of year	44.5	31.9	18.0	3.3	....	....	....

Table 27–4. INCOME, OUTGO, AND BALANCES OF MAJOR TRUST FUNDS—Continued
(In billions of dollars)

	2018 Actual	Estimate					
		2019	2020	2021	2022	2023	2024
Medicare: Hospital Insurance (HI) Trust Fund							
Balance, start of year	197.5	203.2	196.2	199.0	214.2	216.3	225.4
Adjustments to balances	....	....	....	....	....	....	....
Total balance, start of year	197.5	203.2	196.2	199.0	214.2	216.3	225.4
Income:							
Governmental receipts	261.2	276.9	289.5	307.1	325.3	343.2	362.5
Offsetting governmental	....	....	....	....	....	....	....
Proprietary	10.0	10.6	10.6	10.8	11.0	11.4	11.8
Intrabudgetary:							
Intrafund	....	....	....	....	....	....	....
Interest	7.4	7.1	7.0	7.2	7.6	7.8	8.0
Other intrabudgetary	30.4	30.0	32.5	35.5	38.5	41.6	45.0
Total income during the year	308.9	324.5	339.6	360.6	382.4	404.0	427.3
Outgo (–)	–303.2	–331.6	–336.8	–345.4	–380.4	–394.9	–408.1
Change in fund balance:							
Surplus or deficit(–):							
Excluding interest	–1.6	–14.2	–4.2	8.0	–5.5	1.3	11.3
Interest	7.4	7.1	7.0	7.2	7.6	7.8	8.0
Subtotal, surplus or deficit (–)	5.7	–7.1	2.8	15.2	2.1	9.1	19.3
Borrowing, transfers, lapses, & other adjustments	....	....	....	....	....	....	....
Total change in fund balance	5.7	–7.1	2.8	15.2	2.1	9.1	19.3
Balance, end of year	203.2	196.2	199.0	214.2	216.3	225.4	244.6
Medicare: Supplementary Insurance (SMI) Trust Fund							
Balance, start of year	68.0	96.9	106.0	111.0	112.4	86.7	84.8
Adjustments to balances	....	....	....	....	....	....	....
Total balance, start of year	68.0	96.9	106.0	111.0	112.4	86.7	84.8
Income:							
Governmental receipts	4.1	4.7	2.8	2.8	2.8	1.5	4.1
Offsetting governmental	....	....	....	....	....	....	....
Proprietary	112.7	120.3	126.2	134.4	144.3	157.2	171.6
Intrabudgetary:							
Intrafund	....	....	....	....	....	....	....
Interest	2.4	1.0	1.4	2.3	3.8	4.6	5.0
Other intrabudgetary	318.1	333.5	365.6	395.7	423.0	456.3	494.3
Total income during the year	437.3	459.5	496.0	535.2	574.0	619.5	675.0
Outgo (–)	–408.3	–450.5	–491.0	–533.8	–599.6	–621.5	–642.1
Change in fund balance:							
Surplus or deficit(–):							
Excluding interest	26.6	8.0	3.6	–1.0	–29.5	–6.5	27.9
Interest	2.4	1.0	1.4	2.3	3.8	4.6	5.0
Subtotal, surplus or deficit (–)	28.9	9.1	5.0	1.3	–25.6	–2.0	32.9
Borrowing, transfers, lapses, & other adjustments	*	....	....	....	....	....	....
Total change in fund balance	28.9	9.1	5.0	1.3	–25.6	–2.0	32.9
Balance, end of year	96.9	106.0	111.0	112.4	86.7	84.8	117.7
Military Retirement Fund							
Balance, start of year	654.3	735.2	819.7	908.2	1,000.2	1,094.5	1,198.2
Adjustments to balances	....	....	....	....	....	....	....
Total balance, start of year	654.3	735.2	819.7	908.2	1,000.2	1,094.5	1,198.2
Income:							
Governmental receipts	....	....	....	....	....	....	....

Table 27–4. INCOME, OUTGO, AND BALANCES OF MAJOR TRUST FUNDS—Continued

(In billions of dollars)

	2018 Actual	Estimate					
		2019	2020	2021	2022	2023	2024
Offsetting governmental	....	....	....	....	....	....	....
Proprietary	....	....	....	....	....	....	....
Intrabudgetary:							
Intrafund	....	....	....	....	....	....	....
Interest	27.4	28.1	28.4	30.2	35.7	38.0	42.3
Other intrabudgetary	107.9	116.7	122.2	125.7	129.5	133.4	137.3
Total income during the year	135.4	144.9	150.6	155.9	165.2	171.3	179.6
Outgo (–)	–54.5	–60.3	–62.1	–63.9	–70.9	–67.7	–64.7
Change in fund balance:							
Surplus or deficit(–):							
Excluding interest	53.4	56.4	60.1	61.8	58.6	65.7	72.5
Interest	27.4	28.1	28.4	30.2	35.7	38.0	42.3
Subtotal, surplus or deficit (–)	80.9	84.5	88.4	92.0	94.3	103.7	114.8
Borrowing, transfers, lapses, & other adjustments	....	....	....	....	....	....	....
Total change in fund balance	80.9	84.5	88.4	92.0	94.3	103.7	114.8
Balance, end of year	735.2	819.7	908.2	1,000.2	1,094.5	1,198.2	1,313.0
Railroad Retirement Trust Funds							
Balance, start of year	24.0	24.6	22.9	22.3	21.3	20.5	19.9
Adjustments to balances	–0.3	....	....	....	....	....	....
Total balance, start of year	23.7	24.6	22.9	22.3	21.3	20.5	19.9
Income:							
Governmental receipts	5.7	5.7	5.9	6.1	6.3	6.5	6.7
Offsetting governmental	....	....	....	....	....	....	....
Proprietary	*	....	....	....	....	....	....
Intrabudgetary:							
Intrafund	4.9	5.0	5.0	5.0	5.3	5.3	5.4
Interest	2.0	0.9	0.9	0.9	0.9	0.9	0.8
Other intrabudgetary	0.9	0.9	0.9	0.9	0.9	0.9	0.9
Total income during the year	13.6	12.5	12.7	12.9	13.3	13.6	13.9
Outgo (–)	–13.1	–14.4	–13.7	–13.9	–14.1	–14.3	–14.4
Change in fund balance:							
Surplus or deficit(–):							
Excluding interest	–1.5	–2.8	–1.9	–2.0	–1.6	–1.5	–1.4
Interest	2.0	0.9	0.9	0.9	0.9	0.9	0.8
Subtotal, surplus or deficit (–)	0.5	–1.9	–1.0	–1.0	–0.7	–0.7	–0.6
Borrowing, transfers, lapses, & other adjustments	0.3	0.3	0.3	....	....	....	....
Total change in fund balance	0.8	–1.6	–0.6	–1.0	–0.7	–0.7	–0.6
Balance, end of year	24.6	22.9	22.3	21.3	20.5	19.9	19.3
Social Security: Disability Insurance (DI) Trust Fund							
Balance, start of year	69.4	93.1	94.0	88.1	87.6	91.7	99.2
Adjustments to balances	....	....	....	....	....	....	....
Total balance, start of year	69.4	93.1	94.0	88.1	87.6	91.7	99.2
Income:							
Governmental receipts	163.5	143.4	137.8	145.6	153.7	161.6	170.4
Offsetting governmental	....	....	....	....	....	....	....
Proprietary	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Intrabudgetary:							
Intrafund	....	....	....	....	....	....	....
Interest	2.2	2.9	3.0	2.9	2.8	2.9	3.2
Other intrabudgetary	4.5	4.0	4.3	4.5	4.7	4.9	5.2
Total income during the year	170.3	150.4	145.2	153.1	161.3	169.6	178.8

Table 27–4. INCOME, OUTGO, AND BALANCES OF MAJOR TRUST FUNDS—Continued

(In billions of dollars)

	2018 Actual	Estimate					
		2019	2020	2021	2022	2023	2024
Outgo (–)	–146.6	–149.6	–151.2	–153.7	–157.2	–162.1	–168.0
Change in fund balance:							
Surplus or deficit(–):							
Excluding interest	21.5	–2.1	–9.0	–3.4	1.3	4.5	7.7
Interest	2.2	2.9	3.0	2.9	2.8	2.9	3.2
Subtotal, surplus or deficit (–)	23.7	0.8	–6.0	–0.5	4.1	7.5	10.8
Borrowing, transfers, lapses, & other adjustments	....	0.1	0.1	....	....	....	....
Total change in fund balance	23.7	0.9	–5.9	–0.5	4.1	7.5	10.8
Balance, end of year	93.1	94.0	88.1	87.6	91.7	99.2	110.1
Social Security: Old Age and Survivors Insurance (OASI) Trust Fund							
Balance, start of year	2,820.1	2,801.1	2,801.3	2,788.8	2,764.4	2,724.4	2,665.9
Adjustments to balances	....	....	....	....	....	....	....
Total balance, start of year	2,820.1	2,801.1	2,801.3	2,788.8	2,764.4	2,724.4	2,665.9
Income:							
Governmental receipts	691.2	767.7	811.5	857.7	905.1	951.7	1,003.5
Offsetting governmental	....	....	....	....	....	....	....
Proprietary	0.2	*	*	*	*	*	*
Intrabudgetary:							
Intrafund	....	....	....	....	....	....	....
Interest	81.6	79.8	78.6	77.7	75.2	73.8	71.6
Other intrabudgetary	49.5	50.3	53.6	57.8	62.2	66.5	71.3
Total income during the year	822.5	897.9	943.7	993.1	1,042.4	1,092.1	1,146.4
Outgo (–)	–841.5	–897.8	–956.2	–1,017.5	–1,082.4	–1,150.5	–1,222.0
Change in fund balance:							
Surplus or deficit(–):							
Excluding interest	–100.6	–79.7	–91.2	–102.0	–115.2	–132.2	–147.3
Interest	81.6	79.8	78.6	77.7	75.2	73.8	71.6
Subtotal, surplus or deficit (–)	–19.0	0.1	–12.6	–24.4	–40.0	–58.4	–75.7
Borrowing, transfers, lapses, & other adjustments	–*	0.1	0.1	....	....	....	....
Total change in fund balance	–19.0	0.2	–12.5	–24.4	–40.0	–58.4	–75.7
Balance, end of year	2,801.1	2,801.3	2,788.8	2,764.4	2,724.4	2,665.9	2,590.2
Unemployment Trust Fund							
Balance, start of year	58.5	73.1	89.2	106.0	122.0	136.9	150.9
Adjustments to balances	....	....	....	....	....	....	....
Total balance, start of year	58.5	73.1	89.2	106.0	122.0	136.9	150.9
Income:							
Governmental receipts	45.0	44.4	46.2	46.5	46.9	47.8	49.1
Offsetting governmental	....	....	....	....	....	....	....
Proprietary	*	*	*	*	*	*	*
Intrabudgetary:							
Intrafund	....	....	....	....	....	....	....
Interest	1.4	1.8	2.3	2.9	3.6	4.4	5.2
Other intrabudgetary	0.4	0.4	0.4	0.6	0.5	0.5	0.5
Total income during the year	46.9	46.6	48.9	50.0	51.1	52.7	54.8
Outgo (–)	–32.3	–30.5	–32.0	–34.1	–36.2	–38.7	–40.7
Change in fund balance:							
Surplus or deficit(–):							
Excluding interest	13.2	14.3	14.6	13.0	11.3	9.6	8.9
Interest	1.4	1.8	2.3	2.9	3.6	4.4	5.2
Subtotal, surplus or deficit (–)	14.6	16.1	16.9	15.9	14.9	14.0	14.1
Borrowing, transfers, lapses, & other adjustments	....	....	....	....	....	....	....

Table 27–4. INCOME, OUTGO, AND BALANCES OF MAJOR TRUST FUNDS—Continued
(In billions of dollars)

	2018 Actual	Estimate					
		2019	2020	2021	2022	2023	2024
Total change in fund balance	14.6	16.1	16.9	15.9	14.9	14.0	14.1
Balance, end of year	73.1	89.2	106.0	122.0	136.9	150.9	165.0
All Other Trust Funds							
Balance, start of year	41.9	49.7	51.1	54.8	57.2	59.4	62.1
Adjustments to balances	*	....	....	....	....	....	....
Total balance, start of year	41.9	49.7	51.1	54.8	57.2	59.4	62.1
Income:							
Governmental receipts	5.3	4.6	5.2	5.9	5.8	5.7	5.8
Offsetting governmental	5.9	1.1	2.6	*	*	*	*
Proprietary	4.7	4.4	3.7	3.7	3.7	3.8	3.7
Intrabudgetary:							
Intrafund	0.1	0.1	....	....	....	....	....
Interest	0.7	1.0	1.0	1.0	1.1	1.1	1.2
Other intrabudgetary	14.9	15.5	15.1	16.3	16.6	16.9	17.2
Total income during the year	31.6	26.8	27.7	26.9	27.2	27.4	27.8
Outgo (–)	–23.8	–25.3	–24.1	–24.5	–25.0	–24.7	–24.4
Change in fund balance:							
Surplus or deficit(–):							
Excluding interest	7.1	0.5	2.6	1.4	1.2	1.6	2.3
Interest	0.7	1.0	1.0	1.0	1.1	1.1	1.2
Subtotal, surplus or deficit (–)	7.8	1.5	3.6	2.4	2.2	2.7	3.5
Borrowing, transfers, lapses, & other adjustments	*	–0.1	*	....	....	....	....
Total change in fund balance	7.8	1.4	3.7	2.4	2.2	2.7	3.5
Balance, end of year	49.7	51.1	54.8	57.2	59.4	62.1	65.6

* $50 million or less.

Table 27–5. INCOME, OUTGO, AND BALANCES OF SELECTED SPECIAL FUNDS

(In billions of dollars)

	2018 Actual	Estimate					
		2019	2020	2021	2022	2023	2024
Abandoned Mine Reclamation Fund							
Balance, start of year	2.8	2.8	2.6	2.4	2.3	2.1	1.9
Adjustments to balances	....	....	....	....	....	....	....
Total balance, start of year	2.8	2.8	2.6	2.4	2.3	2.1	1.9
Income:							
Governmental receipts	0.2	0.1	0.1	0.1	....	....	....
Offsetting governmental	....	....	....	....	....	....	....
Proprietary	....	....	....	....	....	....	....
Intrabudgetary:							
Intrafund	....	....	....	....	....	....	....
Interest	*	0.1	0.1	0.1	0.1	0.1	0.1
Other intrabudgetary	....	....	....	....	....	....	....
Total income during the year	0.2	0.2	0.2	0.2	0.1	0.1	0.1
Outgo (–)	–0.3	–0.4	–0.4	–0.3	–0.3	–0.3	–0.3
Change in fund balance:							
Surplus or deficit(–):							
Excluding interest	–0.1	–0.2	–0.3	–0.1	–0.3	–0.3	–0.3
Interest	*	0.1	0.1	0.1	0.1	0.1	0.1
Subtotal, surplus or deficit (–)	–0.1	–0.2	–0.2	–0.1	–0.2	–0.2	–0.2
Borrowing, transfers, lapses, & other adjustments	....	....	....	....	....	....	....
Total change in fund balance	–0.1	–0.2	–0.2	–0.1	–0.2	–0.2	–0.2
Balance, end of year	2.8	2.6	2.4	2.3	2.1	1.9	1.7
Department of Defense Medicare-Eligible Retiree Health Care Fund							
Balance, start of year	224.4	238.7	250.7	264.1	278.1	292.7	308.1
Adjustments to balances	....	....	....	....	....	....	....
Total balance, start of year	224.4	238.7	250.7	264.1	278.1	292.7	308.1
Income:							
Governmental receipts	....	....	....	....	....	....	....
Offsetting governmental	....	....	....	....	....	....	....
Proprietary	....	....	....	....	....	....	....
Intrabudgetary:							
Intrafund	15.0	13.5	14.0	14.6	15.3	16.0	16.8
Interest	9.5	9.5	10.8	11.3	11.7	12.4	13.2
Other intrabudgetary	....	....	....	....	....	....	....
Total income during the year	24.4	22.9	24.7	25.9	27.0	28.4	29.9
Outgo (–)	–10.1	–11.0	–11.3	–11.9	–12.4	–13.1	–13.7
Change in fund balance:							
Surplus or deficit(–):							
Excluding interest	4.9	2.5	2.7	2.7	2.9	3.0	3.1
Interest	9.5	9.5	10.8	11.3	11.7	12.4	13.2
Subtotal, surplus or deficit (–)	14.3	12.0	13.4	14.0	14.6	15.4	16.3
Borrowing, transfers, lapses, & other adjustments	....	....	....	....	....	....	....
Total change in fund balance	14.3	12.0	13.4	14.0	14.6	15.4	16.3
Balance, end of year	238.7	250.7	264.1	278.1	292.7	308.1	324.3

* $50 million or less.

28. 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 2018 with the current services estimates shown in the 2018 Budget, published in May 2017.[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 2018 previously published by the Department of the Treasury.

Receipts

Actual receipts for 2018 were $3,330 billion, $377 billion less than the $3,707 billion current services estimate in the 2018 Budget, which was published in May 2017. As shown in Table 28–1, this decrease 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.

Policy differences. Legislated tax changes enacted after May 2017 reduced 2018 receipts by a net $193 billion relative to the 2018 Budget current services estimate. An Act to provide reconciliation pursuant to titles II and V of the concurrent resolution on the budget for fiscal year 2018, also referred to as the Tax Cuts and Jobs Act (P.L. 115-97), provided comprehensive tax reform for individuals and corporations and repealed the individual mandate under the Affordable Care Act; it was signed into law by President Trump on December 22, 2017, and accounted for almost all of the net reduction in receipts, reducing 2018 receipts by an estimated $177 billion. The Bipartisan Budget Act of 2018 (P.L. 115-123), provided tax relief to certain individuals and businesses in the areas affected by the California wildfires and areas affected by Hurricanes Harvey, Irma, and Maria; extended expiring provisions providing tax relief for families and individuals; incentives for growth, jobs, investment, and innovation; and incentives for energy production and conservation; and extended funding for the Children's Health Insurance Program and extended several Medicare provisions, among other health provisions. This Act was signed into law on February 9, 2018, and reduced 2018 receipts by an estimated $13 billion. Other legislation enacted after May 2017, which included the Disaster Tax Relief and Airport and Airway Extension Act of 2017 (P.L. 115-63), and an Act making further continuing appropriations for the fiscal year ending September 30, 2018, and for other purposes (P.L. 115-120), reduced 2018 receipts by an estimated $3 billion.

Economic differences. Differences between the economic assumptions upon which the current services estimates were based and actual economic performance reduced 2018 receipts by a net $32 billion below the May 2017 current services estimate. Wage and salary income was lower in 2018 than initially projected, which reduced individual income tax and social insurance receipts by $22 billion and $14 billion below the February 2017 estimate, respectively, and accounted for most of the net reduction in receipts attributable to economic differences. Different economic factors than those assumed in May 2017 had a

[1] The current services concept is discussed in Chapter 26, "Current Services Estimates." For mandatory programs and receipts, the May 2017 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 (BCA). Spending for Overseas Contingency Operations, was estimated based on annualizing the amounts provided in the 2017 appropriations 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 2018 estimate, see "Current Services Estimates," Chapter 22 in *Analytical Perspectives, Budget of the United States Government, Fiscal Year 2018.*

Table 28–1. COMPARISON OF ACTUAL 2018 RECEIPTS WITH THE INITIAL CURRENT SERVICES ESTIMATES

(In billions of dollars)

	Estimate (May 2017)	Changes			Total Changes	Actual
		Policy	Economic	Technical		
Individual income taxes	1,836	–101	–22	–29	–152	1,684
Corporation income taxes	355	–90	2	–63	–150	205
Social insurance and retirement receipts	1,223	....	–14	–38	–52	1,171
Excise taxes	106	–5	*	–6	–11	95
Estate and gift taxes	24	....	2	–3	–1	23
Customs duties	40	....	1	1	2	41
Miscellaneous receipts	124	2	–1	–14	–12	112
Total receipts	3,707	–193	–32	–152	–377	3,330

* $500 million or less

smaller effect on other sources of receipts, increasing collections by a net $4 billion.

Technical factors. Technical factors decreased receipts by a net $152 billion relative to the February 2017 current services estimate. These factors had the greatest effect on corporate income taxes, decreasing collections by $63 billion. Decreases in social insurance and retirement receipts and individual income tax receipts of $38 billion and $29 billion, respectively, accounted for most of the remaining changes in 2018 receipts attributable to technical factors. The models used to prepare the February 2017 estimates of individual and corporation 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 decrease in these two sources of receipts attributable to technical factors. The majority of the difference in the original estimate of individual income taxes relative to actuals relates to lower-than-projected tax year 2017 liability, which was due in part to lower-than-expected taxable income from pass-through businesses and capital gains realizations. In addition, both individual income and corporation income taxes may have decreased due to taxpayers shifting income into the future to maximize the benefits of comprehensive tax reform.

Outlays

Outlays for 2018 were $4,109 billion, $9 billion less than the $4,118 billion current services estimate in the 2018 Budget. Table 28–2 distributes the $9 billion net decrease in outlays among discretionary and mandatory programs and net interest.[2] The table also shows rough estimates according to three reasons for the changes: 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 2018, policy changes increased outlays by $119 billion relative to the initial current services estimates, which included the impacts of Bipartisan Budget Act of 2018 (Public Law 115-123) and increased spending for response and recovery efforts. That law enacted an increase to the level of discretionary funding allowable for both defense and non-defense spending. The combined policy changes from final 2017 and 2018 appropriations, including Overseas Disaster Contingency Operations, increased discretionary outlays by $109 billion. Policy changes increased mandatory outlays by a net $9 billion above current law, largely due to Public Laws 115-120 and 115-123 which funded the continuation of expiring health programs. 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 decrease in outlays of $128 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. The final enacted 2018 appropriations allowed for lower discretionary outlays than the rates included in the May 2017 estimate. Increases in discretionary outlays due to legislation, as discussed above, were offset by a $66 billion decrease in net outlays resulting from technical changes. Outlays for mandatory programs decreased $70 billion due to economic and technical factors. There was a net decrease in outlays of $8 billion as a result of differences between actual economic conditions versus those forecast in May 2017. Outlays for Social Security were $23 billion lower than anticipated in the 2018 Budget largely due to lower-than-estimated number of beneficiaries and cost-of-living adjustments. Income security program outlays were a combined $13 billion lower, while the remaining changes were in veterans benefits and services, deposit insurance, and other programs. Outlays for net interest were approximately $9 billion higher due to economic and technical factors, primarily higher interest rates than originally assumed.

[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 28–2. COMPARISON OF ACTUAL 2018 OUTLAYS WITH THE INITIAL CURRENT SERVICES ESTIMATES
(In billions of dollars)

	Estimate (May 2017)	Changes			Total Changes	Actual
		Policy	Economic	Technical		
Discretionary:						
Defense	600	35	....	–13	22	623
Nondefense	618	74	....	–53	21	639
Subtotal, discretionary	1,219	109	....	–66	43	1,262
Mandatory:						
Social Security	1,005	....	–1	–22	–23	982
Other programs	1,578	9	–23	–23	–38	1,540
Subtotal, mandatory	2,583	9	–25	–45	–61	2,522
Net interest	316	1	33	–25	9	325
Total outlays	4,118	119	8	–137	–9	4,109

Table 28–3. COMPARISON OF THE ACTUAL 2018 DEFICIT WITH THE INITIAL CURRENT SERVICES ESTIMATE
(In billions of dollars)

	Estimate (May 2017)	Changes			Total Changes	Actual
		Policy	Economic	Technical		
Receipts	3,707	–193	–32	–152	–377	3,330
Outlays	4,118	119	8	–137	–9	4,109
Deficit	411	312	41	15	368	779

Note: Deficit changes are outlays minus receipts. For these changes, a positive number indicates an increase in the deficit.

Deficit

The preceding two sections discussed the differences between the initial current services estimates and the actual Federal government receipts and outlays for 2018. This section combines these effects to show the net deficit impact of these differences.

As shown in Table 28–3, the 2018 current services deficit was initially estimated to be $411 billion. The actual deficit was $779 billion, which was a $368 billion increase from the initial estimate. Receipts were $377 billion lower and outlays were $9 billion less 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 $312 billion. Economic conditions that differed from the initial assumptions in May 2017 increased the deficit by $41 billion. Technical factors increased the deficit by an estimated $15 billion.

Comparison of the Actual and Estimated Outlays for Mandatory and Related Programs for 2017

This section compares the original 2018 outlay estimates for mandatory and related programs in the current services estimates of the 2018 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 28–4 shows the differences between the actual outlays for these programs in 2018 and the current services estimates included in the 2018 Budget.[3] Actual outlays for mandatory spending and net interest in 2018 were $2,847 billion, which was $52 billion less than the current services estimate of $2,899 billion in May 2017.

As Table 28–4 shows, actual outlays for mandatory human resources programs were $2,522 billion, $61 billion less than originally estimated. This decrease 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. Most significantly, outlays for mandatory human resources programs decreased by $64 billion due to economic, legislative and technical factors. The overall reduction in outlays for these programs was partially offset by lower than projected dividends originating from GSEs and upward re-estimates in FHA accounts and a $7 billion decrease in Undistributed offsetting receipts. Mandatory outlays for programs in functions outside human resources were $3 billion lower than originally estimated.

Outlays for net interest were $325 billion, or $9 billion higher than the original estimate. As shown on Table 28–4, interest payments on Treasury debt securities increased by $20 billion. Interest earnings of trust funds increased by $10 billion, decreasing net outlays, while net outlays for other interest further decreased net outlays by $2 billion.

Reconciliation of Differences with Amounts Published by the Treasury for 2018

Table 28-5 provides a reconciliation of the receipts, outlays, and deficit totals for 2018 published by the Department of the Treasury in the September 2018 Monthly Treasury Statement (MTS) and those published in this Budget. The Department of the Treasury made no adjustments to the estimates for the Combined Statement of Receipts, Outlays, and Balances. Additional adjustments for the 2020 Budget increased receipts by $1,159 million and increased outlays by $1,301 million. Most 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 Public Company Accounting 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

[3] See footnote 1 for an explanation of the current services concept.

covers September 2017 through August 2018. The Budget has been adjusted to reflect transactions that occurred during the actual fiscal year, which begins October 1. In addition, the Budget also reflects agency adjustments to 2018 outlays reported to Treasury after preparation of the Treasury Combined Statement.

Table 28–4. COMPARISON OF ACTUAL AND ESTIMATED OUTLAYS FOR MANDATORY AND RELATED PROGRAMS UNDER CURRENT LAW

(In billions of dollars)

	2018		
	Estimate	Actual	Change
Mandatory outlays:			
Human resources programs:			
Education, training, employment, and social services:			
Higher Education	6	–4	–10
Other	7	6	–1
Total, education, training, employment, and social services	13	3	–11
Health:			
Medicaid	408	389	–18
Other	98	101	2
Total, health	506	490	–16
Medicare	582	582	*
Income security:			
Retirement and disability	144	147	3
Unemployment compensation	33	28	–5
Food and nutrition assistance	96	92	–4
Other	165	159	–6
Total, income security	439	426	–13
Social security	1005	982	–23
Veterans benefits and services:			
Income security for veterans	85	86	*
Other	17	15	–2
Total, veterans benefits and services	103	101	–2
Total, mandatory human resources programs	2,647	2,583	–64
Other functions:			
Agriculture	21	16	–5
International	2	–1	–4
Mortgage credit	–21	1	23
Deposit insurance	–12	–16	–4
Other advancement of commerce	16	11	–5
Other functions	34	27	–8
Total, other functions	40	37	–3
Undistributed offsetting receipts:			
Employer share, employee retirement	–91	–87	4
Rents and royalties on the outer continental shelf	–5	–5	*
Other undistributed offsetting receipts	–9	–6	3
Total, undistributed offsetting receipts	–104	–98	7
Total, mandatory	2,583	2,522	–61
Net interest:			
Interest on Treasury debt securities (gross)	501	522	20
Interest received by trust funds	–141	–150	–10
Other interest	–45	–46	–2
Total, net interest	316	325	9
Total, outlays for mandatory and net interest	2,899	2,847	–52

* $500 million or less

Table 28–5. RECONCILIATION OF FINAL AMOUNTS FOR 2018
(In millions of dollars)

	Receipts	Outlays	Deficit
Totals published by Treasury (September MTS)	3,328,745	4,107,741	778,996
Miscellaneous Treasury adjustments	....	....	....
Totals published by Treasury in Combined Statement	3,328,745	4,107,741	778,996
Affordable Housing Program	392	392	......
Electric Reliability Organization	412	412	....
Federal Financial Institutions Examination Council Appraisal Subcommittee	100	100	....
Federal Retirement Thrift Investment Board Program Expenses	22	20	–2
Public Company Accounting Oversight Board	....	–14	–14
Puerto Rico Oversight Board	239	230	–9
Securities Investor Protection Corporation	60	60	....
Standard Setting Body	292	75	–217
United Mine Workers of America benefit funds	29	29	....
National Railroad Retirement Investment Trust	19	19	....
Other	–14	36	50
Total adjustments, net	1,159	1,301	142
Totals in the Budget	3,329,904	4,109,042	779,138
MEMORANDUM:			
Total change since year-end statement	1,159	1,301	142

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