



January 2024

GRANTS MANAGEMENT

Action Needed to Ensure Consistency and Usefulness of New Data Standards

Accessible Version

GAO Highlights

Highlights of [GAO-24-106164](#), a report to congressional requesters

Why GAO Did This Study

In 2022, federal aid to tribal, state, local, and territorial governments—primarily through grants—totaled roughly \$1.2 trillion. Tracking federal grants spending can be difficult because data are sometimes not consistent government-wide. The GREAT Act seeks to strengthen management and oversight of federal grants through the establishment of governmentwide data standards.

GAO was asked to evaluate progress in creating grant reporting data standards as required by the GREAT Act. This report, part of a series reviewing federal grant management, examines (1) the steps OMB and HHS have taken to implement the GREAT Act and meet the act's deadlines, (2) the extent to which grant data elements developed by OMB and HHS met the act's requirements and followed leading practices, and (3) the extent to which OMB and HHS have consulted grant stakeholders.

GAO reviewed implementation documents and guidance; assessed the grant data elements against statutory requirements; assessed a sample of data elements against leading practices; and interviewed OMB staff, HHS officials, and grant stakeholders, among others.

What GAO Recommends

GAO is making four recommendations to OMB and HHS, including that they ensure the grant data elements are consistent with the definition of being machine readable and incorporate leading practices for the formulation of data definitions. HHS concurred with all the recommendations, and OMB did not have any comments on the report.

View [GAO-24-106164](#). For more information, contact Jeff Arkin at (202) 512-6806 or arkinj@gao.gov.

January 2024

GRANTS MANAGEMENT

Action Needed to Ensure Consistency and Usefulness of New Data Standards

What GAO Found

The Office of Management and Budget (OMB) and the Department of Health and Human Services (HHS) have partially met one of three elapsed deadlines in the Grant Reporting Efficiency and Agreements Transparency Act of 2019 (GREAT Act) related to data standards. OMB and HHS partially met the deadline to establish government-wide data standards by identifying and defining 540 grant data elements in June 2021. This deadline is partially met because 501 of these elements are not fully operationalizable data standards since they do not include important technical specifications that describe their format and structure.

Figure: Extent to Which OMB and HHS Met Select Statutory Requirements in the Grants Reporting Efficiency and Agreements Transparency Act of 2019 as of December 2023

Statutory requirement	Requirement due date	GAO assessment
Office of Management and Budget (OMB) and Department of Health and Human Services (HHS) shall publish and submit a report to Congress explaining the reasoning for the determination of whether to use nonproprietary identifiers	December 30, 2020 ^a	
OMB and HHS shall establish government-wide data standards for information reported by grant recipients	December 30, 2021	
OMB and HHS shall jointly issue guidance to all agencies directing the agencies to apply the data standards	December 30, 2022	

Key:  Not met  Partially met  Met

Source: GAO analysis of Pub. L. No. 116-103, 133 Stat. 3266 (2019) and Office of Management and Budget and Department of Health and Human Services data. | GAO-24-106164

Accessible text for Figure: Extent to Which OMB and HHS Met Select Statutory Requirements in the Grants Reporting Efficiency and Agreements Transparency Act of 2019 as of December 2023

Statutory requirement	Requirement due date	GAO assessment
Office of Management and Budget (OMB) and Department of Health and Human Services (HHS) shall publish and submit a report to Congress explaining the reasoning for the determination of whether to use nonproprietary identifiers	December 30, 2020 ^a	Not met
OMB and HHS shall establish government-wide data standards for information reported by grant recipients	December 30, 2021	Partially met
OMB and HHS shall jointly issue guidance to all agencies directing the agencies to apply the data standards	December 30, 2022	Not met

Source: GAO analysis of Pub. L. No. 116-103, 133 Stat. 3266 (2019) and Office of Management and Budget and Department of Health and Human Services data. | GAO-24-106164

^aFulfillment of this requirement shall occur not later than the earlier of one year after enactment or after data standards establishment. Pub. L. No. 116-103, § 7(c), 133 Stat. 3266, 3271 (2019).

Also, these data elements were fully consistent with five of eight statutory requirements but partially consistent with the other three. For example, 501 of the

540 data elements were not machine-readable. OMB and HHS acknowledged the need to develop technical specifications to achieve machine-readability.

GAO also found that some of these data elements did not reflect five of 13 leading practices for formulating data definitions. GAO reviewed 50 of the 540 data elements—randomly selected from a subset of the elements identified by experts—and found that 20 of the 50 sampled elements did not meet at least one of the 13 leading practices. For example, the definitions of several data elements were ambiguous. Unclear definitions can lead to inconsistent application and result in data that are not comparable.

Although OMB and HHS conducted stakeholder consultation early in the development of the grant data elements, GAO found that they did not have a plan for such engagement moving forward nor a process to ensure regular, timely communication with Congress regarding GREAT Act implementation. Many grant stakeholders informed GAO that OMB and HHS had not consulted them, and congressional staff said that OMB and HHS had not consistently communicated with them. Effective consultation with stakeholders can improve the development and implementation of data standards. Timely communication with Congress can help ensure it has the key facts needed for oversight of the GREAT Act and to address issues involving grant stakeholders and agencies.

Contents

GAO Highlights		ii
	Why GAO Did This Study	ii
	What GAO Recommends	ii
	What GAO Found	ii
Letter		1
	Background	4
	OMB and HHS Have Taken Steps to Implement Grant Data Standards, but Have Not Fulfilled the GREAT Act’s Statutory Requirements	10
	OMB and HHS Have Not Consistently Applied Some GREAT Act Requirements or Leading Practices for Data Standards	19
	OMB and HHS Consulted Stakeholders Prior to Enactment of the GREAT Act, but Do Not Have a Process to Ensure Robust Future Consultation and Communication	29
	Conclusions	33
	Recommendations for Executive Action	34
	Agency Comments	35
Appendix I: Objectives, Scope, and Methodology		36
Appendix II: Comments from the Department of Health and Human Services		41
Accessible text for Appendix II: Comments from the Department of Health and Human Services		44
Appendix III: GAO Contact and Staff Acknowledgments		47
	GAO Contact	47
	Staff Acknowledgements	47
Table		
	Table 1: The 13 International Organization for Standardization (ISO) Leading Practices for Formulating Data Definitions	38
Figures		
	Figure: Extent to Which OMB and HHS Met Select Statutory Requirements in the Grants Reporting Efficiency and Agreements Transparency Act of 2019 as of December 2023	ii

Accessible text for Figure: Extent to Which OMB and HHS Met Select Statutory Requirements in the Grants Reporting Efficiency and Agreements Transparency Act of 2019 as of December 2023	ii
Figure 1: A Notional Illustration of the Value of Data Standardization	6
Accessible text for Figure 1: A Notional Illustration of the Value of Data Standardization	6
Figure 2: Timeline of the Grant Reporting Efficiency and Agreements Transparency (GREAT) Act Requirements and Related Executive Branch Activities	13
Accessible text for Figure 2: Timeline of the Grant Reporting Efficiency and Agreements Transparency (GREAT) Act Requirements and Related Executive Branch Activities	13
Figure 3: Extent to Which OMB and HHS Met Select Statutory Requirements in the Grants Reporting Efficiency and Agreements Transparency Act of 2019 (GREAT Act) as of December 2023	15
Accessible text for Figure 3: Extent to Which OMB and HHS Met Select Statutory Requirements in the Grants Reporting Efficiency and Agreements Transparency Act of 2019 (GREAT Act) as of December 2023	15
Figure 4: Extent to Which OMB and HHS Data Elements Are Consistent with Data Element Standard Requirements in the Grants Reporting Efficiency and Agreements Transparency Act of 2019 (GREAT Act) as of December 2023	20
Accessible text for Figure 4: Extent to Which OMB and HHS Data Elements Are Consistent with Data Element Standard Requirements in the Grants Reporting Efficiency and Agreements Transparency Act of 2019 (GREAT Act) as of December 2023	20

Abbreviations

CAP Cross Agency Priority

This is a work of the U.S. government and is not subject to copyright protection in the United States. The published product may be reproduced and distributed in its entirety without further permission from GAO. However, because this work may contain copyrighted images or other material, permission from the copyright holder may be necessary if you wish to reproduce this material separately.

DAIMS	DATA Act Information Model Schema
DATA	Act Digital Accountability and Transparency Act
FAIN	Financial Assistance Identification Number
FFATA	Federal Funding Accountability and Transparency Act of 2006
FIBF	Federal Integrated Business Framework
FMLoB	Financial Management Line of Business
GREAT Act	Grant Reporting Efficiency and Agreements Transparency Act of 2019
GRM	Grants Management
GSA	General Services Administration
HHS	Department of Health and Human Services
ISO	International Organization for Standardization
NIEM	National Information Exchange Model
NIST	National Institute of Standards and Technology
OMB	Office of Management and Budget
PMA	President's Management Agenda
PMI	Project Management Institute
SAC	Small Agency Council
Treasury	Department of the Treasury
UEI	Unique Entity Identifier



January 25, 2024

The Honorable James Comer
Chairman

The Honorable Jamie Raskin
Ranking Member
Committee on Oversight and Accountability
House of Representatives

The Honorable Gerald E. Connolly
House of Representatives

The Honorable Virginia Foxx
House of Representatives

Grants are an important tool the federal government uses to help nonfederal entities achieve national goals. In 2022, the amount of federal aid to tribal, state, local, and territorial governments—primarily through grants—totaled roughly \$1.2 trillion, or approximately 19 percent of total federal spending for that fiscal year. Tracking this spending can be difficult because spending data are sometimes not available, transparent, consistent, or comparable. Furthermore, grant recipients can find it difficult to report their use of grant funds to federal agencies because of variations in grant programs’ reporting terms and formats.

Government-wide data standards for reporting grant data are key to ensure the quality and usefulness of this information, as well as to reduce agency and recipient reporting burdens. We have previously reported on persistent challenges involving the accuracy and completeness of spending data that federal agencies report to USAspending.gov, a free, publicly accessible website containing data on federal awards and subawards.¹ We also reported that testing the application of grant data

¹In November 2021 we recommended that the Office of Management and Budget (OMB) ensure consistent use of data standards submitted to USAspending.gov. See GAO, *Federal Spending Transparency: Opportunities Exist to Further Improve the Information Available on USAspending.gov*, [GAO-22-104702](#) (Washington, D.C.: Nov. 8, 2021). As of December 2022, this recommendation remains open. Also, in December 2021 we recommended OMB issue guidance on making data open by default. See GAO, *Open Data: Additional Action Required for Full Public Access*, [GAO-22-104574](#) (Washington, D.C.: Dec. 16, 2021). As of December 2022, this recommendation remains open.

standards and forms led to increased accuracy as well as reductions in reporting time and duplication of such data.²

Congress passed and the President signed into law the Grant Reporting Efficiency and Agreements Transparency (GREAT) Act of 2019 to modernize reporting by recipients of federal grants and strengthen agency management and oversight of federal grants through the standardization of grant data elements.³ The GREAT Act contains a series of requirements with an implementation timeline of several years following enactment. The act requires the Office of Management and Budget (OMB) and Department of Health and Human Services (HHS) to establish data standards for grant recipient reporting across the federal government.⁴ The act also requires agencies to ensure all federal awards use the established data standards for all future information collection requests.⁵ It also requires OMB and HHS to enable the collection, public display, and maintenance of federal award information as a government-wide data set by December 30, 2024.

You asked us to evaluate agencies' progress creating data standards and their appropriateness for grant reporting as required by the GREAT Act. This report examines (1) the steps OMB and HHS have taken to implement the GREAT Act and meet the act's deadlines, (2) the extent to which grant data elements developed by OMB and HHS met the act's requirements and followed leading practices, and (3) the extent to which OMB and HHS have consulted grant stakeholders identified in the

²GAO, *DATA Act: Pilot Effectively Tested Approaches for Reducing Reporting Burden for Grants but Not for Contracts*, [GAO-19-299](#) (Washington, D.C.: Apr. 30, 2019).

³Pub. L. No. 116-103, § 2, 133 Stat. 3266 (2019), *codified at* 31 U.S.C. §§ 6401 note, 6402 note, 6401-04, 7505. The GREAT Act defines federal awards to include grants, subgrants, cooperative agreements, or any other transaction. However, the definition does not include a transaction or agreement that provides for conventional public information services or procurement of property or services for the direct benefit or use of the government, or that provides only cash assistance to an individual, a subsidy, loan, loan guarantee, or insurance. 31 U.S.C. § 6401(5). For the purposes of this report, we use the terms "grant" and "federal award" interchangeably.

⁴The GREAT Act requires OMB to designate the federal agency that "administers the greatest number of programs under which federal awards are issued in a calendar year as the standard-setting agency." 31 U.S.C. § 6402(a)(1). OMB designated HHS as the standard-setting agency in November 2020.

⁵Under the GREAT Act, "agency" includes any executive department, military department, government corporation, government-controlled corporation, or other establishment in the executive branch of the government (including the Executive Office of the President), or any independent regulatory agency. 5 U.S.C. § 552(f).

GREAT Act during the development of standardized grant data elements. This report is part of a series of reports in response to your request for us to review various aspects of federal grants management.⁶

To address the steps OMB and HHS have taken to implement the GREAT Act and meet the act's deadlines, we reviewed the act and other applicable laws and guidance as well as OMB, HHS, the General Services Administration (GSA), and inter-agency working group documents. We also interviewed staff from OMB and officials from HHS, the Department of the Treasury, and GSA.

To assess the extent to which grant data elements met the act's requirements and followed leading practices, we compared select data elements to the requirements contained in the GREAT Act and to leading practices for formulating data definitions issued by the International Organization for Standardization (ISO).⁷

To assess the extent to which OMB and HHS have consulted grant stakeholders, we interviewed officials from organizations representing thousands of nonfederal stakeholders—including associations representing state and local governments, grant recipients, and grant experts—regarding implementation of the GREAT Act.

When quantifying GREAT Act requirements, leading practices, recommendations, or data elements in this report, we use the modifier “some” to describe two to three occurrences, “several” to describe four to nine occurrences, and “many” to represent more than nine occurrences. For additional details regarding our objectives, scope, and methodology, see appendix I.

We conducted this performance audit from July 2022 to January 2024 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.

⁶GAO, *Grants Management: HHS has Taken Steps to Modernize Government-wide Grants Management*, [GAO-24-106008](#) (Washington, D.C.: Dec. 14, 2023) and *Grants Management: Actions Needed to Improve Agency Reporting of Expired Grants*, [GAO-23-105700](#) (Washington, D.C.: Apr. 13, 2023).

⁷ISO, a standards-setting body composed of international experts in various fields of study, has developed 13 leading practices for formulating data definitions for the purposes of specifying, describing, explaining, and clarifying the meaning of data.

Background

Data Standardization and the Quality of Federal Data

Data standardization is a recognized approach for increasing the consistency, and therefore the transparency, of data. We have previously reported that legislative efforts to increase standardization of federal spending data have improved the completeness and accuracy and enhanced the usefulness of the data.⁸ However, these efforts have also faced challenges. For example, we previously found that agencies interpreted and applied the definitions for the same data elements in different ways. This resulted in recipients reporting data that were not comparable as well as difficulties for users of the data in understanding and using those data. In 2019, we recommended that OMB clarify and document its procedure for changing data definition standards to help ensure the integrity of these data elements.⁹

Agencies collect and report information on federal awards through a series of data elements. In federal grants management, data elements represent information collected from all stages of the grant lifecycle, including the notice of opportunity, application review, active award management, recipient auditing, and post-award. Data standards establish an agreed-upon approach for each data element, including its definition as well as technical specifications that describe the data's format, structure, and transmission. Although each data element used by individual grant programs or agencies has a data standard, these standards can differ from those used by other programs and agencies. Accordingly, data elements with the same name at different agencies may represent different things or collect and report that information in different formats.

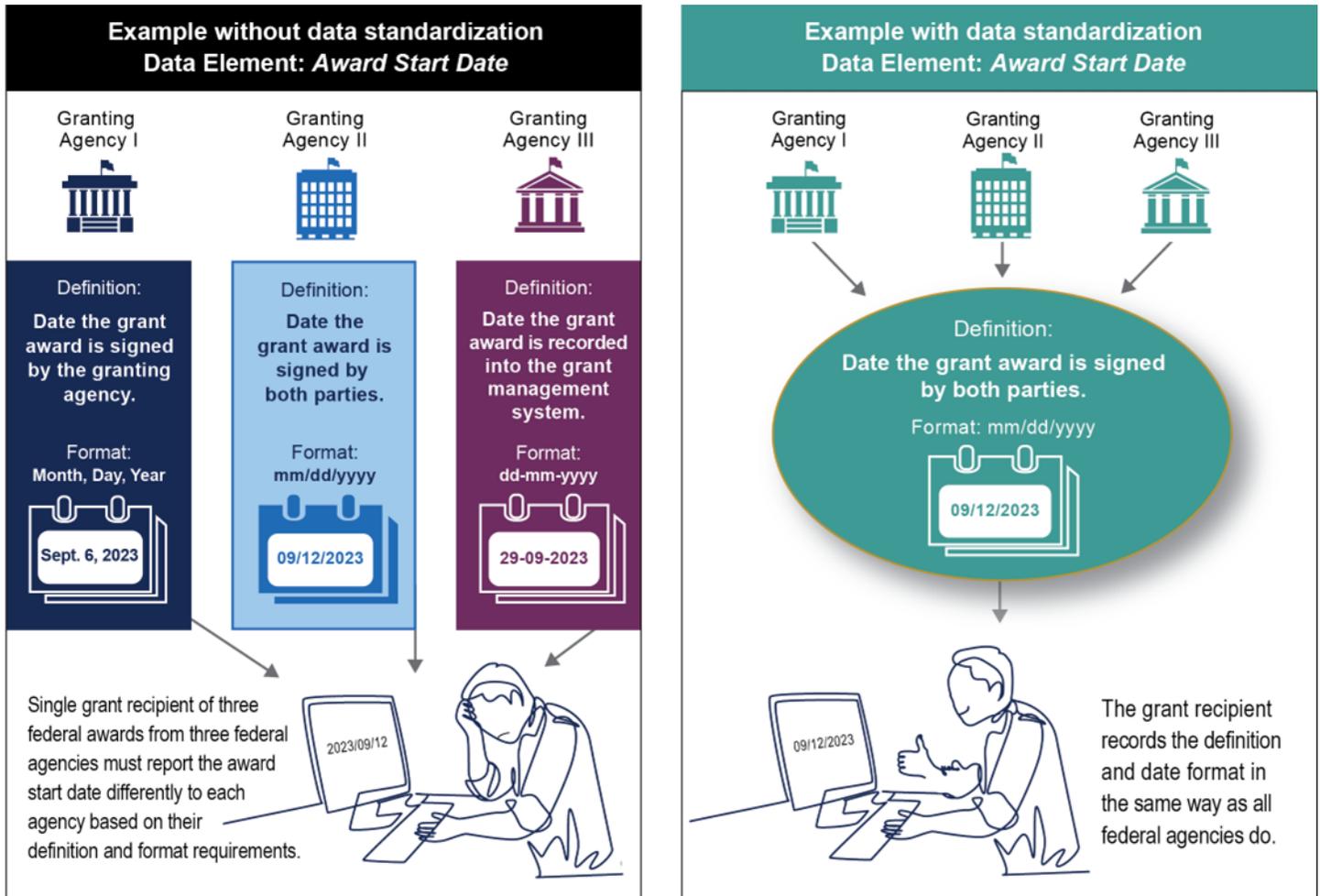
⁸GAO, *Federal Spending Transparency: Opportunities Exist for Treasury to Further Improve USAspending.gov's Use and Usefulness*, [GAO-22-104127](#) (Washington, D.C.: Dec. 16, 2021), and *DATA Act: Quality of Data Submissions Has Improved but Further Action Is Needed to Disclose Known Data Limitations*, [GAO-20-75](#) (Washington, D.C.: Nov. 8, 2019).

⁹As of December 2022, this recommendation remains open. GAO, *DATA Act: OMB Needs to Formalize Data Governance for Reporting Federal Spending*, [GAO-19-284](#) (Washington, D.C.: Mar. 22, 2019). See also, <https://www.gao.gov/federal-data-transparency>.

In contrast, government-wide data standards provide a consistent, government-wide approach for describing the substance and structure of data. Given the requirements contained in the GREAT Act, for the purposes of this report when we use the term “data standards” we are referring to a standard that is understood and adopted across the federal government. The common definitions and formats established by such government-wide data standards make it possible to collect data consistently across different agencies, which in turn provides the ability to accurately compare and aggregate data.

Data standardization can also reduce burden. For example, federal grant applicants can face reporting and other administrative challenges when applying for and managing multiple grant awards. As shown in figure 1, in the absence of agreed-upon government-wide data standards, different agencies and grant programs may collect information for the same data element using different definitions and formats. This can result in inconsistent or duplicative reporting, which in turn limits the ability to meaningfully aggregate or compare data, as well as increase reporting burden for grant recipients. When data elements are standardized, agencies collect the same information with the same specifications, leading to consistent and easily comparable data for the agencies, and reduced burden and increased efficiency for agencies and recipients.

Figure 1: A Notional Illustration of the Value of Data Standardization



Sources: GAO analysis and Simple Line, ngupakarti/stock.adobe.com. (illustrations). | GAO-24-106164

Accessible text for Figure 1: A Notional Illustration of the Value of Data Standardization

Example	Granting agency	Definition	Format
Award Start Date without data standardization: Single grant recipient of three federal awards from three federal agencies must report the award start date differently to each agency based on their definition and format requirements	I	Date the grant award is signed by the granting agency.	Month, Day, Year
	II	Date the grant award is signed by both parties.	mm/dd/yyyy
	III	Date the grant award is recorded into the grant management system.	dd-mm-yyyy

Example	Granting agency	Definition	Format
Award Start Date with data standardization: The grant recipient records the definition and date format in the same way as all federal agencies do.	I, II, III	Date the grant award is signed by both parties.	mm/dd/yyyy

Sources: GAO analysis and Simple Line, ngupakarti/stock.adobe.com. (illustrations). | GAO-24-106164

Federal Efforts to Improve Data Standardization and Quality

Over almost two decades, both Congress and the executive branch have taken steps to improve the availability, transparency, and quality of federal data. These efforts, for example, include the Federal Funding Accountability and Transparency Act of 2006, the Digital Accountability and Transparency Act, Federal Integrated Business Framework, the Presidential Management Agenda, and the GREAT Act.¹⁰

Federal Funding Accountability and Transparency Act of 2006 (FFATA). Enacted in 2006, FFATA requires information on federal awards including contracts, loans, and grants to be made available to the public. Toward this end, the act required OMB to establish a free, publicly accessible website containing federal spending data, which became what is now known as USAspending.gov. This site was initially launched in December 2007 and includes data on federal awards.¹¹

Digital Accountability and Transparency Act (DATA Act). Enacted in 2014, the purpose of the DATA Act included expanding FFATA by

¹⁰Pub. L. No. 109-282, 120 Stat. 1186 (2006); Pub. L. No. 113-101, 128 Stat. 1146 (2014); Pub. L. No. 116-103, 133 Stat. 3266 (2019). This listing is not a complete account of all initiatives taken to improve the availability, transparency, and quality of federal data. Other efforts include, but are not limited to, several working groups including the Chief Acquisition Officers Council (established by 41 U.S.C. §§ 1311–1312), the Council on Financial Assistance Reform (created by M-12-01), and the Council on Federal Financial Assistance (established by M-23-19); OMB memoranda for establishing approaches for shared services, such as M-19-16; and OMB memoranda for increasing data transparency, such as M-15-12 which included guidance for agencies to implement reporting requirements pursuant to the DATA Act. Office of Management and Budget, *Establishment of the Council on Federal Financial Assistance*, M-23-19 (Washington, D.C.: Aug. 9, 2023); *Centralized Mission Support Capabilities for the Federal Government*, M-19-16 (Washington, D.C.: Apr. 26, 2019); *Increasing Transparency of Federal Spending by Making Federal Spending Data Accessible, Searchable, and Reliable*, M-15-12 (Washington, D.C.: May 8, 2015); and *Creation of the Council on Financial Assistance Reform*, M-12-01 (Washington, D.C.: Oct. 27, 2011).

¹¹Pub. L. No. 109-282, 120 Stat. 1186 (2006).

disclosing direct federal agency expenditures and linking contract, loan, and grant spending to programs of federal agencies.¹² It required the tracking of funds at multiple points in the federal spending lifecycle—covering the amounts appropriated, obligated, and subsequently outlayed for a particular federal award. The DATA Act further required OMB and Treasury to develop data standards with the aim of providing consistent, reliable, and searchable data for display on USA Spending.gov. In 2015, OMB and Treasury established 57 data standards that pertain to federal spending. These standards cover information on award characteristics, amounts, awarding and funding entities, and award recipients among other things.

The DATA Act also required OMB and HHS to establish a pilot program to facilitate the development of recommendations for, among other things, standardized reporting elements and the elimination of unnecessary duplication in financial reporting.¹³ In 2015, OMB partnered with HHS on a pilot program to identify opportunities to increase data collection and use, as well as reduce burden related to federal grants. HHS, in collaboration with OMB, conducted “test models” as part of this pilot, including one that found that increased data standardization is a method to lessen the cost of complying with federal grant requirements and reduce burden on federal grant recipients. During this pilot program, OMB and HHS found that the following conditions could reduce the burden on grant recipients: (1) defining required data elements in a central open repository, (2) collecting reported data in a central location, (3) automating data across the government, and (4) making resources available that explain reporting requirements and procedures.

Federal Integrated Business Framework (FIBF). In late 2015, Treasury began developing a common set of core business processes and data standards for financial management. This project was initially called the Common Core. In September 2016, GSA expanded this effort into the framework known as the FIBF and GSA began to take on a coordinating role, assisting with initiating contracts and maintaining the FIBF website among other duties, as agencies involved in various business functions explored its use. The FIBF seeks to enable coordination of common business needs across agencies, including information about outcomes,

¹²Pub. L. No. 113-101, 128 Stat. 1146 (2014). The DATA Act amended FFATA, *codified at* 31 U.S.C. § 6101 note.

¹³Pub. L. No. 113-101, § 3, 128 Stat. at 1150.

data, and processes.¹⁴ FIBF identifies 13 functional areas to develop government-wide mission support business standards, including grants management, which was added as a functional area in 2016. In that year, GSA awarded a federal contract to begin efforts to define the activities, business capabilities, and use cases that document the way grants are managed and reported. The contractor provided deliverables covering these objectives in 2021 and the contract expired in 2022.

President’s Management Agenda (PMA). In 2018 the PMA announced the administration’s strategy to leverage data as a strategic asset. Toward that end, the PMA included a Cross Agency Priority (CAP) goal—titled “Results-Oriented Accountability for Grants”—that aimed to maximize the value of grant funding by applying a risk-based, data-driven framework. OMB established a team for this CAP goal, referred to as the grants accountability CAP goal team, that included grant experts from several federal agencies to further refine the goal and carry out efforts to implement it. One of the four strategies under this CAP goal was to standardize grant data.¹⁵

GREAT Act. Enacted in 2019, the GREAT Act expanded on these prior efforts by requiring the creation of data standards to modernize grant reporting, reduce burden and compliance costs of grant recipients, and strengthen the management and oversight of federal grants. Specifically, it required OMB and HHS to, among other things,

- establish government-wide data standards for information that federal award recipients report;¹⁶
- issue guidance to federal agencies for applying the data standards established pursuant to the act;
- enable the collection, public display, and maintenance of federal award information as a government-wide data set;¹⁷ and

¹⁴For more information about the FIBF, see <https://ussm.gsa.gov/fibf/>.

¹⁵The four strategies in the Results-Oriented Accountability for Grants CAP Goal included (1) operationalize the grants management standards, (2) establish a robust marketplace of modern solutions, (3) manage risk, and (4) achieve program goals and objectives. The Results-Oriented Accountability for Grants CAP Goal concluded in 2021. For our review of grant-related CAP goal strategies, see [GAO-24-106008](#).

¹⁶31 U.S.C. § 6402. The GREAT Act definition of “federal award” does not include contracts, direct cash assistance to individuals, loans, loan guarantees, or insurance. 31 U.S.C. § 6401(5). Under FFATA, however, the definition of “federal award” includes, among others, contracts and loans. Pub. L. No. 109-282, § 2, 120 Stat. at 1186.

- determine whether to use nonproprietary identifiers.¹⁸

OMB and HHS Have Taken Steps to Implement Grant Data Standards, but Have Not Fulfilled the GREAT Act's Statutory Requirements

The GREAT Act requires OMB and HHS to meet a series of deadlines to implement the GREAT Act. OMB staff, HHS officials, and others began taking steps to develop grant data elements prior to enactment of the GREAT Act. The actions taken prior to and after enactment of the GREAT Act have partially fulfilled one of three deadlines related to data standards.

Key Steps toward Grant Data Standardization Began Prior to the Enactment of the GREAT Act

Work to standardize the data elements used for federal grant management and reporting began years before the GREAT Act created a statutory requirement for establishing such data standards. As previously discussed, 57 data standards used for reporting federal spending were established in 2015 as part of implementation of the DATA Act.¹⁹ A more comprehensive approach toward standardizing data covering each of the key phases of the grant lifecycle began in 2016 as part of the broader, government-wide FIBF process. In 2016, OMB, in coordination with GSA, engaged a consultant to develop an initial set of grant data elements commonly used in the federal government. These data elements cover the entire grant lifecycle spanning pre-award, award, and post-award management, as well as administration, and oversight.

¹⁷The GREAT Act states that this requirement is subject to reasonable restrictions established by the Director of OMB to ensure protection of personally identifiable information and otherwise sensitive information. Pub. L. No. 116-101, § 6, 133 Stat. at 3270, *codified at* 31 U.S.C. § 6402 note.

¹⁸The GREAT Act does not define the term “nonproprietary.” However, for the purposes of this report we apply the definition that the identifiers are not proprietary, if they are not relating to, or involving a proprietor, holding as property, or sold under a tradename. See “Proprietary” *Black’s Law Dictionary* (11th ed. 2011).

¹⁹Pub. L. No. 113-101, § 3, 128 Stat. at 1148.

OMB obtained public input on these draft data elements (which became known as the “Public Comment Version”) following an announcement in the *Federal Register*.²⁰ The outside firm, working with OMB and GSA, and joined by members of the grants accountability CAP goal team, then revised and refined the data elements based on this public feedback as well as consultations with grant-issuing agencies.²¹ In October 2019, this process resulted in the issuance of a set of FIBF grant data elements (known as Version 1.0).

After the enactment of the GREAT Act in December 2019, work on the Grants Management FIBF and Version 1.0 of the grant data elements continued. The grants accountability CAP goal team led this work until November 2020, when OMB designated HHS as the standards-setting agency required by the GREAT Act. At this time, OMB also created a new entity—the Grants Management Standards Working Group—to carry out additional revisions of Version 1.0, among other grant management reforms.²²

In June 2021, OMB approved a new set of FIBF grant data elements, known as Version 2.0. There were substantial changes between Version 1.0 and Version 2.0, including an increase in the total number of data elements from 426 to 540. In October 2021, OMB issued a memorandum directing federal agencies to report three grant data standards for display on USASpending.gov. These elements are *GRM Indirect Cost Federal Share Amount*, *Funding Opportunity Number*, and *Funding Opportunity*

²⁰Draft *Federal Grants Management Data Standards for Feedback*, 83 Fed. Reg. 57751 (Nov. 16, 2018).

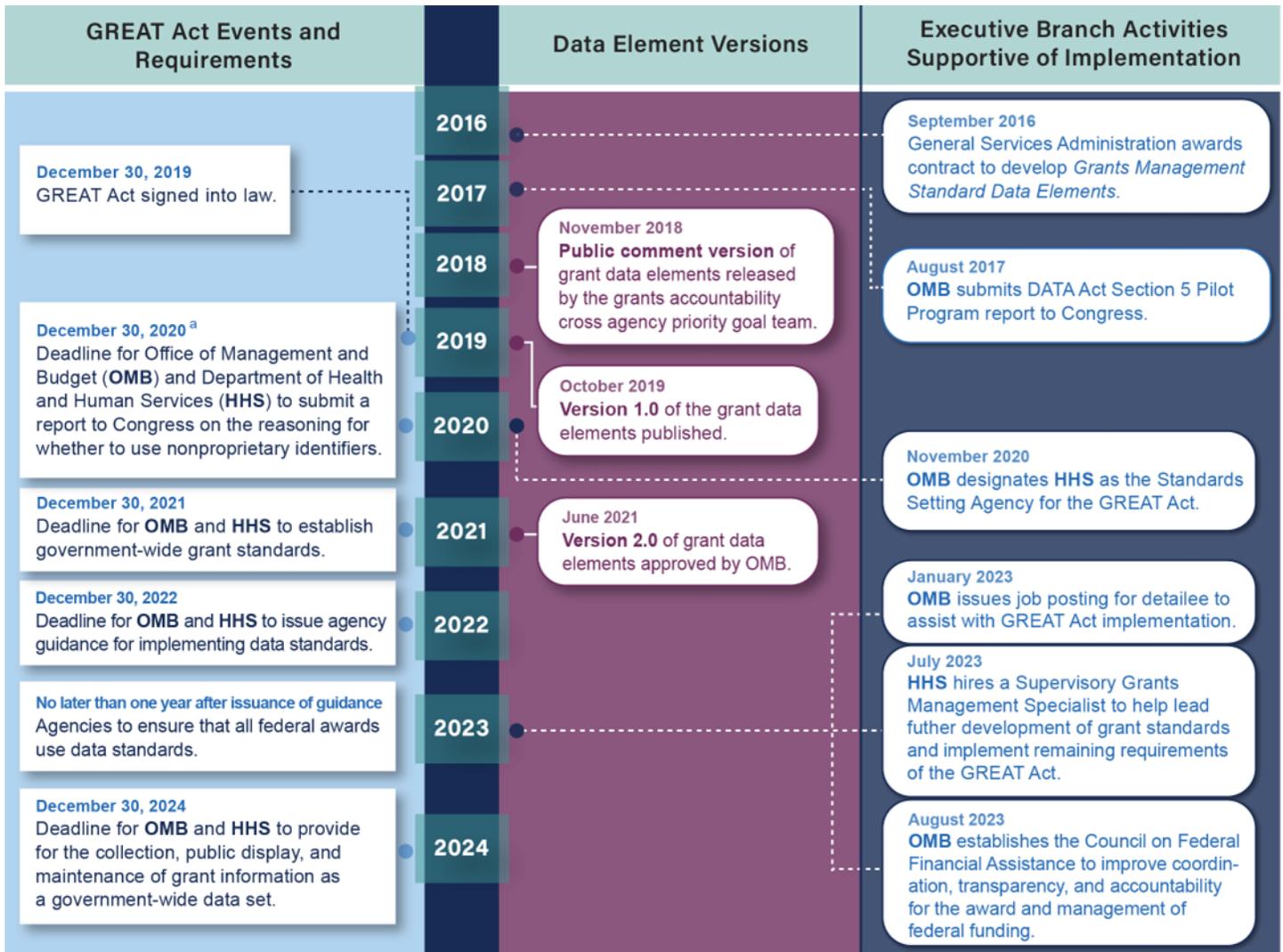
²¹Office of Management and Budget, *Strategies to Reduce Grant Recipient Reporting Burden*, M-18-24 (Washington, D.C.: Sept. 5, 2018). This memorandum formally aligned the DATA Act pilot program with the Results-Oriented Accountability for Grants CAP Goal.

²²At this time OMB also issued a memorandum requiring the public display of all information in signed and legally binding grant award agreements on USASpending.gov to the maximum extent permitted by law (M-21-03). OMB Memorandum M-22-02 dissolved the Grants Management Standards Working Group, including its required deliverables, in October 2021. Office of Management and Budget, *New Financial Assistance Transparency Reporting Requirements*, M-22-02 (Washington, D.C.: Oct. 26, 2021) and *Improvements in Federal Spending Transparency for Financial Assistance*, M-21-03 (Washington, D.C.: Nov. 12, 2020).

Goals Text.²³ For more details about the timeline of GREAT Act implementation requirements and activities see figure 2.

²³GRM is a standard abbreviation for “grants management” in the Version 2.0 data elements. In September 2023, Treasury officials informed us that the three elements are implemented as part of the DATA Act Information Model Schema (DAIMS), the data standards technical specifications that guide federal agencies for reporting spending data for publication on USAspending.gov, but full validation of the *Funding Opportunity Number*, and *Funding Opportunity Goals Text* data elements is still pending. Memorandum M-22-02 also directed agencies to report all assistance listings and associated funding for each federal financial assistance award reported to USAspending.gov on October 1, 2021, and directed that agencies report any revision of the *Period of Performance End Date* for grants and cooperative agreements on USAspending.gov beginning on October 1, 2021. In November 2023, DAIMS was renamed the Governmentwide Spending Data Model.

Figure 2: Timeline of the Grant Reporting Efficiency and Agreements Transparency (GREAT) Act Requirements and Related Executive Branch Activities



Source: GAO analysis of the GREAT Act and executive branch actions. Pub. L. No. 116-103, 133 Stat. 3266 (2019). | GAO-24-106164

Accessible text for Figure 2: Timeline of the Grant Reporting Efficiency and Agreements Transparency (GREAT) Act Requirements and Related Executive Branch Activities

- September 2016: General Services Administration awards contract to develop Grants Management Standard Data Elements.
- August 2017: OMB submits DATA Act Section 5 Pilot Program report to Congress.

- November 2018: Public comment version of grant data elements released by the grants accountability cross agency priority goal team.
- October 2019: Version 1.0 of the grant data elements published.
- December 30, 2019: GREAT Act signed into law.
- November 2020: OMB designates HHS as the Standards Setting Agency for the GREAT Act.
- December 30, 2020^a: Deadline for Office of Management and Budget (OMB) and Department of Health and Human Services (HHS) to submit a report to Congress on the reasoning for whether to use nonproprietary identifiers.
- June 2021: Version 2.0 of grant data elements approved by OMB.
- December 30, 2021: Deadline for OMB and HHS to establish government-wide grant standards.
- December 30, 2022: Deadline for OMB and HHS to issue agency guidance for implementing data standards.
- No later than one year after issuance of guidance Agencies to ensure that all federal awards use data standards.
- January 2023: OMB issues job posting for detailee to assist with GREAT Act implementation.
- July 2023: HHS hires a Supervisory Grants Management Specialist to help lead further development of grant standards and implement remaining requirements of the GREAT Act.
- August 2023: OMB establishes the Council on Federal Financial Assistance to improve coordination, transparency, and accountability for the award and management of federal funding.
- December 30, 2024: Deadline for OMB and HHS to provide for the collection, public display, and maintenance of grant information as a government-wide data set.

Source: GAO analysis of the GREAT Act and executive branch actions. Pub. L. No. 116-103, 133 Stat. 3266 (2019). | GAO-24-106164

^aThe GREAT Act requires publication and submission of the report not later than the earlier of one year after enactment or after OMB and HHS establish data standards. Pub. L. No. 116-103, § 7(c), 133 Stat. 3266, 3271 (2019).

OMB and HHS Have Partially Met One of Three Deadlines Identified by the GREAT Act

While OMB and HHS have made progress toward developing the grant data standards required by the GREAT Act by leveraging earlier efforts

and issuing Version 2.0 of the data elements, they have not fully met statutory deadlines identified in the act.²⁴ The GREAT Act requires OMB and HHS to meet, among others, three implementation deadlines from 2020 to 2022 related to developing grant data standards. As of December 2023, OMB and HHS had partially fulfilled one of three elapsed deadlines related to data standards (see fig. 3).

Figure 3: Extent to Which OMB and HHS Met Select Statutory Requirements in the Grants Reporting Efficiency and Agreements Transparency Act of 2019 (GREAT Act) as of December 2023

Statutory requirement	Requirement due date	GAO assessment
Office of Management and Budget (OMB) and Department of Health and Human Services (HHS) shall publish and submit a report to Congress explaining the reasoning for the determination of whether to use nonproprietary identifiers	December 30, 2020 ^a	
OMB and HHS shall establish government-wide data standards for information reported by grant recipients	December 30, 2021	
OMB and HHS shall jointly issue guidance to all agencies directing the agencies to apply the data standards	December 30, 2022	

Key: Not met Partially met Met

Source: GAO analysis of Pub. L. No. 116-103, 133 Stat. 3266 (2019) and Office of Management and Budget and Department of Health and Human Services data. | GAO-24-106164

Accessible text for Figure 3: Extent to Which OMB and HHS Met Select Statutory Requirements in the Grants Reporting Efficiency and Agreements Transparency Act of 2019 (GREAT Act) as of December 2023

Statutory requirement	Requirement due date	GAO assessment
Office of Management and Budget (OMB) and Department of Health and Human Services (HHS) shall publish and submit a report to Congress explaining the reasoning for the determination of whether to use nonproprietary identifiers	December 30, 2020 ^a	Not met
OMB and HHS shall establish government-wide data standards for information reported by grant recipients	December 30, 2021	Partially met
OMB and HHS shall jointly issue guidance to all agencies directing the agencies to apply the data standards	December 30, 2022	Not met

Source: GAO analysis of Pub. L. No. 116-103, 133 Stat. 3266 (2019) and Office of Management and Budget and Department of Health and Human Services data. | GAO-24-106164

²⁴The FIBF website makes FIBF output products available to the public on its website, including Version 2.0. The FIBF website does not host documentation of all GREAT Act implementation records.

^aThe GREAT Act requires publication and submission of the report not later than the earlier of one year after enactment or after OMB and HHS establish data standards. Pub. L. No. 116-103, § 7(c), 133 Stat. 3266, 3271 (2019).

Publish and submit a report to Congress on nonproprietary identifiers. OMB and HHS have not met the requirement to publish and submit a report to Congress explaining the reasoning for the determination of whether to use nonproprietary identifiers.²⁵

Nonproprietary identifiers provide a format of which no single entity has exclusive ownership or control. OMB staff told us that they have no record of submitting the required report to either the Senate Committee on Homeland Security and Governmental Affairs or the House Committee on Oversight and Accountability. Furthermore, staff for both committees confirmed that they had no record of having received the report. Although it does not appear that the required report was produced, in April 2022, GSA announced the government-wide adoption of a nonproprietary identifier, the *Unique Entity Identifier (UEI)*.²⁶

Establish government-wide grant data standards. OMB and HHS have partially met the requirement to establish government-wide grant data standards. The GREAT Act requires that data standards, at a minimum, include 1) standard definitions for the data elements required for managing federal awards, and 2) unique identifiers for federal awards and recipients of federal awards that can be consistently applied government-wide.²⁷ Additionally, the data standards should include to the extent practicable, additional requirements, such as the ability to be fully searchable and machine readable.²⁸ We examine the additional requirements in greater detail later in this report.

Our assessment of the data contained in Version 2.0 against the requirements for data standards contained in the GREAT Act shows that work remains to be done, especially regarding the first minimum

²⁵The GREAT Act required OMB and HHS to determine whether to use government-wide nonproprietary identifiers for federal awards and recipients. Pub. L. No. 116-103, § 7, 133 Stat. at 3271.

²⁶Nonfederal entities must obtain a *UEI* to receive grant awards from the federal government. Prior to the *UEI* the official identifier was the *Data Universal Numbering System (DUNS)* number, a proprietary nine-digit identifier unique to individual businesses or organizations. The GSA announcement about *UEI* did not explain the reasoning for the determination to use a nonproprietary identifier.

²⁷31 U.S.C. § 6402(a)(3).

²⁸31 U.S.C. § 6402(b)-(c).

requirement to include standard definitions for the data elements.²⁹ OMB staff told us that they believe they satisfied this requirement by having published Version 2.0, which included data element names and definitions. However, these data elements do not contain all the components necessary for operational data standards. For example, as described previously, data standards consist of two components—definitions and technical specifications. Although Version 2.0 provides a list of data elements and corresponding definitions, none of the data elements contain fully developed technical specifications needed to ensure the data elements will be applied consistently and produce comparable data. Furthermore, the data elements do not meet all the additional scope and other requirements outlined in the GREAT Act, which we discuss in detail later in the report.

Issue guidance to agencies on the data standards. OMB and HHS have not met the requirement to issue guidance to agencies on how to apply the data standards. In June 2023, OMB stated it has not yet met the act’s requirement to issue guidance on the data standards. HHS officials concurred that more work needs to be done to fulfill this requirement. Both OMB and HHS acknowledged that operational data standards need to be in place before issuing implementation guidance to federal agencies. As of December 2023, Version 2.0 data elements have not been operationalized; therefore, guidance addressing how to implement them cannot yet be issued.

OMB and HHS cited multiple factors for not fully meeting the statutory deadlines identified in the GREAT Act. These include, but are not limited to, (1) the COVID-19 pandemic; (2) insufficient resources; and (3) a lack of a governance structure to make decisions for financial assistance.

- **COVID-19 pandemic.** HHS officials, as well as a former grants accountability CAP goal team leader, told us that from January 2020 through January 2021, progress on the development of the GREAT Act data standards slowed as a result of the COVID-19 pandemic. They stated this was because the federal grants management community’s priorities shifted from data standardization toward pandemic-related activities. HHS officials stated that they had to

²⁹OMB staff stated that the second minimum requirement—include unique identifiers for federal awards and recipients of federal awards that can be consistently applied government-wide—was met by implementation of the *Federal Award Identification Number (FAIN)* and the *UEI*. The *FAIN* is a unique identifier within a federal agency for each financial assistance award, such as a grant. The *UEI* is a unique entity identifier needed to obtain a financial assistance award.

perform increased management and oversight functions for funding they received to respond to the pandemic. However, during the pandemic, HHS and OMB finalized the Version 2.0 data elements in May 2021 and OMB approved them in June 2021.

- **Resources.** OMB staff and HHS officials stated that a lack of resources limited further development of the data elements. Both OMB staff and HHS officials described a lack of staff available to focus on GREAT Act implementation following June 2021. OMB staff and HHS officials said the lack of staff available to focus on GREAT Act implementation was impactful given the level of resources needed to continue to develop and ultimately finalize the grant data elements. For example, HHS officials stated that the development of the definition of a single data element, the financial assistance Award Description, took a working group of five to six individuals approximately 8 weeks to complete.³⁰

OMB staff and HHS officials said they have made efforts to obtain additional staff. In January 2023, OMB posted an announcement for a policy analyst detailee to focus on the implementation of laws affecting the financial assistance community, including the development of grant data standards. As of December 2023, OMB has not filled the position. In March 2023, HHS posted a job announcement for a Supervisory Grants Management Specialist. This specialist's job duties included, among others, providing leadership in working with OMB on meeting the GREAT Act's requirements and updating the Grants Management FIBF. HHS's new hire began work on July 31, 2023. HHS also obtained additional funding to support GREAT Act implementation and contracted with a consulting firm to conduct a review of the grants management FIBF and identify additional actions that may be needed.³¹

- **Governance structure.** OMB and HHS identified the lack of a financial assistance governance structure as a challenge to

³⁰OMB memorandum M-21-20 directed agencies to establish detailed and accurate financial assistance award descriptions at the time of the award. HHS officials participated in a working group that developed a standardized definition for agencies to apply for award descriptions. Office of Management and Budget, *Promoting Public Trust in the Federal Government through Effective Implementation of the American Rescue Plan Act and Stewardship of the Taxpayer Resources*, M-21-20 (Washington, D.C.: Mar. 19, 2021).

³¹HHS applied for, and received funding from, the Treasury-managed Financial Management Line of Business (FMLoB). Treasury collects contributions from the 24 Chief Financial Officers Act agencies and distributes funds to support FMLoB initiatives. 31 U.S.C. § 901.

developing government-wide grant data standards. In August 2023, OMB issued a memorandum establishing the Council on Federal Financial Assistance, an interagency forum responsible for providing strategic direction, policy recommendations, and priority-setting for other government-wide grant-related activities for the financial assistance community.³² OMB staff said they expect that this council will conduct robust stakeholder consultation and assist with the development and implementation of the applicable requirements of the GREAT Act. HHS officials stated the interagency forum, for which HHS serves as the co-chair, will support the implementation efforts by providing a venue to support the development and adoption of data standards.

OMB and HHS Have Not Consistently Applied Some GREAT Act Requirements or Leading Practices for Data Standards

Grant Data Elements Are Not Fully Consistent with Some GREAT Act Requirements

The GREAT Act identifies nine specific requirements for grant data standards.³³ We assessed whether the Version 2.0 data elements OMB and HHS issued were consistent, partially consistent, or not consistent with eight of these requirements. We found that the data elements in Version 2.0 were

- consistent with five statutory requirements of the act, and

³²M-23-19. OMB staff also cited progress made on development of related projects as efforts supportive of implementation as they anticipate progress on the projects will support future GREAT Act implementation efforts. These projects include developing a post-award reporting pilot for projects funded by the Infrastructure Investment and Jobs Act as stated in M-22-12. OMB staff stated that this pilot is an example relevant to the GREAT Act, as it is examining the practical challenges and solutions to the interaction of reportable data between the Department of Transportation and grant recipients. OMB anticipates lessons learned from the pilot will be applicable to GREAT Act implementation. Office of Management and Budget, *Advancing Effective Stewardship of Taxpayer Resources and Outcomes in the Implementation of the Infrastructure Investment and Jobs Act*, M-22-12 (Washington, D.C.: Apr. 29, 2022).

³³The GREAT Act stipulates that the data standards must meet some minimum scoping requirements, as well as several additional requirements that are to be met to the extent reasonable and practicable. 31 U.S.C. § 6402.

- partially consistent with three statutory requirements of the act.

We did not assess a ninth requirement because OMB told us it determined that meeting this requirement was not reasonable or practical, which is permitted under the act (see fig. 4).

Figure 4: Extent to Which OMB and HHS Data Elements Are Consistent with Data Element Standard Requirements in the Grants Reporting Efficiency and Agreements Transparency Act of 2019 (GREAT Act) as of December 2023

Specific requirements for data standards	GAO assessment
Include core data elements	
May cover information required by federal law	
May not be used to require data not required by law	
Render fully searchable and machine-readable information ^a	
Incorporate standards established under the Federal Funding Accountability and Transparency Act of 2006 ^a	
Be nonproprietary ^a	
Incorporate standards developed and maintained by voluntary consensus standards bodies ^{a,b}	
Be consistent with and implement applicable accounting and reporting principles ^a	
Consult grant stakeholders	

Key: Not consistent Partially consistent Consistent Not applicable

Source: GAO analysis of Pub. L. No. 116-103, 133 Stat. 3266 (2019) and Office of Management and Budget (OMB) and Department of Health and Human Services (HHS) data. | GAO-24-106164

Accessible text for Figure 4: Extent to Which OMB and HHS Data Elements Are Consistent with Data Element Standard Requirements in the Grants Reporting Efficiency and Agreements Transparency Act of 2019 (GREAT Act) as of December 2023

Specific requirements for data standards	GAO assessment
Include core data elements	Consistent
May cover information required by federal law	Consistent
May not be used to require data not required by law	Partially consistent
Render fully searchable and machine-readable information ^a	Partially consistent
Incorporate standards established under the Federal Funding Accountability and Transparency Act of 2006 ^a	Consistent
Be nonproprietary ^a	Consistent

Specific requirements for data standards	GAO assessment
Incorporate standards developed and maintained by voluntary consensus standards bodies ^{a,b}	Not applicable
Be consistent with and implement applicable accounting and reporting principles ^a	Consistent
Consult grant stakeholders	Partially consistent

Source: GAO analysis of Pub. L. No. 116-103, 133 Stat. 3266 (2019) and Office of Management and Budget (OMB) and Department of Health and Human Services (HHS) data. | GAO-24-106164

^aThe GREAT Act states that data standards established under the act must meet certain requirements to the extent reasonable and practicable. 31 U.S.C. § 6402(c).

^bOMB staff stated that they found it “neither reasonable nor practicable” to incorporate standards developed and maintained by voluntary consensus standards bodies when developing the grant data standards. Of the five requirements in the GREAT Act that are framed in terms of being required to the extent reasonable and practicable, this is the only requirement for which OMB stated it was exercising this option.

Include core data elements. We found the Version 2.0 data elements to be consistent with this requirement. Both OMB staff and HHS officials told us that, for the purposes of GREAT Act implementation, as of December 2023 they view core data elements for grants management as the 106 of the 540 elements contained in Version 2.0 that refer to, or have been identified as having a link with, data elements reported on USAspending.gov.³⁴ We verified that there are 106 data elements in Version 2.0 that meet this requirement; therefore, OMB and HHS are consistent with the law.

May cover information required by federal law. We found the Version 2.0 data elements to be consistent with this requirement. The GREAT Act specifies that the data standards may cover information already required by law to be reported to agencies by federal award recipients.³⁵ Our analysis confirmed that the majority of data elements contained in Version 2.0 are required to be reported in law or regulation and are therefore consistent with this requirement in the GREAT Act. Furthermore, OMB, working with a consultant, mapped each business capability, such as grant administrative tasks, to identify the data elements to authoritative federal sources, including federal law, confirming our analysis.

³⁴The GREAT Act defines “core data elements” to mean data elements relating to financial management, administration, or management that (1) are not program specific in nature or program-specific outcome measures, and (2) are required by agencies for all or the vast majority of recipients of federal awards for purposes of reporting. 31 U.S.C. § 6401(2). According to OMB and HHS, as they make further progress developing data standards and implementing the GREAT Act the number of grant elements considered “core” may change.

³⁵31 U.S.C. § 6402(b)(2).

May not be used to require data not required by law. We found the Version 2.0 data elements to be partially consistent with this requirement. The GREAT Act specifies that OMB may not use the data standards to require the collection of data not already required under federal law.³⁶ Our analysis found that although the data elements were mapped to federal sources, some of the sources were not law nor linked to federal law. Furthermore, our analysis found that some of the 540 data elements contained in Version 2.0 were not linked to any underlying legal requirement. Therefore we found evidence of only partial consistency with this requirement in the GREAT Act.

Render fully searchable and machine-readable information. We found the Version 2.0 data elements to be partially consistent with this requirement.³⁷ A total of 501 of the 540 data elements contained in Version 2.0 lacked the key descriptors and technical specifications needed to ensure the data would be machine-readable. The term “machine-readable,” when used with respect to data, refers to data in a format that can be easily processed by a computer without human intervention, while ensuring no semantic meaning is lost.³⁸ OMB staff and HHS officials acknowledged that additional work remains to be done to operationalize the data elements to be able to meet this definition. OMB staff and HHS officials told us that remaining tasks include standardizing the formatting and technical specifications of the data elements so that they can be consistently entered into agency systems and reporting forms. OMB staff told us that in the absence of such specifications the same information collected from different sources could be formatted in a variety of different ways, making it difficult to process consistently. For example, California could be recorded as “California,” “Cali.,” “CA,” or “Ca,”.

To determine the work needed to make all Version 2.0 data elements machine-readable, we assessed the data elements against the definition

³⁶31 U.S.C. § 6402(b)(3).

³⁷The GREAT Act states that data standards established must, to the extent reasonable or practicable, render federal award information fully searchable and machine-readable. 31 U.S.C. § 6402(c)(1). As of December 2023, OMB and HHS have not told us that meeting this requirement is unreasonable or impracticable.

³⁸44 U.S.C. § 3502(18). OMB told us it is using the definition of “machine-readable” provided in section 3502 of Title 44, United States Code to implement the requirement in the GREAT Act. To be “fully searchable” as required by the GREAT Act, data must be machine-readable. Accordingly, for the purposes of this report we use the term “machine-readable” to cover both the searchable and machine-readable requirements of the act.

of “machine-readable” found in guidance from the National Institute of Standards and Technology (NIST).³⁹ We found that although Version 2.0 contains a wide range of information critical to defining data elements, key descriptors are missing that are necessary to ensure the majority of elements allow for consistent exchange of grant information. These descriptors include technical specifications such as data type, element format, and length. They are necessary components of data standards that enable computers to automate consistent collection of data; verify whether data entered are valid and complete; and ensure interoperability of data across systems, sources, and users. Since over 90 percent of Version 2.0 data elements lack these specifications, federal agencies as well as stakeholders in the broader grant community are unable to realize the benefits of operational, government-wide grant data standards. For example, in the absence of these specifications, the grant community will continue to apply differing specifications required by individual agencies. As a result, the data may not be comparable across agencies, making it difficult to locate comparable data to analyze, resulting in a lack of information that decision-makers seek.

Incorporate standards established under the Federal Funding Accountability and Transparency Act of 2006 (FFATA). We found the Version 2.0 data elements to be consistent with this requirement.⁴⁰ FFATA standards were incorporated in Version 2.0 in the form of “related element references.” These are references to other data standards related to the 540 grants management data elements but are not

³⁹NIST defines “machine-readable” as product output that is in a structured format, typically XML, which can be consumed by another program using consistent processing logic. National Institute of Standards and Technology, *Security Content Automation Protocol Version 1.2 Validation Program Test Requirements*, NISTIR 7511 Rev. 4 (Gaithersburg, MD.: January 2016). Furthermore, a Federal Depository Library Directory repository defines “data standard” as a technical specification that describes how data should be stored or exchanged for the consistent collection and interoperability of those data across different systems, sources, and users. Furthermore, data standards typically consist of discrete data standards called “components.” Multiple components can be assembled to describe a more comprehensive data standards “package.” A system or initiative that defines a large but unified collection of components to be used and packaged together for a wide variety of purposes is referred to as a data standards framework. See <https://resources.data.gov/about/about-this-repository/>.

⁴⁰To implement FFATA, as amended by the DATA Act, OMB and Treasury led the standardization of 57 data standards that pertain to federal spending. See Pub. L. No. 109-282, 120 Stat. at 1146, as amended by Pub. L. No. 113-101, 128 Stat. 1146. The GREAT Act states that data standards established must, to the extent reasonable or practicable, incorporate standards established under FFATA. 31 U.S.C. § 6402(c)(5). As of December 2023, OMB and HHS have not reported that meeting this requirement is unreasonable or impracticable.

themselves defined in Version 2.0. Instead, they are defined in other widely used data dictionaries.⁴¹ OMB staff stated that they believe these references meet the requirement to incorporate FFATA standards established by the act. HHS officials told us that they agree that FFATA standards are incorporated in Version 2.0.

Be nonproprietary. We found the Version 2.0 data elements to be consistent with this requirement.⁴² OMB staff told us that because the GREAT Act does not provide a statutory definition of “nonproprietary,” they base their understanding of the term on the definition available in a standard dictionary.⁴³ Accordingly, OMB has interpreted nonproprietary as “a format that no single entity has exclusive ownership or control over as indicated.” OMB’s use of the term was also guided by a provision in the GREAT Act, which notes that when determining whether to use nonproprietary identifiers, OMB and HHS may consider factors such as accessibility and cost to recipients of federal awards, agencies that issue federal awards, private-sector experts, and members of the public.⁴⁴ OMB staff told us that, based on this language, factors such as accessibility and cost may also be relevant to the definition. Our review of the Version 2.0 data elements against the definition of “proprietary” as defined in *Black’s Law Dictionary*—a recognized source for legal terminology—confirmed that none of the 540 elements were proprietary in nature.⁴⁵

Incorporate standards developed and maintained by voluntary consensus standards bodies. We did not analyze the consistency of the Version 2.0 data elements against this requirement because OMB determined that applying it to the development of the data elements was “not reasonable and practical.” As previously noted, the GREAT Act

⁴¹The standards established under FFATA are defined in the DATA Act Information Model Schema (DAIMS). In November 2023, DAIMS was renamed the Governmentwide Spending Data Model.

⁴²The GREAT Act states that data standards established must be nonproprietary, to the extent reasonable or practicable. 31 U.S.C. § 6402(c)(2). As of December 2023, OMB and HHS have not reported that meeting this requirement is unreasonable or impracticable.

⁴³The U.S. Supreme Court has provided guidance in such situations: “When a term goes undefined in a statute, [courts] give the term its ordinary meaning,” often by consulting dictionaries. *Taniguchi v. Kan Pac. Saipan, Ltd.*, 566 U.S. 560, 566 (2012). OMB staff consulted the definitions of nonproprietary and proprietary Merriam-Webster dictionary in their assessment. *Merriam-Webster Dictionary*. Accessed June 4, 2023. <https://www.merriam-webster.com/>.

⁴⁴Pub. L. No. 116-103, § 7, 133 Stat. at 3270, codified at 31 U.S.C. § 6402 note.

⁴⁵“Proprietary,” *Black’s Law Dictionary* (11th ed. 2011).

states that data standards must meet certain requirements to the extent reasonable and practical.⁴⁶ OMB staff and HHS officials told us that they did not actively incorporate standards developed and maintained by voluntary consensus standards bodies when developing Version 2.0. Instead, OMB staff said that they relied on an alternative approach for developing the standards that focused on “engaging with affected government agencies.”

However, it is not clear why consulting federal agencies would necessarily make it not reasonable or practical to apply leading practices to Version 2.0. For example, Treasury officials told us that they and OMB staff utilized voluntary consensus standards when developing data standards for the DATA Act. Furthermore, the developers of Version 2.0 acknowledge the value of consulting leading practices to ensure that users can appropriately understand data elements’ names and definitions. We analyzed the data elements in Version 2.0 to determine if they reflect leading practices and provide the results of this review later in this report.

Be consistent with and implement applicable accounting and reporting principles. We found the Version 2.0 grant data elements to be consistent with this requirement.⁴⁷ OMB staff informed us that they ensured that each grant data element was derived from an authoritative or other source that required the data element. We confirmed that the Version 2.0 data elements are aligned with applicable reporting requirements in federal law and regulation such as related *Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards* guidance.⁴⁸ As it relates to accounting principles, given the many accounting standards applicable to recipients based on their business type or organizational structure, we confirmed that the Version 2.0 data elements collect transactional information. This transactional information is reasonably expected to facilitate core financial management activities that should help ensure consistency with

⁴⁶31 U.S.C. § 6402(c).

⁴⁷The GREAT Act states that data standards established under the act must, to the extent reasonable and practicable, be consistent with and implement applicable accounting and reporting principles. 31 U.S.C. § 6402(c)(4). As of December 2023, OMB and HHS have not reported that meeting this requirement is unreasonable or impracticable.

⁴⁸The OMB *Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards* (commonly called “Uniform Guidance”) is an authoritative set of rules and requirements for federal awards that synthesizes and supersedes guidance from earlier OMB circulars. 2 C.F.R. pt. 200.

applicable accounting principles. For example, Version 2.0 data elements include Grant Program Accrual, which helps determine the basis of accounting when recognizing revenue.

Consult grant stakeholders. We determined that because OMB staff and HHS officials consulted with stakeholders from several, but not all, of the groups identified in the GREAT Act, their actions are partially consistent with this requirement. During early iterations of the data elements, OMB consulted with a variety of grant stakeholders in a number of ways. These included meetings with key grant stakeholder associations and an announcement in the *Federal Register*. However, OMB and HHS have not consulted all stakeholders identified in the GREAT Act for Version 2.0, such as state and local governments. OMB staff stated that they have relied on an alternative approach focused on engaging with “affected government stakeholders” for developing the data standards.⁴⁹ OMB staff and HHS officials acknowledge they need to conduct a more robust stakeholder consultation regarding implementation of the GREAT Act. We present a detailed description of our analysis later in the report.

Version 2.0 Grant Data Elements Do Not Reflect Several Leading Practices for Formulating Data Definitions

Incorporating leading practices from international standards organizations offers one way to help reduce uncertainty and confusion when reporting and interpreting data standards. Treasury officials informed us that when they developed data standards for the DATA Act with OMB, they found the International Organization for Standardization (ISO) leading practices for formulating data definitions relevant and leveraged the practices to develop the standards. The ISO, a standards-setting body composed of international experts in various fields of study, has developed 13 leading practices for formulating data definitions for the purposes of specifying, describing, explaining, and clarifying the meaning of data.⁵⁰ The value of considering leading practices, such as those identified by the ISO, when formulating data standards was acknowledged by the developers of the Version 2.0 data elements when they referred to both ISO and National

⁴⁹The “alternative approach” OMB used was the then ongoing development of the FIBF grant data elements. This approach led OMB to focus engagement efforts on federal agencies.

⁵⁰©ISO: This material is reproduced from ISO/IEC 11179-4:2004(E) with permission of the American National Standards Institute on behalf of the ISO. All rights reserved.

Information Exchange Model (NIEM) standards as guiding principles for developing data elements.⁵¹ Furthermore, in the past we have reported that developing a well-crafted data element definition is a key component to ensuring that a data standard produces consistent and comparable information.⁵²

We conducted a detailed review of a sample of 50 of the 540 data elements in Version 2.0 to determine if they met the 13 ISO leading practices for formulating data definitions. We identified 20 data elements that did not meet at least one of these ISO leading practices. Practices that were not met are that definitions

- be precise and unambiguous;
- be concise;
- be expressed without embedding rationale, functional usage, or procedural information;
- be stated in the singular; and
- use the same terminology and consistent logical structure for related definitions.

While we recognize that following leading practices is not a requirement, and OMB asserted that it was “not reasonable or practical” to incorporate leading practices for development of the GREAT Act data elements, application of the practices produces higher-quality data. Not properly defining a data element can result in lack of comparability across agencies and an increase in recipient burden, as well as other limitations. For example, in 2016 we found that two data standards reported on [USAspending.gov](https://www.usaspending.gov)—*Award Description and Primary Place of Performance*—did not meet the ISO leading practices for formulating data definitions. As a result, these definitions resulted in data open to potential misinterpretation and misreporting.⁵³ We recommended that OMB, in collaboration with Treasury, provide agencies with guidance to address

⁵¹ISO and NIEM naming standards are identified as a guiding principle for Version 2.0. The NIEM initiative is a voluntary federal standards system, launched jointly by the Departments of Justice and Homeland Security, focused on defining structured machine-to-machine data exchange.

⁵²GAO, *DATA Act: Data Standards Established, but More Complete and Timely Guidance Is Needed to Ensure Effective Implementation*, [GAO-16-261](#) (Washington, D.C.: Jan. 29, 2016).

⁵³[GAO-16-261](#).

potential clarity, consistency, or quality issues with the definitions for specific data elements. In response, OMB and Treasury implemented this recommendation. We issued a subsequent recommendation to OMB that it, in collaboration with Treasury, should ensure that policies, guidance, and procedures related to the DATA Act and USAspending.gov are consistent with each other. As of December 2022, this recommendation remains open.⁵⁴

In addition to the 50 data elements that we assessed in detail against each of the 13 leading practices, we conducted a high-level review of all 540 data elements examining their overall structure and completeness. This process identified additional illustrative examples of data elements that did not align with leading practices. For example, we found that the definition for *GRM Time* lacked clarity. In Version 2.0, *GRM Time* is defined as “a key time, or important time, that is used in the Grants management process.” This definition is not precise and unambiguous and therefore may be subject to misinterpretation.⁵⁵

Data element definitions that are imprecise or ambiguous may allow for more than one interpretation by agency staff collecting and reporting on these data. In the case of *GRM Time*, the lack of clarity regarding which time should be reported could result in inconsistent and potentially misleading information when compared between agencies or aggregated across the federal government. HHS officials acknowledged that, because of these and other issues, the data elements contained in Version 2.0 will require additional development before they can be fully implemented data standards.

⁵⁴[GAO-22-104702](#).

⁵⁵Our review also found that no other data elements directly related to *GRM Time*—such as an accompanying GRM time code—that could be used to identify specific times relevant for reporting, existed in Version 2.0.

OMB and HHS Consulted Stakeholders Prior to Enactment of the GREAT Act, but Do Not Have a Process to Ensure Robust Future Consultation and Communication

OMB and HHS Consulted Grant Stakeholders Prior to Enactment of the GREAT Act

Prior to enactment of the GREAT Act, OMB staff and HHS officials consulted a variety of grant stakeholders on grant data standardization through their involvement in the DATA Act's Section 5 Pilot and the grants accountability Cross Agency Priority (CAP) goal team.⁵⁶ In the pilot and on the grants accountability CAP goal team, OMB and HHS were involved in outreach activities that included presentations at conferences and discussions with grant stakeholders. For example, for the Section 5 pilot, HHS conducted a study with federal grant recipients to determine the extent to which standard data elements and definitions benefit recipients.⁵⁷ Through this study and consultation with grant recipients, OMB and HHS determined that grant recipients with access to standard data elements and definitions were able to complete requests with increased accuracy and speed. In addition, the pilot found that federal grant recipients value the standardization that grant data elements and definitions provide.

As leaders of the grants accountability CAP goal team, OMB and HHS also consulted with the public during development of the Public Comment Version and Version 1.0 of the grant data elements. In response to a 2018 *Federal Register* notice, 36 individuals and organizations provided approximately 1,200 comments on proposed data elements.⁵⁸ These comments provided recommendations to remove elements, include new elements, modify element labels or definitions, and others. CAP goal documentation reflects that this feedback, in addition to input from federal

⁵⁶In response to requirements of the DATA Act OMB and HHS led implementation of a pilot program, known as the Section 5 Pilot, aimed at developing recommendations for reducing recipient reporting burden for federal grantees and contractors.

⁵⁷Office of Management and Budget, *Report to Congress: DATA Act Pilot Program* (Aug. 10, 2017).

⁵⁸83 Fed. Reg. 57751.

agencies, informed the revision process that produced Version 2.0, issued in 2021. Our review of the various versions of the data elements found significant changes resulted from this consultation process. For example, there was an increase in the total number of data elements from 426 data elements in Version 1.0 to 540 data elements in Version 2.0.

Groups representing grant stakeholders told us that OMB, HHS, and the grants accountability CAP goal team consulted them prior to the enactment of the GREAT Act. For example, an organization representing recipients of federal awards said that OMB contacted them repeatedly between 2017 and 2019 to discuss the development of the data elements. Another organization representing grant recipients stated that OMB contacted them in 2019 to discuss the GREAT Act proposal. However, during our meetings with these organizations in December 2022 and January 2023, both organizations told us that neither OMB nor HHS had contacted them to discuss implementation of the GREAT Act since 2019. In addition, consultation efforts with federal agencies prior to the release of Version 2.0 occurred primarily through the Grants Management Standards Working Group. Since the release of Version 2.0 in June 2021, two grant-issuing agencies informed us that neither OMB nor HHS have consulted them directly about further refinement and implementation of the grant data elements.⁵⁹

OMB and HHS Do Not Have a Plan for Future Stakeholder Engagement

In contrast to their consultation efforts prior to enactment of the GREAT Act, OMB staff and HHS officials told us that they have yet to substantially engage with stakeholders regarding additional development of the grant data elements. We found that OMB and HHS have yet to consult with all grant stakeholder communities identified by the act. For example, members of organizations representing grant recipients, such as state and local governments, told us that neither OMB nor HHS had contacted

⁵⁹Agencies that were members of the Federal Assistance Committee for e-Government, a federal committee comprised of financial assistance making and advisory agencies, reported receiving updates from OMB and HHS, but not detailed consultation.

them regarding the development of grant data standards required by the act.⁶⁰

Stakeholders represent a valuable resource when developing and documenting data elements, as they are well positioned to identify ambiguous and unclear requirements or unrealistic financial, compliance, progress, or impact reporting expectations. For this reason, establishing and maintaining active consultation with such stakeholders throughout the data element development process can identify potential problems early on, providing the opportunity to address them prior to implementation.

The Project Management Institute (PMI), an internationally recognized professional association for project management, has identified a set of leading practices to maximize the effectiveness of stakeholder consultation.⁶¹ These leading practices consist of actions such as planning for consultation, engaging with stakeholders actively, and communicating results, among others.⁶² Applying these leading practices reduces the likelihood of having incomplete, inaccurate, or missing information. According to PMI, planning for consultation represents a leading practice for engaging with stakeholders. Furthermore, PMI states that before conducting actual consultation, organizations should develop a plan. These plans typically describe activities, requirements, resources, and expected deliverables. Furthermore, such a plan could detail how to conduct the consultation, which stakeholders to involve, and in which order. Development of a plan can also help determine the level of effort required to carry out stakeholder consultations.

⁶⁰The GREAT Act requires that OMB and HHS consult the following entities in establishing the data standards: (1) the Secretary of the Treasury to ensure that the data standards incorporate FFATA data standards; (2) the head of each agency that issues federal awards; (3) recipients of federal awards and organizations representing those recipients; (4) private sector experts, (5) members of the public including privacy experts, privacy advocates, auditors, and industry stakeholders; and (6) state and local governments. 31 U.S.C. § 6402(d).

⁶¹For the purposes of this report, the term “consultation” is interchangeable with PMI’s use of the term “elicitation.” *PMI® Requirements Management: A Practice Guide* (2016). PMI® is a registered mark of Project Management Institute, Inc.

⁶²The leading practices include four success factors and four activities. The factors include planning and preparation, active stakeholder engagement, defined business/organizational need, and domain knowledge/subject matter expertise. The activities include planning for consultation, defining types of requirements, conducting consultation activities, and documenting and communicating results. *PMI® Requirements Management: A Practice Guide* (2016).

OMB staff and HHS officials told us that they do not have a specific plan for consulting with non-agency stakeholders moving forward because they instead are focusing on establishing an interagency council that will conduct the consultation. Because OMB and HHS currently do not have a plan to consult with non-agency stakeholders throughout implementation of the GREAT Act, we are unable to assess how OMB's and HHS's efforts compare to leading practices. Since OMB and HHS have confirmed they have not yet carried out stakeholder engagement on the data elements since the issuance of Version 2.0, an outreach plan could help ensure timely consultation and communication, improve the quality of the requirements, and circumvent the need to rework standards.

OMB and HHS Do Not Have a Process to Ensure Clear, Regular, and Timely Communication with Congress About GREAT Act Implementation

In addition to consultation with the various grant stakeholders identified in the act, timely and ongoing communication with Congress is important for effective implementation of the GREAT Act. Internal control standards identify the importance of communication in providing quality information for oversight.⁶³ This information may include significant issues that affect the achievement of objectives, such as developing data standards and addressing associated risks.

It is especially important to provide timely communication with Congress if an agency expects not to be able to fulfill a statutory requirement or meet a required deadline. As previously noted, OMB and HHS officials did not meet the act's requirement to provide Congress with a report explaining the reasoning for using nonproprietary identifiers and have missed at least one other deadline set forth by the act. A lack of clear and timely communication under such circumstances could lead to misunderstanding and expectation gaps.

Congressional staff told us that OMB and HHS have not communicated with them in a consistent and timely way regarding implementation of the GREAT Act. For example, during our conversations with congressional staff in the Senate and the House of Representatives, they repeatedly inquired about OMB and agency preparation for reporting under the GREAT Act. Additionally, at a congressional hearing in May 2023,

⁶³GAO, *Standards for Internal Control in the Federal Government*, [GAO-14-704G](#) (Washington, D.C.: Sept. 10, 2014).

Members of Congress expressed their desire for additional information regarding the implementation status of the act.⁶⁴

OMB staff acknowledged that they could improve their communication with Members of Congress and staff regarding implementation of the act. OMB staff told us that they discussed GREAT Act implementation with congressional oversight staff in April and July 2023 but were unable to cite other dates since adoption of the act where this topic was substantially covered.

We found that OMB and HHS do not have a set process for communicating to Congress regarding the GREAT Act. We have previously reported that establishing and consistently following clearly established processes that facilitate open effective communication with Congress help ensure consistency and effectiveness of interactions.⁶⁵ Appropriately timed communication with key stakeholders—such as Congress—can foster effective coordination, and having an established process can improve communication between parties. Furthermore, a set process that identifies and documents appropriate methods and consistency of communication assists in ensuring that Congress is aware of key facts and what to expect from federal agencies. Not having key facts related to implementation of the GREAT Act may affect congressional decisions, and Congress may not be able to take appropriate actions to address issues affecting relevant grant stakeholders or agencies.

Conclusions

Congress and the President enacted the GREAT Act with the goals of modernizing grant recipient reporting, reducing the burden and compliance costs of grant recipients, and strengthening oversight and management of federal grants. Central to achieving these goals is the

⁶⁴*Improving Access to Federal Grants for Underserved Communities, Before the S. Comm. on Homeland Security and Governmental Affairs*, 169 Cong. Rec. D405 (daily ed. May 2, 2023).

⁶⁵For example, we have recommended other entities establish processes to improve communication with Congress. See, GAO, *Office of Compliance: Status of Management Control Efforts to Improve Effectiveness*, [GAO-04-400](#) (Washington, D.C.: Feb. 3, 2004). We also use established, well-accepted principles and approaches for communicating with and making commitments to Congress regarding mandates, requests, engagements, and reports. See GAO, *GAO's Congressional Protocols*, [GAO-17-767G](#) (Washington, D.C.: July 17, 2017).

need to develop appropriate and effective government-wide grant data standards accompanied by adequate guidance for efficiently implementing them. Toward this end, the GREAT Act sets out specific requirements for the scope and structure of these standards as well as a timeline for implementation. OMB and HHS have taken tangible steps toward addressing these requirements.

However, more needs to be done if the grant data elements developed by OMB and HHS—in its role as the standard-setting agency—are to fully function as data standards. Incorporating technical specifications, including key descriptors that allow for consistent formatting of data, to Version 2.0 data elements will provide interoperable grant data across the federal government. Appropriately addressing the act's requirements combined with following leading practices for the formulation of data standards promises to yield transparent, consistent, and comparable information that can be used to effectively manage and oversee grant awards.

Effective consultation and communication with relevant stakeholders—including Congress—throughout the development and implementation of such standards will help ensure that they reflect past experiences and insights as well as increase their likelihood of success and incorporation in decisions. By applying these requirements and effectively consulting and communicating with stakeholders, OMB and HHS can realize the GREAT Act's goals of improving the efficiency of grant administration and reducing the burden on grant stakeholders.

Recommendations for Executive Action

We are making a total of four recommendations to OMB and HHS:

The Secretary of HHS, in consultation with the Director of OMB, should ensure the grant data standards are consistent with the definition of machine-readable by appropriately incorporating technical specifications. (Recommendation 1)

The Secretary of HHS, in consultation with the Director of OMB, should review and revise as necessary the Version 2.0 grant data elements based on leading practices for the formulation of data definitions. (Recommendation 2)

The Secretary of HHS, in consultation with the Director of OMB, should develop a stakeholder outreach plan to help ensure timely consultation of all grant stakeholders identified in the GREAT Act during development

and implementation of the GREAT Act data standards. (Recommendation 3)

The Director of OMB and Secretary of HHS should jointly develop a process to ensure and document clear, regular, and timely communication with congressional stakeholders regarding implementation of the GREAT Act. (Recommendation 4)

Agency Comments

We provided a draft of this report to the General Services Administration, Department of Health and Human Services, Office of Management and Budget, and the Department of the Treasury for review and comment. HHS agreed with our recommendations and provided written comments, which are reproduced in appendix II. OMB neither agreed nor disagreed with our recommendations. In addition, GSA, HHS, OMB and Treasury provided technical comments, which we incorporated as appropriate.

We are sending copies of this report to the relevant congressional committees, the Director of the Office of Management and Budget, the Secretary of Health and Human Services, the Secretary of the Treasury; the Administrator of the General Services Administration; and other interested parties. In addition, the report is available at no charge on the GAO website at <https://www.gao.gov>.

If you or your staff have questions about this report, please contact me at (202) 512-6806 or arkinj@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 appendix III.



Jeff Arkin
Director, Strategic Issues

Appendix I: Objectives, Scope, and Methodology

The Grant Reporting Efficiency and Agreements Transparency (GREAT) Act of 2019 requires the Office of Management and Budget (OMB) and the federal agency that administers the greatest number of programs each year to establish data standards for grant recipient reporting across the government.¹ OMB designated the Department of Health and Human Services (HHS) as the agency to establish the standards. This report examines (1) the steps OMB and HHS have taken to implement the GREAT Act and meet the act's deadlines, (2) the extent to which grant data elements developed by OMB and HHS met the act's requirements and followed leading practices, and (3) the extent to which OMB and HHS have consulted grant stakeholders identified in the GREAT Act during the development of standardized grant data elements.

Throughout the report, when quantifying GREAT Act requirements, leading practices, recommendations, or data elements, we used the modifiers:

- “some” to describe two to three occurrences,
- “several” to describe four to nine occurrences, and
- “many” to represent more than nine occurrences.

To describe the steps OMB and HHS have taken to implement the GREAT Act, we reviewed the act and other applicable laws and guidance, OMB documentation, President's Management Agenda Cross-Agency Priority (CAP) Goal records, and Federal Integrated Business Framework documents. We interviewed staff from OMB and agency officials from HHS, the Department of the Treasury, and the General Services Administration. We also interviewed a leader from the grants accountability CAP goal team to discuss actions taken to develop the grants data elements.

To assess the extent to which OMB and HHS have met the GREAT Act deadlines related to developing grant data standards, we interviewed

¹Pub. L. No. 116-103, § 4, 133 Stat. 3266 (2019).

OMB staff, HHS officials, and congressional staff, and examined agency documentation and work products.

To assess the extent to which Version 2.0 grant data elements were consistent with the requirements of the GREAT Act, we interviewed OMB staff and HHS officials as well as several grant stakeholders identified in the act. We also reviewed federal statutes and regulations, assessed the applicability of accounting principles and standards to the data elements, and conducted an analysis of the Version 2.0 grant data elements. To assess if the elements rendered fully searchable and machine-readable information, we identified and applied guidance from the National Institute of Standards and Technology (NIST).² Further, we examined additional federal resources for guidance and examples of machine-readable data.³ To assess if data elements were nonproprietary, we compared them to the definition of the term proprietary in *Black's Law Dictionary*, a recognized source for legal terminology.⁴

To assess the extent to which Version 2.0 grant data standards were consistent with leading practices for formulating data definitions, we used the International Organization for Standardization's (ISO) leading practices.⁵ We selected these practices because they are internationally recognized and are one of two naming standards identified by OMB and

²NIST defines "machine-readable" as product output that is in a structured format, which can be consumed by another program using consistent processing logic. National Institute of Science and Technology, Security Content Automation Protocol (SCAP) Version 1.2 Validation Program Test Requirements, NISTIR 7511 Rev. 4 (Gaithersburg, MD: January 2016).

³A repository of Federal Enterprise Data Resources defines "data standard" as a technical specification that describes how data should be stored or exchanged for the consistent collection and interoperability of those data across different systems, sources, and users. Furthermore, data standards typically consist of discrete data standards called "components." Multiple components can be assembled to describe a more comprehensive data standards "package." A system or initiative that defines a large but unified collection of components to be used and packaged together for a wide variety of purposes is referred to as a data standard "framework." See <https://resources.data.gov/about/about-this-repository>.

⁴We defined proprietary as having the following three aspects: (1) of, relating to, or involving a proprietor (the licensee's proprietary rights); (2) of, relating to, or holding as property (the software designer sought to protect its proprietary data); and (3) (of a product) sold under a tradename. "Proprietary," *Black's Law Dictionary* (11th ed. 2019).

⁵The ISO, a standards-setting body composed of international experts in various fields of study, has developed 13 leading practices for formulating data definitions for the purposes of specifying, describing, explaining, and clarifying the meaning of data. See ISO/IEC 11179-4:2004(E).

the grants accountability CAP goal team as a guiding principle for Version 2.0 of the grant data elements.⁶ We first looked more broadly at the 540 Version 2.0 data elements for structure and completeness. For our detailed review, we selected a non-generalizable sample of 193 of the 540 Version 2.0 data elements for assessment against the ISO standards. To do this, we consulted OMB staff and HHS officials, grants management and financial management experts, and public comments to identify a subset of the data elements most relevant for the management, oversight, or transparency of federal grants. As a result of these consultations, we narrowed the 540 data elements to the subset of 193. We then randomly selected 50 of these data elements for further assessment. Table 1 provides a summary of the 13 ISO leading practices.

Table 1: The 13 International Organization for Standardization (ISO) Leading Practices for Formulating Data Definitions

Definitions be precise and unambiguous
Be concise
Be expressed without embedding rationale, functional usage, or procedural information
Be stated in the singular
Use the same terminology and consistent logical structure for related definitions
State what the concept is, not only what it is not
Be stated as a descriptive phrase or sentence(s)
Contain only commonly understood abbreviations
Be expressed without embedding definitions of other data or underlying concepts
State the essential meaning of the concept
Be able to stand alone
Avoid circular reasoning
Be appropriate for the type of metadata item being defined

Source: ©ISO: This material is reproduced from ISO/IEC 11179-4:2004(E) with permission of the American National Standards Institute on behalf of the ISO. All rights reserved. | GAO-24-106164

To assess the extent to which OMB and HHS have consulted grant stakeholders identified in the GREAT Act, we conducted oral and written

⁶The second naming standard identified in the guiding principle is the engineering naming standard National Information Exchange Model.

semi-structured interviews with grant stakeholders. We also reviewed public comments made in response to a *Federal Register* notice seeking input.⁷ To identify grant stakeholders, we reviewed the requirement set forth in the GREAT Act that the following entities shall be consulted: (1) the Secretary of the Treasury; (2) the head of each agency that issues federal awards; (3) recipients of federal awards and organizations representing those recipients; (4) private sector experts; (5) members of the public including privacy experts, privacy advocates, auditors, and industry stakeholders; and (6) state and local governments. We then purposefully selected the individuals, organizations, and agencies that fit into each of these categories based on our prior work and referrals from other interviewees. For example, we interviewed organizations and individuals, including associations such as the National Grants Management Association, National Council of Nonprofits, and Council on Governmental Relations, collectively representing thousands of grant recipients; state and local government officials; officials of nonprofit organizations; private sector experts including XBRL US and members of the Data Foundation; Small Agency Council (SAC) agencies; and others.⁸

To assess the public comments made in response to OMB's request for comments in the *Federal Register*, we analyzed 1,196 comments submitted by the public regarding a draft of the data elements as well as OMB's response to the comments. We consulted the *Project Management Institute (PMI)® Requirements Management: A Practice Guide (2016)* because it identifies generally accepted leading practices for consultation.⁹ We used the PMI leading practices with the permission of Project Management Institute, Inc.

We conducted this performance audit from July 2022 to January 2024 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. We believe that the evidence

⁷Draft *Federal Grants Management Data Standards for Feedback*, 83 Fed. Reg. 57751 (Nov. 16, 2018).

⁸The SAC represents approximately 80 small agencies that meet periodically to discuss management issues.

⁹PMI® is a registered mark of Project Management Institute, Inc.

obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

Appendix II: Comments from the Department of Health and Human Services



DEPARTMENT OF HEALTH & HUMAN SERVICES

OFFICE OF THE SECRETARY

Assistant Secretary for Legislation
Washington, DC 20201

December 19, 2023

Jeff Arkin
Director, Strategic Issues
U.S. Government Accountability Office
441 G Street NW
Washington, DC 20548

Dear Mr. Arkin:

Attached are comments on the U.S. Government Accountability Office's (GAO) report entitled, **"Grants Management: Action Needed to Ensure Consistency and Usefulness of New Data Standards"** (GAO-24-106164).

The Department appreciates the opportunity to review this report prior to publication.

Sincerely,

Melanie Anne Egorin

Melanie Anne Egorin, PhD
Assistant Secretary for Legislation

Attachment

GENERAL COMMENTS FROM THE DEPARTMENT OF HEALTH & HUMAN SERVICES ON THE GOVERNMENT ACCOUNTABILITY OFFICE'S DRAFT REPORT ENTITLED – GRANTS MANAGEMENT: ACTION NEEDED TO ENSURE CONSISTENCY AND USEFULNESS OF NEW DATA STANDARDS (GAO-24-106164)

The U.S. Department of Health and Human Services (HHS) appreciates the opportunity to review and provide comments on the Government Accountability Office's (GAO) draft report. Implementation of grant data standards, as required by the GREAT Act, will help modernize recipient reporting, reduce burden, and strengthen oversight, management, and transparency. As GAO acknowledges, HHS and OMB have taken tangible steps toward addressing the GREAT Act requirements. HHS and OMB will continue to coordinate and work collaboratively to realize the GREAT Act's goals.

Recommendation 1

The Secretary of HHS, in consultation with the Director of OMB, should ensure the grant data standards are consistent with the definition of machine-readable, by appropriately incorporating data specifications.

HHS Response

HHS concurs with the GAO recommendation.

HHS, in partnership with OMB, is committed to ensuring grant data standards established under the GREAT Act, to the extent reasonable and practicable, render information reported by recipients of Federal awards searchable and machine-readable, including by, when appropriate, incorporating technical specifications.

Recommendation 2

The Secretary of HHS, in consultation with the Director of OMB, should review and revise as necessary the Version 2.0 grant data elements based on leading practices for the formulation of data definitions.

HHS Response

HHS concurs with the GAO recommendation.

HHS, with our partners in OMB, will iteratively develop and refine the grant data elements as necessary, based on the business needs of the grants community, including the formulation of data definitions, through the data standards governance process and, to the extent reasonable and practicable, based on generally accepted leading practices.

Recommendation 3

The Secretary of HHS, in consultation with the Director of OMB, should develop a stakeholder outreach plan to help ensure timely consultation of all grant stakeholders identified in the GREAT Act during development and implementation of the GREAT Act data standards.

HHS Response

HHS concurs with the GAO recommendation.

HHS acknowledges the valuable resource grant stakeholders represent. With the issuance of M-23-19 and establishment of the Council on Federal Financial Assistance, HHS, in partnership

with OMB, will solidify plans to engage in more robust stakeholder outreach, a central touchpoint of which will be furthering burden reduction through GREAT Act implementation.

Recommendation 4

The Director of OMB and Secretary of HHS should jointly develop a process to ensure and document clear, regular, and timely communication with congressional stakeholders regarding implementation of the GREAT Act.

HHS Response

HHS concurs with the GAO recommendation.

HHS understands the criticality of ongoing communication with Congress. While HHS, OMB, and congressional stakeholders do meet routinely and discussion has included GREAT Act implementation, HHS, along with our partners in OMB, acknowledge there is room for improvement. HHS will partner with OMB to establish a process that ensures more consistent, clear, regular, and timely communication with congressional stakeholders regarding GREAT Act implementation.

Accessible text for Appendix II: Comments from the Department of Health and Human Services

DEPARTMENT OF HEALTH & HUMAN SERVICES
OFFICE OF THE SECRETARY
Assistant Secretary for Legislation
Washington, DC 20201

December 19, 2023

Jeff Arkin
Director, Strategic Issues
U.S. Government Accountability Office
441 G Street NW
Washington, DC 20548

Dear Mr. Arkin:

Attached are comments on the U.S. Government Accountability Office's (GAO) report entitled, "**Grants Management: Action Needed to Ensure Consistency and Usefulness of New Data Standards**" (GAO-24-106164). The Department appreciates the opportunity to review this report prior to publication.

Sincerely,

Melanie Anne Egorin, PhD
Assistant Secretary for Legislation

Attachment

GENERAL COMMENTS FROM THE DEPARTMENT OF HEALTH & HUMAN SERVICES ON THE GOVERNMENT ACCOUNTABILITY OFFICE'S DRAFT REPORT ENTITLED – GRANTS MANAGEMENT: ACTION NEEDED TO ENSURE CONSISTENCY AND USEFULNESS OF NEW DATA STANDARDS (GAO-24-106164)

The U.S. Department of Health and Human Services (HHS) appreciates the opportunity to review and provide comments on the Government Accountability

Office's (GAO) draft report. Implementation of grant data standards, as required by the GREAT Act, will help modernize recipient reporting, reduce burden, and strengthen oversight, management, and transparency. As GAO acknowledges, HHS and OMB have taken tangible steps toward addressing the GREAT Act requirements. HHS and OMB will continue to coordinate and work collaboratively to realize the GREAT Act's goals.

Recommendation 1

The Secretary of HHS, in consultation with the Director of OMB, should ensure the grant data standards are consistent with the definition of machine-readable, by appropriately incorporating data specifications.

HHS Response

HHS concurs with the GAO recommendation.

HHS, in partnership with OMB, is committed to ensuring grant data standards established under the GREAT Act, to the extent reasonable and practicable, render information reported by recipients of Federal awards searchable and machine-readable, including by, when appropriate, incorporating technical specifications.

Recommendation 2

The Secretary of HHS, in consultation with the Director of OMB, should review and revise as necessary the Version 2.0 grant data elements based on leading practices for the formulation of data definitions.

HHS Response

HHS concurs with the GAO recommendation.

HHS, with our partners in OMB, will iteratively develop and refine the grant data elements as necessary, based on the business needs of the grants community, including the formulation of data definitions, through the data standards governance process and, to the extent reasonable and practicable, based on generally accepted leading practices.

Recommendation 3

The Secretary of HHS, in consultation with the Director of OMB, should develop a stakeholder outreach plan to help ensure timely consultation of all grant stakeholders

identified in the GREAT Act during development and implementation of the GREAT Act data standards.

HHS Response

HHS concurs with the GAO recommendation.

HHS acknowledges the valuable resource grant stakeholders represent. With the issuance of M-23-19 and establishment of the Council on Federal Financial Assistance, HHS, in partnership with OMB, will solidify plans to engage in more robust stakeholder outreach, a central touchpoint of which will be furthering burden reduction through GREAT Act implementation.

Recommendation 4

The Director of OMB and Secretary of HHS should jointly develop a process to ensure and document clear, regular, and timely communication with congressional stakeholders regarding implementation of the GREAT Act.

HHS Response

HHS concurs with the GAO recommendation.

HHS understands the criticality of ongoing communication with Congress. While HHS, OMB, and congressional stakeholders do meet routinely and discussion has included GREAT Act implementation, HHS, along with our partners in OMB, acknowledge there is room for improvement. HHS will partner with OMB to establish a process that ensures more consistent, clear, regular, and timely communication with congressional stakeholders regarding GREAT Act implementation.

Appendix III: GAO Contact and Staff Acknowledgments

GAO Contact

Jeff Arkin, (202) 512-6806 or arkinj@gao.gov

Staff Acknowledgements

In addition to the contact named above, Peter Del Toro (Assistant Director), Kari Terrio (Analyst in Charge), Ann Czapiewski, Isaac Fifelski, Samantha Lalisian, Kyle P. O'Brien, Benjamin Paff, and Trevor Warner made key contributions to this report. Also contributing to this report were Maria C. Belaval, Joseph Cook, Heather Dunahoo, Thomas M. James, Amalia Konstas, Christy Ley, Vivian Ly, Michelle Philpott, Steven Putansu, Paula Rascona, Nina M. Rostro, Rebecca Shea, Tyler Spunaugle, Jennifer Stavros-Turner, and Cherry Lou Vasquez.

GAO's Mission

The Government Accountability Office, the audit, evaluation, and investigative arm of Congress, exists to support Congress in meeting its constitutional responsibilities and to help improve the performance and accountability of the federal government for the American people. GAO examines the use of public funds; evaluates federal programs and policies; and provides analyses, recommendations, and other assistance to help Congress make informed oversight, policy, and funding decisions. GAO's commitment to good government is reflected in its core values of accountability, integrity, and reliability.

Obtaining Copies of GAO Reports and Testimony

The fastest and easiest way to obtain copies of GAO documents at no cost is through our website. Each weekday afternoon, GAO posts on its [website](#) newly released reports, testimony, and correspondence. You can also [subscribe](#) to GAO's email updates to receive notification of newly posted products.

Order by Phone

The price of each GAO publication reflects GAO's actual cost of production and distribution and depends on the number of pages in the publication and whether the publication is printed in color or black and white. Pricing and ordering information is posted on GAO's website, <https://www.gao.gov/ordering.htm>.

Place orders by calling (202) 512-6000, toll free (866) 801-7077, or TDD (202) 512-2537.

Orders may be paid for using American Express, Discover Card, MasterCard, Visa, check, or money order. Call for additional information.

Connect with GAO

Connect with GAO on [Facebook](#), [Flickr](#), [Twitter](#), and [YouTube](#).

Subscribe to our [RSS Feeds](#) or [Email Updates](#). Listen to our [Podcasts](#).

Visit GAO on the web at <https://www.gao.gov>.

To Report Fraud, Waste, and Abuse in Federal Programs

Contact FraudNet:

Website: <https://www.gao.gov/about/what-gao-does/fraudnet>

Automated answering system: (800) 424-5454 or (202) 512-7700

Congressional Relations

A. Nicole Clowers, Managing Director, ClowersA@gao.gov, (202) 512-4400, U.S. Government Accountability Office, 441 G Street NW, Room 7125, Washington, DC 20548

Public Affairs

Chuck Young, Managing Director, youngc1@gao.gov, (202) 512-4800
U.S. Government Accountability Office, 441 G Street NW, Room 7149
Washington, DC 20548

Strategic Planning and External Liaison

Stephen J. Sanford, Managing Director, spel@gao.gov, (202) 512-4707
U.S. Government Accountability Office, 441 G Street NW, Room 7814,
Washington, DC 20548



Please Print on Recycled Paper.