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October 28, 2022

The Honorable Gary C. Peters
Chairman
Committee on Homeland Security and Governmental Affairs
United States Senate

The Honorable Peter A. DeFazio
Chairman
The Honorable Sam Graves
Ranking Member
Committee on Transportation and Infrastructure
House of Representatives

Federal Real Property: Agencies Attribute Substantial Increases in Reported Deferred Maintenance to Multiple Factors

Accessible Version

The federal government owns a massive portfolio of civilian buildings and structures. This portfolio requires billions of dollars to operate and maintain annually. However, agencies may postpone maintenance and repairs to assets in their portfolios for various reasons, which over time can create a backlog of deferred maintenance and repairs. We added federal real property management to our High Risk List in 2003, due, in part, to challenges related to deferred maintenance and repair.¹ As we and others have reported, deferred maintenance and repairs can have consequences, including limiting the ability of agencies to carry out their missions and prematurely worsening the condition of assets. Agencies have annually reported billions of dollars in estimated deferred maintenance and repair costs on their real property assets, representing substantial costs the federal government may have to pay in the future.

You asked us to review agencies' management of their deferred maintenance and repairs. This report first examines reported deferred maintenance and repair costs among civilian agencies from fiscal years 2017 through 2021 and second describes factors selected agencies identified as contributing to changes in their reported amounts.

To examine reported deferred maintenance and repair costs among civilian agencies, we analyzed civilian agencies' financial reports to identify the estimated deferred maintenance and repair costs the agencies had reported in each fiscal year (FY) from 2017 through 2021. To assess the reliability of this data, we interviewed agency officials responsible for collecting, maintaining, and reporting deferred maintenance and repair data at selected agencies; reviewed documentation on their methods for collecting, storing, and reporting the data; and reviewed our

¹GAO, *High-Risk Series: An Update*, [GAO-03-119](#) (Washington, D.C.: January 2003).

prior work regarding the quality of the data.² We determined that the data were sufficiently reliable for purposes of presenting the amounts agencies had reported.

To describe factors to which agencies attributed changes in their reported deferred maintenance and repair costs, we selected four agencies to review—Department of Energy (Energy), Department of Health and Human Services (HHS), Department of the Interior (Interior), and General Services Administration (GSA).³ We selected these agencies based on deferred maintenance and repair and asset data reported in annual financial reports and the Federal Real Property Profile Management System database.⁴ We interviewed cognizant officials at our selected agencies about their agencies' reporting and management of deferred maintenance and repairs. In addition, we reviewed prior GAO's and inspector general's reports about federal agencies' management of deferred maintenance and repairs.

We conducted this performance audit from October 2021 to October 2022 in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

Background

Real-property-holding agencies are generally responsible for the cost of maintaining and repairing their real property assets, which include buildings and structures. Buildings and structures and their component systems (e.g., structural, electrical, heating, and air conditioning systems, and other systems) have finite, expected useful lives. These systems should be maintained and repaired during their useful lives, after which they can be reasonably expected to need replacement. Delaying or deferring routine maintenance and repairs may, in the short term, diminish the performance of these systems and, in the long term, shorten their useful lives. As we have previously reported, deferring needed maintenance and repair may ultimately result in significantly higher maintenance, repair, and operating costs, or premature replacement.⁵

²We have ongoing work reviewing the reliability of selected agencies' deferred maintenance and repair data and their methods for collecting and reporting the data.

³Energy, HHS, Interior, and GSA collectively represented approximately 62 percent of the \$76.2 billion in deferred maintenance and repair costs reported by civilian federal agencies in fiscal year 2021.

⁴The Federal Real Property Profile Management System is a database managed by the General Services Administration of real property under the control of federal executive branch agencies. We selected agencies for a range of asset types and uses, ratio of deferred maintenance and repairs to asset replacement value, total amount of deferred maintenance and repairs, total asset replacement value, and whether recent GAO or other work had addressed the agencies' asset management.

⁵GAO, *Federal Real Property: Government's Fiscal Exposure from Repair and Maintenance Backlogs Is Unclear*, [GAO-09-10](#) (Washington, D.C.: Oct. 16, 2008) and GAO, *Federal Real Property: Improved Transparency Could Help Efforts to Manage Agencies' Maintenance and Repair Backlogs*, [GAO-14-188](#) (Washington, D.C.: Jan. 23, 2014).

Agencies have reported estimates of their deferred maintenance and repair backlogs in their annual financial statements since 1996.⁶ This reporting follows definitions set by the Federal Accounting Standards Advisory Board (Board).⁷

- **Maintenance and repairs.** The Board defines “maintenance and repairs” as activities directed toward keeping fixed assets in an acceptable condition. Activities include preventive maintenance; replacement of parts, systems, or components; and other activities needed to preserve or maintain the asset.
- **Deferred maintenance and repairs.** The Board defines “deferred maintenance and repairs” as maintenance and repairs that were not performed when they should have been and that were put off for the future.⁸ The backlog of deferred maintenance and repairs reflects the estimated costs of addressing the maintenance and repairs that were put off for the future.

Estimated deferred maintenance and repair costs represent a fiscal exposure for the government and are an indicator of the condition of assets. We have previously reported that owning an asset creates an implicit fiscal exposure for the government because there is an expectation that the government will incur costs associated with operating and maintaining the assets it owns.⁹ Future costs to address the deferred maintenance and repairs thus create a potential fiscal exposure for the government. Along with other factors, information on deferred maintenance and repairs may be used to determine the condition of assets and also may help agencies prioritize maintenance projects, request appropriations, and make asset management decisions.

Managing Federal Real Property has been on our High Risk List since January 2003. Our high-risk reports have consistently highlighted long-standing challenges that federal agencies face in: (1) effectively disposing of excess and underutilized property, (2) collecting reliable real property data for decision-making, and (3) improving the security of federal facilities from possible attacks.¹⁰ Deferred maintenance and repair contributed to the placement of federal real property management on the High Risk List in 2003 due to concerns with the state of deterioration of

⁶Covered federal executive branch agencies are required to prepare and submit financial statements to the Congress and OMB under 31 U.S.C. § 3515. Office of Management and Budget, *Circular A-136: Financial Reporting Requirements* (Washington, D.C.: Aug. 10, 2021) additionally requires such agencies to include estimated deferred maintenance and repair costs in supplementary information. The Department of the Treasury has reported aggregated government-wide data annually in the *Financial Report of the United States Government* since 1996.

⁷Agencies collect data to support these estimates through individual processes, which may differ between agencies. The Board and the Office of Management and Budget grant agencies discretion in determining the condition standards the agencies consider acceptable and the methods they use to measure deferred maintenance and repairs. Office of Management and Budget, *Circular A-136: Financial Reporting Requirements*; Federal Accounting Standards Advisory Board, *Statement of Federal Financial Accounting Standards 42: Deferred Maintenance and Repairs: Amending Statements of Federal Financial Accounting Standards 6, 14, 29 and 32* (Washington, D.C.: Apr. 25, 2012). Further, as we have previously reported, agencies’ deferred maintenance estimates are not detailed estimates of project costs and represent a particular point in time. Project costs can change substantially after estimates are made but before projects are undertaken. [GAO-09-10](#).

⁸Federal Accounting Standards Advisory Board, *Statement of Federal Financial Accounting Standards 42: Deferred Maintenance and Repairs: Amending Statements of Federal Financial Accounting Standards 6, 14, 29 and 32*.

⁹[GAO-09-10](#).

¹⁰GAO, *High-Risk Series: Dedicated Leadership Needed to Address Limited Progress in Most High-Risk Areas*, [GAO-21-119SP](#) (Washington, D.C.: Mar. 2, 2021).

agencies' assets and the size of their deferred maintenance and repair backlogs.¹¹ In our 2011 High Risk Update, we found that federal agencies had improved their ability to manage their maintenance and repair backlogs and removed the management of facility condition as a high risk component. Specifically, we identified a number of actions agencies took, including conducting facility condition assessments, prioritizing repairs, and improving the definition of deferred maintenance and repairs. However, we did not assess whether these actions had resulted in a reduction in the government's deferred maintenance and repairs and noted that some agencies continued to face challenges in reducing their maintenance backlogs.¹²

More recently, we and others have identified continuing issues with the reliability and transparency of agencies' reported deferred maintenance and repair data. For example, in September 2021 we reported that the State Department may underestimate its deferred maintenance and repair costs.¹³ Similarly, a September 2021 GSA Office of Inspector General's audit found that the accuracy of GSA's reported deferred maintenance cost estimate was affected by data shortcomings and errors.¹⁴ We are conducting ongoing work reviewing selected agencies' methods for collecting, reporting, and ensuring the reliability of deferred maintenance and repair data and prioritizing projects to address maintenance and repair needs.¹⁵

Reported Deferred Maintenance and Repair Costs Increased About 50 Percent from Fiscal Year 2017 through Fiscal Year 2021; Selected Agencies Attributed the Increase to Multiple Factors

Civilian agencies' reported estimates of deferred maintenance and repair costs increased from \$51 billion to \$76 billion (about 50 percent) from fiscal year 2017 through fiscal year 2021, according to data in agencies' annual financial reports.¹⁶ (See fig. 1).

¹¹[GAO-03-119](#).

¹²GAO, *High-Risk Series: An Update*, [GAO-11-278](#) (Washington, D.C.: February 2011).

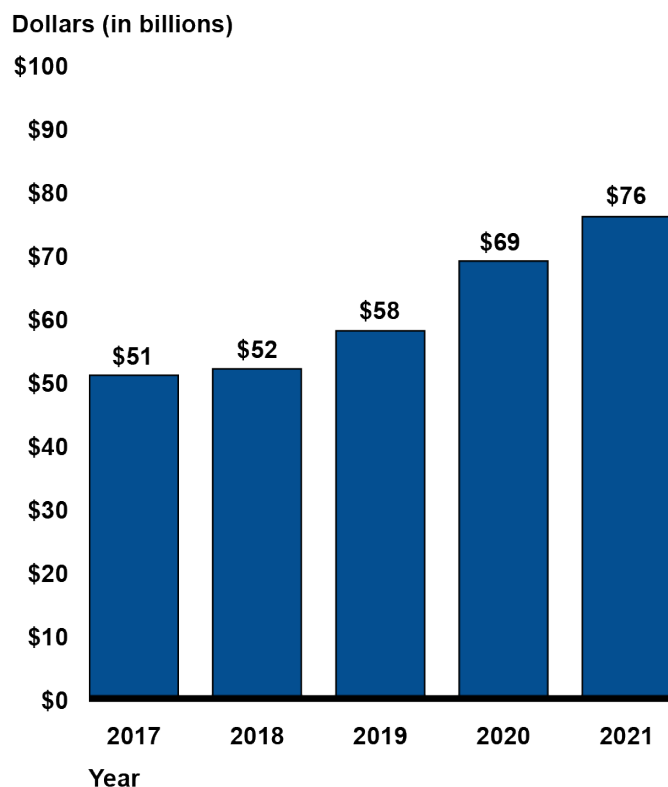
¹³We reported that the standard the State Department sets for estimating the amount of funding necessary to address existing deferred maintenance and repair is the same across all of its assets. Had the Department set a higher standard for its critical assets—which may be appropriate, according to federal accounting standards and the National Research Council—the estimated funds necessary to address its backlog would increase by billions of dollars. GAO, *Overseas Real Property: Prioritizing Key Assets and Developing a Plan Could Help State Manage Its Estimated \$3 Billion Maintenance Backlog*, [GAO-21-497](#) (Washington, D.C.: Sept. 15, 2021).

¹⁴Office of Inspector General, U.S. General Services Administration, *Audit of the Public Buildings Service's Effectiveness in Managing Deferred Maintenance*, Report Number A190066/P/2/R21009 (Washington, D.C.: Sept. 30, 2021).

¹⁵We also have ongoing work reviewing the state of the Indian Health Service's facilities and equipment and its potential effects on patient care.

¹⁶The U.S. Department of the Treasury aggregates federal agencies' reported deferred maintenance and repair amounts from their annual financial reports in the annual *Financial Report of the United States Government*. To identify the civilian agency portion, we subtracted Department of Defense data for the same period as reported in its annual financial reports.

Figure 1: Federal Civilian Agencies’ Reported Estimates of Deferred Maintenance and Repairs, Fiscal Years 2017–2021



Source: GAO analysis of U.S. Department of the Treasury and Department of Defense information. | GAO-23-106124

Accessible Data for Figure 1: Federal Civilian Agencies’ Reported Estimates of Deferred Maintenance and Repairs, Fiscal Years 2017–2021

	Year (2017)	Year (2018)	Year (2019)	Year (2020)	Year (2021)
Dollars (in billions)	\$51	\$52	\$58	\$69	\$76

Note: The U.S. Department of the Treasury aggregates federal agencies’ reported deferred maintenance and repair amounts from their annual financial reports in the annual *Financial Report of the United States Government*. To identify the civilian agency portion, we subtracted Department of Defense data for the same period as reported in its annual financial reports. The amounts are in nominal dollars; they have not been adjusted for inflation.

The four agencies we selected for review—GSA, Interior, Energy, and HHS—all reported increases in estimated deferred maintenance costs during this same period. See enclosure 1.

Officials from the four selected agencies attributed increases in reported deferred maintenance and repair costs to multiple factors. These include:

- **Funding constraints.** Officials from all four selected agencies said that maintenance funding had not kept up with costs and had led to increases in deferred maintenance

and repairs.¹⁷ This factor constitutes an ongoing challenge for agencies. For example, GSA officials said that insufficient funding to meet their maintenance and repair requirements had resulted in increasing deferred maintenance and repair needs as well as deterioration in the condition of its portfolio of owned assets. According to GSA's fiscal year 2023 budget justification, congressional appropriations for GSA's Repairs and Alterations programs, which address deferred maintenance and repairs for assets under GSA's custody and control, has consistently fallen short of GSA's requests over more than 10 years. This condition, according to GSA, has contributed to increases in estimated deferred maintenance and repair costs. HHS officials observed that potential investments in facilities compete for funding with health care, science, and research, and that those other investments are often prioritized above investments in facilities.

- **Maintenance and repair cost increases.** Officials from three of four selected agencies said that deferred maintenance and repair estimates increased due to growing costs associated with aging and deteriorating assets and with increasing labor and materials costs. Rising costs pose a continuing challenge to agencies. For example, Interior officials said that the agency has many aging assets that are more expensive to repair and maintain as time goes on. This situation, combined with increased visitation on Interior's federal lands, has led to accelerating degradation in the condition of assets and associated growth in maintenance and repair needs. Similarly, HHS officials said that aging and deteriorating facilities—including some Indian Health Service facilities that are more than 75 years old—have contributed to growth in HHS's deferred maintenance and repairs. The officials also noted that factors related to the COVID-19 pandemic, such as supply chain issues, may have contributed to increased deferred maintenance and repair estimates from fiscal years 2020 through 2021. In addition, Energy officials noted that increases in labor and material costs have contributed to recent increases in deferred maintenance and repair estimates.
- **Deliberate deferral.** Officials from two of four selected agencies said that they might deliberately defer some maintenance and repairs for reasons such as a lack of a current need for an asset or agency plans to replace the asset in the near future. Although agencies' reported deferred maintenance and repair costs might increase as a result of this deliberate deferral, the increase does not necessarily indicate greater future maintenance and repair needs. For example, officials from DOI's Bureau of Reclamation said that they had elected to defer some maintenance on spillway gates at Hoover Dam because the water level in the reservoir behind the dam had decreased enough that the agency was unlikely to have to use the gates to release water from the reservoir in the near future. Similarly, Energy officials said that a substantial amount of Energy's estimated deferred maintenance and repairs was in facilities that were approaching their end of life with replacement facilities already identified. The officials said that this condition made it fiscally advantageous to continue deferring major repairs and

¹⁷We have previously reported that federal agencies have not always provided sufficient information for Congress to evaluate agencies' maintenance needs. For example, in September 2021, we reported that the State Department's estimate of deferred maintenance and repair needs did not provide Congress or stakeholders with a sense of the priority and repair costs associated with assets that may be critical in supporting the Department's and other agencies' foreign policy missions. Among other things, we recommended that the State Department should develop a plan to address the Department's deferred maintenance and repair backlog, and specifically identify the funding and time frames needed to reduce the backlog in congressional budget requests or related reports. [GAO-21-497](#). The Department concurred with our recommendation, and is currently in the process of developing its plan.

replacements and only perform maintenance required to sustain the mission until the new facilities came online.¹⁸

- **Data collection changes.** Officials from three of the four selected agencies said that new or changed methods for data collection led to increases in reported deferred maintenance and repair costs. These changes, while not necessarily increasing the actual amount of deferred maintenance that must be performed, may provide more accurate estimates of potential future costs and the government's fiscal exposure. For example, Energy officials said that the main cause of an increase of about 35 percent in estimated deferred maintenance and repair costs from fiscal year 2018 through fiscal year 2019 was a National Nuclear Security Administration (NNSA) initiative designed to improve the quality of its data on its assets. NNSA began using a new software application and updated information to calculate deferred maintenance and repair costs for its buildings. Officials said this new method led to about a \$2 billion increase over previous calculations.

Similarly, Interior officials explained that an \$8.8 billion increase in deferred maintenance and repairs from fiscal year 2020 through fiscal year 2021 was in part the result of the addition of design, compliance, and construction management costs to estimates at the National Park Service. Interior officials also attributed a \$3 billion increase from fiscal year 2019 through 2020 to the implementation of a new system for evaluating the condition of roads at the Bureau of Land Management. The officials said that the implementation of this new system had improved the quality and completeness of the data on costs to maintain and repair these roads.

We have previously reported that similar changes in methodology for other agencies resulted in substantial changes in estimated deferred maintenance and repair costs. For example, State Department officials said their deferred maintenance and repair cost estimates increased from \$96 million in fiscal year 2019 to \$3 billion in fiscal year 2020 as a result of adopting a new methodology for determining its deferred maintenance and repair backlog.¹⁹

Overall, the growth in agencies' reported estimates of deferred maintenance and repair costs represents an apparent increase in the government's potential fiscal exposure from ownership of its real property assets. Accordingly, it is important to understand how agencies' methods of managing and reporting deferred maintenance affect the cost estimates of agencies' maintenance and repair needs and the fiscal exposure represented by deferred maintenance and repair costs. In our ongoing work, we are reviewing selected agencies' methods for

¹⁸In 2015, we reported that the amount of NNSA's deferred maintenance backlog reported in its budget materials was not useful for budget estimating because it included deferred maintenance that was unlikely to be addressed. We recommended that NNSA clarify in its budget materials the amount of the deferred maintenance backlog associated with facilities that has little to no effect on programmatic operations and is therefore low priority to be addressed. *GAO, Modernizing the Nuclear Security Enterprise: NNSA Increased Its Budget Estimates, but Estimates for Key Stockpile and Infrastructure Programs Need Improvement*, [GAO-15-499](#) (Washington, D.C.: Aug. 6, 2015). NNSA implemented that recommendation in its fiscal year 2017 budget materials by including data that provided dollar amounts for deferred maintenance in total, on excess facilities, and on facilities that will be in excess in 10 years, and has continued to make similar reporting in subsequent budget requests. In its annual financial report, Energy reports the amount of deferred maintenance and repairs it holds in inactive and excess property, plant, and equipment; all of which Energy includes in its total for the year.

¹⁹The State Department introduced parametric modeling to supplement data collected through its annual condition assessments. This model estimates the extent building systems have deteriorated over time and the estimated costs for replacement, if needed, based on the ages and expected useful life of individual systems. [GAO-21-497](#).

prioritizing maintenance projects and for collecting, reporting, and ensuring the reliability of deferred maintenance and repair data.

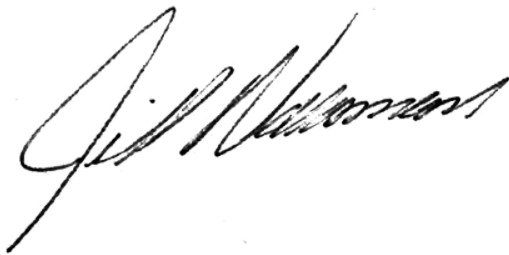
Agency Comments

We provided a copy of this draft report to Energy, Interior, HHS, and GSA for review and comment. HHS and Energy provided technical comments, which we incorporated, as appropriate. Interior and GSA had no comments on the draft report.

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We are sending copies of this report to the appropriate congressional committees, the Secretary of Energy, the Secretary of Health and Human Services, the Secretary of the Interior, the Administrator of the General Services Administration, and other interested parties. The report is also available at no charge on the GAO website at <http://www.gao.gov>.

If you or your staff have any questions about this report, please contact me at (202) 512-2834 or naamanej@gao.gov. Contact points for our Offices of Congressional Relations and Public Affairs may be found on the last page of this report. GAO staff who made key contributions to this report are listed in enclosure II.



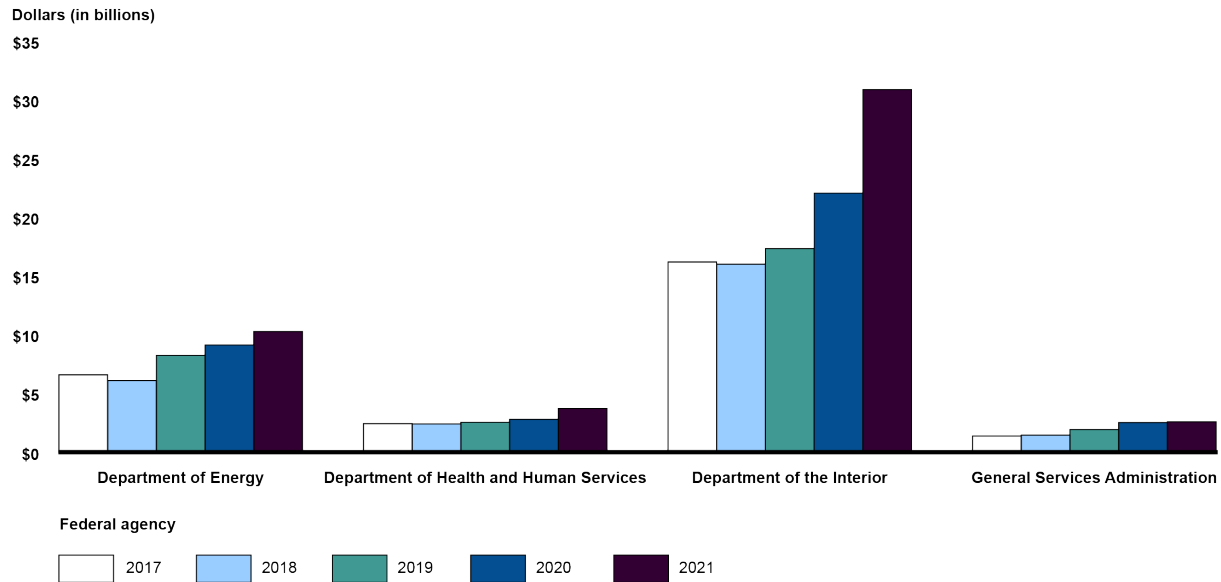
Jill Naamane
Acting Director, Physical Infrastructure Issues

Enclosure(s) – 2

Enclosure I: Changes in Selected Agencies' Reported Deferred Maintenance and Repairs, Fiscal Year 2017 through Fiscal Year 2021

The Department of Energy, the Department of Health and Human Services, the Department of the Interior, and the General Services Administration all reported increases in their estimated deferred maintenance and repairs from fiscal year 2017 through fiscal year 2022. See fig. 2 below.

Figure 2: Selected Agencies' Reported Estimates of Deferred Maintenance and Repair Costs, Fiscal Years 2017-2021



Source: GAO analysis of Department of Energy, Department of Health and Human Services, Department of the Interior, and General Services Administration information. | GAO-23-106124

Accessible Data for Figure 2: Selected Agencies' Reported Estimates of Deferred Maintenance and Repair Costs, Fiscal Years 2017-2021

	Year (2017)	Year (2018)	Year (2019)	Year (2020)	Year (2021)
Department of Energy	6.59	6.1	8.25	9.13	10.28
Department of Health and Human Services	2.44	2.41	2.55	2.8	3.72
Department of the Interior	16.19	16	17.33	22.06	30.87
General Services Administration	1.39	1.46	1.93	2.53	2.59

Note: The dollar amounts in the figure above are in nominal dollars; they have not been adjusted for inflation.

Enclosure II: GAO Contact and Staff Acknowledgments

GAO Contact

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Staff Acknowledgments

In addition to the contact named above, Michael Armes (Assistant Director); Matthew Cook (Assistant Director); Amelia Shachoy (Assistant Director); Tobias Gillett (Analyst-in-Charge); Lindsay Bach; Jennifer Clayborne; Geoff Hamilton; Jon Melhus; Malika Rice; Janet Temko-Blinder; Michelle Weathers; and Elizabeth Wood made key contributions to this report.

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