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

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Contents

Introduction 1
The President's Budget Submission 1
A Focus on IT Spending in the *Analytical Perspectives* Volume 2
Evolving Reporting of IT Spending in *Analytical Perspectives* 2
Statutory Requirements Related to IT Budgeting 3
Clinger-Cohen Act of 1996 3
E-Government Act of 2002 3
Federal Information Technology Acquisition Reform Act (2014) 4
Perspectives on IT Spending Trends: FY2003-FY2022 4
Analysis of Proposed IT Spending: FY2022 Budget Submission 7

Figures

Figure 1. Nominal Presidential Proposals for IT Spending 5
Figure 2. Real Presidential Proposals for IT Spending 6
Figure 3. Nominal Non-DOD vs. DOD Proposed IT Spending 6
Figure 4. Real Non-DOD vs. DOD Proposed IT Spending 7
Figure 5. Proposed FY2022 Spending: Federal Civilian IT Investments 8

Tables

Table 1. Proposed FY2022 Civilian Federal IT Spending and Percentage by Agency 8

Contacts

Author Information 9

Introduction

Over the past two decades, proposed federal information technology (IT) spending has nearly doubled. During the same time period, IT budgeting 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.

Federal agencies are increasingly using IT systems as a way to interact with many outside groups, 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).

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 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 FY2022.[1] 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 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 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.[5] In FY2000, however, the budget submission began listing individual IT investments separately from other types of capital asset investments.[6] The *Analytical Perspectives* volume began including an aggregate federal IT spending figure for the first time in FY2003.[7]

In 2009, OMB created the IT Dashboard website to increase transparency of agency IT investments.[8] The resulting publicly accessible website currently displays data from 26 agencies on the cost, schedule, and performance of certain IT investments.[9] 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.[10]

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. As classified IT investments do not appear on the IT Dashboard, DOD must separately report this spending 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.[12]

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[3] See CRS Report R42633, *The Executive Budget Process: An Overview*, by Michelle D. Christensen.

[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/.

[9] IT Dashboard, "Frequently Asked Questions," https://itdashboard.gov/drupal/frequently-asked-questions.

[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.

This disaggregation includes 26 agencies—25 civilian agencies and DOD—that report spending 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 CFO Act and FITARA, which will be further 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
- *IT Budget—Capital Planning Guidance*, which provides annual guidance around IT budget submissions and budgetary reporting.[18]

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[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," April 2021, https://www.whitehouse.gov/wp-content/uploads/2018/06/a11.pdf; and OMB, *FY 2022 IT Budget—Capital Planning Guidance*, November 2020, https://www.whitehouse.gov/wp-content/uploads/2020/11/

Federal Information Technology Acquisition Reform Act (2014)

Multiple provisions of the Federal Information Technology Acquisition Reform Act (FITARA) were built upon the Clinger-Cohen Act.[19] FITARA's provisions that related to IT budgeting included

- 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 federal agencies are subject to FITARA. Agencies covered by FITARA are identified in provisions associated with the Chief Financial Officers (CFO) Act of 1990.These agencies are commonly referred to as "CFO Act agencies."[24] OMB guidance encourages, but does not require, non–CFO Act agencies to comply with FITARA.[25] 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.[26]

Perspectives on IT Spending Trends: FY2003-FY2022

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.

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

FY22ITBudget_CapitalPlanningGuidance.pdf.

[19] 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, "Browse by Agency," https://itdashboard.gov/#explore-agency.

amounts rather than obligated amounts. The history of proposed amounts may provide perspective on the evolving scale and composition of IT spending in the executive branch.

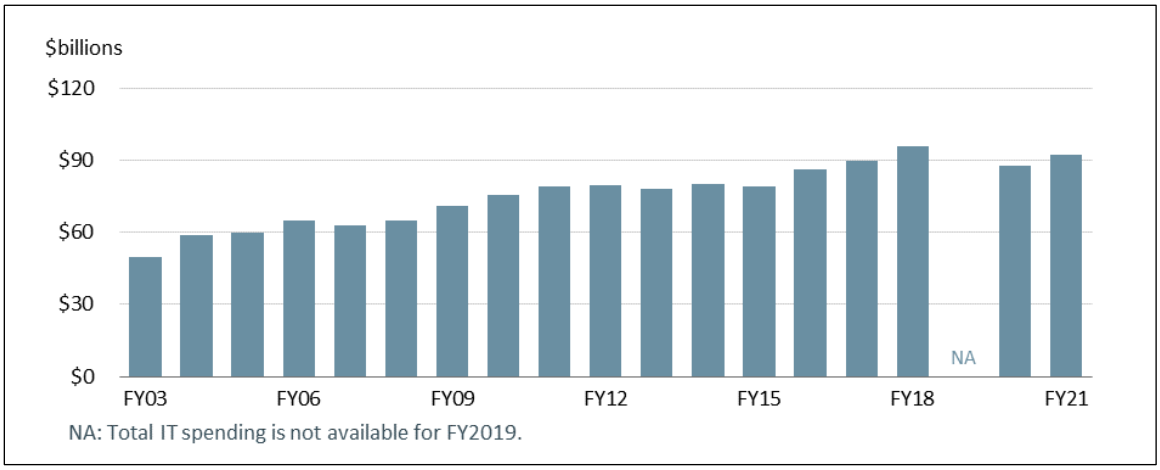
Proposed IT spending, in nominal terms, has generally increased each year since FY2003 (see **Figure 1**). After adjusting for inflation, however, proposed IT spending totals have remained relatively constant, with real proposed spending peaking in 2018 (see **Figure 2**). Total proposed IT spending was not provided in the FY2019 and FY2022 budget submissions because DOD IT spending figures were excluded.[27]

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.[28]
- 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.[29]

Figure 1. Nominal Presidential Proposals for IT Spending

FY2003-FY2021 (billions of nominal dollars)



Source: CRS analysis of data from annual publications of OMB, *Analytical Perspectives, Budget of the United States Government,* FY2003-FY2021.

Notes: FY2019 is excluded because aggregated DOD IT spending figures were not provided. FY2020 and FY2021 spending totals no longer included grants made to state and local government.

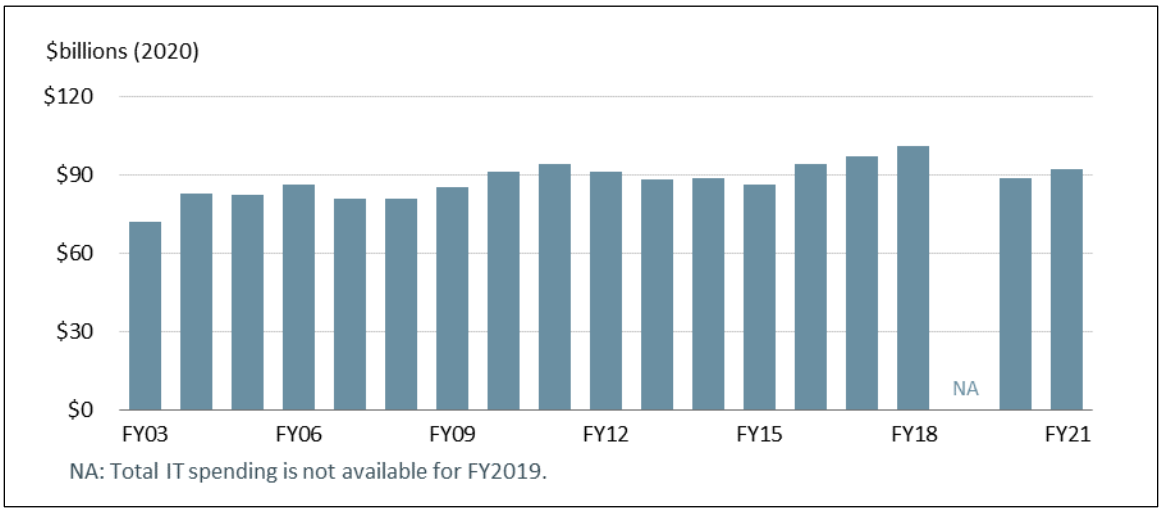
[27] OMB, *Budget of the United States, Fiscal Year 2019: Analytical Perspectives*, February 2018, p. 234, https://www.govinfo.gov/content/pkg/BUDGET-2019-PER/pdf/BUDGET-2019-PER.pdf#page=234; OMB, *Budget of the United States, Fiscal Year 2022: Analytical Perspectives*, May 2021, p. 179, https://www.govinfo.gov/content/pkg/BUDGET-2022-PER/pdf/BUDGET-2022-PER.pdf#page=179.

[28] 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.

[29] OMB, *Budget of the United States, Fiscal Year 2019: Analytical Perspectives*, p. 233.

Figure 2. Real Presidential Proposals for IT Spending

FY2003-FY2021 (billions of 2020 dollars)



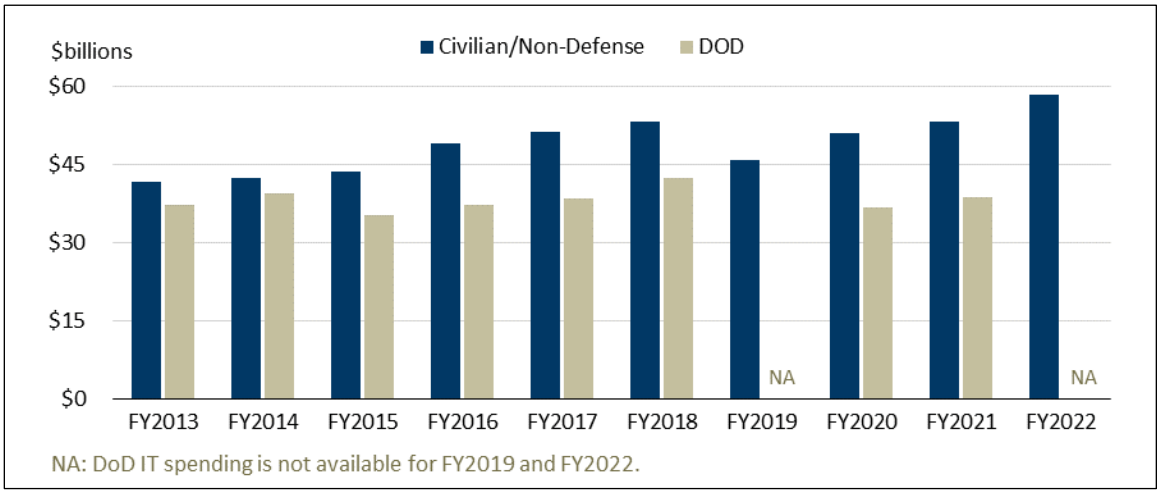
Source: CRS analysis of data from annual publications of OMB, *Analytical Perspectives, Budget of the United States Government,* FY2003-FY2021. Data was adjusted for inflation using the Consumer Price Index for All Urban Consumers (CPI-U) from the Bureau of Labor Statistics (BLS).

Notes: FY2019 is excluded because aggregated DOD IT spending figures were not provided. FY2020 and FY2021 spending totals no longer included grants made to state and local government.

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, both DOD and civilian proposed IT spending increased from FY2016 to FY2018 and peaked in FY2018 (see **Figure 4**).

Figure 3. Nominal Non-DOD vs. DOD Proposed IT Spending

FY2013-FY2021 (billions of nominal dollars)

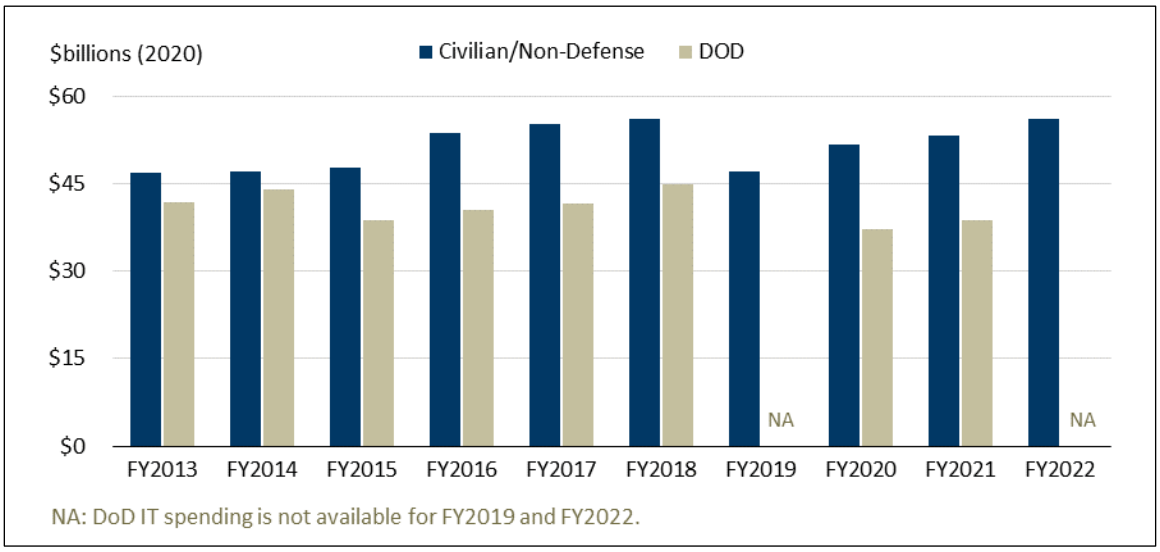


Source: CRS analysis of data from OMB, *Analytical Perspectives, Budget of the United States Government, Fiscal Year 2022*, "Information Technology," May 28, 2021.

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

Figure 4. Real Non-DOD vs. DOD Proposed IT Spending

FY2013-FY2021 (billions of 2020 dollars)



Source: CRS analysis of data from OMB, *Analytical Perspectives, Budget of the United States Government, Fiscal Year 2022*, "Information Technology," May 28, 2021. Data was adjusted for inflation using CPI-U from BLS.

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

Analysis of Proposed IT Spending: FY2022 Budget Submission

The President's budget submission for FY2022 proposed $58.4 billion in IT spending at civilian agencies, a 2.4% increase from FY2021.[30] DOD IT funding was not included in the total IT spending figure provided by OMB in the FY2022 *Analytical Perspectives*. The FY2022 budget includes funding for 4,531 investments at 25 agencies, of which 546 are categorized as major IT investments.[31] 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).[32]

[30] OMB, *Budget of the United States, Fiscal Year 2022: Analytical Perspectives*, May 2022, p. 177.

[31] Ibid. OMB has defined *major IT investment* as

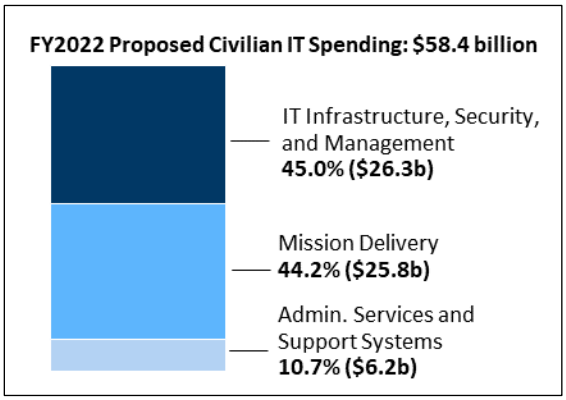
> an IT investment requiring special management attention because of its importance to the mission or function of the government; significant program or policy implications; high executive visibility; high development, operating, or maintenance costs; unusual funding mechanism; or definition as major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

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

[32] OMB, *FY 2022 IT Budget—Capital Planning Guidance*, p. 7. In OMB's FY2022 *Capital Planning Guidance*

Administrative Services and Support Systems account for approximately 11% of total spending, with the remaining spending divided almost equally between Mission Delivery and IT Infrastructure, Security, and Management (see **Figure 5**).

Figure 5. Proposed FY2022 Spending: Federal Civilian IT Investments



Source: CRS analysis of data from OMB, *Analytical Perspectives, Budget of the United States Government, Fiscal Year 2022*, "Information Technology," May 28, 2021.

Notes: DOD IT funding was not included in the total IT spending figure provided by OMB in the FY2022 *Analytical Perspectives*.

The FY2022 budget submission also disaggregated total civilian IT spending by agency (see **Table 1**). The top three civilian agencies by proposed IT spending are (1) the Department of Veterans Affairs, (2) the Department of Homeland Security, and (3) the Department of Health and Human Services.

Table 1. Proposed FY2022 Civilian Federal IT Spending and Percentage by Agency

In Millions of Dollars

Agency	FY2022 Proposal	Percent of Total	Percent Change from FY2021
Department of Veterans Affairs	$8,495	14.5%	9.5%
Department of Homeland Security	$8,150	13.9%	11.7%
Department of Health and Human Services	$6,956	11.9%	8.3%
Department of the Treasury	$5,967	10.2%	16.8%
Department of Transportation	$3,694	6.3%	8.9%
Department of Justice	$3,475	5.9%	6.4%
Department of Energy	$3,245	5.6%	14.0%
Department of Agriculture	$2,762	4.7%	16.4%
Department of State	$2,756	4.7%	4.6%
Department of Commerce	$2,598	4.4%	-1.4%
Social Security Administration	$2,157	3.7%	11.2%

document, the portfolio names differ slightly from the FY2019 *Analytical Perspectives*. In the *Capital Planning Guidance* document, portfolio areas 1-3 are called "mission delivery," "mission support services," and "standard IT investments," respectively.

Agency	FY2022 Proposal	Percent of Total	Percent Change from FY2021
National Aeronautics and Space Administration	$2,145	3.7%	-0.4%
Department of the Interior	$1,502	2.6%	8.1%
Department of Education	$982	1.7%	10.7%
Department of Labor	$819	1.4%	4.5%
General Services Administration	$702	1.2%	10.0%
Department of Housing and Urban Development	$437	0.7%	6.8%
Environmental Protection Agency	$370	0.6%	4.8%
U.S. Army Corps of Engineers	$269	0.5%	8.9%
U.S. Agency for International Development	$263	0.4%	18.5%
National Science Foundation	$165	0.3%	29.9%
Nuclear Regulatory Commission	$152	0.3%	7.8%
Office of Personnel Management	$141	0.2%	8.5%
National Archives and Records Administration	$127	0.2%	28.3%
Small Business Administration	$109	0.2%	0.9%
Total	**$58,439**	**100.0%**	**9.5%**

Source: CRS analysis of data from OMB, *Analytical Perspectives, Budget of the United States Government, Fiscal Year 2022*, "Information Technology," May 28, 2021.

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

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