NATIONAL NUCLEAR SECURITY ADMINISTRATION

Actions Needed to Improve Usefulness of Common Financial Data

Accessible Version
**GAO Highlight**

Highlights of GAO-22-104810, a report to congressional committees

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**Why GAO Did This Study**

NNSA has long faced challenges in identifying the total costs of its programs, which are principally performed by M&O contractors. Congress needs this information to provide oversight and make budgetary decisions. The National Defense Authorization Act for Fiscal Year 2017 required NNSA to implement a common financial reporting system, to the extent practicable. NNSA’s efforts began in 2016.

The Senate report accompanying a bill for the National Defense Authorization Act for Fiscal Year 2018 includes a provision for GAO to periodically review NNSA’s implementation of common financial reporting. This is GAO’s third report on this issue. This report examines (1) the steps NNSA has taken since GAO’s January 2020 report, and (2) the extent to which NNSA offices use common financial data to support management purposes.

GAO reviewed NNSA documents about implementing common financial reporting, examined cost data submitted to NNSA, and interviewed NNSA and DOE officials and M&O contractor representatives.

**What GAO Recommends**

GAO is making four recommendations, including for DOE to facilitate an agreement on collecting standardized cost data, and for NNSA to establish goals and expectations for using the common financial data. NNSA agrees with the four recommendations.

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**NATIONAL NUCLEAR SECURITY ADMINISTRATION**

**Actions Needed to Improve Usefulness of Common Financial Data**

**What GAO Found**

The National Nuclear Security Administration (NNSA)—a separately organized agency within the Department of Energy (DOE)—has taken additional steps to implement common financial reporting since GAO’s January 2020 report. NNSA has fully implemented four steps and made progress on three steps, as shown in the table, and some additional work remains. For example, NNSA has not collected standardized cost data from all contractors that manage the contracts to which it obligates funds. Specifically, some management and operating (M&O) contractors that are overseen by another DOE office, DOE’s Office of Science, are not reporting complete data to NNSA because the two offices have not agreed on the standardized cost elements for reporting this information. This is, in part, because Office of Science officials believed that the data were not comparable across programs or useful for their own program management. DOE’s Office of the Chief Financial Officer is responsible for cost reporting at the departmental level and is positioned to facilitate an agreement on the data to be reported by the Office of Science to ensure that NNSA can collect standardized data for all of the funds it obligates.

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**GAO’s Assessment of NNSA’s Progress toward Implementing Common Financial Reporting**

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Source: GAO analysis of National Nuclear Security Administration (NNSA) information. | GAO-22-104810

NNSA has made common financial reporting data available to offices, and the data support some management purposes for some offices. For example, some offices use the data for budget analysis, and other offices use the data for project management, such as monitoring spending trends. However, offices have used the data inconsistently because NNSA has not established agency-wide goals or expectations for using the data or communicated how the data will help NNSA achieve its objectives. According to the program director for financial integration, NNSA did not want to limit offices’ potential uses for the data. By establishing goals or expectations for using the data, officials would better understand how data can be used—as well as options for how the data could be used—and could better achieve the benefits of common financial reporting.
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Abbreviations

B&R budget and reporting
DOE Department of Energy
M&O management and operating
NNSA National Nuclear Security Administration
STARS Standard Accounting and Reporting System
February 17, 2022

Congressional Committees

The National Nuclear Security Administration (NNSA)—a separately organized agency within the Department of Energy (DOE)—is responsible for enhancing national security through the military application of nuclear energy, maintaining and modernizing infrastructure for the U.S. nuclear weapons stockpile, and supporting the nation’s nuclear nonproliferation efforts, among other things. NNSA relies on management and operating (M&O) contracts to carry out its missions at eight government-owned, contractor-operated national laboratories and nuclear weapons production facilities, collectively known as the nuclear security enterprise. NNSA obligated about $16.7 billion of its fiscal year 2021 obligations—about 88 percent—to M&O contracts.

M&O contractors use different methods of accounting and tracking costs to manage the sites across the nuclear security enterprise. This has resulted in NNSA and Congress having difficulty understanding total costs of NNSA’s programs—especially programs for which work is conducted at multiple sites—and comparing costs across its contractors. As we have emphasized, effective management and oversight of the contracts, projects, and programs that support NNSA’s mission are dependent upon the availability of enterprise-wide cost information that is accurate and reliable. This information is needed to identify costs of activities and ensure the validity of NNSA’s cost estimates. DOE’s management of contracts and projects, including those executed by NNSA, has been on

150 U.S.C. § 2501. M&O contracts are agreements under which the government contracts for the operation, maintenance, or support, on its behalf, of a government-owned or government-controlled research, development, special production, or testing establishment wholly or principally devoted to one or more of the major programs of the contracting agency. 48 C.F.R. § 17.601.

NNSA obligated funding to M&O contracts for work at the eight sites in the nuclear security enterprise as well as to non-NNSA M&O contracts. These non-NNSA M&O contracts are for the management and operation of laboratories and sites that are overseen by DOE offices other than NNSA but where work for NNSA is performed. These non-NNSA M&O contracts are overseen by DOE’s Offices of Science, Environmental Management, and Nuclear Energy.

our list of areas at high risk for fraud, waste, abuse, and mismanagement since 1990.

Congress has faced challenges providing effective oversight and determining whether NNSA is operating the nuclear security enterprise in an efficient, cost-effective manner because the cost of activities cannot be easily compared and analyzed across NNSA’s programs and sites. To address the issue, the National Defense Authorization Act for Fiscal Year 2014 required NNSA to develop and submit to Congress a plan for improving and integrating financial management of the nuclear security enterprise.\(^4\) NNSA submitted its plan in February 2016, and in January 2017, we found the plan did not provide the framework needed to guide NNSA’s effort to improve and integrate financial management of the nuclear security enterprise.\(^5\) Subsequently, the National Defense Authorization Act for Fiscal Year 2017 (the act) required NNSA to implement common financial reporting, to the extent practicable, for the nuclear security enterprise by December 23, 2020.\(^6\) According to the act, the common financial reporting system is to include the following:\(^7\)

1. common data reporting requirements, including reporting of financial data by standardized labor categories, labor hours, functional elements, and cost elements;

2. a common work breakdown structure;\(^8\) and

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\(^7\)The act also required NNSA to leverage, where appropriate, the Department of Defense Office of Cost Assessment and Program Evaluation using historical costing data. As we previously found, NNSA’s financial integration team consulted with the Office of Cost Assessment and Program Evaluation. NNSA’s program director for financial integration concluded that it would not be appropriate to use the Cost Assessment Data Enterprise because their cost reporting requirements are not directly or sufficiently comparable. See GAO, National Nuclear Security Administration: Additional Actions Needed to Collect Common Financial Data, GAO-19-101 (Washington, D.C.: Jan. 31, 2019).

\(^8\)A work breakdown structure is a method of deconstructing a program’s end product into successive levels of detail with smaller specific elements until the work is subdivided to a level suitable for management control.
3. definitions and methodologies for identifying and reporting costs for programs of record and base capabilities.\(^9\)

To support its missions, NNSA is organized into program offices that manage and oversee the agency’s numerous programs and projects. Mission-related activities are primarily overseen by these program offices, which are responsible for integrating the activities across the multiple sites performing work. NNSA’s program offices are organized similar to its budget structure, and NNSA generally reports its financial data according to its organizational and budget structures. The six program offices that participate in common financial reporting are the Offices of Defense Programs; Defense Nuclear Nonproliferation; Emergency Operations; Safety, Infrastructure, and Operations; Defense Nuclear Security; and Counterterrorism and Counterproliferation. NNSA also has five functional offices, which provide mission-enabling support to the program offices responsible for NNSA’s mission. These five functional offices are the offices of Acquisition and Project Management, External Affairs General Counsel, Information Management and Chief Information Officer, and Management and Budget.

The Senate report accompanying S. 1519, a bill for the National Defense Authorization Act for Fiscal Year 2018, includes a provision for us to conduct periodic reviews of NNSA’s progress in implementing common financial reporting. We have since issued two reports on the steps NNSA has taken to plan for and implement common financial reporting.\(^10\) This is our third review. This report examines (1) steps NNSA has taken to implement common financial reporting since our January 2020 report, and (2) the extent to which NNSA’s program and functional offices use common financial data to support management purposes.

To examine the steps NNSA has taken to implement common financial reporting, we reviewed NNSA documents related to the agency’s implementation of the effort, including policy and guidance. We compared financial data provided by DOE to NNSA for fiscal year 2021 to the

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\(^9\)According to an NNSA official, NNSA establishes its programs of record in its congressional budget justification and other documents to align with agency appropriations, which include weapons activities, defense nuclear nonproliferation, and federal salaries and expenses. A base capability captures an increment of discipline, or skill that serves a variety of functions depending on the desired product.

requirements in the agency’s financial integration policy.\textsuperscript{11} We conducted semi-structured interviews with officials from 10 NNSA offices and suboffices, as well as representatives from seven M&O contractors on the implementation of common financial reporting.\textsuperscript{12} We also interviewed NNSA’s financial integration team, including the program director for financial integration, and officials from DOE’s Offices of the Chief Financial Officer and Science.\textsuperscript{13}

To examine the extent to which NNSA’s program and functional offices use common financial data to support management purposes, we reviewed NNSA documents related to the program and functional offices’ use of such data, including policy and guidance documents and briefing presentations. We also reviewed the work breakdown structures from the

\textsuperscript{11}National Nuclear Security Administration, \textit{Financial Integration}, NAP-412.1 (Washington, D.C.: Feb. 11, 2019). NNSA’s financial integration policy includes requirements for M&O contractors to report financial data for common financial reporting. The requirements become binding through incorporation into their contracts. According to NNSA’s financial integration policy, the purpose of the agency’s common financial reporting effort is to collect standardized financial management data; increase transparency of financial accountability; and improve cost analysis comparability and reporting consistency among programs and M&O contractors.

\textsuperscript{12}We interviewed officials representing eight program offices and suboffices: the Offices of Defense Nuclear Nonproliferation; Emergency Operations; Safety, Infrastructure, and Operations; Defense Nuclear Security; Counterterrorism and Counterproliferation; and within the Office of Defense Programs its suboffices for Research, Development, Test and Evaluation; Stockpile Management; and Production Modernization. We also interviewed officials from two functional offices: Acquisition and Project Management, and Management and Budget. We did not interview officials from NNSA’s Office of Naval Reactors because those facilities are not a part of the statutorily defined nuclear security enterprise. Therefore, NNSA is not required to implement common financial reporting for this office.

\textsuperscript{13}The financial integration team includes staff within the Office of Management and Budget and is headed by the program director for financial integration. The Director of Business Systems and Integration currently serves as the program director for financial integration. NNSA established the position of program director for financial integration within NNSA’s Office of Management and Budget and first filled the position in January 2016. The program director for financial integration is to manage and coordinate all NNSA activities to meet the act’s requirements, develop and maintain clear and consistent reporting requirements, analyze enterprise-wide financial data using leading business best practices, and monitor the effects of financial integration, among other responsibilities. The program director for financial integration reports to NNSA’s Office of Management and Budget and provides updates to a Financial Integration Executive Committee. The Executive Committee is chaired by the Associate Administrator for Management and Budget and includes senior leadership from NNSA program, field, and functional offices. The role of the Executive Committee is to monitor and provide strategic direction for the implementation of common financial reporting and approve significant changes to the effort.
participating program offices and reviewed program cost reporting from selected programs. Further, we assessed NNSA’s current work breakdown structure against GAO’s standards established in the Cost Estimating and Assessment Guide to determine whether the work breakdown structure allows for appropriate data collection and effective data use. In addition, we interviewed NNSA officials about use, challenges, goals, and expectations for common financial reporting data. We assessed whether NNSA’s goals and expectations for use of data aligned with leading practices identified by the Chief Data Officers’ Council and were communicated effectively in accordance with federal standards for internal control. For additional details on our scope and methodology, see appendix I.

We conducted this performance audit from February 2021 to February 2022 in accordance with generally accepted government auditing standards. These 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

NNSA’s Missions and Organization

NNSA largely executes its mission at eight sites that comprise the nuclear security enterprise, which are managed by M&O contractors. As shown in figure 1, each of the eight sites in the nuclear security enterprise has specific responsibilities.

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17In January 2013, NNSA first awarded a single contract for two of NNSA’s major production sites that contribute to nuclear weapons maintenance and components production: Y-12 National Security Complex and Pantex Plant. These two sites were previously managed under separate M&O contracts.
While NNSA’s common financial reporting efforts have been largely focused on its eight sites, as required by the National Defense Authorization Act for Fiscal Year 2017, financial data from other DOE sites are important to NNSA’s common financial reporting efforts. These
other DOE sites have non-NNSA M&O contractors that perform work funded by NNSA and provide data for common financial reporting. These non-NNSA M&O contractors are overseen by the Offices of Science, Environmental Management, and Nuclear Energy. The other DOE sites that reported data to NNSA are


- Office of Environmental Management’s Waste Isolation Pilot Plant in New Mexico; and

- Office of Nuclear Energy’s Idaho National Laboratory in Idaho.

Cost Accounting Requirements and Methods of Accounting and Tracking Costs

NNSA is subject to different cost accounting requirements than its M&O contractors. NNSA is required to follow Managerial Cost Accounting Standards.18 The principal purpose of Managerial Cost Accounting Standards is to determine the full cost of delivering a program or output to allow an organization to assess the reasonableness of this cost or to establish a baseline for comparison. The standards state that federal agencies should accumulate and report the costs of their activities on a regular basis for management information purposes. The standards also allow flexibility for agency managers to develop cost accounting methods that are best suited to their operational environment. Such information is important to Congress and to NNSA managers, as they make decisions about allocating federal resources, authorizing and modifying programs, and evaluating program performance.

Separate standards—referred to as federal Cost Accounting Standards—govern how NNSA M&O contractors structure and account for their

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18The Statement of Federal Financial Accounting Standards No. 4, Managerial Cost Accounting Standards and Concepts, requires government agencies to determine and report full costs of government goods and services, including direct and indirect costs.
costs.\textsuperscript{19} Federal Cost Accounting Standards provide direction for the consistent and equitable distribution of a contractor’s costs to help federal agencies more accurately determine the actual costs of their contracts and the contractor’s costs associated with specific projects and programs.

To comply with federal Cost Accounting Standards, M&O contractors classify costs as either direct or indirect when they allocate these costs to programs. Direct costs are assigned to the benefitting program or programs. Indirect costs—costs that cannot be assigned to a particular program, such as costs for administrative and site support—are to be accumulated, or grouped, into indirect cost pools. The contractor is to estimate the amount of indirect costs to distribute to each program (accumulated into indirect cost pools) and make adjustments by the end of the fiscal year to reflect actual costs.\textsuperscript{20} The final program cost is the sum of the total direct costs plus the indirect costs distributed to the program.

In implementing these allocation methods, federal Cost Accounting Standards provide contractors with flexibility regarding the extent to which they identify incurred costs directly with a specific program, how they collect similar costs into indirect cost pools, and how they allocate them among programs.\textsuperscript{21} Therefore, different contractors may allocate similar costs differently because the contractors’ cost allocation models differ—that is, a cost classified as an indirect cost at one site may be classified as a direct cost at another.\textsuperscript{22} Further, because each contractor can allocate similar indirect costs differently and contractors may change the way they allocate indirect costs over time, it is difficult to compare costs.

\textsuperscript{19}The Cost Accounting Standards are a set of 19 standards promulgated by the U.S. Cost Accounting Standards Board, an independent and statutorily established board that is administratively part of the Office of Management and Budget’s Office of Federal Procurement Policy. 41 U.S.C. § 1501. For current applicability, see 48 C.F.R. pt. 9904.

\textsuperscript{20}The contractor distributes indirect costs proportionally across all programs in accordance with the contractor’s cost allocation model.

\textsuperscript{21}Federal Cost Accounting Standards require that each contractor apply its allocations consistently across its costs.

\textsuperscript{22}Cost allocation models outline the contractor’s structure for identifying and allocating indirect costs. After direct costs have been determined and charged directly to the contract or other work, indirect costs are those remaining to be allocated to intermediate or two or more final cost objectives. 48 C.F.R. § 31.203.
across sites and accurately calculate total program costs when work for a
program is conducted at multiple sites.

In addition, we have previously found that, consistent with Cost
Accounting Standards, M&O contractors have developed their own
structures against which to manage and track costs for work at each site.23 This occurred even when multiple contractors’ work contributes to
the same program. This has resulted in contractors reporting costs for a
single program that reflect different scopes of work. Because these
structures generally differed from the ones NNSA’s program offices
developed to describe the scope of its programs, NNSA and others were
further challenged to track and compare costs for analogous activities
across programs, contractors, and sites.

DOE’s and NNSA’s financial management and accounting system—the
Standard Accounting and Reporting System (STARS)—provides budget
execution, financial accounting, and financial reporting capabilities to the
department. STARS is also integrated with other agency systems for
procurement, funds distribution, travel, and human resources. The M&O
contractors must be able to report cost information from their financial
systems into STARS. The primary source of cost data contained in
STARS comes from summary-level data provided by M&O contractors,
which is generated from the contractors’ more detailed financial systems,
and which they report against NNSA’s budget and accounting structure.
NNSA’s budget and accounting structure reflects its four annual
appropriations and, for each appropriation, the substructure of projects,
programs, and activities directed by Congress.24

Program offices access STARS financial data through the DOE Office of
the Chief Financial Officer’s integrated data warehouse.25 While financial
data collected through STARS represent DOE’s official financial data, the
data are not detailed and, therefore, may not satisfy the information
needs of NNSA’s program offices. For example, STARS financial data do
not differentiate labor costs from other programmatic costs, nor do they

23GAO-17-141.

24DOE and NNSA refer to this overall structure as budget and reporting (B&R) codes. NNSA establishes B&R codes that correlate with activities and that are used for reporting obligations, costs, and revenues; formulating budgets; and controlling and measuring actual (rather than budgeted) performance.

25The DOE Office of the Chief Financial Officer’s integrated data warehouse is part of the agency’s financial management systems architecture and provides data storage for accounting, procurement, budget and planning, and workforce systems.
provide detailed information about the costs of activities that contribute to program costs for the M&O contractors. In addition, according to M&O contractor representatives, if one M&O contractor provides funding to another contractor, such as to conduct testing, NNSA does not have the ability in STARS to identify that funding was transferred.

NNSA’s Legacy Approach to Collecting Financial Information

NNSA’s program offices developed various systems, tools, and spreadsheets to track relevant cost information to consistently and uniformly produce useful cost information. Specifically, NNSA’s program offices separately collected cost information from M&O contractors that was more detailed than costs reported through STARS. Collecting these data required M&O contractors to map, or “crosswalk,” their cost data to the work breakdown structures of one or more of NNSA’s programs, so M&O contractors’ cost structures could be aligned with NNSA’s for common reporting purposes. Some tools the program offices used included program management systems or spreadsheets designed to meet each program office’s programmatic, budgetary, and project requirements. For all program offices, the process to track cost information was in addition to financial reporting that M&O contractors provided for STARS, and there was not an automated process to verify or validate the information with the data in STARS (see fig. 2).
NNSA’s Approach to Implementing Common Financial Reporting

To implement common financial reporting across programs and sites, NNSA has pursued an approach in which the agency collects M&O contractors’ financial data in a common framework that it refers to as a work breakdown structure. A work breakdown structure is typically a project management tool used to define a project’s scope of work in terms...
of deliverables and deconstructing a program’s end product into successive levels of detail with smaller specific elements until the work is subdivided to a level suitable for management control. NNSA developed its work breakdown structure with components—or segments—for separate programs and projects. NNSA captures crosscutting or multi-program activities in separate segments of the work breakdown structure. Each segment of the work breakdown structure is aligned with NNSA’s budget structure.

NNSA uses a single NNSA-wide data reporting and analysis tool, called CostEX, to collect data from contractors. M&O contractors produce crosswalks of their financial data to NNSA’s work breakdown structure and submit the data to NNSA in CostEX. NNSA then stores the reported financial data in the DOE Office of the Chief Financial Officer’s integrated data warehouse. The Office of Defense Programs has used this process to collect financial data from the M&O contractors for its programs since fiscal year 2017. NNSA implemented this process for the broader common financial reporting effort in fiscal year 2018. Figure 3 illustrates NNSA’s data management process for common financial reporting.

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Notes: M&O contractors are identified by their site location. The complete name of each location is as follows: Kansas City National Security Campus, Los Alamos National Laboratory, Lawrence Livermore National Laboratory, Nevada National Security Site, Pantex Plant, Y-12 National Security Complex, Sandia National Laboratories, and Savannah River Site.

NNSA collects data for the common financial reporting effort using a data and analysis tool known as CostEX.

NNSA establishes budget and reporting codes that correlate with activities and are used for reporting obligations, costs, and revenues; formulating budgets; and controlling and measuring actual (rather than budgeted) performance.

*One M&O contractor manages both the Y-12 National Security Complex and the Pantex Plant. The contractor provides consolidated data for the sites.

The framework NNSA established for common financial reporting relies on an agreed-upon work breakdown structure and common cost elements and definitions. The M&O contractors crosswalk their internal financial data into the corresponding segment of the work breakdown structure for each of the participating program offices using common cost elements and definitions. This helps ensure that all M&O contractors are reporting costs against a shared understanding of the scope of work associated with each program.
The M&O contractors’ business systems capture their financial data at a more detailed level than is needed for common financial reporting because each M&O contractor tracks financial data for its site based on how it manages the work using projects, tasks, and expenditure types. For example, M&O contractors collect time and attendance data from their employees based on the number of hours spent working on a project for the pay period. The M&O contractors aggregate this information across multiple employees to report labor costs for a project. When the M&O contractors prepare their data for common financial reporting, site managers identify the segments of the applicable work breakdown structure and cost elements with which the project aligns. They crosswalk the financial data to the NNSA structure using professional judgment. Figure 4 shows an example of how an M&O contractor crosswalks its financial data into the NNSA work breakdown structure in CostEX.
After the M&O contractors submit their financial data in CostEX, NNSA performs data quality and accuracy checks of the M&O contractors’ data, referred to as “data validation” and “data reconciliation.” NNSA first performs data validation using CostEX, which automatically checks each row for data quality—such as confirming that the correct contractor is entering data for the site—and formatting based on 64 validation checks. CostEX identifies data that do not pass the validation check as errors and rejects them, and the M&O contractor corrects and resubmits the data until it passes the validation check. NNSA then uses CostEX to perform data reconciliation with STARS data at the budget and reporting (B&R) code level. CostEX extracts STARS data for selected NNSA-related B&R codes and compares it with the data the M&O contractors submitted for common financial reporting. CostEX identifies data that differ from the
STARS data by more than a penny as an error and rejects the data; the M&O contractor corrects and resubmits the data until it passes the reconciliation check.\textsuperscript{27} According to NNSA officials, it is important for the agency to perform these data validation and reconciliation checks prior to accepting the M&O contractors’ financial data to ensure data quality.

In addition, NNSA has integrated common financial reporting data into some of the existing tools program offices use for program management, such as G2 and WebPMIS.\textsuperscript{28} These tools track relevant non-financial information, such as facilities information, in addition to financial data. In fiscal year 2020, NNSA started using the data collected in CostEX for common financial reporting in these program management systems to ensure that all programs are using the same financial data, which are reconciled with STARS.

**NNSA Has Implemented Most Steps for Common Financial Reporting, but Challenges Remain to Collect Complete Standardized Data**

NNSA has implemented most steps for common financial reporting, but it faces challenges collecting complete standardized data. We identified seven steps toward implementing NNSA’s common financial reporting effort in our January 2019 report.\textsuperscript{29} To date, NNSA has fully implemented four steps and made progress in three steps, as shown in table 1. Some additional work remains. For example, NNSA has collected financial data from its M&O contractors, but some non-NNSA M&O contractors did not report detailed data.

\textsuperscript{27}In March 2020, NNSA updated its data reconciliation process from identifying differences of more than $1 as errors to matching to the penny.

\textsuperscript{28}In 2007, officials from the Office of Defense Nuclear Nonproliferation custom-developed the G2 program management system, designed to integrate and manage financial and program management data, such as scope and schedule, budget, cost, and geo-spatial (maps, diagrams, photos, inventory and condition) data. This system was refined to meet the needs of the Office of Defense Nuclear Nonproliferation and was later adopted by the Office of Safety, Infrastructure, and Operations. WebPMIS is designed to track project costs and maintain an archive of project-related documentation.

\textsuperscript{29}GAO-19-101.
Table 1: National Nuclear Security Administration’s (NNSA) Progress toward Implementing Steps for Common Financial Reporting

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<td>Data publication and analysis</td>
<td>Analyzed data and continuing to improve reporting</td>
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Source: GAO analysis of NNSA information. [GAO-22-104810]

**Identify an approach and develop a tool to implement common financial reporting.** We previously found that NNSA identified an approach and developed a tool to implement common financial reporting.\(^{30}\) NNSA collects common financial reporting data using a data reporting and analysis tool, known as CostEX. NNSA continues to collect and compile financial data from M&O contractors and stores it in DOE’s Office of the Chief Financial Officer’s integrated data warehouse.\(^{31}\)

**Develop a policy.** NNSA approved a policy for common financial reporting in February 2019 that will expire in February 2022. NNSA plans to approve an updated policy, according to financial integration team officials.\(^{32}\)

**Establish common cost elements and definitions.** NNSA established common cost elements and definitions, as we found in our January 2019


\(^{31}\)The DOE Office of the Chief Financial Officer’s integrated data warehouse is part of the agency’s financial management systems architecture and provides data storage for accounting, procurement, budget and planning, and workforce systems.

\(^{32}\)According to NNSA Supplemental Directive 251.1B, the financial integration team must formally review the financial integration policy every 3 years.
The financial integration team had established three labor cost elements and is considering expanding it to about 20 more in the next 2 years, according to financial integration team officials. The additional cost elements are expected to allow NNSA to report more detailed costs consistently across programs and sites.

**Identify and report costs for programs of record and base capabilities.** In our January 2020 report, we found that NNSA was working to determine whether or how to collect information on the costs of base capabilities. The National Defense Authorization Act for Fiscal Year 2017 required NNSA to establish definitions and methodologies for identifying and reporting costs for programs of record and base capabilities as part of its effort to implement common financial reporting.

In June 2021, we found that NNSA offices had initiated four separate analyses to identify and assess capabilities that allow the agency to achieve its nuclear weapons stockpile maintenance and modernization mission, among others. Based on our review, congressional direction to develop these capabilities generally included the following three aspects: (1) the knowledge or competencies needed to conduct the work; (2) the human capital or workforce conducting the work; and (3) the infrastructure necessary to support the work. However, none of NNSA’s analyses fully identified or assessed all of its capabilities because none included information on all three aspects. We recommended that NNSA develop a comprehensive and complete capability assessment. As of December 2021, NNSA has not implemented this recommendation. As a result, the financial integration team cannot collect information on the costs for these

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34 GAO-20-180. NNSA uses the term core capabilities, rather than base capabilities, to ensure consistency within DOE. Core capabilities include the skill and knowledge-based competencies represented at each M&O site, which M&O contractors used to develop site strategic plans and assess their own capabilities.


36 GAO, *Nuclear Security Enterprise: NNSA should Use Portfolio Management Leading Practices to Support Modernization Efforts*, GAO-21-398 (Washington, D.C.: June 9, 2021). NNSA’s offices of Defense Programs; Policy and Strategic Planning; and Safety, Infrastructure, and Operations have independently identified and assessed capabilities within their areas of responsibility through four separate analyses. The analyses include weapons activities capabilities, production capabilities, core capabilities, and infrastructure capabilities.
capabilities through the common financial reporting effort, according to financial integration team officials. We will continue to monitor NNSA’s progress in addressing the requirement from the National Defense Authorization Act for Fiscal Year 2017.\textsuperscript{37}

\textbf{Implement a common work breakdown structure.} In January 2019, we found that NNSA had not implemented a common work breakdown structure—in part because program office leaders did agree that one was necessary—and we recommended that NNSA do so.\textsuperscript{38} According to GAO’s \textit{Cost Estimating and Assessment Guide}, standardizing the common work breakdown structure at a high level fosters flexibility, so lower levels can be customized to reflect how individual programs’ work is managed.\textsuperscript{39} In response to our recommendation, NNSA developed a common work breakdown structure in May 2020.\textsuperscript{40} NNSA issued a memo directing the M&O contractors to provide financial data to NNSA using the common work breakdown structure and began collecting data using the common work breakdown structure in fiscal year 2021. By implementing a common work breakdown structure, NNSA has better ensured that it has reliable financial data for the nuclear security enterprise to satisfy the needs of Congress and other stakeholders, and this helped to address long-term deficiencies in its ability to report total costs of programs.

In addition, the financial integration team established and implemented a change control process for the work breakdown structure for common financial reporting in October 2020 to address a recommendation from our January 2020 report. In our January 2020 report, we found that NNSA had not consistently ensured that changes to the work breakdown structure were approved, documented, and communicated to the M&O contractors in a timely manner because NNSA had not established and implemented a change control process for the changes.\textsuperscript{41} The new


\textsuperscript{38}GAO-19-101. See appendix II for a status on the recommendations from our previous two reports on common financial integration.


\textsuperscript{40}National Nuclear Security Administration, \textit{Memorandum for National Nuclear Security Administration Dash-1 Program, Functional, and Field Office Managers} (Washington, D.C.: May 19, 2020).

\textsuperscript{41}GAO-20-180.
The change control process requires NNSA’s staff to identify necessary changes to the work breakdown structure and obtain the program management’s approval before submitting it to the change control board. The change control board reviews and approves requested changes. Once approved, the financial integration team makes the changes in CostEX and emails the M&O contractors to implement these changes. By establishing and fully implementing a change control process for the work breakdown structure, NNSA can verify that the changes to the work breakdown structure are approved by program office management, documented and tracked for accurate data analysis and comparison over time, and communicated to M&O contractors on a timely basis.

Overall, the change control process has been successful in streamlining communication on changes to the work breakdown structure between program offices and M&O contractors, according to most representatives from the M&O contractors. However, the number of changes to the work breakdown structure remains high, according to representatives from the M&O contractors we interviewed. Officials from the financial integration team explained that some changes to the work breakdown structure are necessary to reflect funding for new programs or activities.

Collect financial data from M&O contractors. Since our January 2020 report, NNSA has continued to collect the financial data from M&O contractors, according to the financial integration team. However, NNSA faces challenges in collecting complete standardized data from non-NNSA M&O contractors for DOE sites.

In fiscal year 2021, NNSA obligated about $1.9 billion (about 11 percent of its total obligations to M&O contractors) to non-NNSA M&O contracts overseen by three other DOE offices (see fig. 5). Program offices vary in the extent to which they rely on work performed by non-NNSA M&O contractors, as shown by differences in the percentages of obligations to non-NNSA M&O contracts. For example, in fiscal year 2021, the Office of Defense Nuclear Nonproliferation obligated about $818.5 million (about 40 percent of its total obligations) to non-NNSA M&O contractors, and 65 percent of this amount was obligated to Office of Science contractors. In contrast, during the same fiscal year, the Office of Defense Programs
obligated about $189 million (about 1 percent of its total obligations) to non-NNSA M&O contractors.

Figure 5: National Nuclear Security Administration’s (NNSA) Obligations to Management and Operating (M&O) Contractors and Non-NNSA M&O Contractors, Fiscal Year 2021

Non-NNSA M&O contractors started reporting data on NNSA obligations in fiscal year 2021. The M&O contractors at Office of Environmental Management and Office of Nuclear Energy sites reported indirect costs using the standardized cost elements. However, the Office of Science M&O contractors did not report indirect costs using the seven standardized indirect cost elements that NNSA M&O contractors use to report data. Specifically, in July 2021, four Office of Science M&O contractors reported all of their indirect costs as “other” indirect costs. Another five Office of Science M&O contractors reported indirect costs in two to five cost elements. Although they later changed their reporting, some of the Office of Science M&O contractors reported indirect costs consistent with NNSA’s defined cost elements earlier in the fiscal year. Their ability to do so shows that the financial data requested by NNSA are available, according to financial integration team officials.

Office of Science officials told us they decided not to provide data for the indirect cost elements NNSA has defined and only provide data as “other” indirect costs because they believe the indirect cost elements reported to

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43 NNSA has seven indirect cost elements: site support; program office support; general and administrative; New Mexico gross receipts tax; fee; laboratory directed research and development, program directed research and development, and site directed research and development; and other.
NNSA are not comparable across Office of Science sites or useful to the Office of Science for managing its programs. Further, Office of Science officials told us that because each of its M&O contractors has its own structure for direct it could be misleading to compare their indirect costs.

DOE is considering the benefits of implementing a common financial reporting process as part of a longer-term effort to achieve an integrated approach to financial management across the agency through a common financial system, according to officials from DOE’s Office of the Chief Financial Officer. Officials said obtaining standardized cost data from all M&O contractors through common financial reporting or a common financial system would benefit DOE because it would provide greater insight on costs at a more detailed level and lead to better decision making for the agency. Officials from the Office of the Chief Financial Officer said they have not yet studied an approach, but they acknowledged the benefits NNSA has achieved through its common financial reporting effort to date. However, officials from the Office of the Chief Financial Officer said the issues raised by Office of Science officials deserve examination at the departmental level to inform planning for future DOE financial reporting efforts.

According to NNSA policy, the mission of financial integration is to, among other things, collect standardized financial management data and increase reporting consistency among programs and M&O contractors. However, NNSA cannot fully achieve this stated mission because NNSA and the Office of Science have not reached agreement on the standardized cost elements for common financial reporting. DOE’s Office of the Chief Financial Officer is positioned to support NNSA and the Office of Science in coming to an agreement on the cost elements needed to achieve NNSA’s objectives; the Chief Financial Officer is responsible for developing and maintaining an integrated agency accounting and financial management system that provides for the development and reporting of cost information across DOE and NNSA.

By facilitating an agreement on the standardized cost elements non-NNSA M&O contractors are to report, DOE would help to ensure that NNSA can collect standardized data from all M&O contractors to which it

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44 National Nuclear Security Administration, Financial Integration.

obligates funds, and DOE would take its first steps in studying an approach to a department-wide effort.

**Publish and analyze data.** At the time of our review, NNSA had published the M&O contractors' financial data for fiscal years 2018 through 2021. In March 2021, the financial integration team began to use common financial reporting data to produce agency-wide reports to NNSA leadership and Congress. The financial integration team and NNSA staff are using an analytical platform to analyze CostEX data and publish reports. According to the financial integration team officials, these reports are relatively new, and the team continues to make improvements to them.

**NNSA Has Made Common Financial Reporting Data Available, but the Data Do Not Fully Reflect Programmatic Needs**

NNSA has made common financial reporting data available across the nuclear security enterprise, but the data do not fully reflect programmatic needs. This is, in part, because NNSA has not defined goals or expectations for data use, and it has not collected or documented requirements to meet project objectives, as recommended in our January 2019 report. In addition, NNSA could better follow best practices for the work breakdown structure, as the agency's analytical tools do not allow NNSA to report total costs for some programs.

**Common Financial Reporting Data Support Some Management Purposes, but the Data Do Not Fully Meet Programmatic Needs**

NNSA has made common financial reporting data available to its offices, and the data support some management purposes for some NNSA offices. According to the program director for financial integration, the agency's financial integration team makes data available in various ways, such as by developing “dashboards”—a collection of snapshots based on a variety of financial, budgeting, and CostEX data—to view multiple

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46NNSA has collected common financial data from M&O contractors since fiscal year 2018, and in fiscal year 2020, it began using a common work breakdown structure to collect the data.
aspects of a program’s costs. See figure 6 for sample dashboards. The financial integration team has tailored dashboards to include relevant data such as program management data for program offices, according to financial integration team officials. According to financial integration team officials, the platform can provide dashboards to track obligations, a variety of cost data, and drill down on the work breakdown structure for a program. According to financial integration team officials, the analytical platform also displays information on uncosted balances—budget authority obligated but not costed, representing a portion of contract obligations for goods and services that have not yet been received—and spend rates for an office’s programs. This information can be used to compare programs and sites.

Figure 6: Snapshot of National Nuclear Security Administration’s (NNSA) Analytical Platform

According to financial integration team officials, the financial integration team distributes licenses to NNSA staff to access the platform and trains staff on how to analyze data using the platform. The financial integration team has trained program managers, analysts, and other staff. According to the program director of financial integration, NNSA had purchased...
approximately 450 licenses for staff, as of June 2021. M&O contractors do not have access to the platform yet, but the financial integration team is planning to give them access once safeguards are in place—for example, to keep M&O contractors’ proprietary information separate—according to financial integration team officials. From November 2018 to October 2021, the financial integration team provided approximately 50 demonstrations of the platform to staff in NNSA, DOE’s Office of the Chief Financial Officer, and Office of Science. The financial integration team began by providing demonstrations to high-level management within NNSA, but additional offices and programs requested demonstrations on an ad hoc basis.

According to the program director for financial integration, staff from the financial integration team can create customized dashboards for offices and programs by request. Officials from one office said they requested a customized dashboard from the financial integration team to include information on their spending rates. In addition, NNSA has integrated CostEX data into some of the existing data systems some offices continue to use for their program management purposes. For example, at least two offices use CostEX data within the G2 system.

Although the financial integration team has made common financial data available to users, common financial reporting data use is inconsistent across NNSA’s offices. Some officials identified different uses for the data. Specifically,

- Officials at four of the 10 offices we interviewed said they use common financial reporting data for their budget analysis efforts.
- Officials from three offices said they use the data for program management for some programs. For example, officials from one office said they use the data to monitor scope, schedule, and cost for some programs; and to track variables, such as spending trends, for quarterly program reviews.

According to NNSA officials, the financial integration team responds to requests from program offices in addition to the other responsibilities related to common financial reporting and requires additional staff to meet these requests.

In 2007, officials from the Office of Defense Nuclear Nonproliferation custom-developed the G2 program management system, which is designed to integrate and manage financial and program management data, such as scope and schedule, budget, cost, and geo-spatial (maps, diagrams, photos, inventory and condition) data. This system was refined to meet the needs of the Office of Defense Nuclear Nonproliferation and was later adopted by the Office of Safety, Infrastructure, and Operations.
• An official from one office that uses common financial reporting data said that, the analytical platform is useful and appealing to senior leadership, but at the time we conducted our interviews the official was still learning how the data could be beneficial for program management.

• At the time we conducted interviews, officials from two of the 10 offices told us they had not used the common financial reporting data for any purposes. According to program office officials, one of these offices had started using the data, as of October 2021.

CostEX data have been integrated with some, but not all, of NNSA’s existing data systems, and many offices rely on additional data sources for program management purposes. For example, officials from five of the 10 offices we interviewed said they request supplemental information from M&O contractors, such as more detailed information on indirect cost data not captured in CostEX. One of these offices has an agreement with the financial integration team that they will continue to collect indirect data in G2 until CostEX can capture the indirect data their office needs to support program management, according to program office officials. Representatives from the seven M&O contractors we interviewed confirmed that they are still receiving data requests directly from NNSA offices, including requests for explanations of data submitted through common financial reporting. Representatives from five of the M&O contractors said that the financial integration effort has not reduced the number of these requests, and representatives from the two remaining M&O contractors said that the number of data requests has increased since the implementation of the financial integration effort.

The Federal Data Strategy Data Governance Playbook states that an agency should consider its vision for how it will leverage data to address agency key questions and meet stakeholder needs.\footnote{Chief Data Officers’ Council, Federal Data Strategy.} The vision should identify agency leadership goals and expectations for using data to achieve mission and improve operations. It should also address the agency values that will drive decisions about data governance and management, including how to align agency resources and prioritize its efforts. In addition, Standards for Internal Control in the Federal Government states that management should communicate internally and
externally the necessary quality information to achieve the entity’s objectives.\textsuperscript{50}

NNSA established the Financial Integration Executive Committee to monitor and provide strategic direction for the implementation of common financial reporting and approve significant changes to the effort. However, NNSA has not developed goals and expectations for using the data that has been collected and made available through CostEX, and it has not communicated how the data will help NNSA achieve its objectives. According to the program director for financial integration, NNSA did not want to limit offices’ potential uses for the data. As a result, officials are unclear about whether they are required to use CostEX data, how to use it, and whether it should be their primary source of information for program management purposes. With clearly established goals and expectations for using common financial reporting data, NNSA offices would better understand how data are expected to be used, as well as various options for how the data could be used. This would better position NNSA offices to use data for the intended purposes, such as providing total program costs, transparency, and other benefits of the common financial reporting effort.

Additionally, common financial reporting data do not fully meet the programmatic needs of some NNSA offices—in part because NNSA did not collect requirements for the data that stakeholders need from common financial reporting. For example, officials from one office expressed a need for the data to be up to date to be useful for day-to-day program management. According to program office officials, data from common financial reporting are submitted at the beginning of the following month, which could create up to a 30-day lag in officials receiving the data. According to financial integration team officials, common financial reporting data were not intended to be collected more frequently than monthly. Because contractors submit their financial data to STARS monthly, they do not incorporate indirect costs until the end of the month, and NNSA cannot implement its data reconciliation process without complete data. However, officials from the office that raised the issue were not aware of these requirements.

In our January 2019 report, we found that NNSA had not collected or documented requirements to meet project objectives, such as what data

\textsuperscript{50}GAO-14-704G.
would need to be collected to provide information that program managers need. At that time, we stated that, without collecting, maintaining, and documenting requirements, NNSA could not be assured that the data collected through common financial reporting would meet the needs of stakeholders or lead to successful implementation of common financial reporting. We recommended that the program director for financial integration should collect, document, and periodically update requirements for collecting common financial reporting data to define project scope and meet project objectives. However, as of December 2021, NNSA has not collected or developed requirements, as we recommended. As a result, NNSA offices are facing challenges in using the data because they do not meet stakeholders’ needs. We continue to believe that NNSA should address our prior recommendation to help ensure the success of the common financial reporting effort.

NNSA’s Work Breakdown Structure Does Not Allow Some Programs to Report Total Costs or Obtain Detailed Data Needed for Some Management Purposes

NNSA’s work breakdown structure is not structured in a way that would allow some programs to report total costs or to obtain data at a level of detail that is useful for managers to oversee program activities. A work breakdown structure is a method of deconstructing a program’s end product into successive levels of detail with smaller specific elements, until the work is subdivided to a level suitable for management control. GAO’s Cost Estimating and Assessment Guide states that a work breakdown structure should clearly delineate the logical relationship of all program elements and identify work products that are independent of one another. Additionally, leading practices for developing work breakdown structures state that a work breakdown structure should include all activities that contribute to a program’s end product, and should not treat contributing activities separately.

52See appendix II for information on the status of the recommendation.
53GAO-20-195G.
According to program office officials, NNSA organized its work breakdown structure for common financial reporting to align with its budget structure. This allows NNSA to validate the accuracy of the data by comparing it with STARS data, according to the program director for financial integration. However, not all of NNSA’s programs can achieve their objectives without relying on activities funded through other B&R codes, and in some cases, costs for a program are included in different parts of the budget. NNSA captures these crosscutting or multi-program activities in separate segments of the work breakdown structure and does not allocate or apportion the costs for these activities to their final programmatic objectives through either the work breakdown structure or its analytical tools. As a result, the costs of activities that are cross-cutting or multi-program are not incorporated into the total costs of a program.

As an example, figure 7 illustrates how the entire scope of the Lithium Modernization program is not captured in that segment of the work breakdown structure. This example is based on our August 2021 report on NNSA’s lithium capability in which we found that NNSA’s work breakdown structure for the Lithium Modernization program did not include all elements necessary to achieve the program’s goal and did not include activities funded by other NNSA components, such as infrastructure recapitalization efforts.55

Similarly, NNSA includes activities for neutron generators within the segments of the work breakdown structure for each of the life extension programs for individual weapons, such as the B61-12 life extension.
program, that are specific to that program’s neutron generator needs. Additionally, there are costs related to neutron generator development included in the Technology Development and Integration segment of the work breakdown structure. However, NNSA does not allocate portions of the costs for Technology Development and Integration to the relevant program or programs that benefit from this work through either the work breakdown structure or its analytical tools.

NNSA developed its work breakdown structure in this manner to ensure that costs would add up to the agency’s total costs without double counting activities. For example, when an activity—such as research and development—is shared by multiple programs, NNSA maintains it in a separate segment of the work breakdown structure and does not include such costs in the total costs of a program through either the work breakdown structure or its analytical tools. This allows the sum of the costs reported across all segments of the work breakdown structure to equal NNSA’s total costs. However, shared or multi-program costs are not allocated to program segments of the work breakdown structure when NNSA needs to report a program’s costs. Updating the work breakdown structure or using analytical tools to capture all work activities to achieve the desired output or outcome—as opposed to only those activities associated with a primary funding source—would allow NNSA to be better positioned to report total program costs regardless of the funding source, as was part of the original intent of the effort.

In addition, some offices and programs have not customized the relevant segments of the common work breakdown structure to reflect how a specific program’s work is managed. Instead, these offices and programs retained the structure provided by the financial integration team when

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56 A neutron generator is a key component of a nuclear weapon. Life extension programs refurbish or replace nuclear weapon components. Life extension programs may also deploy advanced or emerging technologies to enhance safety and security characteristics of weapons. They may also consolidate the stockpile into fewer weapon types to minimize maintenance and testing costs. Life extension programs can extend the operational lives of weapons by 20 years or more, but they are technically challenging, costing billions of dollars and taking years to complete.

57 While there may be some cost elements that are sensitive and classified these cost elements need to be added to the work breakdown structure or noted in the analytical tools in order to report a program’s total costs.

58 According to NNSA officials, collecting total costs within the work breakdown structure may lead to sensitivity or classification issues for some programs. We believe NNSA could address such issues through the level of detail provided within the work breakdown structure or analytical tools, among other approaches.
NNSA developed and implemented the common work breakdown structure, and the offices have a separate work breakdown structure that they use to manage their programs. According to program office officials, they did not want to change their programmatic work breakdown structure because the existing structure worked for the programs. Rather than incorporate their separate work breakdown structure into the work breakdown structure used to collect common financial reporting data, the officials developed a crosswalk between the two work breakdown structures to map how the two work breakdown structures relate to each other. NNSA implemented the common work breakdown structure in response to our January 2019 recommendation. However, in our January 2019 report, we stated that, consistent with GAO’s Cost Estimating and Assessment Guide, NNSA’s work breakdown structure should be standardized at a high level to foster flexibility, so lower levels can be customized to reflect how individual programs’ work is managed.59

Some offices have not customized segments of the common work breakdown structure for their programmatic needs because they were not aware that they could or should do so. Therefore, the segments of the work breakdown structure for some programs do not contain enough detail to be useful or do not reflect how the offices perform the work. For example, officials from one program office said that the common financial reporting data for their programs mirror the data that are available in STARS, so they continue to use STARS data instead of the common financial reporting data. Officials from another office said that the data collected through common financial reporting are not detailed enough to be as useful as they could be.

Officials from the financial integration team have developed a work breakdown structure guide that they provide to offices and continue to work with offices upon request to revise their segments of the work breakdown structure. By proactively working with offices to provide additional information on how to tailor their segments of the work breakdown structure—and ensuring that officials understand whether and how to do so—NNSA can better ensure that offices obtain more useful data.

Conclusions

NNSA has made significant progress in implementing common financial reporting, and the financial integration team continues to update and refine its processes. There is further opportunity for NNSA to collect complete standardized indirect cost data from non-NNSA M&O contractors, particularly those managed by the Office of Science, and to maximize the utility of data collected for program management purposes. As the entity responsible for developing and maintaining an integrated agency accounting and financial management system that provides for the development and reporting of cost information across DOE and NNSA, DOE’s Office of the Chief Financial Officer is positioned to facilitate agreement between NNSA and the Office of Science on standard cost elements for the Office of Science’s indirect cost reporting to fully achieve NNSA common financial reporting. Such an agreement could help the Office of the Chief Financial Officer take its first steps in studying an approach to a department-wide effort to implement a common financial reporting process or a longer-term effort to achieve an integrated approach to financial management through a common financial system. Further, establishing and communicating goals for how program and functional offices use common financial reporting data would clarify how common financial data can be used.

Additionally, NNSA has not structured its common financial reporting effort to report some programs’ total costs, such as when activities necessary to achieve a program’s objective are reported in a different program segment of NNSA’s work breakdown structure. This occurs in some cases when multiprogram or cross-cutting costs are captured in their own segments of NNSA’s work breakdown structure, and the costs of these activities are never allocated to the programs to which they contribute. The individual program segments of NNSA’s work breakdown structure align with its budget structure, but in reality, funds for work activities critical to achieving a program’s objective may be captured in different segments of the work breakdown structure. By updating the work breakdown structure or using analytical tools to capture all work activities to achieve the desired output or outcome—as opposed to only those activities associated with a single element of the budget structure—NNSA can be better positioned to report total program costs, regardless of budget structure. Further, proactively working with program offices, as necessary, to tailor their segments of the work breakdown structure would ensure the data are reported at a sufficient level of detail to support program management.
Recommendations for Executive Action

We are making a total of four recommendations to DOE and NNSA:

DOE’s Chief Financial Officer should facilitate NNSA and the Office of Science—and other stakeholders, as appropriate—in coming to an agreement on the indirect cost elements the Office of Science should report to achieve NNSA’s common cost reporting objectives. (Recommendation 1)

NNSA’s Deputy Associate Administrator for Management and Budget, as chair of NNSA’s Financial Integration Executive Committee, should define and communicate goals and expectations for using the common financial reporting data. (Recommendation 2)

NNSA’s Program Director for Financial Integration should coordinate with program offices to develop an approach, such as through changes to the work breakdown structure or analytical tools, to ensure that all program elements, including crosscutting and multi-programmatic costs, are included in total program costs. (Recommendation 3)

NNSA’s Program Director for Financial Integration should proactively provide information to offices and work with officials to ensure they understand how to customize lower levels of the work breakdown structure to reflect the level of detail needed to oversee programs. (Recommendation 4)

Agency Comments

We provided a draft of this report to DOE and NNSA for review and comment. In its written comments, which are reproduced in appendix III, DOE and NNSA agreed with the report’s four recommendations and plans to take to action on the recommendations by September 30, 2022. NNSA also provided technical comments that we incorporated into the report as appropriate.

We are sending copies of this report to the appropriate congressional committees, the Secretary of Energy, the Administrator of NNSA, and other interested parties. In addition, this report is 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) 512-3841 or bawden@gao.gov. Contact points for our Offices of Congressional Relations and Public Affairs may be found on the last
Letter

Allison Bawden
Director, Natural Resources and Environment

page of this report. GAO staff who made significant contributions to this report are listed in appendix IV.
List of Committees

The Honorable Jack Reed
Chairman
The Honorable James M. Inhofe
Ranking Member
Committee on Armed Services
United States Senate

The Honorable Dianne Feinstein
Chair
The Honorable John Kennedy
Ranking Member
Subcommittee on Energy and Water Development
Committee on Appropriations
United States Senate

The Honorable Adam Smith
Chairman
The Honorable Mike Rogers
Ranking Member
Committee on Armed Services
House of Representatives

The Honorable Marcy Kaptur
Chairwoman
The Honorable Michael K. Simpson
Ranking Member
Subcommittee on Energy and Water Development, and Related Agencies
Committee on Appropriations
House of Representatives
Appendix I: Objectives, Scope, and Methodology

This report examines (1) steps the National Nuclear Security Administration (NNSA) has taken to implement common financial reporting since our January 2020 report, and (2) the extent to which NNSA’s program and functional offices use common financial data to support management purposes.

To determine the steps NNSA has taken to implement common financial reporting, we compared information on NNSA’s progress in implementing common financial reporting to the seven steps we developed in our January 2019 report. Specifically, we reviewed NNSA documents related to the agency’s implementation of the effort, including NNSA’s financial integration policy and guidance. We also reviewed financial data provided to NNSA by contractors at the Department of Energy’s (DOE) Offices of Environmental Management, Nuclear Energy, and Science to determine whether they reported standardized data. We compared the data provided to NNSA to the requirements in NNSA’s financial integration policy. We assessed the reliability of the financial data by reviewing DOE’s Financial Management Handbook and Agency Financial Report for Fiscal Year 2021. We determined that the data were sufficiently reliable for providing context for the amounts NNSA obligated to NNSA and non-NNSA M&O contractors. Additionally, we met with officials from DOE’s Office of Science to discuss how financial data are shared between Office of Science M&O contractors and NNSA. We interviewed the program director for financial integration to discuss the progress NNSA has made to implement common financial reporting. We also discussed whether NNSA encountered any additional challenges during data collection.

We conducted semi-structured interviews with officials from the 10 NNSA offices participating in common financial reporting to gain their perspective on the implementation of common financial reporting and discussed the ongoing efforts related to using common financial reporting.

\(^{1}\text{GAO-19-101.}\)
Appendix I: Objectives, Scope, and Methodology

data.\(^2\) Specifically, we interviewed officials from eight program offices and suboffices and two functional offices:

- Three suboffices within Office of Defense Programs (Research, Development, Test and Evaluation; Stockpile Management; and Production Modernization)
- Office of Defense Nuclear Nonproliferation
- Office of Emergency Operations
- Office of Safety, Infrastructure, and Operations
- Office of Defense Nuclear Security
- Office of Counterterrorism and Counterproliferation
- Office of Acquisition and Project Management
- Office of Management and Budget

In addition, we interviewed representatives from the M&O contractors at the eight NNSA sites to discuss the progress made in common financial reporting data collection, and any challenges they faced in implementing the common work breakdown structure. Finally, we reviewed the status of open recommendations from our prior two reports on common financial reporting, and we interviewed the program director for financial integration to determine NNSA’s progress in implementing those recommendations.

To examine the extent to which NNSA’s program and functional offices use common financial data to support management purposes, we reviewed NNSA documents and interviewed officials from the program and functional offices. Specifically, we reviewed NNSA’s financial integration policy and guidance documents to determine whether the agency established goals and expectations for data use. In addition, we reviewed the financial integration team’s briefing presentations to determine what data are made available to program offices. We also reviewed NNSA’s work breakdown structure templates and reviewed program cost reporting from selected programs to assess whether the common work breakdown structure allows programs to use common financial reporting data to determine total program cost. In addition, we conducted semi-structured interviews with officials from each of the participating program offices and two functional offices—NNSA’s Offices

\(^2\) We did not interview officials from NNSA’s Office of Naval Reactors because those facilities are not a part of the statutorily defined nuclear security enterprise. Therefore, NNSA is not required to implement common financial reporting for this office.
of Management and Budget and Acquisition and Project Management—about their use of common financial reporting data and challenges they face in using the data.

We also interviewed the program director for financial integration to discuss NNSA’s goals and expectations for common financial reporting data and how data are made available for program offices’ use. We assessed whether NNSA established goals and expectations for data use in line with leading practices identified by the Federal Data Strategy Data Governance Playbook\(^3\) and whether these goals and expectations were effectively communicated in accordance with federal standards for internal control.\(^4\) We also assessed NNSA’s current work breakdown structure against standards established in GAO’s Cost Estimating and Assessment Guide to determine whether the work breakdown structure aligns with leading practices to allow for appropriate data collection and effective data use.\(^5\)

We conducted this performance audit from February 2021 to February 2022 in accordance with generally accepted government auditing standards. These 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.

\(^3\)Chief Data Officers’ Council, Federal Data Strategy. (July 2020).

\(^4\)GAO-14-704G.

\(^5\)GAO-20-195G.
Appendix II: Status of GAO’s Prior Recommendations to NNSA on Its Common Financial Reporting Effort

In our January 2019 and January 2020 reports on the National Nuclear Security Administration’s (NNSA) efforts to implement common financial reporting, we made 11 recommendations. Table 2 describes NNSA’s progress to implement these recommendations, as of December 2021.

Table 2: Status of Recommendations to the National Nuclear Security Administration’s (NNSA) Progress on Its Common Financial Reporting Effort, as of December 2021

<table>
<thead>
<tr>
<th>Recommendation from January 2019 report</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1) The NNSA Administrator should implement a common work breakdown structure across NNSA program offices in the nuclear security enterprise, standardized at a high level to allow for program office customization but also to allow for the collection of total program costs.</td>
<td>Implemented. In May 2020, NNSA decided to implement a common work breakdown structure across NNSA program offices in the nuclear security enterprise. In fiscal year 2020, NNSA determined that financial data could be collected using a common work breakdown structure across NNSA program offices while continuing to collect data using the programmatic structures that some offices used for project management. In May 2020, NNSA issued guidance directing the management and operating (M&amp;O) contractors to provide financial data to NNSA using the common work breakdown structure beginning in fiscal year 2021.</td>
</tr>
<tr>
<td>(2) The Program Director for Financial Integration should collect and document requirements to define project scope and meet project objectives. These requirements should be updated periodically throughout the life of the project.</td>
<td>Not yet implemented. As of August 2020, NNSA provided a project plan for tasks to be completed for common financial reporting through 2021. However, NNSA has not developed requirements that define specific or detailed requirements for successful implementation of common financial reporting, such as the types of information that program managers need.</td>
</tr>
<tr>
<td>(3) The Program Director for Financial Integration should develop a detailed project schedule. The detailed schedule should be documented as part of the annual report to Congress required in the National Defense Authorization Act for Fiscal Year 2017.</td>
<td>Implemented. NNSA established a detailed project schedule for implementing its common financial reporting effort and has continued to update the schedule as of June 2021. NNSA provides information annually to Congress on the status of its efforts to implement common financial reporting including completed and ongoing activities.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Recommendation from January 2020 report</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1) The Program Director for Financial Integration, with input from NNSA's Office of Management Budget and respective program offices, should establish and implement a change control process for the work breakdown structure for common financial reporting that ensures changes are approved by program office management, at a minimum; documented; and communicated to M&amp;O contracts on a timely basis.</td>
<td>Implemented. NNSA updated its guide for the system that M&amp;O contractors use to report financial data to include the change control process for the work breakdown structure that included a change request form and a board responsible for evaluating and approving changes. NNSA’s program officials identify changes needed to the work breakdown structure and have the changes approved by their program’s management before submitting those changes to the change control board for approval. NNSA sends the updated work breakdown structures to the M&amp;O contractors for implementation.</td>
</tr>
<tr>
<td>(2) The Program Director for Financial Integration should assess the extent to which M&amp;O contractors make manual changes to their financial data to reconcile the Standard Accounting and Reporting System (STARS), and they should determine whether it has an effect on the accuracy of the data collected for common financial reporting.a</td>
<td>Implemented. NNSA completed a review of the extent to which M&amp;O contractors made manual changes to their financial data according to NNSA officials. These officials said that they did not identify a wide-spread issue across its sites that affected the accuracy of the data collected for common financial reporting. As of May 2021, NNSA was working with one of its M&amp;O contractors on a solution to eliminate the need for making manual changes to their financial data.</td>
</tr>
<tr>
<td>(3) The Program Director for Financial Integration should develop and implement an internal process for NNSA to verify how the M&amp;O contractors crosswalk financial data from their systems to the appropriate NNSA work breakdown structure to ensure the reported data are accurate and consistent.</td>
<td>Not yet implemented. NNSA completed a review of how the M&amp;O contractors crosswalk their financial data into the appropriate segments and activities in the NNSA work breakdown structure. NNSA plans to include this process in the planned update to its financial integration policy.</td>
</tr>
</tbody>
</table>

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a For the purposes of this recommendation, a manual change is defined as any manual change that is not a result of an automated process that is part of the organization’s standard accounting and reporting system.
(4) The Program Director for Financial Integration should develop and implement an internal process for NNSA to verify that the M&O contractors are consistently applying definitions of common cost elements at their sites and across the nuclear security enterprise.

Not yet implemented. NNSA completed a review of how the M&O contractors apply its common cost elements and definitions, and it intends to add this process to its financial integration policy.

Source: GAO analysis of NNSA information. | GAO-22-104810

aSTARS provides budget execution, financial accounting, and financial reporting capabilities to the Department of Energy.
Appendix III: Comments from the Department of Energy

Department of Energy
Under Secretary for Nuclear Security
Administrator, National Nuclear Security Administration
Washington, DC 20545

February 1, 2022

Ms. Allison B. Bawden
Director, Natural Resources
and Environment
U.S. Government Accountability Office
Washington, DC 20548

Dear Ms. Bawden:

Thank you for the opportunity to review the Government Accountability Office (GAO) draft report “National Nuclear Security Administration: Actions Needed to Improve Usefulness of Common Financial Data” (GAO-22-104810). This letter provides the consolidated response for the Department of Energy’s (DOE) National Nuclear Security Administration (NNSA) and Office of Chief Financial Officer. We appreciate GAO’s recognition of the significant progress we have made in our common financial reporting initiative. As the report notes, since GAO’s previous evaluation, we have completed implementation of a common work breakdown structure and established a change control process for common financial reporting, and we are in the process of updating our financial integration policy.

We agree with GAO’s recommendations as noted in the attached management decision. Subject matter experts have also provided technical and general comments under separate cover for your consideration to enhance the clarity and accuracy of the report. If you have any questions about this response, please contact Dean Childs, Director, Audit and Internal Affairs, at (301) 903-1341.

Sincerely,

Jill Heuby

Enclosure
Appendix III: Comments from the Department of Energy

NATIONAL NUCLEAR SECURITY ADMINISTRATION
Management Decision

"National Nuclear Security Administration: Actions Needed to Improve Usefulness of Common Financial Data" (GAO-22-104810)

The Government Accountability Office (GAO) recommends the Department of Energy's Office of the Chief Financial Officer:

**Recommendation 1:** Facilitate NNSA and the Office of Science – and other stakeholders, as appropriate – in coming to an agreement on the indirect cost elements the Office of Science should report to achieve NNSA's common cost reporting objectives.

**Management Response:** Concur. The estimated completion date for completing these actions is September 30, 2022.

GAO recommends the Department of Energy's National Nuclear Security Administration (NNSA):

**Recommendation 2:** Define and communicate goals and expectations for using the common financial reporting data.

**Management Response:** Concur. The estimated completion date for completing these actions is September 30, 2022.

**Recommendation 3:** Coordinate with program offices to develop an approach, such as through changes to the work breakdown structure or analytical tools, to ensure that all program elements, including crosscutting and multi-programmatic costs, are included in total program costs.

**Management Response:** Concur. The estimated completion date for completing these actions is September 30, 2022.

**Recommendation 4:** Proactively provide information to offices and work with officials to ensure they understand how to customize lower levels of the work breakdown structure to reflect the level of detail needed to oversee programs.

**Management Response:** Concur. The estimated completion date for completing these actions is September 30, 2022.
February 1, 2022

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Director, Natural Resources
and Environment
U.S. Government Accountability Office
Washington, DC 20548

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Sincerely,

Jill Hruby

Enclosure
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Management Response: Concur. The estimated completion date for completing these actions is September 30, 2022.
Appendix IV: GAO Contact and Staff Acknowledgments

GAO Contact
Allison Bawden, (202) 512-3841 or bawdena@gao.gov

Staff Acknowledgments
In addition to the individual named above, key contributors to this report include Hilary Benedict (Assistant Director), John Hocker (Analyst-in-Charge), Antoinette Capaccio, Peter Casey, Cindy Gilbert, Elizabeth Jimenez, Gwen Kirby, and Dan Royer.
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