

Information Technology Spending in the President's Budget Submission: In Brief

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Introduction

Over the past two decades, government spending on information technology has evolved from a minor component of the President's annual budget submission to a dedicated chapter. This evolution may reflect the increased importance of IT systems to agencies' operations as well as the increased focus on IT policy issues by the Office of Management and Budget (OMB) and the President.

In recognition of IT's role in sustaining government operations and achieving policy goals, Congress has passed a series of measures that assign certain IT planning and management responsibilities to executive branch agencies, agency chief information officers (CIOs), and OMB. These actors may play significant roles in the budgeting, management, and funding of IT.

This report discusses how congressional and executive branch actions have shaped the format and content of federal IT budgetary reporting, including aggregated reporting on IT spending that has been included in the President's budget submission. Drawing on this data, the report analyzes how aggregate federal IT spending, as reported by OMB, has changed over time in recent years. The report concludes by briefly analyzing budget data presented in the most recent presidential budget submission for FY2023. The IT spending aggregates contained in this report as well as the spending trends may be of interest to authorizing and appropriations committees that oversee agencies with substantial IT investments. (For more information about federal IT budgeting processes in the context of the broader executive budget process, see CRS Report R46877, Federal Information Technology (IT) Budgeting Process in the Executive Branch: An Overview, by Dominick A. Fiorentino.)

The IT chapter of the President's annual budget submission may also be of interest to external agency stakeholders. Federal agencies increasingly use IT systems as a way to interact with many groups outside an individual agency's boundaries, including:

- members of the public (e.g., providing information or services);
- other federal agencies (e.g., collaborating with or providing services to one another);
- state and local governments (e.g., operating joint programs or providing funds); and
- the private sector (e.g., receiving goods and services from contractors).

The President's Budget Submission

The President's annual budget submission is one of the most comprehensive modes of reporting budgetary information at the federal level. In practice, OMB prepares the budget submission on the President's behalf. In recent decades, the President's budget submission has included several printed and electronic volumes, including one called *Analytical Perspectives*.²

¹ Detailed information about particular IT budget projects and corresponding budget proposals is outside the scope of this CRS report. More information on these proposals may be found in detailed agency congressional budget justifications.

² To find these documents, see U.S. Government Publishing Office, "Budget of the United States Government," https://www.govinfo.gov/app/collection/budget.

A Focus on IT Spending in the Analytical Perspectives Volume

The Analytical Perspectives volume contains in-depth discussion of government programs, technical explanation of budget baselines and concepts, and policy-area-focused budgetary breakouts. An example of the latter includes IT spending aggregated at the agency level.³ The form and content of the IT budgetary information has evolved over time, potentially reflecting increased reliance on IT systems by executive agencies to carry out their missions as well as increased focus on IT policy issues by OMB and the President.⁴

Evolving Reporting of IT Spending in Analytical Perspectives

Presentation of IT-related spending in the principal volumes of the President's budget submission has evolved over time. Prior to the FY2000 budget submission, IT investments were grouped under the category of "major equipment," which also included capital assets such as weapons systems. In FY2000, however, the budget submission began listing individual IT investments separately from other types of capital asset investments. The *Analytical Perspectives* volume began including an aggregate federal IT spending figure for the first time in FY2003.

In 2009, OMB created the IT Dashboard website to increase transparency of agency IT investments. The resulting publicly accessible website currently displays data from 26 agencies on the cost, schedule, and performance of certain IT investments. In FY2013, OMB began using the *Analytical Perspectives* volume to annually report aggregated information about IT spending. OMB used information submitted to the IT Dashboard by agencies to produce Department of Defense (DOD) and non-DOD (referred to as "civilian agency") IT spending totals. In

While spending totals presented in the *Analytical Perspectives* include both classified and non-classified DOD IT spending, only non-classified IT spending appears on the IT Dashboard. DOD reports classified IT investments separately to OMB. ¹¹

Since the President's FY2018 budget submission, OMB has presented disaggregated IT spending by agency in the *Analytical Perspectives* volume based on data submitted to the IT Dashboard. This disaggregation includes 26 agencies—25 civilian agencies and DOD—that report spending

³ See CRS Report R47019, *The Executive Budget Process: An Overview*, by Dominick A. Fiorentino and Taylor N. Riccard.

⁴ In 2002, the George W. Bush Administration released the first President's Management Agenda in which "Expanding Electronic Government" was made one of the five government-wide management priorities. For more information about the FY2002 agenda, see OMB, *The President's Management Agenda*, FY2002, https://georgewbush-whitehouse.archives.gov/omb/budget/fy2002/mgmt.pdf#page=22.

⁵ OMB, *Budget of the United States, Fiscal Year 1999: Analytical Perspectives*, February 1998, p. 139, https://www.govinfo.gov/content/pkg/BUDGET-1999-PER/pdf/BUDGET-1999-PER.pdf#page=139.

⁶ OMB, *Budget of the United States, Fiscal Year 2000: Analytical Perspectives*, February 1999, p. 361, https://www.govinfo.gov/content/pkg/BUDGET-2000-PER/pdf/BUDGET-2000-PER.pdf#page=361

⁷ OMB, *Budget of the United States, Fiscal Year 2003: Analytical Perspectives*, February 2002, p. 395, https://www.govinfo.gov/content/pkg/BUDGET-2003-PER/pdf/BUDGET-2003-PER.pdf#page=395.

⁸ The IT Dashboard website is located at https://itdashboard.gov/, or https://viz.ogp-mgmt.fcs.gsa.gov/.

⁹ IT Dashboard, "FAQ," https://viz.ogp-mgmt.fcs.gsa.gov/faq.

¹⁰ See OMB, *Budget of the United States, Fiscal Year 2013: Analytical Perspectives*, February 2012, p. 361, note on Table 20-1, https://www.govinfo.gov/content/pkg/BUDGET-2013-PER/pdf/BUDGET-2013-PER.pdf#page=361.

¹¹ OMB, Budget of the United States, Fiscal Year 2013: Analytical Perspectives, p. 361.

¹² OMB, *Budget of the United States, Fiscal Year 2018: Analytical Perspectives*, May 2017, p. 206, https://www.govinfo.gov/content/pkg/BUDGET-2018-PER/pdf/BUDGET-2018-PER.pdf#page=206.

data to the IT Dashboard. Those reporting to the dashboard include all of the major executive branch departments and agencies. The inclusion of these agencies is driven by statute, namely the Chief Financial Officers Act of 1990 (CFO Act) and Federal Information Technology Acquisition Reform Act (FITARA), which are discussed in the section below.

Statutory Requirements Related to IT Budgeting

Several pieces of legislation have shaped the presentation of IT spending data in the President's budget submission and other modes of reporting.

Clinger-Cohen Act of 1996

Congress passed the Clinger-Cohen Act due to growing concern about the federal government's ability to develop and maintain IT infrastructure and personnel.¹³ Provisions pertinent to IT budgeting include:

- establishing the role of CIOs within agencies to develop and maintain IT systems as well as to evaluate and report on IT improvements; and
- establishing a new federal IT capital planning and investment control process, with prominent roles for OMB and agencies. ¹⁴

From FY2003 to FY2009, OMB noted that the inclusion of the IT chapter in the *Analytical Perspectives* fulfilled the reporting requirements of Clinger-Cohen.¹⁵

E-Government Act of 2002

The E-Government Act created the Office of Electronic Government (E-Gov) within OMB, ¹⁶ which helps guide executive branch agencies' IT budgeting and IT capital planning. ¹⁷ E-Gov is responsible for aspects of two annually issued documents:

- OMB *Circular No. A-11*, which provides agencies with instructions and schedules for the submission of budget requests and justifications to OMB; and
- the corresponding *IT Budget—Capital Planning Guidance*, which provides annual guidance around IT budget submissions and budgetary reporting. ¹⁸

¹³ The law, as subsequently retitled by P.L. 104-208 (110 Stat. 3009-393), comprised Divisions D (110 Stat. 642) and E (110 Stat. 679) of P.L. 104-106 (110 Stat. 186), at https://www.gpo.gov/fdsys/pkg/PLAW-104publ106/pdf/PLAW-104publ106.pdf.

¹⁴ Statutory provisions that are associated with the Clinger-Cohen Act of 1996 have been amended and codified into Title 40, Subtitle III, of the *U.S. Code* (40 U.S.C. §§11101-11703) and relate to multiple aspects of IT management and acquisition.

¹⁵ OMB, *Budget of the United States, Fiscal Year 2009: Analytical Perspectives*, February 2008, p. 169, https://www.govinfo.gov/content/pkg/BUDGET-2009-PER/pdf/BUDGET-2009-PER.pdf#page=169.

¹⁶ P.L. 107-347, December 17, 2002; 116 Stat. 2899, at 2902. Relevant provisions are codified at Title 44, Section 3602, of the *U.S. Code*.

¹⁷ OMB, "Office of Management and Budget Office of E-Government & Information Technology," https://www.whitehouse.gov/omb/management/egov/#A1. For a more detailed discussion of the OMB statutory offices, see CRS Report RS21665, *Office of Management and Budget (OMB): An Overview*, coordinated by Taylor N. Riccard.

¹⁸ See OMB, *Circular No. A-11*, "Preparation, Submission and Execution of the Budget," August 2021, https://www.whitehouse.gov/omb/information-for-agencies/circulars/; and OMB, *FY 2022 IT Budget—Capital Planning Guidance*, November 2020, https://www.whitehouse.gov/omb/management/egov/.

Federal Information Technology Acquisition Reform Act (2014)

Multiple provisions of the Federal Information Technology Acquisition Reform Act (FITARA) were built upon provisions associated with the Clinger-Cohen Act and codified into the *U.S. Code.*¹⁹ FITARA's provisions that relate to IT budgeting include:

- the increased transparency of reporting for IT investments via the IT Dashboard;²⁰
- establishment of requirements for categorizing IT investments according to risk;²¹ and
- establishment of requirements for an agency IT portfolio review process, where individual investments are viewed in the context of the agency's broader set of projects.²²

Enactment of FITARA followed in the wake of several administrative initiatives undertaken by OMB during the Obama Administration, including the creation of the IT Dashboard website in 2009.²³

Not all executive branch agencies are subject to FITARA. Rather, agencies covered by FITARA are identified in provisions associated with the CFO Act of 1990. These agencies are therefore commonly referred to as "CFO Act agencies." OMB guidance encourages, but does not require, non–CFO Act agencies to comply with FITARA. The IT Dashboard currently includes IT spending data from 26 agencies: the 24 CFO Act agencies, the National Archives and Records Administration, and the U.S. Army Corps of Engineers. The IT Dashboard currently includes IT agencies agencies.

Perspectives on IT Spending Trends: FY2003-FY2023

Reporting on overall IT-related spending for the executive branch has evolved over recent decades, although it has been inconsistent in format and content. Nevertheless, the President's budget submission has given increased attention to the topic of IT funding and spending.

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¹⁹ Most practitioners refer these statutory provisions as FITARA, even though they were not formally enacted into law by that name. Rather, an earlier, stand-alone version of the legislation of that name was incorporated as a subtitle in another measure. See P.L. 113-291, Title VIII, Subtitle D, of the Carl Levin and Howard P. "Buck" McKeon National Defense Authorization Act for Fiscal Year 2015; 128 Stat. 3438.

²⁰ 40 U.S.C. §11302(c)(3)(A).

²¹ 40 U.S.C. §11302(c)(3)(C).

²² 40 U.S.C. §11319.

²³ For an overview of these administrative initiatives, see Vivek Kundra, U.S. Chief Information Officer, OMB, *25 Point Implementation Plan to Reform Federal Information Technology Management*, December 9, 2010, https://www.whitehouse.gov/sites/whitehouse.gov/files/omb/assets/egov_docs/25-point-implementation-plan-to-reform-federal-it.pdf.

²⁴ 40 U.S.C. §11302(c)(1)(A); The CFO Act of 1990 (31 U.S.C. §901(b), P.L. 101-576, 104 Stat. 2838) enacted into law a financial management and reporting framework in the executive branch. The legislation also created the role of CFO and deputy CFO at certain executive agencies who have certain statutory responsibilities related to financial management and reporting. There are currently 24 CFO Act agencies.

²⁵ OMB, *Memorandum M-15-14*, "Management and Oversight of Federal Information Technology," June 2015, https://www.whitehouse.gov/sites/whitehouse.gov/files/omb/memoranda/2015/m-15-14.pdf#page=2.

²⁶ IT Dashboard, "Agency Analysis," https://viz.ogp-mgmt.fcs.gsa.gov/agency-analysis.

A review of presidential budget proposals may help to reveal trends in IT spending. In practice, OMB has frequently presented historical spending about IT spending in terms of proposed amounts rather than obligated amounts.²⁷ The history of proposed amounts may provide perspective on the evolving scale and composition of IT spending in the executive branch.

Proposed IT spending, in nominal terms, has generally increased each year since FY2003 (see **Figure 1**). After adjusting for inflation, however, proposed IT spending totals have remained relatively constant, with real proposed spending peaking in 2018 (see **Figure 2**). Total proposed IT spending was not provided in the FY2019, FY2022, and FY2023 budget submissions because DOD IT spending figures were excluded.²⁸

OMB's methodology for measuring IT spending has varied since FY2003, as outlined in a number of updates:

- In FY2015, OMB revised the FY2013 and FY2014 DOD IT spending figures downward by 3% to account for past overstatements in amounts for the Defense Working Capital Fund.²⁹
- Prior to FY2019, the IT budgets for the U.S. Department of Agriculture and the Department of Health and Human Services included grants made to state and local governments for IT systems used to administer federal benefits. In FY2018, these grants totaled \$9 billion, accounting for approximately 10% of the total federal IT budget. In FY2019, OMB updated its guidance to exclude these funds, because state and local governments, rather than federal CIOs, are responsible for the development and maintenance of these IT systems.³⁰

²⁷ Obligations are incurred when agencies enter into legally binding commitments such as employing personnel or awarding contracts for the provision of goods or services. See U.S. Government Accountability Office, *A Glossary of Terms Used in the Federal Budget Process*, GAO-05-734SP, September 2005, p. 70, https://www.gao.gov/products/gao-05-734sp.

²⁸ OMB, *Budget of the United States, Fiscal Year 2019: Analytical Perspectives*, February 2018, p. 234, https://www.govinfo.gov/content/pkg/BUDGET-2019-PER/pdf/BUDGET-2019-PER.pdf#page=234; OMB, *Budget of the United States, Fiscal Year 2022: Analytical Perspectives*, May 2021, p. 179, https://www.govinfo.gov/content/pkg/BUDGET-2022-PER/pdf/BUDGET-2022-PER.pdf#page=179; OMB, *Budget of the United States, Fiscal Year 2023: Analytical Perspectives*, "Information Technology and Cybersecurity Funding, March 2022, p. 1, https://www.govinfo.gov/content/pkg/BUDGET-2023-PER/pdf/BUDGET-2023-PER-4-2.pdf#page=1.

²⁹ OMB, *Budget of the United States, Fiscal Year 2015: Analytical Perspectives*, March 2014, p. 311, https://www.govinfo.gov/content/pkg/BUDGET-2015-PER/pdf/BUDGET-2015-PER.pdf#page=311.

³⁰ OMB, Budget of the United States, Fiscal Year 2019: Analytical Perspectives, p. 233.

\$billions \$120 \$90 \$60 \$30 \$0 FY03 FY05 FY07 FY09 FY11 FY13 FY15 FY17 FY19 FY21 FY23

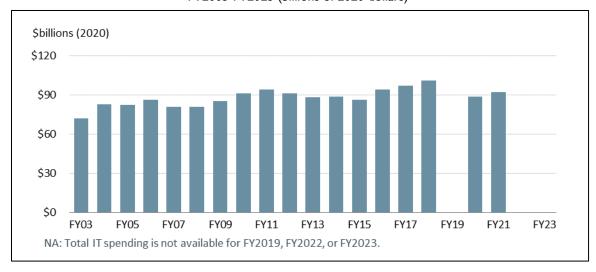
Figure 1. Presidential Proposals for IT Spending in Nominal Terms

FY2003-FY2023 (billions of nominal dollars)

Source: CRS analysis of data from annual publications of OMB, *Analytical Perspectives, Budget of the United States Government*, FY2003-FY2023.

Notes: Data for FY2019, FY2022, and FY2023 are excluded because aggregated DOD IT spending figures were not provided. Starting in FY2020, IT spending totals have excluded grants made to state and local governments. Nominal spending totals have not been adjusted to reflect changes in prices (inflation or deflation) over time.

Figure 2. Presidential Proposals for IT Spending in Real Terms
FY2003-FY2023 (billions of 2020 dollars)



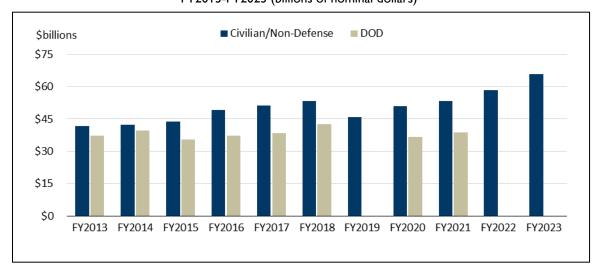
Source: CRS analysis of data from annual publications of OMB, *Analytical Perspectives, Budget of the United States Government*, FY2003-FY2023. Data was adjusted for inflation using the Consumer Price Index for All Urban Consumers (CPI-U) from the Bureau of Labor Statistics (BLS).

Notes: FY2019, FY2022, and FY2023 are excluded because aggregated DOD IT spending figures were not provided. Starting in FY2020, IT spending totals have excluded grants made to state and local governments. Nominal spending totals have not been adjusted to reflect changes in prices (inflation or deflation) over time.

In FY2013, OMB began providing aggregated DOD and civilian IT spending figures, with DOD consistently accounting for 40 percent or more of total IT spending (see **Figure 3**). In real terms,

DOD-proposed IT spending peaked in FY2018. Civilian-agency-proposed IT spending increased until FY2018, decreased in FY2019, and peaked again in FY2023 (see **Figure 4**).

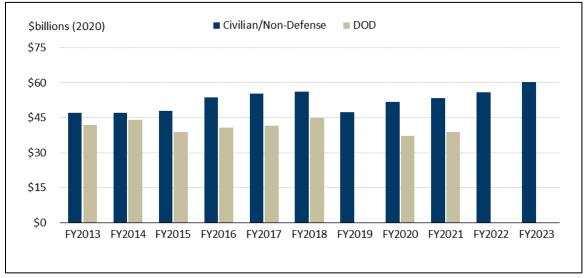
Figure 3. Non-DOD vs. DOD Proposed IT Spending in Nominal Terms
FY2013-FY2023 (billions of nominal dollars)



Source: CRS analysis of data from OMB, Analytical Perspectives, Budget of the United States Government, FY2003-FY2023.

Notes: DOD IT spending figures were not provided in the FY2019, FY2022, and FY2023 budget submissions.

Figure 4. Non-DOD vs. DOD Proposed IT Spending in Real Terms
FY2013-FY2023 (billions of 2020 dollars)



Source: CRS analysis of data from OMB, Analytical Perspectives, Budget of the United States Government, FY2003-FY2023. Data was adjusted for inflation using CPI-U from BLS.

Notes: DOD IT spending figures were not provided in the FY2019, FY2022, and FY2023 budget submissions.

Analysis of Proposed IT Spending: FY2023

The President's budget submission for FY2023 proposed \$65.8 billion in IT spending at civilian agencies, a 12.7% increase from the FY2022 total proposed amount of \$58.4 billion.³¹ DOD IT funding was not included in the total IT spending figure provided by OMB in the FY2023 *Analytical Perspectives*. The FY2023 budget includes funding for 4,290 investments at 24 agencies, of which 742 are categorized as "major" IT investments.³² According to a breakdown of this data by OMB, these investments support the following three IT portfolio areas:

- **Part 1:** Mission Delivery (i.e., IT investments that directly support an agency's mission);
- Part 2: Administrative Services and Support Systems (activities that are common across all agencies such as human resources and financial management); and
- **Part 3:** IT Infrastructure, Security, and Management (IT goods and services common to all agencies such as IT security and IT network infrastructure).³³

The Administrative Services and Support Systems category accounts for approximately 12% of total proposed spending, with the remaining amount divided between Mission Delivery and IT Infrastructure, Security, and Management (see **Figure 5**).

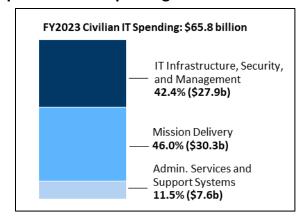


Figure 5. Proposed FY2023 Spending: Federal Civilian IT Investments

Source: CRS analysis of data from OMB, Analytical Perspectives, Budget of the United States Government, Fiscal Year 2023, "Information Technology," March 28, 2022.

Notes: DOD IT funding was not included in the total IT spending figure provided by OMB in the FY2023 *Analytical Perspectives*.

an IT investment requiring special management attention because of its importance to the mission or function of the government; significant program or policy implications; high executive visibility; high development, operating, or maintenance costs; unusual funding mechanism; or definition as major by the Agency's [Capital Planning and Investment Control] process.

See OMB, FY 2022 IT Budget—Capital Planning Guidance, p. 10.

³¹ OMB, *Budget of the United States, Fiscal Year 2023: Analytical Perspectives*, "Information Technology and Cybersecurity Funding," March 2023, p. 1.

³² Ibid. OMB has defined major IT investment as

³³ OMB, *FY 2022 IT Budget—Capital Planning Guidance*, p. 7. In OMB's FY2022 *Capital Planning Guidance* document, the portfolio names differ slightly from the FY2023 *Analytical Perspectives*. In the *Capital Planning Guidance* document, portfolio areas 1-3 are called "mission delivery," "mission support services," and "standard IT investments," respectively.

The FY2023 budget submission also disaggregated total proposed civilian IT spending by agency (see **Table 1**). The top three civilian agencies by proposed IT spending are (1) the Department of Homeland Security, (2) the Department of Veterans Affairs, and (3) the Department of Health and Human Services.

Table 1. Proposed FY2023 Civilian Federal IT Spending and Percentage by Agency

Agency	FY2023 Proposal (millions of dollars)	Percent of Total	Percent Change from FY2022 Proposal
Department of Homeland Security	\$10,296	15.64%	26.3%
Department of Veterans Affairs	\$8,606	13.07%	1.3%
Department of Health and Human Services	\$7,824	11.88%	12.5%
Department of the Treasury	\$5,615	8.53%	-5.9%
Department of Justice	\$4,102	6.23%	18.0%
Department of Transportation	\$4,078	6.19%	10.4%
Department of Energy	\$3,545	5.38%	9.2%
Department of Agriculture	\$3,912	5.94%	41.6%
Department of State	\$3,195	4.85%	15.9%
Department of Commerce	\$2,665	4.05%	2.6%
Social Security Administration	\$2,375	3.61%	10.1%
National Aeronautics and Space Administration	\$2,174	3.30%	1.4%
Department of the Interior	\$1,721	2.61%	14.6%
Department of Education	\$1,138	1.73%	15.9%
General Services Administration	\$977	1.48%	39.2%
Department of Labor	\$867	1.32%	5.9%
Department of Housing and Urban Development	\$558	0.85%	27.7%
Office of Personnel Management	\$423	0.64%	200.0%
Environmental Protection Agency	\$413	0.63%	11.6%
U.S. Agency for International Development	\$327	0.50%	24.3%
U.S. Army Corp of Engineers	\$309	0.47%	14.9%
Small Business Administration	\$295	0.45%	170.6%
National Science Foundation	\$164	0.25%	-0.6%
Nuclear Regulatory Commission	\$142	0.22%	-6.6%
National Archives and Records Administration	\$111	0.17%	-12.6%
Total	\$65,832	100.00%	12.65%

Source: CRS analysis of data from OMB, Analytical Perspectives, Budget of the United States Government, Fiscal Year 2023, "Information Technology," March 28, 2022.

Notes: This analysis excludes DOD. Agencies may use different accounting methodologies when reporting proposed IT spending.

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