



## About This Document

This volume is one of a series of reports on the state of the budget and the economy that the Congressional Budget Office issues each year. It satisfies the requirement of section 202(e) of the Congressional Budget Act of 1974 for CBO to submit to the Committees on the Budget periodic reports about fiscal policy and to provide baseline projections of the federal budget. In keeping with CBO's mandate to provide objective, impartial analysis, this report makes no recommendations.

CBO's Panel of Economic Advisers commented on an early version of the economic forecast underlying this report. Members of the panel were Katharine Abraham, Alan Auerbach, David Autor, Olivier Blanchard, Markus Brunnermeier, Steven Davis, Kathryn Dominguez, Robert Hall, Jan Hatzius, Donald Kohn, Gregory Mankiw, Emi Nakamura, Jonathan Parker, Adam Posen, James Poterba, Valerie Ramey, Brian Sack, Robert Shimer, James Stock, Kevin Warsh, and Mark Zandi. Greg Daco, Jeff Hoopes, Catherine Mann, and Ralph Monaco attended the panel's meeting as guests. Enhancements to the report this year were also made on the basis of comments about previous versions of it that were provided by Romina Boccia of the Heritage Foundation, Karen Dynan of Harvard University, G. William Hoagland of the Bipartisan Policy Center, and Phillip Swagel of the University of Maryland. Although CBO's outside advisers provided considerable assistance, they are not responsible for the contents of this report.

The following pages list the CBO staff members who contributed to this report by preparing the economic, revenue, and spending projections; writing the report; reviewing, editing, fact-checking, and publishing it; compiling the supplemental materials posted along with it on CBO's website ([www.cbo.gov/publication/54918](http://www.cbo.gov/publication/54918)); and providing other support.

CBO continually seeks feedback to make its work as useful as possible. Please send any feedback to [communications@cbo.gov](mailto:communications@cbo.gov).

Keith Hall  
Director  
January 2019

## Economic Projections

The economic projections were prepared by the Macroeconomic Analysis Division, with contributions from analysts in other divisions. That work was supervised by Jeffrey Werling, Robert Arnold, John Kitchen, and Kim Kowalewski.

Yiqun Gloria Chen	Labor markets
Michael Falkenheim	Financial markets
Daniel Fried	Net exports, exchange rates, energy prices
Edward Gamber	Interest rates, monetary policy, current-quarter analysis
Ronald Gecan	Energy prices
Mark Lasky	Business investment, housing
Junghoon Lee	Fiscal policy
Jeffrey Perry	Financial markets
Jeffrey Schafer	Inflation, house prices
John Seliski	Federal, state, and local government spending and revenues
Robert Shackleton	Potential output, productivity
Claire Sleigh	Motor vehicle sector, model and data management
Adam Staveski	Housing, research assistance
Christopher Williams	Consumer spending, incomes

## Revenue Projections

The revenue projections were prepared by the Tax Analysis Division, supervised by John McClelland, Joshua Shakin, and Edward Harris. In addition, the staff of the Joint Committee on Taxation provided valuable assistance.

Kathleen Burke	Individual income taxes, wage distribution
Paul Burnham	Retirement income
Dorian Carloni	Business taxation
Jacob Fabian	Customs duties
Nathaniel Frentz	Federal Reserve System earnings, miscellaneous fees and fines
Bilal Habib	Tax modeling
Bayard Meiser	Excise taxes
Shannon Mok	Estate and gift taxes
Cecilia Pastrone	Excise taxes
Kevin Perese	Tax modeling
Molly Saunders-Scott	International taxation, business taxation
Kurt Seibert	Payroll taxes, depreciation, tax modeling
Jennifer Shand	Corporate income taxes
Naveen Singhal	Capital gains realizations, tax modeling
Ellen Steele	Refundable tax credits

## Spending Projections

The spending projections were prepared by the Budget Analysis Division, with contributions from analysts in other divisions. That work was supervised by Theresa Gullo, Leo Lex, Sam Papenfuss, Christina Hawley Anthony, Tom Bradley, Kim Cawley, Chad Chirico, Sheila Dacey, David Newman, and Adam Wilson of the Budget Analysis Division, as well as by Jessica Banthin, Alexandra Minicozzi, and David Weaver of the Health, Retirement, and Long-Term Analysis Division and Sebastien Gay of the Financial Analysis Division.

### *Defense, International Affairs, and Veterans' Affairs*

Kent Christensen	Defense (projections, working capital funds, operation and maintenance, procurement, scorekeeping)
Sunita D'Monte	International affairs
Ann Futrell	Veterans' health care and employment training services, international food assistance
Raymond Hall	Defense (research and development, stockpile sales, atomic energy, Navy procurement, military construction, and family housing)
Paul Holland	Veterans' education benefits, reservists' education benefits
William Ma	Defense (operation and maintenance, procurement, compensation for radiation exposure and energy employees' occupational illness, other defense programs)
David Rafferty	Military retirement
Dawn Sauter Regan	Defense (military personnel)
Matthew Schmit	Military health care
Logan Smith	Veterans' compensation and pensions, other benefits for disabled veterans

### *Health*

Alice Burns	Medicaid, health insurance coverage
Julia Christensen	Food and Drug Administration, prescription drugs
Jacob Fabian	Workplace safety programs
Kate Fritzsche	Health insurance marketplaces, other programs
Philippa Haven	Medicare, Public Health Service
Lori Housman	Medicare, Federal Employees Health Benefits program
Jamease Kowalczyk	Medicare
Sarah Masi	Health
Kevin McNellis	Health insurance marketplaces, other programs
Ezra Porter	Health insurance coverage

*Health (Continued)*

Lisa Ramirez-Branum	Medicaid, health insurance coverage
Lara Robillard	Medicare
Sarah Sajewski	Medicare
Robert Stewart	Medicaid, Children's Health Insurance Program, Indian Health Service
Emily Vreeland	Health insurance coverage
Ellen Werble	Prescription drugs, Public Health Service
Colin Yee	Medicare
Rebecca Yip	Medicare, Public Health Service

*Income Security and Education*

Susan Yeh Beyer	Child nutrition and other nutrition programs
Tia Caldwell	Child Care and Development Block Grant, refugee assistance
Meredith Decker	Unemployment insurance, training programs, Administration on Aging, Smithsonian Institution, arts and humanities
Elizabeth Cove Delisle	Housing assistance
Jennifer Gray	Supplemental Nutrition Assistance Program and other nutrition programs, Social Services Block Grant, support programs for children and families
Justin Humphrey	Student loans, higher education
Wendy Kiska	Pension Benefit Guaranty Corporation
Leah Koestner	Elementary and secondary education, Pell grants
Justin Latus	Supplemental Security Income
Susanne Mehlman	Temporary Assistance for Needy Families, Child Support Enforcement program, foster care, child care programs, Low Income Home Energy Assistance Program
Noah Meyerson	Old-Age and Survivors Insurance, Social Security trust funds, Pension Benefit Guaranty Corporation
Emily Stern	Disability Insurance

*Natural and Physical Resources*

Tiffany Arthur	Agriculture
Megan Carroll	Energy, air and water transportation
Michael Falkenheim	Federal Deposit Insurance Corporation
Mark Grabowicz	Administration of justice, Postal Service
Kathleen Gramp	Energy, Outer Continental Shelf receipts, spectrum auction receipts, Orderly Liquidation Fund

*Natural and Physical Resources (Continued)*

Wendy Kiska	Federal Deposit Insurance Corporation
James Langley	Agriculture
Jeffrey Perry	Fannie Mae and Freddie Mac, Federal Housing Administration
Matthew Pickford	General government, legislative branch
Stephen Rabent	Commerce, Small Business Administration, Universal Service Fund, deposit insurance, credit unions
Robert Reese	Community and regional development, Federal Emergency Management Agency, Bureau of Indian Affairs, other natural resources, highways, mass transit, Amtrak
Mitchell Remy	Fannie Mae and Freddie Mac, Federal Housing Administration
Janani Shankaran	Recreational resources, judicial branch, science and space exploration, conservation and land management
Jon Sperl	Pollution control and abatement
Aurora Swanson	Water resources, Fannie Mae and Freddie Mac, Federal Housing Administration

*Other Areas and Functions*

Shane Beaulieu	Computer support
Barry Blom	General budget projections
Joanna Capps	Appropriation bills (Labor, Health and Human Services, and Education; Legislative Branch)
Aaron Feinstein	Other interest, monthly Treasury data, historical data
Avi Lerner	Interest on the public debt, automatic budget enforcement and sequestration, Troubled Asset Relief Program
Amber Marcellino	Federal civilian retirement
George McArdle	Appropriation bills (Military Construction and Veterans Affairs; State and Foreign Operations)
Dan Ready	Various federal retirement programs, national income and product accounts, federal pay
Justin Riordan	Appropriation bills (Commerce, Justice, and Science; Financial Services and General Government)
Mark Sanford	Appropriation bills (Agriculture and Food and Drug Administration; Defense)
Esther Steinbock	Appropriation bills (Energy and Water Development; Transportation and Housing and Urban Development)
J'nell Blanco Suchy	Appropriation bills (Interior and Environment; Homeland Security), authorization bills
Patrice Watson	Database system administrator

## **Long-Term Projections**

The long-term projections were prepared by the Health, Retirement, and Long-Term Analysis Division and the Macroeconomic Analysis Division. That work was supervised by Julie Topoleski and Devrim Demirel. Aaron Betz, Charles Pineles-Mark, and Robert Shackleton prepared the projections.

## **Writing**

Barry Blom wrote the summary and Chapter 1, with assistance from William Carrington and Avi Lerner. Yiqun Gloria Chen wrote Chapter 2. Amber Marcellino wrote Chapter 3, with assistance from Megan Carroll and Avi Lerner. Kathleen Burke, Jacob Fabian, Nathaniel Frenz, Bayard Meiser, Kurt Seibert, Joshua Shakin, and Jennifer Shand wrote Chapter 4. Dan Ready wrote Chapter 5, with assistance from Shannon Mok. Aaron Feinstein wrote Appendix A, with assistance from Nathaniel Frenz. Dan Ready wrote Appendix B, with assistance from Nathaniel Frenz and John Seliski. John Seliski wrote Appendix C. Avi Lerner wrote Appendix D. Claire Sleigh compiled Appendix E, and Aaron Feinstein compiled Appendix F.

## **Reviewing, Editing, Fact-Checking, and Publishing**

Wendy Edelberg, Mark Hadley, Jeffrey Kling, and Robert Sunshine reviewed the report. The editing and publishing were handled by CBO's editing and publishing group, supervised by Benjamin Plotinsky, and the agency's communications team, supervised by Deborah Kilroe.

Christine Bogusz, Christine Browne, Rebecca Lanning, Loretta Lettner, Bo Peery, Benjamin Plotinsky, and Elizabeth Schwinn edited the report; Casey Labrack and Jorge Salazar prepared it for publication; and Annette Kalicki, Adam Russell, Simone Thomas, and Maria Thomason published it on CBO's website.

Aaron Betz, Susan Beyer, Kent Christensen, Meredith Decker, Jacob Fabian, Aaron Feinstein, Ann Futrell, Paul Holland, Justin Latus, Bayard Meiser, Cecilia Pastrone, Stephen Rabent, Dan Ready, Dawn Sauter Regan, Janani Shankaran, Claire Sleigh, and Adam Staveski fact-checked the report. Lara Robillard coordinated the preparation of tables of baseline projections; Kim Kowalewski and Nabeel Alsalam coordinated the preparation of figures of economic projections. Bayard Meiser, Cecilia Pastrone, Dan Ready, Claire Sleigh, and Adam Staveski compiled data and supplemental information. Jorge Salazar and Simone Thomas coordinated the presentation of those materials.