



DATA ACT

OIGs Reported That Quality of Agency- Submitted Data Varied, and Most Recommended Improvements

Accessible Version

July 2020

Why GAO Did This Study

One of the purposes of the DATA Act is to increase accountability and transparency of federal spending. The act requires federal agencies' OIGs to issue reports on their assessments of the quality of the agencies' spending data and the implementation and use of data standards. The act also includes provisions requiring GAO to review the OIG reports to assess and compare the completeness, timeliness, quality, and accuracy of data that agencies submit and the implementation and use of data standards.

This report describes the results of OIG reviews of the quality of their respective agencies' DATA Act spending data and the implementation and use of data standards.

GAO reviewed 51 OIG reports issued on or before December 31, 2019, assessing agencies' first quarter of fiscal year 2019 submissions of federal spending data. GAO clarified information with the OIGs, as necessary.

What GAO Recommends

GAO is not making recommendations in this report. The Council of the Inspectors General on Integrity and Efficiency noted that GAO's report provides useful information on OIG efforts to meet oversight and reporting responsibilities under the DATA Act.

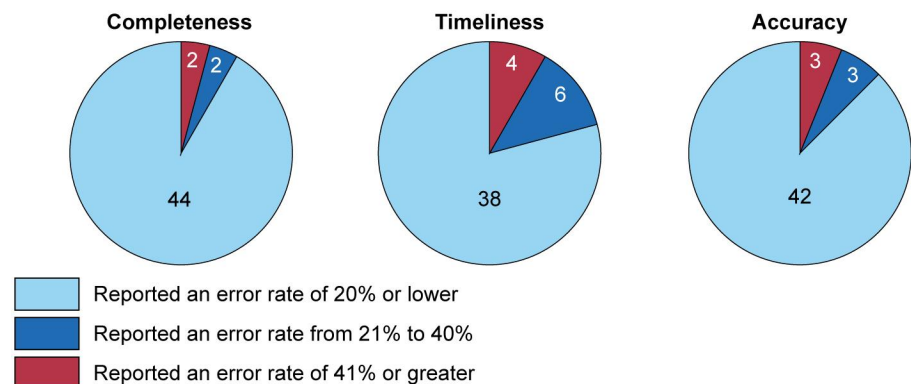
DATA ACT

OIGs Reported That Quality of Agency-Submitted Data Varied, and Most Recommended Improvements

What GAO Found

Offices of inspector general (OIG) issued reports on the quality of their agencies' data submissions for the first quarter of fiscal year 2019, as mandated by the Digital Accountability and Transparency Act of 2014 (DATA Act). GAO found that OIGs' audit results varied regarding the quality of the data submitted by their respective agencies. Using a 20 percent or lower error rate benchmark established by the OIG audit methodology guidance, 37 of 51 OIGs reported that their agencies' data were of higher quality, and 11 OIGs reported data quality that was of moderate or lower quality (defined by the OIG audit methodology guidance as error rates greater than 20 percent and 40 percent, respectively). Further, 47 OIGs reported that their agencies submitted data on time, but certain agencies' submissions did not always contain all the data that should have been submitted. For example, 14 of these OIGs reported that certain agency components' or systems' data were missing.

Error Rates of Data Submitted under the Digital Accountability and Transparency Act of 2014 as Reported by Agencies' Offices of Inspector General (OIG), by Range and Type of Error (First Quarter, Fiscal Year 2019)



Source: GAO analysis of OIG reports. | GAO-20-540

Thirty-seven OIGs reported that agencies properly implemented and used the data standards established by the Office of Management and Budget (OMB) and the Department of the Treasury (Treasury). However, 47 OIGs reported control deficiencies related to system limitations, quality control procedures, data from external systems, and other issues. Further, 44 OIGs made recommendations for agencies to help improve data quality, including recommendations to

- establish and implement data quality procedures or guidance and implement needed corrective actions;
- develop controls to resolve issues during the submission process;
- develop controls over the review and correction of data derived from source systems;
- work with Treasury, OMB, or other external stakeholders to resolve identified issues; and
- develop, implement, or evaluate automated systems controls.

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Abbreviations

Broker	DATA Act broker
CFDA	Catalog of Federal Domestic Assistance
CFO Act	Chief Financial Officers Act of 1990
CIGIE	Council of the Inspectors General on Integrity and Efficiency
DAIMS	DATA Act Information Model Schema
DATA Act	Digital Accountability and Transparency Act of 2014
FABS	Financial Assistance Broker Submission
FAEC	Federal Audit Executive Council
FAR	Federal Acquisition Regulation
FFATA	Federal Funding Accountability and Transparency Act of 2006
FPDS-NG	Federal Procurement Data System-Next Generation
FSRS	FFATA Subaward Reporting System
IG Guide	CIGIE FAEC Inspectors General Guide to Compliance under the DATA Act
NAICS	North American Industrial Classification System
OIG	office of inspector general
OMB	Office of Management and Budget
Q1 FY2019	first quarter of fiscal year 2019
SAM	System for Award Management
SAO	senior accountable official
TIGTA	Treasury Inspector General for Tax Administration
Treasury	Department of the Treasury

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July 9, 2020

Congressional Addressees

One of the purposes of the Digital Accountability and Transparency Act of 2014 (DATA Act) is to increase accountability and transparency of federal spending, which totaled almost \$4.5 trillion for fiscal year 2019.¹ Among other things, the DATA Act includes provisions requiring a series of office of inspector general (OIG) and GAO oversight reports evaluating the completeness, timeliness, quality, and accuracy of federal agencies' spending data and the implementation and use of data standards.² The act also requires the Office of Management and Budget (OMB) and Department of the Treasury (Treasury) to establish data standards. These standards must, to the extent reasonable and practicable, generate agency data that are consistent and comparable.

In accordance with Treasury guidance, federal agencies were required to submit their spending data for the first quarter of fiscal year 2019 (Q1 FY2019) in March 2019,³ and the OIGs issued their second round of mandated data quality oversight reports primarily in November 2019.⁴ This report is part of our ongoing monitoring of DATA Act implementation and is our second report in response to provisions in the DATA Act that call for us to review OIG reports and issue reports assessing and comparing the completeness, timeliness, quality, and accuracy of agency data submitted under the act and agencies' implementation and use of

¹Pub. L. No. 113-101, 128 Stat. 1146 (May 9, 2014). The DATA Act amended the Federal Funding Accountability and Transparency Act of 2006 (FFATA). Pub. L. No. 109-282, 120 Stat. 1186 (Sept. 26, 2006), *codified at* 31 U.S.C. § 6101 note. We refer to language added to FFATA by the DATA Act, as DATA Act requirements.

²The DATA Act defines "federal agency" by reference to the definition of "executive agency" set out in section 105 of Title 5, United States Code.

³The due date for agencies to submit their quarterly DATA Act submissions is 45 days after the quarter ends. The deadline for submitting Q1 FY2019 data was extended because of the partial lapse in appropriations.

⁴Some OIGs contracted with independent public accountants to review agency spending data. For purposes of this report, we refer to the reviews the OIGs and their contractors conducted and the resulting reports collectively as OIG reviews or reports, unless otherwise noted.

data standards.⁵ In November 2019, we reported on the quality of data based on our projectable government-wide sample of data submitted in the fourth quarter of fiscal year 2018.⁶

The objective of this report is to describe the quality of agencies' DATA Act spending data and implementation and use of data standards, as reported by their OIGs.⁷ To address this objective, we obtained and reviewed 51 OIG DATA Act reports issued on or before December 31, 2019,⁸ from 23 Chief Financial Officers Act of 1990 (CFO Act) agency OIGs and 28 non-CFO Act agency OIGs.⁹ We developed and used a data collection instrument to compile and summarize the findings included in the OIG reports related to the completeness, timeliness, accuracy, and quality of agencies' data submissions; agencies' implementation and use of data standards; and other information. We also followed up with OIGs for clarification and corroboration, as necessary. To characterize the 51 OIGs' reported results throughout this report, we defined the following modifiers to quantify the OIG-reported results:

- “nearly all” represents 49 to 50 OIGs,
- “most” represents 38 to 48 OIGs,

⁵We have issued several reports to fulfill our reporting mandate under the DATA Act. See GAO, *DATA Act: Reported Quality of Agencies' Spending Data Reviewed by OIGs Varied Because of Government-wide and Agency Issues*, [GAO-18-546](#) (Washington, D.C.: July 23, 2018), for our first report on our review of OIG reports. See the Related GAO Products list at the end of this report for other reports we have issued as part of our ongoing monitoring of DATA Act implementation.

⁶GAO, *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).

⁷Quality of data is determined based on the completeness, accuracy, and timeliness of the data.

⁸DATA Act reports were issued by 53 OIGs by December 31, 2019, including a report from GAO's OIG. We did not include the GAO OIG report in our review for independence reasons. The Treasury OIG and the Treasury Inspector General for Tax Administration performed separate audits and issued separate reports, and the Treasury OIG issued a report that combined the two separate reports. We used the Treasury combined report for this review.

⁹The CFO Act, Pub. L. No. 101-576, 104 Stat. 2838 (Nov. 15, 1990), among other things, established chief financial officer positions at major federal entities. The current list of 24 included entities, commonly referred to as CFO Act agencies, is codified at section 901 of title 31, United States Code.

- “many” represents 20 to 37 OIGs, and
- “some” represents 1 to 19 OIGs.

Appendix I provides additional details on our scope and methodology. Information in this report cannot be compared to prior GAO or OIG reports primarily because of differences in audit scope, audit methodologies, and procedures performed, and because of changes in the guidance and data standards that OMB and Treasury issued and changes in Treasury’s DATA Act broker (broker)—a system that collects and validates agency-submitted data prior to their publication on the USAspending.gov website. For example, Treasury guidance in the DATA Act Information Model Schema (DAIMS)—which provides information on how to standardize the way federal financial assistance awards (i.e., grants and loans), contracts, and other financial and nonfinancial data are to be reported—is updated periodically. DAIMS Version 1.3.1 was effective for Q1 FY2019 data submissions, and DAIMS Version 1.0 was effective for second quarter of fiscal year 2017 submissions, which we reviewed and reported on in November 2017.¹⁰ In addition, OIGs either tested the full population, tested a sample of transactions, or only assessed internal controls depending on the population size and the suitability of the files for sampling.

We conducted this performance audit from September 2019 to July 2020 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 objective. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objective.

Background

The DATA Act was enacted May 9, 2014, for purposes that include expanding on previous federal transparency legislation by requiring the disclosure of federal agency expenditures and linking agency spending information to federal program activities, so that both policymakers and the public can more effectively track federal spending. The act also calls

¹⁰GAO, *DATA Act: OMB, Treasury, and Agencies Need to Improve Completeness and Accuracy of Spending Data and Disclose Limitations*, [GAO-18-138](#) (Washington, D.C.: Nov. 8, 2017).

for improving the quality of data submitted to USAspending.gov—a source of spending data for the federal government—by holding federal agencies accountable for the completeness and accuracy of the data submitted.

The Federal Funding Accountability and Transparency Act of 2006 (FFATA), as amended by the DATA Act, identifies OMB and Treasury as the two agencies responsible for leading government-wide implementation. For example, the DATA Act requires OMB and Treasury to establish government-wide data standards that shall, to the extent reasonable and practicable, produce consistent, comparable, and searchable spending data for any federal funds made available to or expended by federal agencies. The DATA Act also requires OMB and Treasury to ensure that the standards are applied to the data made available on USAspending.gov.

Treasury issued guidance in 2016 for agencies to use when preparing for their first DATA Act submissions in 2017.¹¹ This guidance included steps for agencies to create an inventory of agency data and associated business processes, systems, and applications and map those data to DAIMS. See appendix II for additional information on OMB and Treasury guidance for agency DATA Act submissions.

The DATA Act requires each OIG to issue three reports on its assessment of the quality of the agency's data submissions and implementation and use of data standards. The first report was due November 8, 2016; however, agencies were not required to submit spending data in compliance with the DATA Act until May 2017. Therefore, the Council of the Inspectors General on Integrity and Efficiency (CIGIE) developed an approach to address what it described as a reporting date anomaly.¹² It encouraged interim OIG readiness reviews and related reports on agencies' implementation efforts and delayed issuance of the mandated reports to November 2017, with

¹¹Department of the Treasury, *DATA Act Implementation Playbook, Version 2.0* (Washington, D.C.: June 24, 2016).

¹²CIGIE is an independent entity established within the executive branch to address integrity, economy, and effectiveness issues that transcend individual government agencies and aid in establishing a professional, well-trained, and highly skilled workforce in OIGs. CIGIE is primarily composed of federal agency inspectors general and its duties include identifying, reviewing, and discussing areas of weakness and vulnerability in federal programs with respect to fraud, waste, and abuse.

subsequent reports following a 2-year cycle and due November 2019 and 2021.

CIGIE established the Federal Audit Executive Council (FAEC) to discuss and coordinate issues affecting the federal audit community, with special emphasis on audit policy and operations of common interest to FAEC members. FAEC formed a subgroup, in coordination with participating agency OIGs and in consultation with GAO, which developed a common audit methodology and published the *CIGIE FAEC Inspectors General Guide to Compliance under the DATA Act* (IG Guide) for use in conducting mandated reviews.¹³ The IG Guide is intended to provide the inspector general community with a baseline framework for the audits that the DATA Act requires.

According to the IG Guide, for review of Q1 FY2019 data the audit team, to the extent possible, was to adhere to the overall methodology, objectives, and audit procedures outlined in the guide. The audit team could modify the IG Guide based on specific systems and controls in place at its agency but had to use professional judgment when designing alternative audit procedures. The IG Guide strongly recommends that audit teams document the reason for any deviation in the audit documentation. The audit teams are to exercise professional judgment in considering the reliability of financial and award data in relevant information systems when determining the source of support for testing individual attributes in the agency DATA Act submission, as well as the design of alternate procedures and the effect on reporting of DATA Act results. Some of the procedures that the guide calls for and that we discuss in this report include the following:

- Determine completeness of summary level data in Files A (appropriations account) and B (object class and program activity) and whether agencies submitted all data required.
- Determine whether File C (award financial) is suitable for sampling and, if not, select a statistical sample from Files D1 (procurement) and D2 (financial assistance).

¹³Council of the Inspectors General on Integrity and Efficiency, Federal Audit Executive Council DATA Act Working Group, *CIGIE FAEC Inspectors General Guide to Compliance under the DATA Act*, OIG-CA-19-012 (Washington, D.C.: Department of the Treasury, Office of Inspector General, Feb. 14, 2019). The FAEC DATA Act Working Group issued additional guidance, *FY2019 DATA Act Audits, Frequently Asked Questions*, updated on September 27, 2019.

- Determine statistically projected error rates for completeness, timeliness, and accuracy of the data submitted.
- Report on any errors that were attributable to third-party systems (e.g., the Federal Procurement Data System-Next Generation (FPDS-NG), System for Award Management (SAM), and Financial Assistance Broker Submission (FABS)) and include those errors in the error rates.
- Report error rates by data element for completeness, timeliness, and accuracy of the data submitted.
- Report on a level of quality based on the error rates for completeness, timeliness, and accuracy.
- Report on the agencies' implementation and use of the data standards.
- Report any identified control deficiencies.

The IG Guide notes that the data in Files E (additional awardee attributes) and F (subaward attributes) are the responsibility of the awardee in accordance with terms and conditions of federal agreements, and OIG assessment of these data is optional. See appendix II for additional information on the agency submission process and the specific files (A to F) included in the agency submissions, including the source systems.

The IG Guide defines the aspects of quality as follows:

- **Completeness of agency submission:** Transactions and events that should have been recorded were recorded in the proper period.
- **Completeness of data elements:** Each of the required data elements that should have been reported was reported in the appropriate file (Files A through D2).
- **Timeliness of agency submission:** Reporting of the agency DATA Act submission to the DATA Act broker was in accordance with the schedule that the Treasury DATA Act Project Management Office established.
- **Timeliness of data elements:** The required data elements that should have been reported were reported in accordance with the reporting schedules defined by the financial, procurement, and financial assistance requirements in FFATA, the Federal Acquisition Regulation (FAR), FPDS-NG, FABS, and DAIMS.

- **Accuracy of data elements:** Amounts and other data relating to recorded transactions have been recorded in accordance with the DAIMS Reporting Submission Specification, Interface Definition Document, and online data dictionary and agree with the authoritative source records.
- **Quality of data elements:** Data are complete, accurate, and reported on a timely basis.

According to the IG Guide, OIGs were to determine the quality of the data using the highest error rate (the midpoint of the projected errors or the actual error rate) for completeness, timeliness, and accuracy. According to the guide, OIGs should consider the range of errors in determining the level of quality using the following scale:

- Higher quality = 0 to 20 percent error rate
- Moderate quality = 21 to 40 percent error rate
- Lower quality = 41 percent and above error rate

For example, if OIG test results show a completeness error rate of 15 percent, a timeliness error rate of 10 percent, and an accuracy error rate of 25 percent, the determination of quality would be moderate.

As part of OIGs' assessment of agencies' implementation and use of the data standards, the IG Guide provides audit procedures for determining whether the OIGs' respective agencies have consistently used the data elements that OMB and Treasury established. The procedures include reviewing the inventory and mapping of agency data for each agency's submission of Files A, B, and C. The OIGs were to also consider the data element testing results in assessing the agencies' implementation and use of data standards.

OIGs Reported Varying Levels of Data Quality and Implementation and Use of Data Standards

According to the 51 OIG reports we reviewed, the Q1 FY2019 data submitted by agencies had varying levels of quality. Many OIGs reported that their agencies' data were of higher quality, while some OIGs reported that their agencies' data were of moderate or lower quality. Most OIGs also reported that agencies submitted their Q1 FY2019 data on time, but

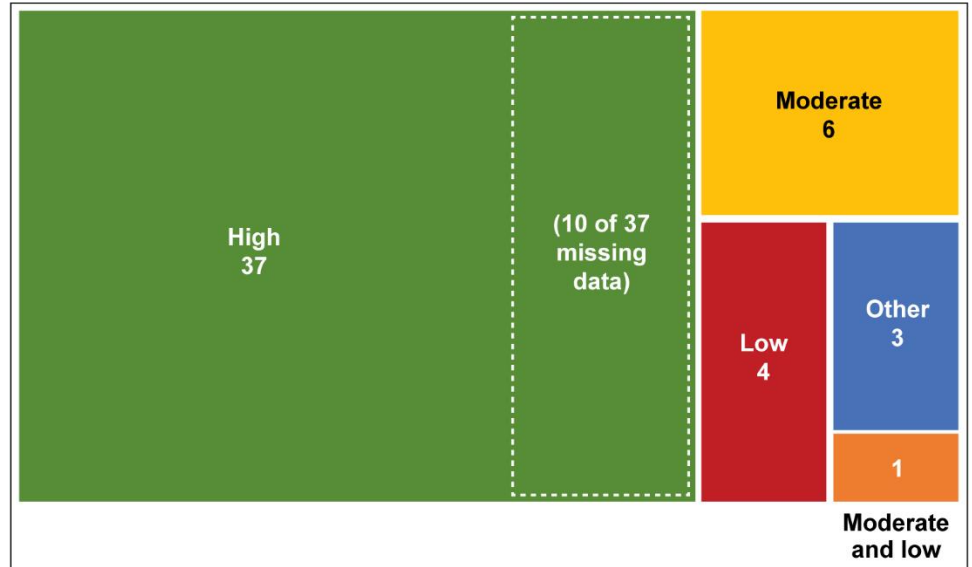
the quarterly submissions did not always contain all the data that should have been submitted. In addition, OIGs reported that many data elements in the submissions were not always complete, timely, or accurate. Many OIGs also reported that agencies properly implemented and used the data standards, though some OIGs reported issues that may preclude agencies from doing so consistently. Most OIGs reported control deficiencies and made recommendations to help improve the quality of their agencies' data.

OIGs Reported Varying Levels of Quality of Data Submitted

All 51 OIGs reported a determination of quality of the data submitted by their agencies for Q1 FY2019, as shown in figure 1. Most (48 of 51) OIGs reported their determinations of quality using the scale provided in the IG Guide. Of these 48 OIGs, 37 reported that their agencies' submitted data were of higher quality, even though 10 of those agencies' submissions were missing data. Six OIGs reported that their agencies' submitted data were of moderate quality, and four OIGs reported that their agencies' submitted data were of lower quality. One OIG reported two quality levels—moderate quality for File D1 (procurements) and lower quality for File D2 (financial assistance).

The other three OIGs reported determinations of quality using a different scale than that provided in the IG Guide. One of these OIGs determined that its agency's data submission was of lower quality because significant amounts of data were not reported for two agency components, despite testing results indicating that the data submitted were of higher quality. According to another OIG, its agency is not required to submit Files C through F, so the OIG assessed internal controls; reviewed all eight data elements in Files A and B; and found that the data were complete, timely, accurate, and "of sufficient" quality. Another OIG tested the full population of records in its agency's submission and did not provide error rates but reported that quality was "good."

Figure 1: Quality of Data Submitted under the Digital Accountability and Transparency Act of 2014, as Reported by Agencies' Offices of Inspector General, First Quarter, Fiscal Year 2019

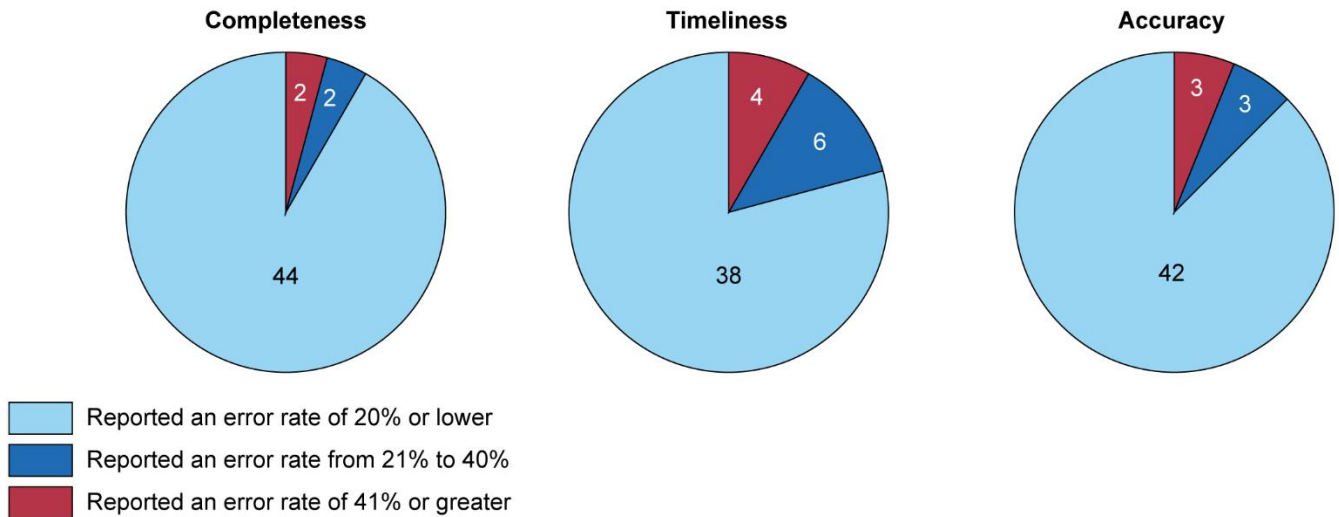


Source: GAO analysis of office of inspector general reports. | GAO-20-540

The 48 OIGs that determined quality using the scale provided in the IG Guide based their determinations on the error rates for completeness, timeliness, and accuracy. Some OIGs tested a full population of records, so they determined and reported actual error rates. OIGs that tested a sample of records determined and reported projected error rates. See appendix III for details on the OIGs' methodologies, including the number of records tested, population size, selection methodology (i.e., the OIG tested a statistical sample of records, tested the entire population, or only assessed internal controls), and the file(s) from which the selection was made.

As shown in figure 2, most OIGs reported completeness, timeliness, and accuracy error rates of 20 percent or lower. In addition, the number of OIGs reporting error rates greater than 20 percent was slightly higher for timeliness than completeness or accuracy. The individual agency OIG testing results with error rates and level of quality are shown in appendix IV.

Figure 2: Error Rates for Data Submitted under the DATA Act, as Reported by Agencies' OIGs, by Range and Type of Error (First Quarter, Fiscal Year 2019)



DATA Act - Digital Accountability and Transparency Act of 2014
 OIG - Office of inspector general

Source: GAO analysis of OIG reports. | GAO-20-540

Note: The data presented above are based on the 48 OIG reports that contained error rates for completeness, timeliness, and accuracy (N=48). One OIG reported two different error rates—one for File D1 (procurement awards) and one for File D2 (financial assistance awards) for completeness, timeliness, and accuracy. Fig. 2 includes the higher error rate that OIG reported.

Many OIGs Reported That Agencies' Submissions Were Complete, and Some OIGs Reported That Certain Data Were Missing

According to the IG Guide, OIGs were to report on the completeness of their agencies' submissions (i.e., transactions and events that should have been recorded were recorded in the proper period) as well as completeness of data tested (i.e., all applicable data elements were reported in the appropriate Files A through D2). The results of this testing helped the OIGs determine error rates for the individual data elements as well as the error rates for completeness shown in figure 2.

Completeness of Agency Submissions and Completeness Error Rates

Per the IG Guide, **completeness of agency submission** means transactions and events that should have been recorded were recorded in the proper period.

Many (35 of 51) OIGs reported that their agencies' Q1 FY2019 submissions were complete. However, 14 OIGs reported that their agencies' Q1 FY2019 quarterly submissions were not complete and were missing data, including 10 OIGs that reported their agencies' data to be of higher quality, as discussed above. Two OIGs did not report on the completeness of their agencies' quarterly submissions.

Three of the 14 OIGs that reported that their agencies' submissions were not complete noted that data were missing from significant components or systems. For example, one OIG reported that its agency's Q1 FY2019 submission did not include award-level data totaling almost \$10 billion for two of the agency's components. In addition, another OIG reported that its agency was missing data for at least four components, including financial assistance award data for one of the components with an absolute value of \$776 million. Importantly, data not included in agencies' submissions were not considered and reflected in the error rates or levels of quality because the rates were based on the data that the agencies actually submitted and the OIGs tested, with the exception of one OIG that determined its agency's data submission was of lower quality because significant amounts of data were not reported, as discussed above.

Most (48 of 51) OIGs reported error rates for the completeness of the agencies' submitted data based on their testing results. As shown in figure 2, of the 48 OIGs that reported a completeness error rate, 44 OIGs reported a completeness error rate of 20 percent or less, and the remaining four OIGs reported an error rate greater than 20 percent.

Completeness of Individual Data Elements

Per the IG Guide, **completeness of data elements** means that for each of the required data elements that should have been reported, the data element was reported in the appropriate file (Files A through D2).

Most (39 of 51) OIGs reported completeness error rates by individual data element, but not all data elements are applicable to every agency. OIGs generally reported lower error rates for completeness of the individual data elements than timeliness and accuracy error rates, as shown in figure 8 in appendix V.

While completeness error rates were generally lower than the error rates for timeliness and accuracy, some OIGs reported completeness error rates greater than 20 percent for certain individual data elements that agencies were required to submit for Q1 FY2019. For example, for two

data elements—*Ultimate Parent Unique Identifier* and *Ultimate Parent Legal Entity Name*—five OIGs reported completeness error rates greater than 20 percent; however, 13 and 12 OIGs, respectively, reported completeness error rates of 0 percent (no errors) for these two data elements. In addition, as shown in figure 3, 32 OIGs reported completeness error rates of 0 percent for three data elements—*Object Class*, *Appropriations Account*, and *Obligation*. OIGs also reported error rates of 0 percent for two data elements—*Outlay* and *Unobligated Balance*; however, only eight or fewer OIGs reported error rates for these data elements. See appendix V for details, including a listing of data elements and ranges of completeness error rates that OIGs reported for the data elements.

Figure 3: Completeness Error Rates for Data Elements Submitted under the Digital Accountability and Transparency Act of 2014 as Reported by Agencies' OIGs (First Quarter, Fiscal Year 2019)

39 offices of inspector general (OIG) reported error rates for completeness for up to 52 separate data elements

Not all 52 data elements apply to every agency, so some OIGs did not report completeness error rates for certain data elements

Up to 36 OIGs reported completeness error rates of 20% or less for the data elements tested



Data elements with low completeness error rates

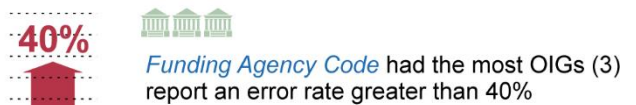


The data elements *Object Class*, *Appropriations Account*, and *Obligation* had the most OIGs (32) report a 0% error rate (no errors)



Unobligated Balance and *Outlay* had 0% error rates reported, though only 8 or fewer OIGs reported error rates for these data elements

Data elements with higher completeness error rates



Funding Agency Code had the most OIGs (3) report an error rate greater than 40%



Ultimate Parent Unique Identifier and *Ultimate Parent Legal Entity Name* had the most OIGs (5) report an error rate greater than 20%

Source: GAO analysis of OIG reports. | GAO-20-540

Most OIGs Reported That Agencies Met Quarterly File Submission Deadline and Certain Data Were Not Recorded Timely

According to the IG Guide, OIGs were to report on the timeliness of their agencies' quarterly submissions (i.e., whether the agency reported its quarterly data submission (Files A through F) to the broker in accordance with Treasury's schedule) as well as timeliness of data elements tested (i.e., each data element that should have been reported was reported in accordance with schedules defined by the financial, procurement, and financial assistance requirements for FFATA, FAR, FPDS-NG, FABS, and DAIMS). The results of this testing helped the OIGs determine error rates for the individual data elements, as well as the error rates for timeliness shown in figure 2.

Timeliness of Agency Submissions and Timeliness Error Rates

Most (47 of 51) OIGs reported that their agencies' Q1 FY 2019 data were submitted to the broker by Treasury's March 20, 2019, deadline. Three OIGs reported that their agencies' quarterly submissions were late, and one OIG did not report on the timeliness of the submission.

Per the IG Guide, **timeliness of the agency submission** means that the agency's DATA Act submission to the DATA Act broker is in accordance with the schedule that Treasury's Project Management Office established.

Most (48 of 51) OIGs reported error rates for the timeliness of the agencies' submitted data based on their testing results. Of these 48 OIGs, 38 OIGs reported timeliness error rates of 20 percent or less, and the remaining 10 OIGs reported timeliness error rates of greater than 20 percent, as shown in figure 2. Some (16 of 51) OIGs reported higher error rates for timeliness than for completeness and accuracy, as shown in appendix IV. Three OIGs did not report error rates for timeliness.

Timeliness of Individual Data Elements

Most (39 of 51) OIGs reported timeliness error rates by individual data element, but not all data elements are applicable to every agency. A timeliness error indicates that an agency did not submit data elements within certain transaction records in the proper accounting period or in the required reporting time frame. For example, to be considered timely, procurement award data elements within File D1 would need to be reported in FPDS-NG within 3 business days after the award is made, and financial assistance award data elements within File D2 would need to be reported to FABS no later than 30 days after the award.

Per the IG Guide, **timeliness of data elements** means that for each of the required data elements that should have been reported, the data elements were reported in accordance with reporting schedules defined by the financial, procurement, and financial assistance requirements.

As shown in figure 4, some OIGs reported timeliness error rates greater than 20 percent for certain individual data elements, while some OIGs reported timeliness error rates of 0 percent (no errors) for other data elements. For example, five or more OIGs reported timeliness error rates greater than 20 percent for 39 individual data elements. These data elements include *Award Modification/Amendment Number*, which had four OIGs report an error rate greater than 40 percent, and three other data elements—*Award Identification Number*, *Funding Agency Name*, and *Funding Agency Code*—which each had 10 OIGs report error rates greater than 20 percent. In addition, 28 OIGs reported timeliness error rates of 0 percent for the *Obligation* data element. OIGs also reported timeliness error rates of 0 percent for two data elements—*Outlay* and *Unobligated Balance*; however, only eight or fewer OIGs reported error rates for these data elements. See appendix V for details, including a listing of data elements and ranges of timeliness error rates that the OIGs reported for the data elements.

Figure 4: Timeliness Error Rates for Data Elements Submitted under the Digital Accountability and Transparency Act of 2014, as Reported by Agencies' OIGs (First Quarter, Fiscal Year 2019)

39 offices of inspector general (OIG) reported error rates for timeliness for up to 52 separate data elements



Not all 52 data elements apply to every agency, so some OIGs did not report timeliness error rates for certain data elements



Up to 33 OIGs reported timeliness error rates of 20% or less for the data elements tested



Data elements with low timeliness error rates

0%

The data element *Obligation* had the most OIGs (28) report a 0% error rate (no errors)

0%

Unobligated Balance and *Outlay* had 0% error rates reported, though only 8 or fewer OIGs reported error rates for these data elements

Data elements with higher timeliness error rates

40%

Award Modification/Amendment Number had the most OIGs (4) report an error rate greater than 40%

20%

Award Identification Number, *Funding Agency Name*, and *Funding Agency Code* had 10 OIGs report an error rate greater than 20%

20%

35 other data elements had five or more OIGs report error rates greater than 20 percent

Source: GAO analysis of OIG reports. | GAO-20-540

Certain Data Were Not Accurate

According to the IG Guide, OIGs were to report on the accuracy of the data (i.e., whether amounts and other data relating to recorded transactions were recorded in accordance with Treasury DATA Act guidance and agree with authoritative source records). Further, data elements in File C should match the information from an agency's financial system or source documentation, and data elements in Files D1 and D2 were to be compared to authoritative sources, such as agency procurement and financial assistance award documentation. The results of these tests helped OIGs determine error rates for the individual data elements as well as the error rates for accuracy shown in figure 2. In addition, as provided in the IG Guide, OIGs reported on errors in individual data elements that were attributable to external systems as well

as errors in dollar value–related (monetary) data elements associated with agencies’ Q1 FY2019 data submissions.

Accuracy Error Rates

According to the IG Guide, OIGs were to report accuracy error rates based on their testing of agency transactions. As discussed above, most (48 of 51) OIGs reported an error rate for the accuracy of the agencies’ submitted data. Of these 48 OIGs, 42 OIGs reported accuracy error rates of 20 percent or less, and the remaining six OIGs reported accuracy error rates of greater than 20 percent, as shown in figure 2. Thirty-two of the 48 OIGs reported higher error rates for accuracy than completeness and timeliness, as shown in appendix IV. Three OIGs did not report error rates for accuracy.

Accuracy of Individual Data Elements

Most (41 of 51) OIGs reported accuracy error rates by individual data element, but not all data elements are applicable to every agency. An accuracy error indicates that the information submitted to the broker for display on USAspending.gov does not agree with Treasury guidance or agency supporting documents.

Per the IG Guide, **accuracy of data elements** means that amounts and other data relating to recorded transactions have been recorded in accordance with Treasury DATA Act guidance and agree with authoritative source records.

As shown in figure 5, five or more OIGs reported accuracy error rates greater than 20 percent for 20 individual data elements. These data elements include *Period of Performance Start Date*, for which six OIGs reported error rates greater than 40 percent; *Potential Total Value of Award*, for which 12 OIGs reported error rates greater than 20 percent; and *Current Total Value of Award*, *Ultimate Parent Legal Entity Name*, and *Legal Entity Address*, for which 10 or more OIGs reported error rates greater than 20 percent. However, at least four OIGs reported error rates of 0 percent (no errors) for these five data elements. In addition, 23 OIGs reported accuracy error rates of 0 percent for three data elements—*Object Class*, *Appropriations Account*, and *Ordering Period End Date*. OIGs also reported accuracy error rates of 0 percent for the *Unobligated Balance* data element; however, only seven OIGs reported error rates for this data element. See appendix V for details, including a listing of data elements and ranges of accuracy error rates that the OIGs reported for the data elements.

Figure 5: Accuracy Error Rates for Data Elements Submitted under the Digital Accountability and Transparency Act of 2014, as Reported by Agencies' OIGs (First Quarter, Fiscal Year 2019)

41 offices of inspector general (OIG) reported error rates for accuracy for up to 52 separate data elements



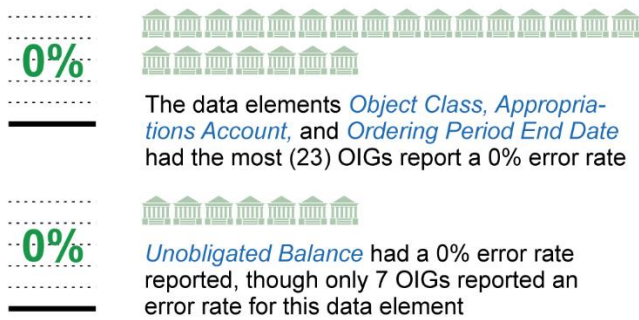
Not all 52 data elements apply to every agency, so some OIGs did not report accuracy error rates for certain data elements



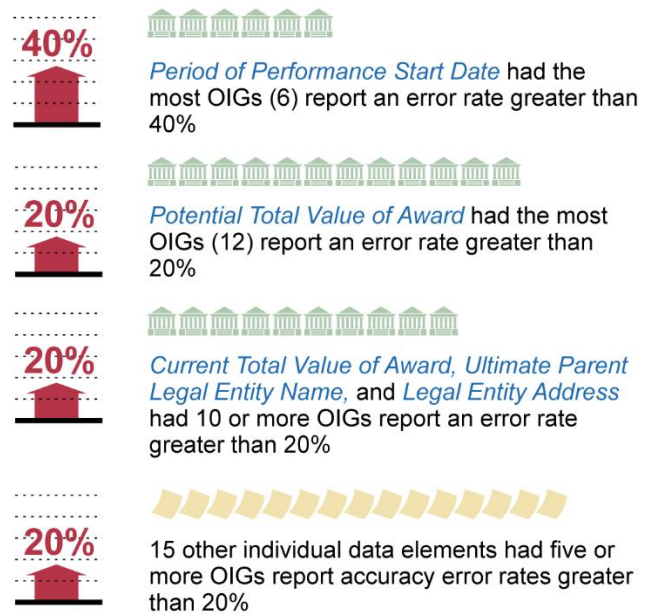
Up to 36 OIGs reported accuracy error rates of 20% or less for the data elements tested



Data elements with low accuracy error rates



Data elements with higher accuracy error rates



Source: GAO analysis of OIG reports. | GAO-20-540

Accuracy Errors Attributed to External Systems

Many (35 of 51) OIGs reported that errors for certain data elements included in agencies' Q1 FY2019 submissions were the result of external third-party systems and therefore were not attributable to the agencies. These systems include SAM, which contains data that originate from federal award recipients, and FPDS-NG and FABS. Errors could also be caused by the broker incorrectly extracting data from these systems. The IG Guide instructs OIGs to include any such errors in their calculations of error rates and encourages OIGs to report information about the source

of errors to help add perspective about the types of errors found. For example, one OIG reported that *Period of Performance Start Date* errors occurred because the broker extracted the wrong date from FPDS-NG, which is the source of data for File D1 (procurements).

Certain recipient information that awardees provide is extracted by FPDS-NG from SAM, which is the source of data for file E (additional awardee attributes). One OIG, for example, reported that errors in *Legal Entity Address*, *Ultimate Parent Legal Entity Name*, *Ultimate Parent Unique Identifier*, and other elements occurred because awardees of the agency's procurements and grants were not keeping their demographic data current within SAM.

In addition, some OIGs reported errors in the data elements *Current Total Value of Award* and *Potential Total Value of Award* because of known issues associated with how FPDS-NG calculates them. According to additional guidance issued by the FAEC DATA Act Working Group, award modifications may be inconsistent with the data reported in File D1 because of the way FPDS-NG calculates award amounts.¹⁴

Accuracy Errors in Monetary Data Elements

Many (32 of 51) OIGs also reported errors in the accuracy of certain monetary data elements included in agencies' Q1 FY2019 submissions. The IG Guide encourages OIGs to report the absolute value of errors for monetary data elements, such as *Obligation* and *Current Total Value of Award*. The IG Guide notes that the dollar values for errors in these data elements are not projectable but can be reported to provide additional information and to provide an indication of their magnitude. As shown in table 1, OIGs reported *Potential Total Value of Award* and *Current Value of Award* as the monetary data elements with the highest absolute dollar values of errors for Q1 FY 2019. OIGs also identified these monetary data elements as having errors caused by external third-party systems, as discussed above.

¹⁴Federal Audit Executive Council DATA Act Working Group, *FY 2019 DATA Act Audit Frequently Asked Questions* (Sept. 27, 2019).

Table 1: Number of OIGs Reporting Errors in Monetary Data Elements and Absolute Dollar Values of Errors Reported (First Quarter, Fiscal Year 2019)

Monetary data elements	Total number of OIGs	Total absolute dollar value of errors
Procurement awards: Potential Total Value of Award	29	\$383,602,276,812
Procurement awards: Current Total Value of Award	28	9,329,393,508
Procurement awards: Obligation	26	99,158,777
Procurement awards: Federal Action Obligation	27	84,017,274
Financial assistance awards: Current Total Value of Award	12	139,287,059
Financial assistance awards: Amount of Award	18	58,557,124
Financial assistance awards: Federal Action Obligation	20	47,483,499
Financial assistance awards: Obligation	18	23,069,824
Financial assistance awards: Non-Federal Funding Amount	13	13,832,585
Financial assistance awards: Potential Total Value of Award	1	no amount reported

Legend: – = no amount reported; OIG = office of inspector general.

Source: GAO analysis of OIG reports. | GAO-20-540

Many OIGs Reported That Agencies Properly Implemented and Used Data Standards

According to the IG Guide, OIGs were to report on their determinations of the agencies’ implementation and use of the OMB and Treasury data standards. Nearly all (49 of 51) OIGs reported on their agencies’ implementation and use of the data standards. Thirty-seven of the 49 OIGs reported that their agencies properly implemented and used the data standards, and five OIGs reported that their agencies did not properly implement and use the data standards. Two OIGs reported that their agencies had fully implemented but not fully used the standards. In addition, five OIGs reported issues that may preclude their agencies from consistently implementing and using the data standards. These issues include

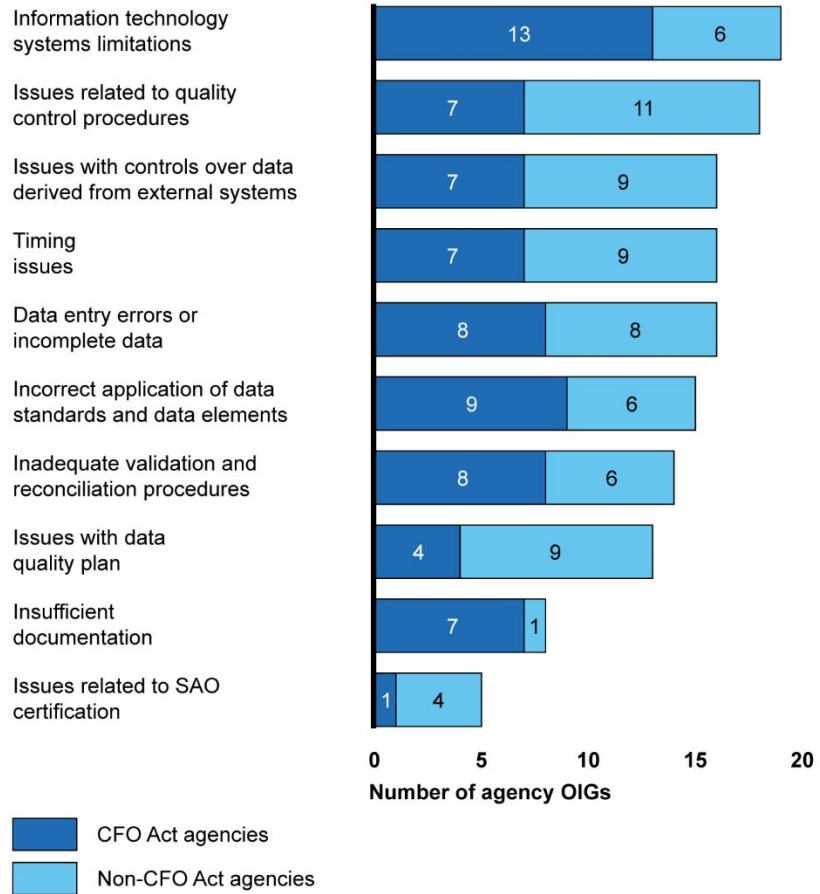
- inconsistent use of data standards per the agency’s inventory and mapping of data elements,

-
- linkage issues between Files C and D1,
 - failure to identify a data source for data elements, and
 - ineffective agency data validation procedures to ensure the accuracy and timeliness of the data elements reported.

Most OIGs Reported Control Deficiencies

In accordance with the IG Guide, OIGs for all 51 agencies reported on the scope of their work on internal control over the DATA Act source systems and reporting. Most (47 of 51) OIGs reported control deficiencies. We categorized these deficiencies (as defined below) and identified the number of OIGs reporting deficiencies in each category by CFO Act and non-CFO Act agency, as shown in figure 6. The deficiency that the OIGs reported most frequently (19 of 47) related to information technology system limitations.

Figure 6: Deficiencies Identified in 2019 OIG DATA Act Reports and Number of OIGs Reporting Each Deficiency



CFO Act - Chief Financial Officers Act of 1990
 DATA Act - Digital Accountability and Transparency Act of 2014
 OIG - Office of inspector general
 SAO - Senior accountable official

Source: GAO analysis of OIG reports. | GAO-20-540

Note: Four of the 51 OIGs did not identify any deficiencies, while 47 OIGs noted one or more types of deficiencies. The figure presents the number of OIGs reporting a deficiency in each category. Individual OIGs could have reported anywhere from one to 10 of the deficiencies identified; therefore, the total number of deficiencies across categories is greater than 47.

Information technology systems limitations. These deficiencies related to information technology systems, including systems integration, configuration, and the lack of effective automated systems controls, such as those to help ensure proper system user access or the accuracy and completeness of data. For example, one OIG reported issues with the

programming code used to compile the agency's File C, which resulted in records being excluded from the file. The OIG reported that when certain fields, such as amount and object class, were identical among different records, the agency's query used to extract data in these fields returned only one of multiple records that existed. Another OIG reported that an agency's system lacked adequate access controls, which allowed a user to update a loan amount without proper approval.

Issues related to quality control procedures. These were deficiencies in the design or implementation of standard operating procedures before and after data submissions, such as agency reviews of the quality of agency data submitted and displayed on USAspending.gov. For example, one OIG reported that the agency did not have procedures in place to review its File C submission to ensure proper reporting of deobligations. Another OIG reported the agency's policies and procedures did not contain sufficient information for the agency to manage and facilitate reporting of financial and award data in accordance with the DATA Act requirements.

Issues with controls over data derived from external systems. Such deficiencies related to issues with the agency's controls over the completeness, timeliness, and accuracy of data derived from external systems, such as FPDS-NG and SAM. For example, one OIG reported that the agency lacked clear procedures on the process to record transactions in FPDS-NG when a vendor has changed its business identification number. Another OIG reported that the agency lacked controls to ensure that current recipient registration was verified in SAM at the time of financial assistance awards.

Timing issues. These deficiencies related to delays in the agencies' quarterly submission to the broker and agencies not reporting data within required time frames to internal agency and external government-wide systems (e.g., FPDS-NG), resulting in errors in the data submitted. For example, one OIG reported that an agency component does not record a liability (obligation) in its accounting records when a contract action occurs and instead recognizes the obligation when the work is completed and a payment is processed. According to the OIG, this deficiency resulted in certain transactions being reported in Q1 FY2019 that should have been reported in prior periods. Another OIG reported that the agency did not submit any of its Q1 FY2019 files on time because the agency's policy is to not publicly release financial information until the month-end general ledger has been closed, which presents a challenge

for complying with the DATA Act requirements regarding timely submission of award data.

Data entry errors or incomplete data. These deficiencies related to controls over data entry or incomplete data in internal agency or external government-wide systems, including human errors when manually entering data and incomplete data. For example, one OIG reported that the effective date field was not properly recorded in an agency's procurement system. Another OIG reported that it found human errors related to recording inaccurate period of performance dates and an inaccurate procurement instrument identifier.

Incorrect application of data standards and data elements. These deficiencies related to errors or misapplication in the use of data standard definitions and related data elements. For example, one OIG reported that inaccurate data were submitted to FPDS-NG and FABS because the agency's contracting officers and grant officials responsible for inputting the award information were not fully knowledgeable of the data element definitions. Another OIG reported that incorrect *Program Activity* names were caused by differences in the agency's descriptions for *Program Activity* names and OMB's descriptions.

Inadequate validation and reconciliation procedures. These deficiencies related to inadequate data and file validation controls, processes, and reconciliation procedures to resolve errors and warnings that the broker reported prior to an agency's submission. For example, one OIG reported that the agency was not performing a reconciliation prior to submitting its data and that the agency did not research or attempt to resolve all broker-reported warnings prior to validation and certification. Another OIG reported that the agency does not reconcile File C to File D1 prior to certifying the submission, resulting in discrepancies between the files not being identified or corrected timely.

Issues with data quality plan. Such deficiencies related to an agency's data quality plan, including processes and procedures that are not fully identified, updates that are not timely, or an incomplete plan. For example, one OIG reported that the agency's data quality plan did not contain processes for identifying, managing, and mitigating risk related to data quality. Another OIG reported that the agency's data quality plan was not updated frequently enough to coincide with changes to broker and Treasury guidance.

Insufficient documentation. These deficiencies related to agencies' production and retention of documentary evidence supporting their DATA Act submissions, including a lack of documented corrective actions taken to resolve control deficiencies and not maintaining the underlying source documents for data submitted. For example, one OIG reported that while agency officials said they assessed risks specific to DATA Act reporting through the agency's enterprise risk management process, they did not provide any documentation of specific risks identified or related mitigation efforts. Another OIG reported the agency did not consistently document planned corrective actions for resolving broker-reported warnings.

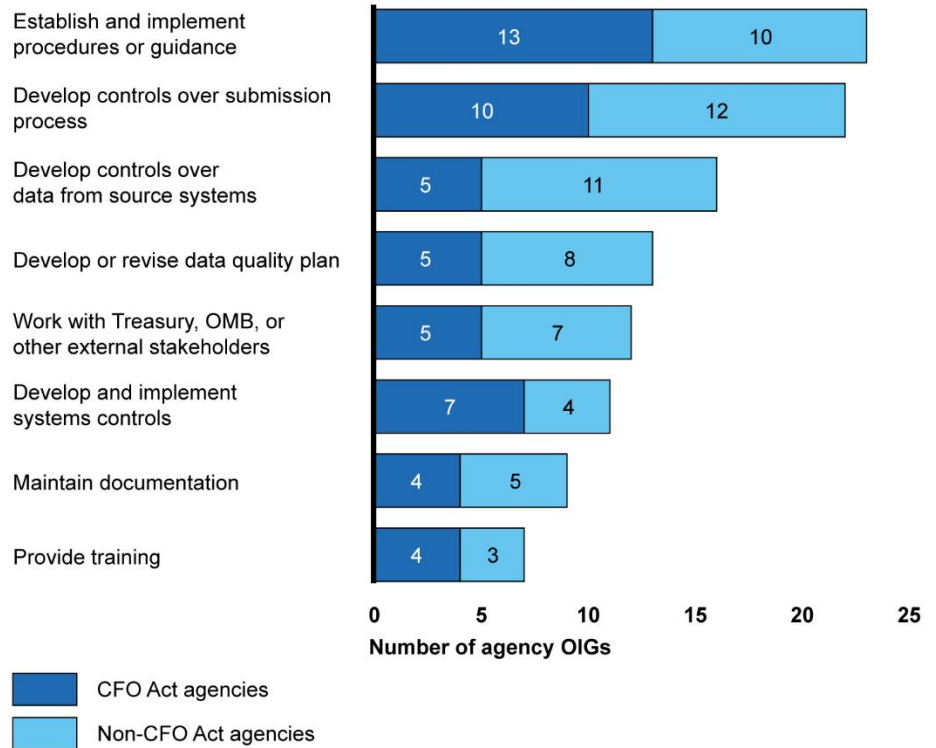
Issues related to SAO certification. These deficiencies related to the senior accountable official (SAO) certification, including the lack of an SAO assurance statement; an SAO at the incorrect level of responsibility within the agency; and the lack of documentation of the SAO's involvement with the agency's submission. For example, one OIG reported that the agency did not provide documentation supporting the basis for the SAO's certification of the agency's Q1 FY2019 submission. Another OIG reported that the agency's SAO assurance statement did not contain information concerning the validity and reliability of the agency's DATA Act submission, including linkages, or confirming that internal controls over data quality mechanisms were in place for data submitted in the DATA Act files, as required by OMB guidance.¹⁵

Most OIGs Made Recommendations for Improving Data Quality

Most (44 of 51) OIGs made recommendations to agencies for improving data quality, and 39 of those OIGs reported that agency management agreed with all of the OIGs' recommendations. Five OIGs reported that agency management partially agreed with the OIGs' recommendations. We categorized the recommendations (as defined below) and identified the number of OIGs reporting recommendations in each category by CFO Act and non-CFO Act agency, as shown in figure 7. The recommendations made most frequently by the OIGs (23 of 44) were for agencies to establish and implement certain procedures or guidance.

¹⁵Office of Management and Budget, *Additional Guidance for DATA Act Implementation: Implementing Data-Centric Approach for Reporting Federal Spending Information*, Management Procedures Memorandum No. 2016-03 (Washington, D.C.: May 3, 2016).

Figure 7: Recommendations Made in 2019 OIG DATA Act Reports and Number of OIGs That Made Them



CFO Act - Chief Financial Officers Act of 1990
 DATA Act - Digital Accountability and Transparency Act of 2014
 OIG - Office of inspector general
 OMB - Office of Management and Budget
 Treasury - Department of the Treasury

Source: GAO analysis of OIG reports. | GAO-20-540

Note: Seven of the 51 OIGs did not make any recommendations, while 44 OIGs made one or more types of recommendations. The figure presents the number of OIGs that made a recommendation in each category. Individual OIGs could have made anywhere from one to eight recommendations in the categories presented; therefore, the total number of recommendations across categories is greater than 44.

Establish and implement procedures or guidance. These are recommendations to establish and implement DATA Act–related procedures or guidance to help ensure data quality and implementation of corrective actions to address audit findings. For example, one OIG recommended that its agency implement adequate procedures and controls to ensure that all data elements are traceable to source documentation. Another OIG recommended that its agency issue

guidance to contracting officers and grant officers on determining accurate obligation dates.

Develop controls over submission process. These are recommendations to establish or improve controls or processes to resolve issues in submitting agency data to the broker, including procedures for conducting reconciliations and addressing broker-reported errors and warnings. For example, one OIG recommended that its agency's chief financial officer, in coordination with the agency components, develop and implement a process to review and address broker-reported warnings. Another OIG recommended that its agency ensure that reconciliations of data between Files A, B, C, D1, and D2 occur before the agency's DATA Act submission and certification is finalized.

Develop controls over data from source systems. These are recommendations to establish or improve controls or processes to resolve issues in data derived from source systems (e.g., procurement system), including procedures to review and correct data in source systems. For example, one OIG recommended that its agency ensure that vendor and grantee information is verified with updated data obtained from the SAM.gov website at the time of award. Another OIG recommended that its agency develop a quality control process over procurement award data, including developing a reconciliation process to validate the information entered into the agency's procurement system to detect and correct data entry errors.

Develop or revise data quality plan. These are recommendations to develop or update the data quality plan and related controls over the plan. For example, one OIG recommended that its agency update the data elements identified as high risk in its data quality plan based on OIG-identified deficiencies. Another OIG recommended that its agency perform a regular review to ensure that its data quality plan is current and updated as changes to the broker and Treasury guidance are communicated.

Work with Treasury, OMB, or other external stakeholders. These are recommendations for the agency to work with Treasury, OMB, or other external stakeholders (e.g., shared service provider or contractor) to resolve identified issues. For example, one OIG recommended that its agency request that Treasury and OMB update the definition of *Period of Performance Start Date* to (1) prescribe definitively which start date agencies should use, initial award or award modification, for DATA Act reporting purposes or (2) require the data element only for initial award

actions. Another OIG recommended that its agency work with its shared service provider to resolve File C errors prior to the SAO certifying the completeness, timeliness, and accuracy of its DATA Act submission.

Develop and implement systems controls. Recommendations in this area are to develop, implement, or evaluate automated systems controls to help ensure that they meet agency objectives for data quality. For example, one OIG recommended that its agency develop and implement controls to limit the use of an option in its accounting system that bypasses the step to automatically create an FPDS-NG entry when entering contract actions in the accounting system. Another OIG recommended that its agency continue to focus efforts on resolving outstanding issues related to its information system controls to help ensure that quality data are used for its DATA Act submissions.

Maintain documentation. These recommendations are to update or retain documentation of the agency's performance of procedures, controls, and assignment of roles and responsibilities supporting DATA Act submissions. For example, one OIG recommended that its agency ensure that agency award documentation is readily available and that it include support for the agency's DATA Act submission. Another OIG recommended that its agency document standard operating policies and procedures that are specific to the completeness, accuracy, timeliness, and quality of the agency's DATA Act reporting and that define roles and responsibilities for performing validation procedures.

Provide training. These recommendations are to develop, complete, or document training for agency personnel and to communicate or reinforce existing guidance and requirements. For example, one OIG recommended that its agency provide instruction to contracting officers and grant officials on data element definitions and their proper recording in FPDS-NG and FABS. Another OIG recommended that its agency instruct grants management personnel on how to provide an appropriate award description for all awards in the grants system.

Agency Comments

We provided a draft of this report to CIGIE for review and comment. We received written comments from CIGIE that are reproduced in appendix VI and summarized below.

In its written comments, CIGIE noted that the report provides useful information on OIG efforts to meet oversight and reporting responsibilities under the DATA Act. CIGIE further stated that it believes that the report will contribute to a greater understanding of the oversight work that the inspector general community performs and of agency efforts to report and track government-wide spending more effectively.

We are sending copies of this report to relevant congressional committees, the Chairperson and Vice Chairperson of the Council of the Inspectors General on Integrity and Efficiency, 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 staffs have any questions about this report, please contact me at (202) 512-9816 or rasconap@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 VII.



Paula M. Rascona
Director
Financial Management and Assurance

List of Addressees

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

The Honorable Rob Portman
Chairman
The Honorable Thomas R. Carper
Ranking Member
Permanent Subcommittee on Investigations
Committee on Homeland Security and Governmental Affairs
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The Honorable Carolyn B. Maloney
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House of Representatives

The Honorable Gerald E. Connolly
Chairman
The Honorable Jody Hice
Ranking Member
Subcommittee on Government Operations
Committee on Oversight and Reform
House of Representatives

The Honorable Mark R. Warner
United States Senate

Appendix I: Objective, Scope, and Methodology

The Digital Accountability and Transparency Act of 2014 (DATA Act)¹ includes provisions requiring us to review agencies' office of inspector general (OIG) mandated reports and issue our own reports assessing and comparing the completeness, timeliness, accuracy, and quality² of the data that federal agencies submit under the act and the federal agencies' implementation and use of data standards.³ We issued our second report on data quality in November 2019, as required.⁴ This report includes our second review of the OIGs' mandated reports, which were also issued primarily in November 2019. Our reporting objective was to describe the quality of agencies' DATA Act spending data and the agencies' implementation and use of data standards, as reported by their OIGs.

To address our objective, we obtained and reviewed 51 OIG reports on agencies' data submissions for the first quarter of fiscal year 2019 (Q1 FY2019) that were issued on or before December 31, 2019.⁵ These reports included those related to 23 Chief Financial Officers Act of 1990 (CFO Act) agencies and 28 non-CFO Act agencies reporting Q1 FY2019 obligations totaling at least \$1.6 trillion (as displayed on

¹Pub. L. No. 113-101, 128 Stat. 1146 (May 9, 2014). The DATA Act amended the Federal Funding Accountability and Transparency Act of 2006 (FFATA). Pub. L. No. 109-282, 120 Stat. 1186 (Sept. 26, 2006), *codified at* 31 U.S.C. § 6101 note. We refer to language added to FFATA by the DATA Act as DATA Act requirements.

²Quality of data is determined based on the data's completeness, accuracy, and timeliness.

³The DATA Act defines "federal agency" by reference to the definition of "executive agency" set out in section 105 of Title 5, United States Code.

⁴GAO, *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).

⁵DATA Act reports were issued by 53 OIGs by December 31, 2019, including a report from GAO's OIG. We did not include the GAO OIG report in our review for independence reasons. The Department of the Treasury (Treasury) OIG and the Treasury Inspector General for Tax Administration (TIGTA) performed separate audits and issued separate reports, and the Treasury OIG issued a report that combined the two separate reports. We used the Treasury OIG and TIGTA combined report for this review.

Appendix I: Objective, Scope, and Methodology

USAspending.gov on January 22, 2020).⁶ These agencies are listed in table 2. Twenty-four OIGs contracted with independent public accountants to perform the reviews. For purposes of this report, we refer to the reviews that the OIGs and their contractors conducted and the resulting reports collectively as OIG reviews or reports, unless otherwise noted.

Table 2: 2019 Office of Inspector General Digital Accountability and Transparency Act of 2014 Reports Reviewed by GAO, by Agency

Chief Financial Officers Act (CFO Act) agencies	Non-CFO Act agencies
1. Department of Agriculture	24. Bureau of Consumer Financial Protection
2. Department of Commerce	25. Commodity Futures Trading Commission
3. Department of Defense	26. Consumer Product Safety Commission
4. Department of Education	27. Corporation for National & Community Service
5. Department of Energy	28. Court Services and Offender Supervision Agency for the District of Columbia
6. Department of Health and Human Services	29. Defense Nuclear Facilities Safety Board
7. Department of Housing and Urban Development	30. Election Assistance Commission
8. Department of the Interior	31. Equal Employment Opportunity Commission
9. Department of Justice	32. Export-Import Bank
10. Department of Labor	33. Federal Communications Commission
11. Department of State	34. Federal Deposit Insurance Corporation
12. Department of Transportation	35. Federal Election Commission
13. Department of the Treasury	36. Federal Labor Relations Authority
14. Department of Veterans Affairs	37. Federal Maritime Commission
15. Environmental Protection Agency	38. Federal Trade Commission
16. General Services Administration	39. Gulf Coast Ecosystem Restoration Council
17. National Aeronautics and Space Administration	40. International Trade Commission
18. National Science Foundation	41. Millennium Challenge Corporation
19. Nuclear Regulatory Commission	42. National Archives and Records Administration
20. Office of Personnel Management	43. National Credit Union Administration
21. Small Business Administration	44. National Endowment for the Arts
22. Social Security Administration	45. National Labor Relations Board
23. U.S. Agency for International Development	46. Peace Corps

⁶The CFO Act, Pub. L. No. 101-576, 104 Stat. 2838 (Nov. 15, 1990), among other things, established chief financial officer positions at major federal entities. The current list of 24 included entities, commonly referred to as CFO Act agencies, is codified at section 901 of title 31, United States Code.

Appendix I: Objective, Scope, and Methodology

Chief Financial Officers Act (CFO Act) agencies	Non-CFO Act agencies
	47. Pension Benefit Guaranty Corporation
	48. Railroad Retirement Board
	49. Securities and Exchange Commission
	50. U.S. Agency for Global Media
	51. U.S. Army Corps of Engineers

Sources: Agencies' offices of inspector general and Oversight.gov. | GAO-20-540

We did not obtain and review OIG DATA Act reports for 46 of 98 entities that submitted Q1 FY2019 spending data because reports for those entities were either determined by the agency to not be required or were not publicly available by our December 31, 2019, cutoff date. These 46 entities, listed in table 3, include one CFO Act agency with reported Q1 FY2019 obligations totaling at least \$21 billion and 45 non-CFO Act agencies reporting combined Q1 FY2019 obligations totaling about \$1 billion (as displayed on USAspending.gov on January 29, 2020). Some of the 46 entities do not have OIGs and, accordingly, we could not contact an OIG to determine the reason there was no audit report. However, we contacted another agency's OIG in certain instances when the OIGs provided some specific oversight or investigative services for these agencies. Based on our analysis and inquiries of certain agencies and OIGs, we were informed that some agencies did not have audits of their DATA Act submissions' quality for the following reasons:

- The OIG had drafted but not yet issued an audit report.
- The OIG determined that it is not responsible for DATA Act audit oversight of the agency.
- The OIG or agency thought that the agency's shared service provider's audit covered the agency's submission.
- The OIG or agency was unaware of or unfamiliar with the DATA Act audit requirement.
- The OIG cited lack of time, financial, or human resources to perform the DATA Act audit.

Appendix I: Objective, Scope, and Methodology

Table 3: Agencies That Submitted First Quarter Fiscal Year 2019 Data but Did Not Have DATA Act Audit Reports (as of December 31, 2019)

Agency
CFO Act agencies:
CFO Act agencies: Department of Homeland Security ^a
Non-CFO Act agencies:
Non-CFO Act agencies: Access Board
Non-CFO Act agencies: Administrative Conference of the U.S.
Non-CFO Act agencies: Advisory Council on Historic Preservation
Non-CFO Act agencies: African Development Foundation
Non-CFO Act agencies: American Battle Monuments Commission
Non-CFO Act agencies: Appalachian Regional Commission
Non-CFO Act agencies: Armed Forces Retirement Home
Non-CFO Act agencies: Barry Goldwater Scholarship & Excellence in Education Foundation
Non-CFO Act agencies: Chemical Safety Board
Non-CFO Act agencies: Commission of Fine Arts
Non-CFO Act agencies: Commission on Civil Rights
Non-CFO Act agencies: Committee for Purchase from People Who Are Blind or Severely Disabled
Non-CFO Act agencies: Council of the Inspectors General on Integrity and Efficiency
Non-CFO Act agencies: Court of Appeals for Veterans Claims
Non-CFO Act agencies: Delta Regional Authority
Non-CFO Act agencies: Denali Commission ^b
Non-CFO Act agencies: District of Columbia Courts
Non-CFO Act agencies: Executive Office of the President
Non-CFO Act agencies: Farm Credit System Insurance Corporation
Non-CFO Act agencies: Federal Mine Safety and Health Review Commission
Non-CFO Act agencies: Harry S Truman Scholarship Foundation
Non-CFO Act agencies: Institute of Museum and Library Services
Non-CFO Act agencies: Interagency Council on Homelessness
Non-CFO Act agencies: Inter-American Foundation
Non-CFO Act agencies: James Madison Memorial Fellowship Foundation
Non-CFO Act agencies: Japan-United States Friendship Commission
Non-CFO Act agencies: John F. Kennedy Center for Performing Arts
Non-CFO Act agencies: Marine Mammal Commission
Non-CFO Act agencies: Merit Systems Protection Board
Non-CFO Act agencies: Morris K. Udall and Stewart L. Udall Foundation

Appendix I: Objective, Scope, and Methodology

Agency
Non-CFO Act agencies: National Capital Planning Commission
Non-CFO Act agencies: National Endowment for the Humanities ^a
Non-CFO Act agencies: National Mediation Board
Non-CFO Act agencies: National Transportation Safety Board
Non-CFO Act agencies: Northern Border Regional Commission
Non-CFO Act agencies: Nuclear Waste Technical Review Board
Non-CFO Act agencies: Occupational Safety & Health Review Commission
Non-CFO Act agencies: Office of Government Ethics
Non-CFO Act agencies: Office of Special Counsel
Non-CFO Act agencies: Overseas Private Investment Corporation
Non-CFO Act agencies: Patient-Centered Outcomes Research Trust Fund
Non-CFO Act agencies: Privacy and Civil Liberties Oversight Board
Non-CFO Act agencies: Selective Service System
Non-CFO Act agencies: Surface Transportation Board
Non-CFO Act agencies: Trade and Development Agency

Legend: CFO Act = Chief Financial Officers Act of 1990; DATA Act = Digital Accountability and Transparency Act of 2014; OIG = office of inspector general.

Source: GAO analysis of OIG and USAspending.gov information. | GAO-20-540

^aAccording to OIG officials, the OIG was planning to issue an audit report but had not issued it as of April 2, 2020.

^bThe audit report was issued February 28, 2020, and was not included in the scope of GAO's review.

Further, we could not fully determine whether all required financial and nonfinancial data related to federal spending were reported to USAspending.gov. The Department of the Treasury (Treasury) provided a list of agencies that since enactment of the DATA Act determined that they were required to or would voluntarily report data under the act. We found that some of these agencies did not submit Q1 FY2019 data.

Based on the reporting requirements in the DATA Act and the *CIGIE FAEC Inspectors' General Guide to Compliance under the DATA Act* (IG Guide), we developed and used a data collection instrument to compile and summarize the audit procedures performed, results and findings, and recommendations included in the OIG reports.⁷ Specifically, we identified information in the OIG reports related to the completeness, timeliness,

⁷Council of the Inspectors General on Integrity and Efficiency (CIGIE), Federal Audit Executive Council (FAEC), *CIGIE FAEC Inspectors' General Guide to Compliance under the DATA Act*, OIG-CA-19-012 (Washington, D.C.: Department of the Treasury, Office of Inspector General, Feb. 14, 2019). The FAEC DATA Act Working Group issued additional guidance, *FY2019 DATA Act Audits, Frequently Asked Questions*, updated on September 27, 2019.

accuracy, and quality of agencies' data submissions; agencies' implementation and use of data standards; audit methodologies; and testing results, including error rates for completeness, timeliness, and accuracy and quality level and error rates for individual data elements.

We also used a data collection instrument to compile and categorize information on control deficiencies that the OIGs reported and any recommendations the OIGs made to agencies to address them. We analyzed the information and developed 10 categories representing themes in the reported causes of the deficiencies and eight categories of recommendations. We assigned each deficiency and recommendation to one category. During this process, GAO analysts worked in teams of three to obtain a consensus on how the deficiencies and recommendations were categorized, with one analyst initially assigning a category and two analysts providing additional levels of review. In the event of conflicts in the application of categories, the team worked together to reach a consensus.

We primarily used and relied on data included in the OIG reports and contacted some agency OIGs, as needed, to obtain clarification where data were missing or appeared inconsistent with other data in the report.

Information in this report cannot be compared to prior GAO or OIG reports primarily because of differences in audit scope, sampling populations and methodologies, and audit procedures performed, as well as data elements required to be reported, changes in the guidance and data standards that the Office of Management and Budget and Treasury issued, and Treasury data validation rules.⁸ As shown in appendix III, the OIGs used different methodologies for selecting and testing their sample items. Furthermore, not all of the agency data submitted were subjected to an independent data quality audit, and the amount of financial and nonfinancial data that should have been submitted but was not submitted has not been quantified. Therefore, we did not calculate a combined or government-wide average error rate at the data element or government-wide level because it would not be reliable.

We conducted this performance audit from September 2019 to July 2020 in accordance with generally accepted government auditing standards.

⁸For our 2019 review of data quality ([GAO-20-75](#)), we determined timeliness based on the submission deadline only. We did not determine timeliness of individual data elements based on the IG Guide definition—whether data elements were reported in various external systems in accordance with the defined reporting schedules for those systems.

**Appendix I: Objective, Scope, and
Methodology**

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 objective. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objective.

Appendix II: OMB and Treasury Guidance for Agency DATA Act Submissions

The Federal Funding Accountability and Transparency Act of 2006 (FFATA), as amended by the Digital Accountability and Transparency Act of 2014 (DATA Act), identifies the Office of Management and Budget (OMB) and the Department of the Treasury (Treasury) as the two agencies responsible for leading government-wide implementation.¹ For example, the DATA Act requires OMB and Treasury to establish government-wide data standards that shall, to the extent reasonable and practicable, produce consistent, comparable, and searchable spending data for any federal funds made available to or expended by federal agencies. The DATA Act also requires OMB and Treasury to ensure that the standards are applied to the data made available on USAspending.gov.

Treasury issued guidance in 2016 for agencies to use when preparing for their first DATA Act submissions in 2017.² This guidance included steps for agencies to create an inventory of agency data and associated business processes, systems, and applications and mapping those data to the DATA Act Information Model Schema (DAIMS). DAIMS (1) depicts the relationships between data elements, (2) provides the technical

¹Pub. L. No. 113-101, 128 Stat. 1146 (May 9, 2014). The DATA Act amended FFATA. Pub. L. No. 109-282, 120 Stat. 1186 (Sept. 26, 2006), *codified at* 31 U.S.C. § 6101 note. We refer to language added to FFATA by the DATA Act as DATA Act requirements.

²Department of the Treasury, *DATA Act Implementation Playbook, Version 2.0* (Washington, D.C.: June 24, 2016).

guidance for agencies on what data to report to Treasury, and (3) provides the submission format to use for the agency's submission.³

OMB and Treasury established 57 government-wide data standards that specify the data elements to be reported under the DATA Act and define and describe what is to be included in each data element, with the aim of ensuring that information will be consistent and comparable.⁴ The DATA Act requires federal agencies to submit spending data in accordance with these standards each quarter. Treasury requires that agencies submit these data 45 days after the close of the quarter. Agencies submit data from their financial management systems, which are combined with other data extracted from government-wide federal award reporting systems populated by federal agencies and prime award recipients. Agencies submit their data to Treasury's DATA Act broker (broker)—a system that collects and validates agency-submitted data prior to their publication on the USAspending.gov website.

According to Treasury guidance, when submitting quarterly spending data from their financial management systems for display on USAspending.gov, agencies are expected to submit three data files with specific details and data elements to the broker.

- File A: Appropriations account. This includes summary information, such as the fiscal year cumulative federal appropriations account balances and includes data elements such as the agency identifier, main account code, budget authority appropriated amount, gross outlay amount, and unobligated balance.
- File B: Object class and program activity. This includes summary data, such as the names of specific activities or projects as listed in the program and financing schedules of the annual budget of the U.S. government.
- File C: Award financial. This includes award transaction data, such as the obligation amounts for each federal financial award made

³Treasury guidance includes DAIMS, which provides information on how to standardize the way federal financial assistance awards (i.e., grants and loans), contracts, and other financial and nonfinancial data are to be reported under FFATA, as amended by the DATA Act. Version 1.3.1 of DAIMS was effective for first quarter of fiscal year 2019 submissions.

⁴The 57 government-wide data standards that OMB and Treasury established pursuant to the DATA Act can be found here:
<https://portal.max.gov/portal/assets/public/offm/DataStandardsFinal.htm>.

or modified during the reporting quarter (e.g., October 1, 2019, through December 31, 2019).

Agencies also submit four files containing data that the broker extracts from government-wide award reporting systems. These systems—including the Federal Procurement Data System-Next Generation (FPDS-NG), System for Award Management (SAM), Financial Assistance Broker Submission (FABS), and the FFATA Subaward Reporting System (FSRS)—compile information reported by agencies and federal award recipients. Agencies submit procurement award information to FPDS-NG daily and financial assistance award information (grants, loans, insurance, and other financial assistance) to FABS at least twice monthly. These award data are reflected in USAspending.gov daily. For the agencies' quarterly submissions, the four files produced with information extracted by the broker from these systems are as follows:

- File D1: Procurement. This includes award and awardee attribute information (extracted from FPDS-NG) on procurement (contract) awards and contains elements such as the total dollars obligated, current total value of award, potential total value of award, period of performance start date, and other information to identify the procurement award.
- File D2: Financial assistance. This includes award and awardee attribute information (extracted from FABS) on financial assistance (loan and grant) awards and contains elements such as the federal award identification number, the total funding amount, the amount of principal to be repaid for the direct loan or loan guarantee, the funding agency name, and other information to identify the financial assistance award.
- File E: Additional awardee attributes. This includes additional information (extracted from SAM) on the award recipients and contains elements such as the awardee or recipient unique identifier; the awardee or recipient legal entity name; and information on the award recipient's five most highly compensated officers, managing partners, or other employees in management positions.
- File F: Subaward attributes. This includes information (extracted from FSRS) on awards made to subrecipients under a prime award and contains elements such as the subaward number, the subcontract award amount, total funding amount, the award description, and other information to facilitate the tracking of

subawards.

After agencies submit their files to the broker, the broker runs a series of validations and produces warning and error reports for agencies to review and address. Then, agency senior accountable officials (SAO) are required to certify the data submissions in accordance with OMB guidance.⁵ The guidance states that SAOs must provide quarterly assurance that their agencies' internal controls support the reliability and validity of the data reported and that alignment among files is valid and reliable. Agency SAOs are not responsible for certifying the quality of data in Files E and F that are reported by awardees, but SAOs are responsible for assuring that controls are in place to verify that financial assistance awardees register in SAM at the time of the award. Treasury guidance states that the SAO should provide explanations when legitimate differences exist between the files. The SAO assurance is to be submitted through the quarterly broker submission process.

According to Treasury officials, once the certification is submitted, a sequence of computer program instructions or scripts are issued to transfer and map the data from broker data tables to tables set up in a database used as a source for the information on the website. Certified data are then displayed on USAspending.gov along with certain historical information from other sources, including Monthly Treasury Statements.⁶

In June 2018, OMB directed agencies to develop and maintain data quality plans that consider the incremental risks to the quality of federal spending data and any controls that would manage such risks.⁷ According to OMB, the purpose of the data quality plan is to identify a control structure tailored to address identified risks. This OMB guidance further states that the SAO quarterly data certifications should be based on the consideration of an agency's data quality plan and the internal controls

⁵Office of Management and Budget, *Additional Guidance for DATA Act Implementation: Implementing Data-Centric Approach for Reporting Federal Spending Information*, Management Procedures Memorandum No. 2016-03 (Washington, D.C.: May 3, 2016).

⁶Monthly Treasury Statements are summary statements that Treasury prepares and issues based on agency accounting reports. Monthly Treasury Statements present the receipts, outlays, resulting budget surplus or deficit, and federal debt for the month and the fiscal year to date and a comparison of those figures to those of the same period in the previous year.

⁷Office of Management and Budget, *Appendix A to OMB Circular No. A-123, Management of Reporting and Data Integrity Risk*, OMB Memorandum M-18-16 (Washington, D.C.: June 6, 2018).

**Appendix II: OMB and Treasury Guidance for
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documented in the plan as well as other existing controls that may be in place.

Appendix III: 2019 OIG DATA Act Audit Methodologies

Table 4 summarizes the Digital Accountability and Transparency Act of 2014 (DATA Act) audit methodologies reported in the 51 offices of inspector general’s (OIG) reports we reviewed, including the number of records tested, the population size, the selection methodology (i.e., the OIG tested a statistical sample of records, tested the entire population, or only assessed internal controls), and the file(s) from which the selection was made. According to the *CIGIE FAEC Inspectors General Guide to Compliance under the DATA Act*, OIGs were to select a statistical sample or carry out full population testing. OIGs were to determine whether File C (award financial) was suitable for sampling and, if not, select a statistical sample from Files D1 (procurement) and D2 (financial assistance).¹ A record is a row of data in File C (or in File D1 or D2), and population size is the total number of records included in the agency’s certified quarterly data submission.

Table 4: DATA Act Methodology Information Reported by Agency OIGs (First Quarter, Fiscal Year 2019)

Agency name	Number of records tested	Population size	Selection methodology	File from which selected
CFO Act agencies: Department of Agriculture	264	305,920	S	C
CFO Act agencies: Department of Commerce	350	2,883	S	C
CFO Act agencies: Department of Defense (File D1—procurement awards)	385	953,806	S	D1
CFO Act agencies: Department of Defense (File D2—financial assistance awards)	351	3,964	S	D2
CFO Act agencies: Department of Education	250	116,500	S	C
CFO Act agencies: Department of Energy ^a	332	Not reported	S	C
CFO Act agencies: Department of Health and Human Services	285	Not reported	S	C

¹Council of the Inspectors General on Integrity and Efficiency (CIGIE), Federal Audit Executive Council (FAEC), *CIGIE FAEC Inspectors’ General Guide to Compliance under the DATA Act*, OIG-CA-19-012 (Washington, D.C.: Department of the Treasury, Office of Inspector General, Feb. 14, 2019).

**Appendix III: 2019 OIG DATA Act Audit
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Agency name	Number of records tested	Population size	Selection methodology	File from which selected
CFO Act agencies: Department of Housing and Urban Development	385	103,004	S	C
CFO Act agencies: Department of the Interior	385	10,467	S	C
CFO Act agencies: Department of Justice	318	32,353	S	C
CFO Act agencies: Department of Labor	264	1,718	S	C
CFO Act agencies: Department of State	350	3,807	S	C
CFO Act agencies: Department of Transportation	385	24,903	S	C
CFO Act agencies: Department of the Treasury	234	4,065	S	C
CFO Act agencies: Department of Veterans Affairs	45	Not reported	S	D1, D2
CFO Act agencies: Environmental Protection Agency	332	2,403	S	C
CFO Act agencies: General Services Administration	352	4,026	S	C
CFO Act agencies: National Aeronautics and Space Administration	385	8,676	S	C
CFO Act agencies: National Science Foundation	355	4,467	S	C
CFO Act agencies: Nuclear Regulatory Commission	158	440	S	C
CFO Act agencies: Office of Personnel Management	199	410	S	C
CFO Act agencies: Small Business Administration	385	37,126	S	C
CFO Act agencies: Social Security Administration	385	205,676	S	C
CFO Act agencies: U.S. Agency for International Development	222	2,197	S	C
Non-CFO Act agencies: Bureau of Consumer Financial Protection	79	115	S	C
Non-CFO Act agencies: Commodity Futures Trading Commission	186	760	S	C
Non-CFO Act agencies: Consumer Product Safety Commission ^b	67	Not reported	S	C
Non-CFO Act agencies: Corporation for National & Community Service	45	518	S	C
Non-CFO Act agencies: Court Services and Offender Supervision Agency for the District of Columbia	35	36	S	C

**Appendix III: 2019 OIG DATA Act Audit
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Agency name	Number of records tested	Population size	Selection methodology	File from which selected
Non-CFO Act agencies: Defense Nuclear Facilities Safety Board	17	17	F	C
Non-CFO Act agencies: Election Assistance Commission	16	16	F	C
Non-CFO Act agencies: Equal Employment Opportunity Commission	60	70	S	C
Non-CFO Act agencies: Export-Import Bank	170	647	S	D1, D2
Non-CFO Act agencies: Federal Communications Commission	127	127	F	C
Non-CFO Act agencies: Federal Deposit Insurance Corporation ^c	N/A	N/A	I	N/A
Non-CFO Act agencies: Federal Election Commission	26	26	F	D1
Non-CFO Act agencies: Federal Labor Relations Authority	5	5	F	C
Non-CFO Act agencies: Federal Maritime Commission	15	15	F	C
Non-CFO Act agencies: Federal Trade Commission	41	48	S	C
Non-CFO Act agencies: Gulf Coast Ecosystem Restoration Council	5	5	F	C, D1, D2
Non-CFO Act agencies: International Trade Commission	21	21	F	D1
Non-CFO Act agencies: Millennium Challenge Corporation	31	35	S	C
Non-CFO Act agencies: National Archives and Records Administration	60	656	S	C
Non-CFO Act agencies: National Credit Union Administration	21	21	F	C
Non-CFO Act agencies: National Endowment for the Arts	100	192	S	C
Non-CFO Act agencies: National Labor Relations Board	62	62	F	D1
Non-CFO Act agencies: Peace Corps	84	107	S	C
Non-CFO Act agencies: Pension Benefit Guaranty Corporation	105	181	S	C
Non-CFO Act agencies: Railroad Retirement Board	385	33,125	S	C
Non-CFO Act agencies: Securities and Exchange Commission	134	134	F	C, D1
Non-CFO Act agencies: U.S. Agency for Global Media	240	637	S	C

Appendix III: 2019 OIG DATA Act Audit Methodologies

Agency name	Number of records tested	Population size	Selection methodology	File from which selected
Non-CFO Act agencies: U.S. Army Corps of Engineers	333	2,491	S	C

Legend: CFO Act = Chief Financial Officers Act of 1990; DATA Act = Digital Accountability and Transparency Act of 2014; OIG = office of inspector general; F = Full population tested; I = Internal controls assessment; S = Statistical sample tested; C = File C (award financial data); D1 = File D1 (procurement awards); D2 = File D2 (financial assistance awards); N/A = not applicable.

Source: GAO analysis of OIG reports. | GAO-20-540

Note: According to the *CIGIE FAEC Inspectors General Guide to Compliance under the DATA Act*, OIGs were to select a statistical sample or carry out full population testing. OIGs were to determine whether File C was suitable for sampling and, if not, select a statistical sample from Files D1 and D2.

^aPopulation size (2,426 records) was not included in the OIG report and was provided by OIG officials during our review.

^bPopulation size (80 records) was not included in the OIG report and was provided by OIG officials during our review.

^cThe OIG reported that the agency is not required to submit Files C through F because the agency does not make federal awards that involve the use of funds obtained through the appropriations process. The OIG assessed internal controls and reviewed all eight data elements in Files A and B, which contain summary data on appropriations, object class, and program activity data.

Appendix IV: 2019 OIG DATA Act Audit Test Results

Table 5 lists the offices of inspector general (OIG) reported error rates for completeness, timeliness, and accuracy of data agencies submitted under the Digital Accountability and Transparency Act of 2014 (DATA Act) for the first quarter of fiscal year 2019, sorted by the OIG-reported level of quality and alphabetically by Chief Financial Officers Act of 1990 (CFO Act) and non-CFO Act agency. According to the *CIGIE FAEC Inspectors General Guide to Compliance under the DATA Act*, OIGs were to determine error rates for completeness, timeliness, and accuracy of the agencies' data and then determine the level of quality—higher, moderate, or lower—using the midpoint of those projected error rates or actual error rates.¹ OIGs were to use the highest of the three error rates as the determining factor for the level of quality.

Table 5: Completeness, Timeliness, and Accuracy Error Rates and Level of Quality Reported by OIGs for Agencies' DATA Act Submissions (First Quarter, Fiscal Year 2019)

Agency name	Completeness error rate (percentage)	Timeliness error rate (percentage)	Accuracy error rate (percentage)	Level of quality
CFO Act agencies: Department of Agriculture	61.2	82.1	65.1	Lower
CFO Act agencies: Department of Defense (File D2-financial assistance)	17.9	59.0	33.9	Lower
CFO Act agencies: National Science Foundation	57.5	57.7	57.5	Lower
CFO Act agencies: Department of Defense (File D1-procurements)	0.5	21.0	13.4	Moderate
CFO Act agencies: Department of State	6.1	24.2	10.0	Moderate
CFO Act agencies: Department of the Treasury	8.0	22.0	14.0	Moderate
CFO Act agencies: Department of Commerce	3.5	0.0	10.3	Higher

¹Council of the Inspectors General on Integrity and Efficiency (CIGIE), Federal Audit Executive Council (FAEC), *CIGIE FAEC Inspectors' General Guide to Compliance under the DATA Act*, OIG-CA-19-012 (Washington, D.C.: Department of the Treasury, Office of Inspector General, Feb. 14, 2019).

Appendix IV: 2019 OIG DATA Act Audit Test Results

Agency name	Completeness error rate (percentage)	Timeliness error rate (percentage)	Accuracy error rate (percentage)	Level of quality
CFO Act agencies: Department of Education	14.1	14.1	15.7	Higher
CFO Act agencies: Department of Energy	1.5	1.7	3.0	Higher
CFO Act agencies: Department of Health and Human Services	0.7	1.0	1.5	Higher
CFO Act agencies: Department of Housing and Urban Development	8.1	8.1	14.2	Higher
CFO Act agencies: Department of the Interior	3.5	2.8	11.3	Higher
CFO Act agencies: Department of Justice	7.9	18.0	14.1	Higher
CFO Act agencies: Department of Labor	1.5	1.6	6.2	Higher
CFO Act agencies: Department of Transportation	2.6	6.2	4.0	Higher
CFO Act agencies: Department of Veterans Affairs	0.1	2.1	2.6	Higher
CFO Act agencies: Environmental Protection Agency	7.4	7.4	10.7	Higher
CFO Act agencies: General Services Administration	0.7	4.5	5.3	Higher
CFO Act agencies: National Aeronautics and Space Administration	3.1	13.8	4.9	Higher
CFO Act agencies: Nuclear Regulatory Commission	2.9	2.9	8.4	Higher
CFO Act agencies: Office of Personnel Management	11.2	9.7	12.6	Higher
CFO Act agencies: Small Business Administration	0.0	2.0	2.4	Higher
CFO Act agencies: Social Security Administration	0.0	0.0	0.1	Higher
CFO Act agencies: U.S. Agency for International Development	2.5	9.8	10.9	Higher
Non-CFO Act agencies: Federal Communications Commission ^{a, b}	0.0	0.4	5.2	Lower
Non-CFO Act agencies: National Credit Union Administration ^a	1.8	88.4	2.8	Lower
Non-CFO Act agencies: U.S. Army Corps of Engineers	0.0	9.3	46.3	Lower
Non-CFO Act agencies: Court Services and Offender Supervision Agency for the District of Columbia	25.5	25.5	26.6	Moderate
Non-CFO Act agencies: Defense Nuclear Facilities Safety Board ^a	32.6	32.6	36.0	Moderate

Appendix IV: 2019 OIG DATA Act Audit Test Results

Agency name	Completeness error rate (percentage)	Timeliness error rate (percentage)	Accuracy error rate (percentage)	Level of quality
Non-CFO Act agencies: Federal Maritime Commission ^a	6.3	24.2	7.1	Moderate
Non-CFO Act agencies: National Labor Relations Board ^a	1.7	35.0	10.0	Moderate
Non-CFO Act agencies: Bureau of Consumer Financial Protection	0.0	0.0	0.0	Higher
Non-CFO Act agencies: Consumer Product Safety Commission	0.1	0.1	1.2	Higher
Non-CFO Act agencies: Corporation for National & Community Service	0.2	0.2	1.3	Higher
Non-CFO Act agencies: Election Assistance Commission ^a	0.0	0.0	0.1	Higher
Non-CFO Act agencies: Equal Employment Opportunity Commission	4.5	4.5	9.3	Higher
Non-CFO Act agencies: Export-Import Bank	2.9	0.0	6.7	Higher
Non-CFO Act agencies: Federal Election Commission ^a	5.1	11.9	6.9	Higher
Non-CFO Act agencies: Federal Trade Commission	0.0	14.6	1.4	Higher
Non-CFO Act agencies: Gulf Coast Ecosystem Restoration Council ^a	1.9	0.0	3.3	Higher
Non-CFO Act agencies: International Trade Commission ^a	0.4	4.8	9.1	Higher
Non-CFO Act agencies: Millennium Challenge Corporation	1.0	10.0	3.0	Higher
Non-CFO Act agencies: National Archives and Records Administration	1.5	1.8	4.1	Higher
Non-CFO Act agencies: National Endowment for the Arts	2.6	2.8	5.1	Higher
Non-CFO Act agencies: Peace Corps	0.0	0.0	0.2	Higher
Non-CFO Act agencies: Pension Benefit Guaranty Corporation	2.5	2.5	8.0	Higher
Non-CFO Act agencies: Railroad Retirement Board	0.0	0.0	0.4	Higher
Non-CFO Act agencies: Securities and Exchange Commission ^a	0.7	0.7	1.2	Higher
Non-CFO Act agencies: U.S. Agency for Global Media	10.1	19.6	11.4	Higher
Non-CFO Act agencies: Commodity Futures Trading Commission ^c	-	-	-	Higher

Appendix IV: 2019 OIG DATA Act Audit Test Results

Agency name	Completeness error rate (percentage)	Timeliness error rate (percentage)	Accuracy error rate (percentage)	Level of quality
Non-CFO Act agencies: Federal Deposit Insurance Corporation ^d	N/A	N/A	N/A	N/A
Non-CFO Act agencies: Federal Labor Relations Authority ^e	-	-	-	-

Legend: CFO Act = Chief Financial Officers Act of 1990; DATA Act = Digital Accountability and Transparency Act of 2014; OIG = office of inspector general; N/A = not applicable; - = not reported.

Source: GAO analysis of OIG reports. | GAO-20-540

Note: Percentages rounded to the nearest tenth. According to the *CIGIE FAEC Inspectors General Guide to Compliance under the DATA Act*, OIGs were to select a statistical sample or carry out full population testing. OIGs were to determine whether File C (award financial) was suitable for sampling and, if not, select a statistical sample from Files D1 (procurement) and D2 (financial assistance). For the OIGs that selected a statistical sample as noted in app. III, the percentages shown are the projected error rates that the OIGs reported and have a margin of error no greater than 5 percentage points at the 95 percent level of confidence.

^aThe OIG tested full population (i.e., error rate presented is the actual error rate).

^bThe OIG reported that the agency's data submission was of lower quality because significant amounts of data were not reported for two agency components, despite testing results with error rates indicating that the data submitted was of higher quality.

^cProjected error rates were not included in the report and were provided by OIG officials during our review. The error rates were 0.1 percent for completeness, 0.1 percent for timeliness, and 2.9 percent for completeness.

^dThe OIG reported that because the agency is not required to submit Files C through F, the OIG assessed internal controls; reviewed all eight data elements in Files A and B; and found that the data were complete, timely, accurate, and of sufficient quality.

^eThe OIG reported that data the agency was required to submit for publication on USAspending.gov was complete, timely, accurate, and of good quality but did not report error rates.

Appendix V: 2019 OIG DATA Act Audit Reporting on Individual Data Element Error Rates

This appendix includes the details reported by agencies' offices of inspector general (OIG) on the error rates for completeness, timeliness, and accuracy of individual data elements agencies submitted under the Digital Accountability and Transparency Act of 2014 (DATA Act) for the first quarter of fiscal year 2019. OIGs reported completeness, timeliness, and accuracy error rates of 0 percent or less than 20 percent for most data elements as shown in the tables below. However, OIGs reported higher error rates for some data elements, including some caused by external third-party systems and not attributable to the agencies.

Table 6 shows the range of error rates for the completeness of individual data elements as reported by 39 OIGs (sorted alphabetically by data element). The data elements with the most OIGs (32) reporting no errors (0 percent error rate) were *Object Class*, *Appropriations Account*, and *Obligation*. The data element with the most OIGs (three) reporting error rates greater than 40 percent was *Funding Agency Code*. The data elements reported by the most OIGs (five) with error rates greater than 20 percent were *Ultimate Parent Unique Identifier* and *Ultimate Parent Legal Entity Name*.

Table 6: Number of OIGs Reporting Completeness Error Rates, by Data Element (First Quarter, Fiscal Year 2019)

Data element	Error rate	Error rate	Error rate	Error rate
	(percentage) : 0	(percentage) : >0 to 20	(percentage) : >20 to 40	(percentage) : >40 to 100
Action Date	18	18	1	1
Action Type	20	15	2	1
Amount of Award	16	6	1	0
Appropriations Account	32	1	2	0
Award Description	18	17	1	1
Award Identification Number	19	15	3	1

**Appendix V: 2019 OIG DATA Act Audit
Reporting on Individual Data Element Error
Rates**

Data element	Error rate (percentage) : 0	Error rate (percentage) : >0 to 20	Error rate (percentage) : >20 to 40	Error rate (percentage) : >40 to 100
Award Modification / Amendment Number	19	15	2	1
Award Type	18	17	1	1
Awardee/Recipient Legal Entity Name	17	19	1	1
Awardee/Recipient Unique Identifier	18	18	1	1
Awarding Agency Code	16	18	1	2
Awarding Agency Name	17	18	1	1
Awarding Office Code	17	17	2	1
Awarding Office Name	15	19	2	1
Awarding Sub Tier Agency Code	18	17	1	1
Awarding Sub Tier Agency Name	17	18	1	1
Business Types	15	8	1	1
Catalog of Federal Domestic Assistance (CFDA) Number	15	8	1	1
CFDA Title	15	8	1	1
Current Total Value of Award	18	16	1	1
Federal Action Obligation	18	17	1	1
Funding Agency Code	14	18	1	3
Funding Agency Name	15	17	2	2
Funding Office Code	16	17	2	2
Funding Office Name	14	19	2	2
Funding Sub Tier Agency Code	18	15	1	2
Funding Sub Tier Agency Name	16	17	1	2
Legal Entity Address	14	22	1	1
Legal Entity Congressional District	16	20	1	1
Legal Entity Country Code	18	18	1	1
Legal Entity Country Name	18	18	1	1
Non-Federal Funding Amount	13	4	1	0
North American Industrial Classification System (NAICS) Description	21	14	1	0
NAICS Code	21	14	1	0
Object Class	32	1	2	0
Obligation	32	1	2	0
Ordering Period End Date	25	4	1	2
Outlay	8	0	0	0
Parent Award Identification Number	23	10	2	1
Period of Performance Current End Date	17	18	1	1
Period of Performance Potential End Date	20	15	1	0
Period of Performance Start Date	19	17	1	1

**Appendix V: 2019 OIG DATA Act Audit
Reporting on Individual Data Element Error
Rates**

Data element	Error rate (percentage) : 0	Error rate (percentage) : >0 to 20	Error rate (percentage) : >20 to 40	Error rate (percentage) : >40 to 100
Potential Total Value of Award	22	13	1	0
Primary Place of Performance Address	16	19	2	1
Primary Place of Performance Congressional District	19	17	1	1
Primary Place of Performance Country Code	16	19	1	1
Primary Place of Performance Country Name	15	20	1	1
Program Activity	23	1	2	0
Record Type	15	8	1	1
Ultimate Parent Legal Entity Name	12	21	3	2
Ultimate Parent Unique Identifier	13	20	3	2
Unobligated Balance	7	0	0	0

Legend: OIG = office of inspector general; > = greater than.

Source: GAO analysis of OIG reports. | GAO-20-540

Note: The number of OIGs reporting error rates for each individual data element varies depending on whether the data element is applicable to their respective agency's data submission, among other things. For OIGs reporting multiple error rates, the highest error rate was used in the table above. In total, 39 OIGs reported completeness error rates for individual data elements.

Table 7 shows the range of error rates for the timeliness of individual data elements as reported by 39 OIGs (sorted alphabetically by data element). The data element with the most OIGs (28) reporting no errors (0 percent error rate) was *Obligation*. The data element with the most OIGs (four) reporting error rates greater than 40 percent was *Award Modification/Amendment Number*. The data elements reported by the most OIGs (10) with error rates greater than 20 percent were *Award Identification Number*, *Funding Agency Name*, and *Funding Agency Code*.

Table 7: Number of OIGs Reporting Timeliness Error Rates, by Data Element (First Quarter, Fiscal Year 2019)

Data element	Error rate (percentage): 0	Error rate (percentage): >0 to 20	Error rate (percentage): >20 to 40	Error rate (percentage): >40 to 100
Action Date	8	22	5	3
Action Type	13	17	5	3
Amount of Award	13	7	1	2
Appropriations Account	27	6	2	0
Award Description	11	18	5	3
Award Identification Number	9	19	7	3
Award Modification / Amendment Number	11	18	4	4
Award Type	11	18	5	3

**Appendix V: 2019 OIG DATA Act Audit
Reporting on Individual Data Element Error
Rates**

Data element	Error rate (percentage): 0	Error rate (percentage): >0 to 20	Error rate (percentage): >20 to 40	Error rate (percentage): >40 to 100
Awardee/Recipient Legal Entity Name	10	20	5	3
Awardee/Recipient Unique Identifier	11	20	4	3
Awarding Agency Code	9	20	5	3
Awarding Agency Name	9	20	5	3
Awarding Office Code	10	18	5	3
Awarding Office Name	9	19	5	3
Awarding Sub Tier Agency Code	10	19	5	3
Awarding Sub Tier Agency Name	9	20	5	3
Business Types	11	10	1	3
Catalog of Federal Domestic Assistance (CFDA) Number	11	10	1	3
CFDA Title	11	10	1	3
Current Total Value of Award	11	18	6	1
Federal Action Obligation	9	20	5	3
Funding Agency Code	8	18	7	3
Funding Agency Name	8	18	7	3
Funding Office Code	10	18	5	3
Funding Office Name	9	19	5	3
Funding Sub Tier Agency Code	11	16	6	3
Funding Sub Tier Agency Name	10	17	6	3
Legal Entity Address	9	20	5	3
Legal Entity Congressional District	10	20	5	3
Legal Entity Country Code	9	21	5	3
Legal Entity Country Name	9	21	5	3
Non-Federal Funding Amount	12	4	1	1
North American Industrial Classification System (NAICS) Description	15	15	6	0
NAICS Code	14	16	6	0
Object Class	27	6	2	0
Obligation	28	5	2	0
Ordering Period End Date	24	6	1	1
Outlay	8	0	0	0
Parent Award Identification Number	18	11	6	1
Period of Performance Current End Date	10	18	6	3
Period of Performance Potential End Date	13	17	6	0
Period of Performance Start Date	11	18	6	3
Potential Total Value of Award	14	16	6	0
Primary Place of Performance Address	11	19	5	3

**Appendix V: 2019 OIG DATA Act Audit
Reporting on Individual Data Element Error
Rates**

Data element	Error rate (percentage): 0	Error rate (percentage): >0 to 20	Error rate (percentage): >20 to 40	Error rate (percentage): >40 to 100
Primary Place of Performance Congressional District	12	18	5	3
Primary Place of Performance Country Code	10	19	5	3
Primary Place of Performance Country Name	10	19	5	3
Program Activity	22	3	1	0
Record Type	11	10	1	3
Ultimate Parent Legal Entity Name	8	20	6	3
Ultimate Parent Unique Identifier	11	19	5	3
Unobligated Balance	7	0	0	0

Legend: OIG = office of inspector general; > = greater than.

Source: GAO analysis of OIG reports. | GAO-20-540

Note: The number of OIGs reporting error rates for each individual data element varies depending on whether the data element is applicable to their respective agency's data submission, among other things. For OIGs reporting multiple error rates, the highest error rate was used in the table above. In total, 39 OIGs reported timeliness error rates for individual data elements.

Table 8 shows the range of error rates for the accuracy of individual data elements as reported by 41 OIGs (sorted alphabetically by data element). There were three data elements with the most OIGs (23) reporting no errors (0 percent error rate): *Object Class*, *Appropriations Account*, and *Ordering Period End Date*. The data element with the most OIGs (six) reporting error rates greater than 40 percent was *Period of Performance Start Date*. The data element reported by the most OIGs (12) with an error rate greater than 20 percent was *Potential Total Value of Award*.

**Appendix V: 2019 OIG DATA Act Audit
Reporting on Individual Data Element Error
Rates**

Table 8: Number of OIGs Reporting Accuracy Error Rates, by Data Element (First Quarter, Fiscal Year 2019)

Data element	Error rate (percentage): 0	Error rate (percentage): >0 to 20	Error rate (percentage): >20 to 40	Error rate (percentage): >40 to 100
Action Date	6	27	2	3
Action Type	14	20	2	2
Amount of Award	13	9	2	0
Appropriations Account	23	10	2	1
Award Description	8	27	1	1
Award Identification Number	14	20	2	3
Award Modification / Amendment Number	14	17	2	4
Award Type	10	24	2	1
Awardee/Recipient Legal Entity Name	7	27	2	2
Awardee/Recipient Unique Identifier	12	24	1	1
Awarding Agency Code	15	20	1	1
Awarding Agency Name	15	20	1	1
Awarding Office Code	12	19	4	2
Awarding Office Name	12	20	4	1
Awarding Sub Tier Agency Code	15	20	1	1
Awarding Sub Tier Agency Name	14	21	1	1
Business Types	12	10	2	2
Catalog of Federal Domestic Assistance (CFDA) Number	13	11	1	1
CFDA Title	13	11	0	2
Current Total Value of Award	8	19	8	2
Federal Action Obligation	11	22	3	1
Funding Agency Code	13	19	2	2
Funding Agency Name	13	19	2	2
Funding Office Code	12	20	2	3
Funding Office Name	12	21	2	2
Funding Sub Tier Agency Code	15	18	1	2
Funding Sub Tier Agency Name	14	19	1	2
Legal Entity Address	4	24	5	5
Legal Entity Congressional District	6	27	4	1
Legal Entity Country Code	14	22	1	1
Legal Entity Country Name	14	22	1	1
Non-Federal Funding Amount	12	6	1	0

**Appendix V: 2019 OIG DATA Act Audit
Reporting on Individual Data Element Error
Rates**

Data element	Error rate (percentage): 0	Error rate (percentage): >0 to 20	Error rate (percentage): >20 to 40	Error rate (percentage): >40 to 100
North American Industrial Classification System (NAICS) Description	14	21	3	0
NAICS Code	14	19	4	1
Object Class	23	9	2	2
Obligation	20	10	5	1
Ordering Period End Date	23	5	1	4
Outlay	7	1	0	0
Parent Award Identification Number	16	18	3	1
Period of Performance Current End Date	5	23	7	2
Period of Performance Potential End Date	9	22	5	2
Period of Performance Start Date	5	23	5	6
Potential Total Value of Award	10	16	10	2
Primary Place of Performance Address	5	26	4	4
Primary Place of Performance Congressional District	9	25	2	3
Primary Place of Performance Country Code	14	20	1	2
Primary Place of Performance Country Name	13	21	1	2
Program Activity	18	7	2	0
Record Type	13	10	1	2
Ultimate Parent Legal Entity Name	7	22	6	4
Ultimate Parent Unique Identifier	6	26	4	2
Unobligated Balance	7	0	0	0

Legend: OIG = office of inspector general; > = greater than.

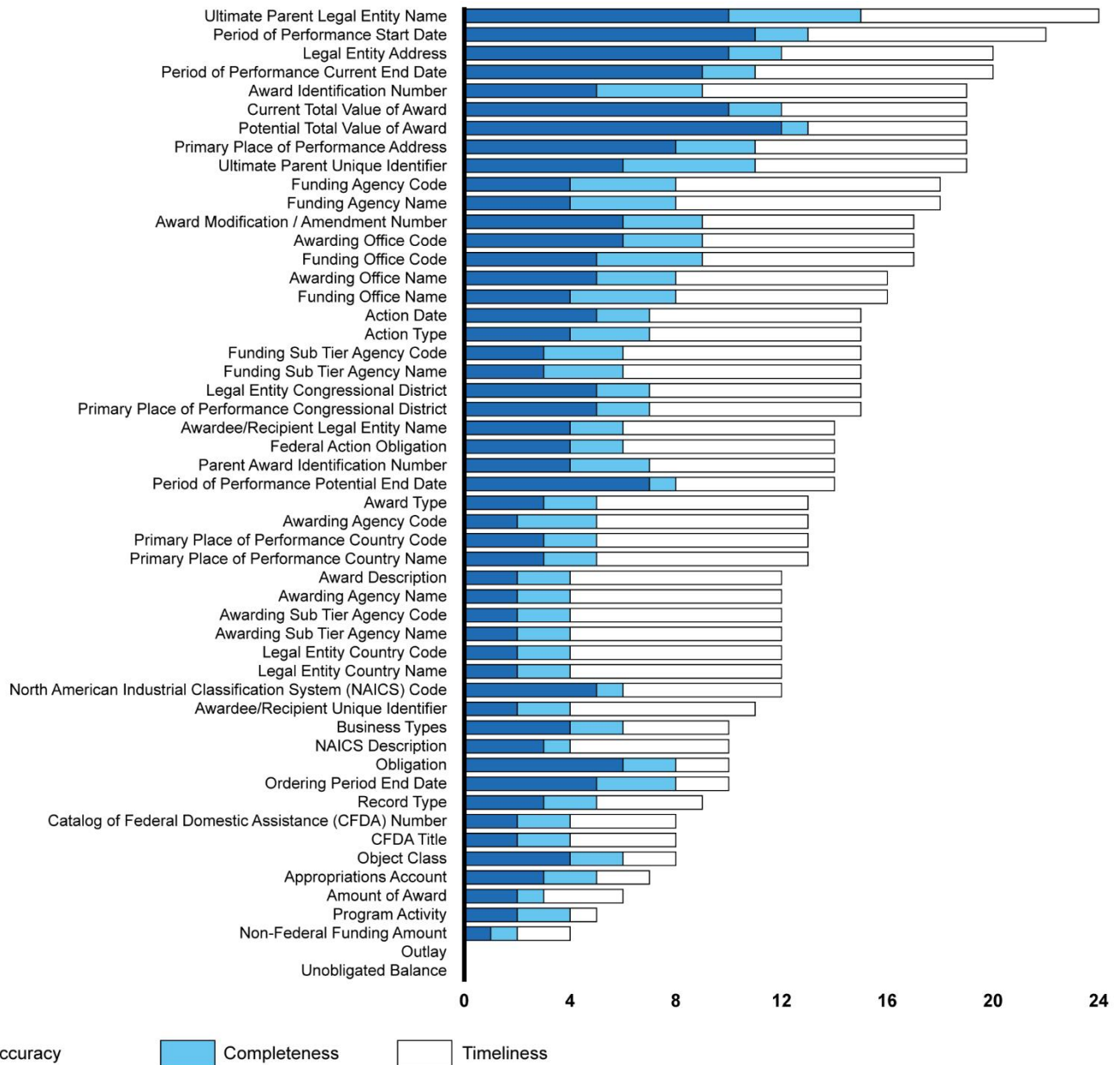
Source: GAO analysis of OIG reports. | GAO-20-540

Note: The number of OIGs reporting error rates for each individual data element varies depending on whether the data element is applicable to their respective agency's data submission, among other things. For OIGs reporting multiple error rates, the highest error rate was used in the table above. In total, 41 OIGs reported accuracy error rates for individual data elements.

Figure 8 shows a comparison of error rates greater than 20 percent for accuracy, completeness, and timeliness for each data element (sorted in descending order by number of error rates greater than 20 percent). Generally, fewer OIGs reported error rates greater than 20 percent for completeness of individual data elements than timeliness and accuracy, and more OIGs reported error rates greater than 20 percent for the timeliness of the individual data elements than completeness or accuracy.

**Appendix V: 2019 OIG DATA Act Audit
Reporting on Individual Data Element Error
Rates**

Figure 8: Number of Offices of Inspector General (OIG) Reporting Error Rates over 20 Percent, by Data Element (First Quarter, Fiscal Year 2019)



Source: GAO analysis of OIG reports. | GAO-20-540

Note: The figure shows the number of OIGs reporting error rates greater than 20 percent for the attributes of completeness, timeliness, and accuracy of each individual data element. For a given data element, an OIG may be counted up to three times (i.e., once for each attribute). The number of

**Appendix V: 2019 OIG DATA Act Audit
Reporting on Individual Data Element Error
Rates**

OIGs reporting error rates for each individual data element varies depending on whether the data element is applicable to their respective agency's data submission, among other things. For OIGs reporting multiple error rates, the highest error rate was used in the figure above. In total, 41 OIGs reported accuracy error rates for individual data elements, and 39 OIGs reported error rates for both completeness and timeliness.

Appendix VI: Comments from the Council of the Inspectors General on Integrity and Efficiency

**Appendix VI: Comments from the Council of
the Inspectors General on Integrity and
Efficiency**



Council of the
INSPECTORS GENERAL
on INTEGRITY and EFFICIENCY

June 23, 2020

Ms. Paula Rascona
Director
Financial Management and Assurance
U.S. Government Accountability Office
441 G. Street, N.W.
Washington, D.C. 20548

Dear Ms. Rascona:

On behalf of the Council of the Inspectors General on Integrity and Efficiency (CIGIE), we appreciate the opportunity to provide this response to the Government Accountability Office (GAO) draft report, *DATA Act: OIGs Reported That Quality of Agency-Submitted Data Varied and Most Recommended Improvements*, report number GAO-20-540.

The report provides useful information on the Federal Inspectors General (IG) efforts to meet oversight and reporting responsibilities under the Digital Accountability and Transparency Act of 2014 (DATA Act). As such, we believe this report will contribute to a greater understanding of the oversight work performed by the IG community and of Agency efforts to report and track Government-wide spending more effectively.

We deeply appreciate the professionalism and cooperation demonstrated by your staff during the course of this engagement. Should you have questions regarding these comments, or if we can provide any additional information, please contact us.

Sincerely,

**HANNIBAL
WARE**

Digitally signed by
HANNIBAL WARE
Date: 2020.06.23
19:15:41 -0400

The Honorable Hannibal "Mike" Ware
Chair, Audit Committee, CIGIE
Inspector General, Small Business Administration

cc: The Honorable Michael Horowitz
Chair, CIGIE
Inspector General, U.S. Department of Justice

Allison Lerner
Vice Chair, CIGIE
Inspector General, National Science Foundation

Appendix VII: GAO Contact and Staff Acknowledgments

GAO Contact

Paula M. Rascona, (202) 512-9816 or rasconap@gao.gov

Staff Acknowledgments

In addition to the contact named above, Michael LaForge (Assistant Director), Diane Morris (Auditor in Charge), Maria Belaval, and Thomas Hackney made major contributions to this report. Other key contributors include Youssef Amrani, Carl Barden, Juan Garay, Rob Hildebrandt, Arsenio Jones, Jason Kelly, James Kernen, Leticia Peña, Patricia Powell, Quang Nguyen, Lisa Rowland, Anne Thomas, and Gary Wiggins.

Appendix VIII: Accessible Data

Data Tables

Accessible Data for Error Rates of Data Submitted under the Digital Accountability and Transparency Act of 2014 as Reported by Agencies' Offices of Inspector General (OIG), by Range and Type of Error (First Quarter, Fiscal Year 2019)

Category	Reported an error rate of 20% or lower	Reported an error rate of 21% to 40%	Reported an error rate of 41% or higher
Completeness	44	2	2
Timeliness	38	6	4
Accuracy	42	3	3

Accessible Data for Figure 1: Quality of Data Submitted under the Digital Accountability and Transparency Act of 2014, as Reported by Agencies' Offices of Inspector General, First Quarter, Fiscal Year 2019

Category	Number of OIGs	Number of OIGs missing data
High	37	10 of 37
Moderate	6	
Low	4	
Moderate and low	1	
Other	3	

Accessible Data for Figure 2: Error Rates for Data Submitted under the DATA Act, as Reported by Agencies' OIGs, by Range and Type of Error (First Quarter, Fiscal Year 2019)

Category	Reported an error rate of 20% or lower	Reported an error rate of 21% to 40%	Reported an error rate of 41%
Completeness	44	2	2
Timeliness	38	6	4
Accuracy	42	3	3

Accessible Data for Figure 6: Deficiencies Identified in 2019 OIG DATA Act Reports and Number of OIGs Reporting Each Deficiency

Category	CFO Act agencies	Non-CFO Act agencies
Information technology systems limitations	13	6
Issues related to quality control procedures	7	11
Issues with controls over data derived from external systems	7	9
Timing issues	7	9
Data entry errors or incomplete data	8	8
Incorrect application of data standards and data elements	9	6
Inadequate validation and reconciliation procedures	8	6
Issues with data quality plan	4	9
Insufficient documentation	7	1
Issues related to SAO certification	1	4

Accessible Data for Figure 7: Recommendations Made in 2019 OIG DATA Act Reports and Number of OIGs That Made Them

Category	CFO Act agencies	Non-CFO Act agencies
Establish and implement procedures or guidance	13	10
Develop controls over submission process	10	12
Develop controls over data from source systems	5	11
Develop or revise data quality plan	5	8
Work with Treasury, OMB, or other external stakeholders	5	7
Develop and implement systems controls	7	4
Maintain documentation	4	5
Provide training	4	3

Appendix VIII: Accessible Data

Accessible Data for Figure 8: Number of Offices of Inspector General (OIG) Reporting Error Rates over 20 Percent, by Data Element (First Quarter, Fiscal Year 2019)

Data Element Name	Accuracy	Completeness	Timeliness	TOTAL
Ultimate Parent Legal Entity Name	10	5	9	24
Period of Performance Start Date	11	2	9	22
Legal Entity Address	10	2	8	20
Period of Performance Current End Date	9	2	9	20
Award Identification Number	5	4	10	19
Current Total Value of Award	10	2	7	19
Potential Total Value of Award	12	1	6	19
Primary Place of Performance Address	8	3	8	19
Ultimate Parent Unique Identifier	6	5	8	19
Funding Agency Code	4	4	10	18
Funding Agency Name	4	4	10	18
Award Modification / Amendment Number	6	3	8	17
Awarding Office Code	6	3	8	17
Funding Office Code	5	4	8	17
Awarding Office Name	5	3	8	16
Funding Office Name	4	4	8	16
Action Date	5	2	8	15
Action Type	4	3	8	15
Funding Sub Tier Agency Code	3	3	9	15
Funding Sub Tier Agency Name	3	3	9	15
Legal Entity Congressional District	5	2	8	15
Primary Place of Performance Congressional District	5	2	8	15
Awardee/Recipient Legal Entity Name	4	2	8	14
Federal Action Obligation	4	2	8	14
Parent Award Identification Number	4	3	7	14
Period of Performance Potential End Date	7	1	6	14
Award Type	3	2	8	13
Awarding Agency Code	2	3	8	13
Primary Place of Performance Country Code	3	2	8	13
Primary Place of Performance Country Name	3	2	8	13
Award Description	2	2	8	12
Awarding Agency Name	2	2	8	12

Appendix VIII: Accessible Data

Data Element Name	Accuracy	Completeness	Timeliness	TOTAL
Awarding Sub Tier Agency Code	2	2	8	12
Awarding Sub Tier Agency Name	2	2	8	12
Legal Entity Country Code	2	2	8	12
Legal Entity Country Name	2	2	8	12
North American Industrial Classification System (NAICS) Code	5	1	6	12
Awardee/Recipient Unique Identifier	2	2	7	11
Business Types	4	2	4	10
NAICS Description	3	1	6	10
Obligation	6	2	2	10
Ordering Period End Date	5	3	2	10
Record Type	3	2	4	9
Catalog of Federal Domestic Assistance (CFDA) Title	2	2	4	8
CFDA Title	2	2	4	8
Object Class	4	2	2	8
Appropriations Account	3	2	2	7
Amount of Award	2	1	3	6
Program Activity	2	2	1	5
Non-Federal Funding Amount	1	1	2	4
Outlay	0	0	0	0
Unobligated Balance	0	0	0	0

Agency Comment Letter

Accessible Text for Appendix VI Comments from the Council of the
Inspectors General on Integrity and Efficiency

June 23, 2020

Ms. Paula Rascona

Director

Financial Management and Assurance

U.S. Government Accountability Office

441 G. Street, N.W.

Washington, D.C. 20548

Dear Ms. Rascona:

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We deeply appreciate the professionalism and cooperation demonstrated by your staff during the course of this engagement. Should you have questions regarding these comments, or if we can provide any additional information, please contact us.

Sincerely,

The Honorable Hannibal “Mike” Ware

Chair, Audit Committee, CIGIE

Inspector General, Small Business Administration

cc: The Honorable Michael Horowitz

Chair, CIGIE

Inspector General, U.S. Department of Justice

Allison Lerner

Vice Chair, CIGIE

Inspector General, National Science Foundation

Related GAO Products

DATA Act: Quality of Data Submissions Has Improved but Further Action Is Needed to Disclose Known Data Limitations. [GAO-20-75](#). Washington, D.C.: November 8, 2019.

DATA Act: OMB Needs to Formalize Data Governance for Reporting Federal Spending. [GAO-19-284](#). Washington, D.C.: March 22, 2019.

DATA Act: Reported Quality of Agencies' Spending Data Reviewed by OIGs Varied Because of Government-wide and Agency Issues. [GAO-18-546](#). Washington, D.C.: July 23, 2018.

DATA Act: OMB, Treasury, and Agencies Need to Improve Completeness and Accuracy of Spending Data and Disclose Limitations. [GAO-18-138](#). Washington, D.C.: November 8, 2017.

DATA Act: As Reporting Deadline Nears, Challenges Remain That Will Affect Data Quality. [GAO-17-496](#). Washington, D.C.: April 28, 2017.

DATA Act: Office of Inspector General Reports Help Identify Agencies' Implementation Challenges. [GAO-17-460](#). Washington, D.C.: April 26, 2017.

DATA Act: Implementation Progresses but Challenges Remain. [GAO-17-282T](#). Washington, D.C.: December 8, 2016.

DATA Act: Initial Observations on Technical Implementation. [GAO-16-824R](#). Washington, D.C.: August 3, 2016.

DATA Act: Improvements Needed in Reviewing Agency Implementation Plans and Monitoring Progress. [GAO-16-698](#). Washington, D.C.: July 29, 2016.

DATA Act: Progress Made but Significant Challenges Must Be Addressed to Ensure Full and Effective Implementation. [GAO-16-556T](#). Washington, D.C.: April 19, 2016.

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

Related GAO Products

DATA Act: Progress Made in Initial Implementation but Challenges Must be Addressed as Efforts Proceed. [GAO-15-752T](#). Washington, D.C.: July 29, 2015.

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