



April 2024

SINGLE AUDITS

Improving Federal Audit Clearinghouse Information and Usability Could Strengthen Federal Award Oversight

Why GAO Did This Study

Federal award amounts distributed to recipients have increased substantially since the onset of the COVID-19 pandemic. For fiscal year 2023, \$1.1 trillion of awards were distributed and about 40,000 single audits were submitted to the FAC. Single audits are an important tool to help ensure that award recipients are complying with the requirements of their awards.

The CARES Act includes a provision for GAO to conduct oversight of funds made available to respond to the COVID-19 pandemic. This report examines (1) FAC data reliability for oversight purposes, including oversight of COVID-19 relief funding; (2) processes involved in using and overseeing the FAC; and (3) the extent to which federal award expenditures were linked to severe and persistent single audit findings reported in the FAC.

GAO analyzed FAC data from 2015 through 2021 (the most recent complete data available at the time of review). GAO interviewed selected federal agencies and audit community members about their use of the FAC.

What GAO Recommends

GAO is recommending three matters for Congress to consider, including amending the Single Audit Act to require OMB to initiate a government-wide single audit quality review at a regular interval.

GAO is making 10 recommendations, including four to GSA and six to OMB, to implement guidance and other strategies to further enhance the use and oversight of the FAC. GSA and OMB agreed with GAO's recommendations to them.

View [GAO-24-106173](#). For more information, contact James R. Dalkin at (202) 512-3133 or dalkinj@gao.gov, or Taka Ariga at (202) 512-4968 or arigat@gao.gov.

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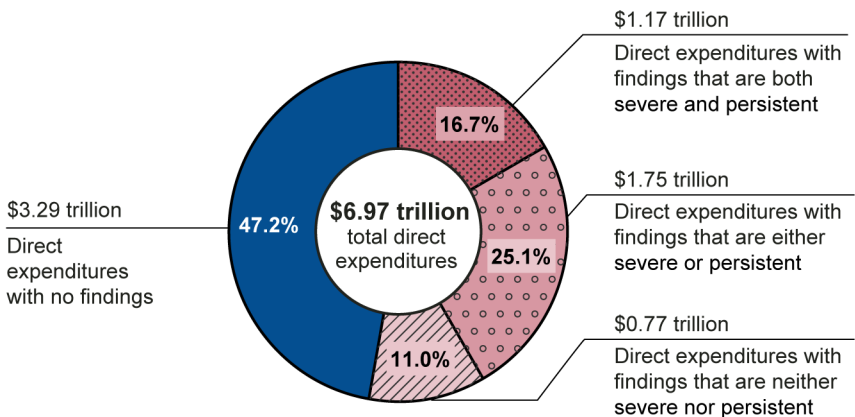
What GAO Found

The Single Audit Act requires nonfederal entities that spend \$750,000 or more in federal awards in a year to undergo a single audit, which is an audit of an entity's financial statements and federal awards, or in select cases a program-specific audit, and submit the results to the Federal Audit Clearinghouse (FAC). The U.S. Census Bureau maintained the FAC until October 2023, when the Office of Management and Budget (OMB) designated the General Services Administration (GSA) to assume responsibilities.

GAO identified some issues with FAC processes that affect the reliability and usefulness of single audit information. For example, the FAC currently cannot identify recipients that should have submitted a single audit but did not. As a result, federal agencies may not have all the data they need to conduct oversight. In addition, OMB has not designated an entity to conduct a government-wide single audit quality review since 2007. Given the trillions of dollars of COVID-19-related financial assistance provided in recent years, a government-wide review is increasingly important to help identify issues in the quality of single audits that can lead to unreliable FAC information.

GAO also found that \$1.17 trillion of the reported \$6.97 trillion of direct federal award funds spent by recipients from 2017 through 2021 were linked to single audit findings that were both severe (contributed to an auditor's modified opinion or material weakness) and persistent (repeated over multiple years).

Severity and Persistence of Single Audit Findings by Direct Expenditure of Federal Awards, 2017-2021



Source: GAO analysis of data from U.S. Census Bureau. | GAO-24-106173

Note: Numbers may not sum due to rounding. For more details, see fig. 4 in GAO-24-106173.

These findings were also related to \$69 billion of COVID-19 relief funds spent from 2020 to 2021. GAO identified 213 findings reported in 2015 or earlier that remained unresolved in 2021.

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Abbreviations

AICc	corrected Akaike Information Criterion
AICPA	American Institute of Certified Public Accountants
ARPA	American Rescue Plan Act of 2021
BIC	Bayesian Information Criteria
CAP	corrective action plan
CFDA	Catalog of Federal Domestic Assistance
CIGIE	Council of the Inspectors General on Integrity and Efficiency
CPA	certified public accountant
CRF	Coronavirus Relief Fund
DHS	Department of Homeland Security
DOL	Department of Labor
DOT	Department of Transportation
DUNS	Data Universal Numbering System
EIN	Employer Identification Number
FAC	Federal Audit Clearinghouse
GSA	General Services Administration
HHS	Department of Health and Human Services
LASSO	least absolute shrinkage and separation operator
OIG	Office of Inspector General
OMB	Office of Management and Budget
PCIE	President's Council on Integrity and Efficiency
PFRN	prior finding reference number
SAM	System for Award Management
SEFA	schedule of expenditures of federal awards
Uniform Guidance	<i>Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards</i>

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April 22, 2024

Congressional Committees

In fiscal year 2023, the federal government awarded an estimated \$1.1 trillion in federal funds. As part of the oversight of this federal spending, about 40,000 single audits are expected to be conducted and submitted for certain of these awards. Single audits are independent reviews of federal award recipients that spent \$750,000 or more in federal funds in a fiscal year.

The Single Audit Act of 1984 charged the Director of the Office of Management and Budget (OMB) with issuing guidance to implement it.¹ In 1985, OMB exercised this authority by designating the U.S. Census Bureau as the federal agency responsible for maintaining the Federal Audit Clearinghouse (FAC) to store the results of single audits.² Federal awards that year totaled \$105.9 million, and single audit reports were solely paper documents transmitted via a mail carrier to the Census Bureau. Since then, the FAC has become an entirely internet-based repository for accessing single audit reports and related data.

Single audits are an important oversight tool for ensuring that an award recipient has adequate internal controls in place over federal programs and is complying with relevant program requirements. An unprecedented increase in the amount of federal awards distributed due to the COVID-19 pandemic, including many awards to recipients receiving substantial amounts of federal funds for the first time, has further emphasized the importance of single audits. It is important that information on single audits reported in the FAC is reliable and useful because agency officials use the FAC to monitor the spending of their awards.

We prepared this work under the CARES Act, which includes a provision for us to conduct oversight of the funds made available to respond to the

¹The Single Audit Act is codified, as amended, at 31 U.S.C. §§ 7501-06, and implementing OMB guidance is reprinted in 2 C.F.R. part 200 subpart F.

²50 Fed. Reg. 50,027 (Dec. 6, 1985). Subsequently, the Single Audit Act Amendments of 1996 made it a statutory requirement for OMB to designate a FAC. See Pub. L. No. 104-156, 110 Stat. 1396 (July 5, 1996), which amended Pub. L. No. 98-502, 98 Stat. 2327 (Oct. 19, 1984). As amended, the Single Audit Act today requires OMB to designate a federal clearinghouse to, among other things, receive copies of all reporting packages developed in accordance with the act. 31 U.S.C. § 7504(c).

COVID-19 pandemic.³ This report examines (1) the reliability of the data contained in the FAC for oversight purposes, including oversight of COVID-19 relief funding; (2) processes involved in using and overseeing the FAC; and (3) the extent to which federal award expenditures were linked to severe and persistent single audit findings reported in the FAC.

For each of our objectives, to obtain insights on how federal agencies use the FAC, we interviewed officials from five executive branch agencies that administer award programs.⁴ We selected the agencies based on measures of their recipients' award spending, including agencies with the largest reported recipient amounts of direct federal award expenditures and COVID-19-related expenditures. We interviewed officials from the Census Bureau, which maintained the FAC through September 2023, and the General Services Administration (GSA), which took over FAC responsibilities beginning in October 2023. We also interviewed staff from OMB, the agency statutorily directed to prescribe guidance to implement the Single Audit Act and to designate an agency to maintain the FAC.⁵

To address our first objective, we tested single audit data we downloaded from the FAC for audit years 2015 through 2021 (audit year 2021 was the most recent and complete population of single audit data at the time of our download). We selected and adapted tests from GAO's *Assessing Data Reliability*, based on accuracy, consistency, and completeness, to review the FAC data for reliability issues that could affect federal award oversight.⁶

To address our second objective, we obtained and reviewed relevant documentation, such as laws and guidance governing single audits and the FAC. We conducted structured interviews with officials from the five selected agencies to obtain information on how they use the FAC to monitor recipients' audit findings, and on additional FAC features that they suggested could improve oversight of federal awards. We also interviewed officials from each selected agency's Office of Inspector General (OIG) and members of professional audit and accountability

³See the CARES Act, Pub. L. No. 116-136, div. B, § 19010(b), 134 Stat. 281, 580 (Mar. 27, 2020), reprinted in 31 U.S.C. § 712 note.

⁴The five executive branch agencies we selected were the Department of Homeland Security, Department of Health and Human Services, Department of Labor, Department of Transportation, and Department of the Treasury.

⁵Single Audit Act, 31 U.S.C. §§ 7505(a), 7504(c).

⁶GAO, *Assessing Data Reliability*, [GAO-20-283G](#) (Washington, D.C.: Dec. 2019).

organizations, to understand their use of the FAC and any suggestions they had for additional FAC features. We compared a nongeneralizable selection of several FAC single audit reports with the corresponding data collection forms to identify data input errors and inconsistencies.

To address our third objective, we analyzed single audit data we downloaded from the FAC for audits conducted from 2017 to 2021 to identify expenditures that were linked to severe and persistent single audit findings, including expenditures and unresolved audit findings related to COVID-19 relief funding. We also obtained an understanding of how the selected agencies use the FAC as part of their process to track and prioritize persistent findings. For additional details on our scope and methodology, see appendix I.

We conducted this performance audit from July 2022 to April 2024 in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

Background

The Single Audit Act and related guidance requires nonfederal entities, such as state and local governments, nonprofit organizations, and tribal governments, that spend \$750,000 or more in federal awards from all sources in a fiscal year to undergo either a *single audit*, which is an audit of an entity's financial statements and federal awards, or a program-specific audit, for the fiscal year.⁷ These audits must be performed by an independent auditor and are typically done either by a private firm engaged by the recipient or by a state or local government audit agency.

A single audit may identify deficiencies in the recipient's compliance with award requirements of program laws, regulations, contracts, or grant agreements; financial reporting under applicable accounting standards; or internal control over compliance. These deficiencies are known as audit findings. Unless federal statutes or regulations restrict them from doing

⁷Single Audit Act, 31 U.S.C. § 7502, and OMB's implementing guidance in 2 C.F.R. § 200.501. Federal awards are federal financial assistance and cost-reimbursement contracts that nonfederal entities receive directly from federal awarding agencies or indirectly from pass-through entities, and include grants, loans, loan guarantees, property, cooperative agreements, interest subsidies, insurance, food commodities, direct appropriations, and other assistance. 31 U.S.C. §§ 7501(a)(4),(5); 2 C.F.R. § 200.1.

so, OMB's implementing guidance requires entities to make their single audit results available for public inspection.

The Single Audit Act directs OMB to designate an entity to (1) maintain the FAC and receive copies of single audit reports,⁸ (2) identify recipients that spent \$750,000 or more in federal awards in a fiscal year but did not submit the required single audit,⁹ and (3) assist OMB in carrying out its duties under the act by performing analyses. Beginning in 1985, before it became a statutory mandate in 1996, OMB designated the Census Bureau as the entity to maintain the FAC and receive copies of the single audit reports.

In September 2020, the Census Bureau informed OMB that it had evaluated the state of the FAC's legacy systems and alternative solutions under consideration as potential replacements. However, because of funding levels, the Census Bureau stated that it decided not to put forth a proposal to modernize the FAC. In March 2022, OMB designated GSA to maintain the FAC, effective October 1, 2023.¹⁰ OMB staff stated that they chose GSA because it was the best-positioned agency to maintain the FAC and that they expect GSA to modernize the FAC in a phased approach over time. According to OMB staff, modernization will aim to improve usability and increase transparency over federal awards spending.

The Single Audit Act requires OMB to prescribe implementing guidance, which OMB streamlined in 2013 by issuing it as part of its *Uniform Administrative Requirements, Cost Principles, and Audit Requirements*

⁸Single audit reports are to include (1) the award recipient's financial statements and schedule of expenditures of federal awards; (2) a status of all single audit findings included in the prior audit's schedule of findings and questioned costs for federal awards; (3) the auditor's opinions on the award recipient's financial statements and schedule of expenditures of federal awards, compliance with requirements from laws, regulations, and provisions of contracts or grant agreements, and internal control over compliance; (4) when applicable, a schedule of findings and questioned costs; and (5) when applicable, a corrective action plan. We will refer to these as "single audits" for the purposes of our report.

⁹The fiscal year of recipients of federal funds can vary by recipient.

¹⁰OMB originally designated GSA to maintain the FAC beginning October 1, 2022. To aid in the transition, Census Bureau agreed to maintain the FAC for an additional year. GSA officially took over operations from Census Bureau on October 1, 2023.

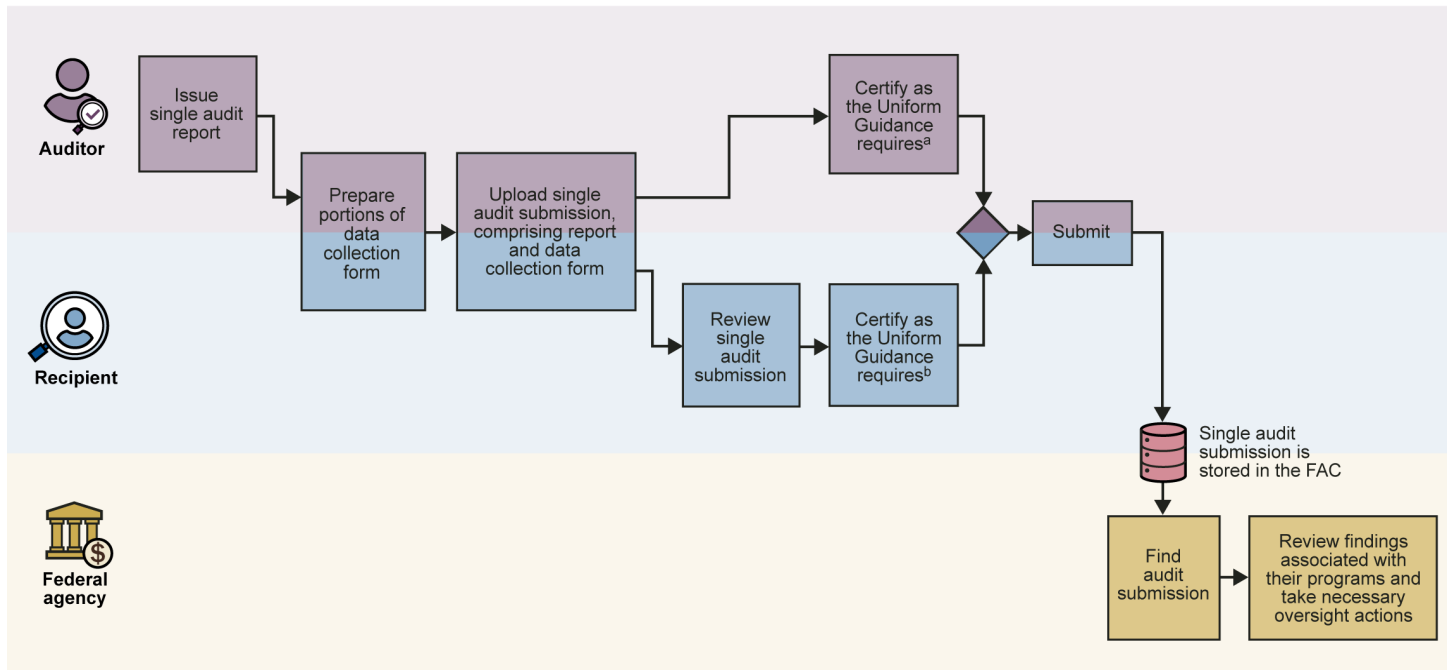
for Federal Awards, referred to as the Uniform Guidance.¹¹ The Single Audit Act and Uniform Guidance require auditors to issue single audit reports. The Uniform Guidance requires recipients to upload single audit reports and accompanying data collection forms into the FAC; both auditors and recipients are required to certify them in the FAC.

The Uniform Guidance directs federal awarding agencies to ensure that award recipients' single audit reports are completed and received in a timely manner. Awarding agencies are to follow up on audit findings to ensure that the recipient takes appropriate and timely corrective actions.¹² Officials we interviewed from the selected federal agencies told us they use the FAC to obtain and review single audit reports and data collection forms. Figure 1 shows the roles and activities of auditors, recipients, and federal agencies.

¹¹OMB first located the Uniform Guidance in Title 2 of the U.S. Code of Federal Regulations in 2013, and subsequently issued a revised version in 2020. For OMB's issuance of the Uniform Guidance, see 85 Fed. Reg. 49,506 (Aug. 13, 2020); 79 Fed. Reg. 78590 (Dec. 26, 2013). OMB's Uniform Guidance requires OMB to review the Uniform Guidance at least every 5 years after December 26, 2013. See 2 C.F.R. § 200.109. OMB most recently issued a notice of proposed guidance this fiscal year: 88 Fed. Reg. 69,390 (Oct. 5, 2023). The Uniform Guidance covers topics beyond single audits.

¹²See 2 C.F.R. § 200.513(c), which sets out the responsibilities of federal awarding agencies. Under the Uniform Guidance (2 C.F.R. § 200.1), a federal awarding agency is defined as the federal agency that provides a federal award directly to a nonfederal entity, or recipient. For the purposes of this report, we will refer to federal awarding agencies as federal agencies.

Figure 1: Role of Auditor, Recipient, and Federal Agency in Using the Federal Audit Clearinghouse for Single Audits



FAC Federal Audit Clearinghouse

Source: GAO analysis of reporting requirements and U.S. Census Bureau instructions; GAO (icons). | GAO-24-106173

^a2 C.F.R. § 200.512(b)(3).

^b2 C.F.R. § 200.512(b)(1).

Other federal officials and public users also report using the FAC. OIGs for our selected agencies reported using the information in the FAC to conduct desk reviews or quality control reviews of single audits.¹³ The American Institute of Certified Public Accountants (AICPA) and the National Association of State Auditors, Comptrollers, and Treasurers told us that their members, who include many auditors responsible for completing the single audits and reporting them to the FAC, use the FAC

¹³The Council of the Inspectors General on Integrity and Efficiency (CIGIE) publishes guidance for performing desk reviews and quality control reviews of single audits. CIGIE's guidance states that desk reviews are conducted on single audits to determine whether they are acceptable under the Uniform Guidance and to identify any quality issues that may warrant revisions to the audit report. Quality control reviews determine whether the single audit was conducted in accordance with applicable auditing standards and if additional audit work is needed to support the report's conclusions.

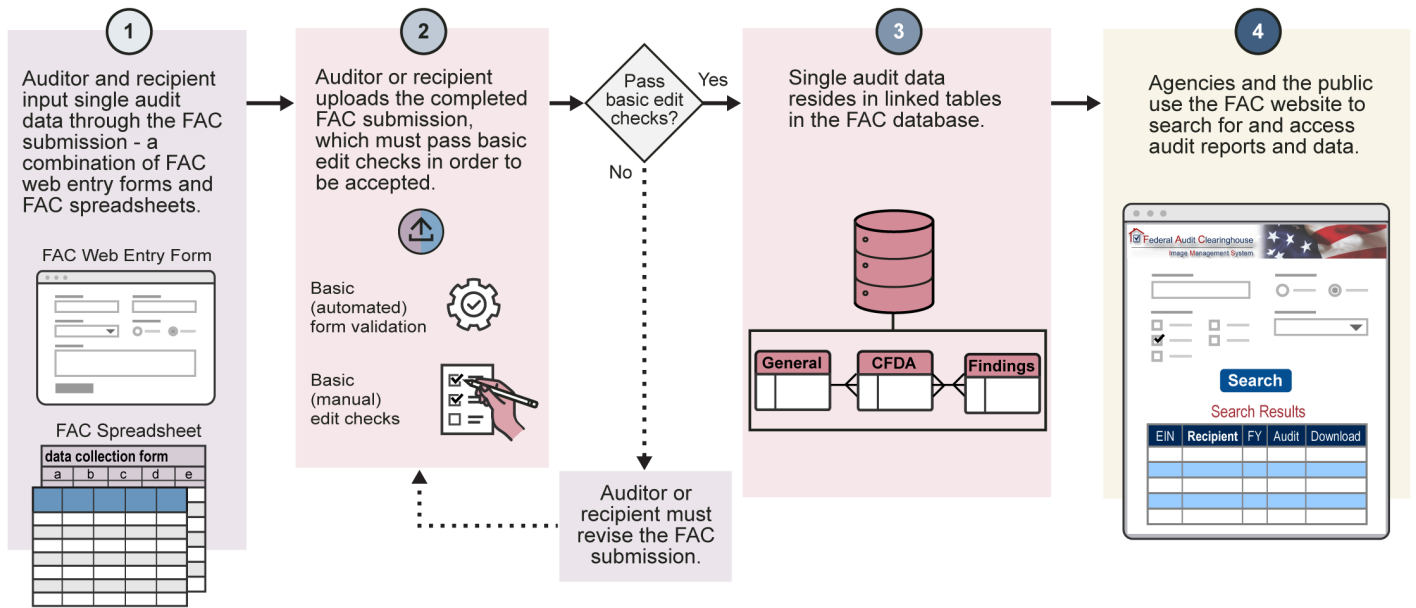
to download the complete single audit database and identify trends, such as major programs that are frequently audited.

The Uniform Guidance requires that recipients include a completed data collection form, known as an SF-SAC, with each single audit report submitted to the FAC. This form contains data elements such as general information on the recipient and auditor, audit opinions on the entity's financial statements, and information on federal awards and related findings. To complete this form, auditors coordinate with recipients to input required information to the FAC through a combination of web entry forms and spreadsheets. Until October 1, 2023, the Census Bureau had performed automated and manual validation checks on each form's submission before accepting it.

The FAC stores both the single audit report and the data collection form's data elements. Data elements are stored in linked tables in the complete single audit database; the system uses these tables to populate the search filters on the FAC website. The linked tables contain information compiled from single audit data collection forms, including general identifying information on audit reports, federal program expenditures and audit findings, and detailed audit findings. Agencies and public users may filter their searches for single audit reports using these tables to find and download single audit reports and summary reports.¹⁴ Figure 2 illustrates the flow of data from single audit reports into the FAC website and outward to public users searching for information.

¹⁴Certain single audit information for Tribes and tribal organizations may not be publicly available in the FAC if a tribal organization chooses to not authorize the FAC to make its reporting information publicly available on a website, as permitted under the Uniform Guidance (2 C.F.R. § 200.512(b)(2)).

Figure 2: Flow of Data Entry to Federal Audit Clearinghouse Database and Website



CFDA Catalog of Federal Domestic Assistance
 FAC Federal Audit Clearinghouse

Source: GAO analysis of U.S. Census Bureau documentation; GAO (icons). | GAO-24-106173

FAC operations transitioned from the Census Bureau to GSA on October 1, 2023, when GSA started collecting single audit report submissions for entities' 2023 reporting year. Beginning in June 2023, GSA held monthly meetings with federal agency stakeholders to provide updates and answer questions about the FAC transition. According to GSA officials, the agency plans to continue working with stakeholders as it designs and develops future FAC improvements. GSA officials told us that the agency allocated \$10 million in discretionary funding appropriated in the American Rescue Plan Act of 2021 to fund the FAC transition.¹⁵ This

¹⁵The American Rescue Plan Act of 2021 (ARPA) appropriated an additional \$150 million to GSA's Federal Citizen Services Fund (40 U.S.C. § 323), and GSA officials said that they used \$10 million of this funding for the FAC. See ARPA, Pub. L. No. 117-2, tit. IV, § 4012, 135 Stat. 4, 80 (Mar. 11, 2021).

funding level required GSA to focus on a minimum viable product to deliver basic system capabilities, according to the officials.¹⁶

To fund ongoing FAC maintenance costs, GSA drafted and executed annual interagency agreements with agencies that use the FAC. GSA officials told us that, to require more agencies to contribute to FAC maintenance costs, they updated the agency cost distribution model that the Census Bureau had used for its annual interagency agreements.

The FAC Contains Key Single Audit Information for Overseeing Federal Awards, but Some Issues Hinder Its Reliability

The FAC contains key information about single audits that facilitates the oversight of federal award spending. Based on our analysis of FAC data from 2015 through 2021, we concluded that FAC data are, overall, generally reliable to allow federal agencies to perform oversight of federal award spending. However, we identified some specific FAC data reliability issues that may affect oversight of federal spending, including inaccurate identification of federal programs, inconsistent recording of audit opinions, and incomplete information on single audit findings.

The FAC Contains Key Information for Overseeing Federal Awards

The FAC serves as a repository and database of single audit reports and information obtained from the data collection forms that federal award recipients and their auditors submit. Federal agencies, as well as others interested in this information, obtain it by accessing the FAC. The data collection form has fields to report key information, such as the amount of federal awards the recipient spent during the year; deficiencies in the recipient's compliance with award requirements and internal control over compliance, referred to as audit findings; and the status of the recipient's planned corrective actions to resolve any audit findings.¹⁷

These data are stored in linked tables used to populate the search filters on the FAC website and contain general identifying information on audit

¹⁶A minimum viable product is defined as the simplest version of a product that can be released. It should have enough value that it is still usable, demonstrates future benefit early on, and provides a means for feedback to guide future development. GAO, *Agile Assessment Guide: Best Practices for Agile Adoption and Implementation*, [GAO-20-590G](#) (Washington, D.C.: Sept. 2020).

¹⁷A single audit also includes an audit of a recipient's financial statements. However, we did not review financial statement findings as part of our analysis because the FAC data collection form, which is the source of FAC data, only allows auditors to report the overall financial statement audit opinion and contains no fields to report financial statement audit findings.

reports (General table), federal program expenditures and audit findings (Catalog of Federal Domestic Assistance (CFDA) table), and detailed audit findings (Findings table). Federal agencies and public users may search for single audit reports using these search filters to find and download single audit reports and summary reports. Federal agencies review the FAC database to oversee their programs and monitor whether recipients have reported audit findings and are resolving them.

FAC Data Were Generally Reliable for Oversight Purposes, but Some Data Reliability Issues Exist

We found the FAC data to be generally reliable to facilitate federal agency oversight, including allowing agency officials to search for recipients' single audits, locate findings, and download relevant single audit data. For several tests of FAC data, we detected no evidence of errors. For example, we tested over 4 million rows of data in the CFDA table and determined that the information was consistent in all rows. In addition, we found all 19 columns in the General table contained expected values that accurately matched data documentation. The errors we identified generally related to a small portion of FAC data, with error rates under 5 percent. For example, we found 28 of 135 columns contained evidence of missing values, though most were missing less than 1 percent of values. See appendixes II, III, and IV for additional details on our data reliability tests.

Although we found that the FAC data were generally reliable to allow agency officials to oversee federal awards, we found some specific data reliability issues. Our tests of FAC data from 2015 through 2021 found some issues with the accuracy, consistency, and completeness of the FAC data that may hinder agencies' oversight.¹⁸

Accuracy

We conducted accuracy tests on FAC data related to federal programs and related to COVID-19 relief funding.

- **Accuracy tests of FAC data.** To distinguish one federal program or single audit finding from another, the FAC uses variables known as

¹⁸Accuracy refers to the extent to which recorded data reflect the actual underlying information. Completeness refers to the extent to which relevant data records and fields are present and sufficiently populated. Other data quality considerations may affect accuracy and completeness. Consistency refers to whether data are sufficiently clear and well defined to yield comparable results in similar analyses. For example, inconsistent interpretation of data entry rules can lead to data that, taken as a whole, are unreliable. [GAO-20-283G](#).

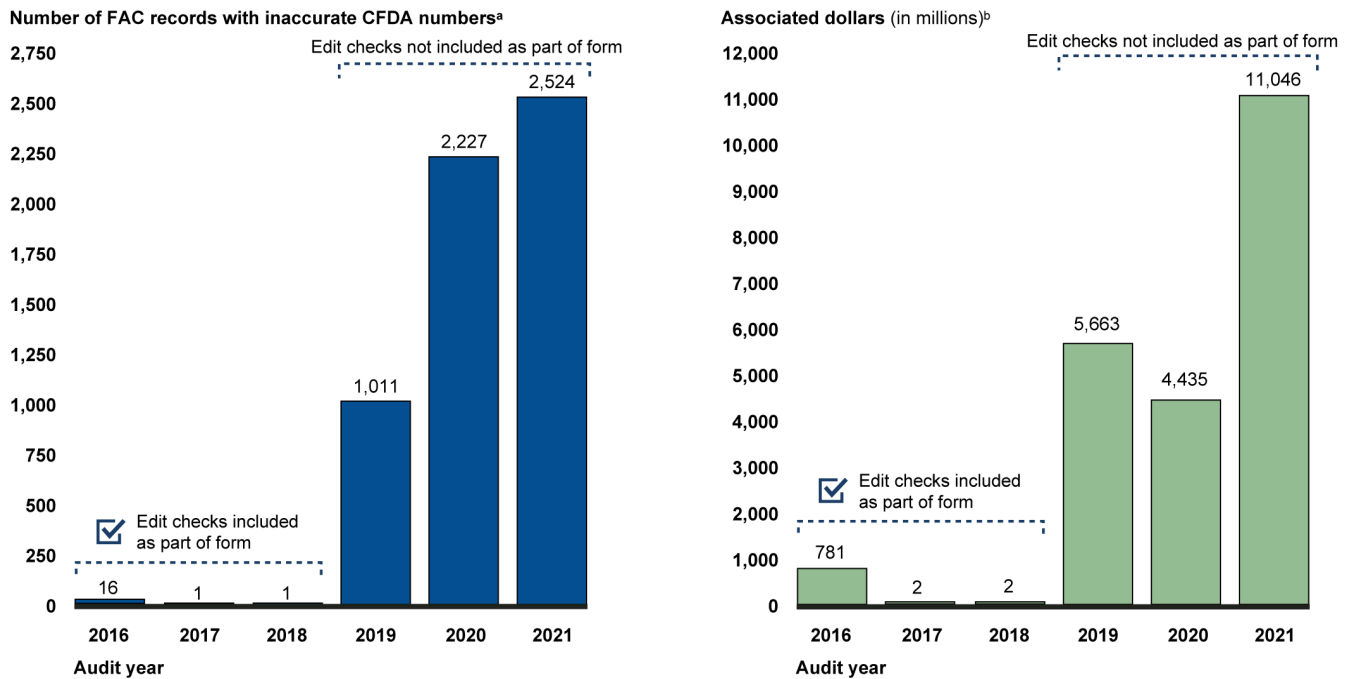
identifiers. The identifier used to track federal programs is the CFDA, a five-digit number assigned to each federal program.¹⁹

We identified inaccuracies in the CFDA numbers in the FAC data. For example, from 2016 through 2021, we identified FAC entries that did not use the standard CFDA format (5,780 out of over 3.5 million FAC records).²⁰ These inaccurately formatted CFDA numbers occurred more frequently in years when the Census Bureau removed edit checks during revisions to the data collection form in 2019 and were related to approximately \$21.9 billion of federal expenditures (see fig. 3).

¹⁹The terminology for the identifier used to track federal programs transitioned from CFDA to Assistance Listing Number in 2020. For the purposes of our report, we refer to this identifier throughout as the CFDA number because it is the terminology the Census Bureau used during the scope of our review. An assistance listing number is assigned to each federal program by the System for Award Management (SAM.gov), a public website that the GSA administers that allows users to search for CFDA numbers and register to do business with the U.S. government.

²⁰According to the Census Bureau's instructions, specific nonstandard formats can be used to identify research and development funding and programs with unknown CFDA numbers. These formats and 2015 audits are not included in the total 5,780 FAC records. See app. II for more information on nonstandard CFDA formats included in this test.

Figure 3: Inaccuracies in Catalog of Federal Domestic Assistance Numbers in Federal Audit Clearinghouse Data, 2016-2021



CFDA Catalog of Federal Domestic Assistance
 FAC Federal Audit Clearinghouse

Source: GAO analysis of data from U.S. Census Bureau; GAO (icons). | GAO-24-106173

^aFAC records in the CFDA table had the following total number records rounded to the nearest thousand and associated error rates as a percentage for that year (in parentheses): 2016 – 584,000 (0.00 error rate), 2017 – 587,000 (0.00 error rate), 2018 – 596,000 (0.00 error rate), 2019 – 612,000 records (0.17 error rate), 2020 – 679,000 (0.33 error rate), and 2021 – 761,000 (0.33 error rate).

^bFAC records in the CFDA table had the following total amount of federal expenditures rounded to the nearest hundred billion and associated error rates as a percentage for that year (in parentheses): 2016 – \$1.3 trillion (0.06 error rate), 2017 – \$1.5 trillion (0.00 error rate), 2018 – \$1.3 trillion (0.00 error rate), 2019 – \$1.3 trillion (0.43 error rate), 2020 – \$1.6 trillion (0.27 error rate), and 2021 – \$2.0 trillion (0.54 error rate).

According to Census Bureau officials, the 2016 data collection form introduced edit checks to encourage accurate entry of CFDA numbers by ensuring they were in the standard five-digit format. However, Census Bureau officials told us that due to resource constraints, they did not maintain those edit checks in the 2019 version of the form.

- **Accuracy tests of COVID-19 relief funding data.** We also tested the accuracy of FAC data containing the CFDA number for spending related to awards from the Coronavirus Relief Fund. The CARES Act established this federally administered fund to provide \$150 billion of aid to tribal governments, states, the District of Columbia, localities,

and U.S. territories. Audits of entities that receive federal funds, including Coronavirus Relief Fund awards, are critical to the federal government's ability to help safeguard those funds.²¹ We tested the use within the FAC database of both the program title, Coronavirus Relief Fund, and its associated CFDA number, 21.019, and found inaccuracies.

Specifically, we identified 119 audits with an award expenditure that included Coronavirus Relief Fund as the program name but did not use the associated CFDA number (21.019) or another valid CFDA number from a complete list obtained through SAM.gov. Recipients' spending totaled about \$150 million of federal funds that were potentially related to the Coronavirus Relief Fund but were mislabeled to a nonexistent CFDA number. Therefore, they were not tied to any federal program in the FAC.

When recipients label expenditures under another federal program or an invalid CFDA number, federal agencies could fail in their FAC searches to identify audit findings related to those expenditures. This could hinder federal agencies' ability to monitor recipients of federal awards, identify issues with the recipients' spending of funds, and ensure that recipients resolve their deficiencies.

The FAC database populates CFDA numbers in searches using information from the data collection form. However, Census Bureau officials noted that CFDA numbers could be manually edited on the form. The ability to manually edit the CFDA could lead to inaccuracies. While these types of inaccuracies can often be caught by edit checks, the Census Bureau did not employ an edit check from 2019 through 2021 to mitigate for CFDA errors. Census Bureau officials told us that their edit checks were limited because the Uniform Guidance permits recipients to use other identifying numbers when a CFDA number is not available. For additional information on the results of our tests of accuracy in the FAC data, see appendix II.

Consistency

We identified some inconsistent information in the FAC data. As part of a single audit, auditors issue an opinion on each major program and report

²¹GAO, *COVID-19: Federal Efforts Could Be Strengthened by Timely and Concerted Actions*, [GAO-20-701](#) (Washington, D.C.: Sept. 21, 2020).

when an individual finding affected their opinion on that program.²² Because both the Findings and General tables contain fields describing the major program opinion, the entries in these tables are expected to be consistent. However, we found instances of inconsistent data in our tests of FAC data.

We found data within and across FAC tables to be mostly consistent for the approximately 35,000 to 40,000 audits per year. However, we identified from 74 to 123 instances per year of inconsistent data between the FAC tables from 2015 to 2021. The General table in the complete single audit database indicated that these audits had received only unmodified opinions on compliance with award requirements.²³ However, the Findings table indicated those same audits had reported modified opinions on compliance with award requirements.²⁴ We also found an additional 488 audits of major programs with modified opinions in the General table from 2015 through 2021, but no corresponding entry in the Findings table.

Census Bureau officials agreed that existing edit checks did not identify these errors because of issues with the Bureau's ability to develop edit checks and standardize the data collection form. For additional information on the results of our tests of consistency in the FAC data, see appendix III.

Completeness

We identified some incomplete information in the FAC data. For example, we identified 1,303 audits out of approximately 230,000 audits from 2016 to 2021 for which the prior findings reference number did not appear in previous audits. The reference number identifies a single audit finding

²²For each federal award that has a direct and material effect on a major program, the auditor must evaluate the auditee's compliance with relevant provisions of laws, regulations, and contracts or grants, as well as the auditee's internal controls pertaining to those compliance requirements. 31 U.S.C. § 7502(e), 2 C.F.R. § 200.514. Deficiencies in these areas must be reported as audit findings in a schedule of findings and questioned costs. 2 C.F.R. § 200.516.

²³An unmodified opinion on compliance is reported when the auditor concludes that, based on the audit evidence obtained, the recipient complied, in all material respects, with the types of compliance requirements that could have a direct and material effect on the major federal programs for the year audited.

²⁴A modified opinion on compliance is reported when the auditor (1) concludes that material noncompliance with applicable compliance requirements exists or (2) is unable to obtain sufficient appropriate evidence to conclude if material noncompliance with applicable compliance requirements exists. The categories of modified opinions are qualified, adverse, and disclaimer.

reported in the previous year. Specifically, we found that prior findings' reference numbers reported in the current year were not identifiable in the prior year's audit, or a prior year audit finding could not be located using the reference number because the prior year's audit was not actually reported to the FAC. For additional information on the results of our tests of completeness, see appendix IV.

Federal internal control standards state that management should establish and monitor the internal control system and evaluate the results, including remediating identified internal control deficiencies on a timely basis.²⁵ Unreliable data can limit federal agencies' ability to accurately identify a complete population of audits they must monitor as part of their oversight of federal awards. GSA is now responsible for maintaining the FAC. Until GSA establishes a process to identify, analyze, and respond to the types of FAC data errors that we identified, federal agencies may be hindered in their efforts to oversee federal award spending.

Some FAC Process Issues Impair Oversight of Federal Spending

We identified some issues with FAC processes that affect the reliability and usefulness of single audit information and make federal agencies' oversight activities less efficient. Specifically, we found that a number of FAC features have not been modernized, OMB has not initiated a government-wide single audit quality review in more than 15 years, the FAC does not have the capability to identify federal award recipients that are required to submit single audits, and errors auditors made when completing the FAC data collection form could affect the accuracy of single audit data.

A Number of FAC Features Have Not Been Modernized

Based on our review of database functionality and documentation and discussions with agency officials, we found that the following FAC features could limit its reliability and usefulness:

- **Time-consuming navigation.** Officials stated the FAC lacked modern technological features for performing searches, and that they did not have easy access to the data. We performed FAC search queries to examine the functionality of the database and found that the FAC required users to navigate through multiple overlapping drop-down menus, with extensive fields and multiple options for entry, to narrow searches. We found that the FAC search results show highly summarized information and require users to download and review separate files to determine if the information for which they searched

²⁵GAO, *Standards for Internal Control in the Federal Government*, [GAO-14-704G](#) (Washington, D.C.: Sept. 2014).

was present in the results. To modify a search, a user must reperform the entire search and refill their query using the extensive number of search fields again.

- **Variations in recipient names.** Recipients enter their organizational names manually into the FAC data each year; this has resulted in inconsistent search results when searching for recipients' audit information. For example, because the FAC does not provide a limited, defined list of recipient names, a recipient could manually enter its organizational name as New Hampshire Higher Education Department, State of New Hampshire Higher Education Department, NH Department of Higher Education, or other variations.
- **Broad search results.** Because the FAC displays results by applicable recipient instead of by finding or program, the search results contained audit findings for all federal agency programs for which a recipient received funds. Federal agency officials required to monitor single audit findings perform a manual review through potentially hundreds of pages to identify audit findings related to only their program(s). They must reperform that extensive review for each recipient.
- **Incomplete text fields.** The FAC's character limits caused text accessed from descriptions of audit findings and corrective action plans to be incomplete. This could require an agency official to manually review each recipient's entire single audit report to review audit findings or corrective action plans.
- **Download restrictions.** Capacity restrictions in the FAC prevented users analyzing large amounts of data from efficiently downloading and extracting data. Some agency officials also told us that they spent time validating FAC data to make them usable. Because of the FAC's download limit, one OIG developed a custom tool to automatically extract information from single audit reports for analysis.

Professional audit associations also told us that manipulating FAC data requires robust technical capabilities and a significant amount of time. These federal and public users made suggestions for enhancements to the FAC, such as adding (1) controls to ensure that users enter accurate data, (2) a dashboard to analyze summarized information, (3) notifications of changes to recipients' single audit submission status, and (4) an

application programming interface (API) that would allow users to obtain and manipulate information downloaded from the FAC.²⁶

Executive Order 14058, *Transforming Federal Customer Experience and Service Delivery to Rebuild Trust in Government*, states that agencies are to improve the digital customer experience for their public customers by modernizing agency websites and modernizing records management.²⁷ GSA officials stated that it is using this order's directives at OMB's direction in developing its version of the FAC. The Federal Data Strategy, which encompasses a 10-year vision for the federal government to accelerate the use of data and serve the public, also includes early steps for agencies to make improvements to technological infrastructure.²⁸ Later steps in the strategy include developing self-service analytics and automated data improvements.

The Census Bureau faced limitations in enhancing FAC usability due to the aging technological infrastructure of the FAC and budget constraints, and informed OMB in September 2020 that it could not continue to maintain the FAC. GSA officials stated that their initial version of the FAC replicates the basic features that the Census Bureau used to ensure a viable transition, which occurred in October 2023. Future funding is based on annual interagency agreements between GSA and federal agency partners that use the FAC.

OMB staff stated that they chose GSA to provide a more modernized FAC because of the agency's greater technological capabilities. However, agencies that fund the FAC through interagency agreements would need to agree to provide the financial investment associated with any improvements. For fiscal year 2024, GSA's interagency agreements were based on the proportion of audited federal award expenditures for each agency in the FAC. Using this approach, GSA distributed FAC costs

²⁶An API specifies how some software components interact with each other. APIs make it easier for software to interact with an outside program like a database or computer service. GSA has developed an API for its version of the FAC, completed in September 2023.

²⁷Exec. Order No. 14058, *Transforming Federal Customer Experience and Service Delivery to Rebuild Trust in Government*, 86 Fed. Reg. 71,357 (Dec. 16, 2021).

²⁸Federal Data Strategy 2021 Action Plan. This 2021 action plan originated in OMB's *Federal Data Strategy: A Framework for Consistency*, OMB Memorandum M-19-18 (Washington, D.C.: June 4, 2019), and calls for annual government action plans to guide federal agency implementation of the action plan.

among a greater number of federal agency partners than had been done under the Census Bureau.

The lack of modernization in the FAC makes accessing and using FAC data more challenging for federal agency officials and public users. This could cause FAC users to expend resources on preparing data to use single audit results for further analyses. Modernizing the process of obtaining single audit information from the FAC by identifying and adding new features or optimizing existing ones, as well as consulting with federal agencies to determine the funding and timelines for such modernization, could make single audit information more useful and improve federal award oversight.

OMB Has Not Initiated a Government-Wide Single Audit Quality Review in More Than 15 Years

We found that single audit quality issues reported in 2007 persist. The Uniform Guidance directs that a government-wide single audit quality review be performed every 6 years or at an alternative interval that OMB determines, but OMB has not initiated one in more than 15 years or set another interval.

Single Audit Quality Issues Reported in 2007

The President's Council on Integrity and Efficiency (PCIE), in cooperation with OMB, participating federal agencies, the Department of Education OIG, and three state auditors, published the most recent single audit quality review, the *Report on National Single Audit Sampling Project*, in 2007.²⁹ The PCIE reviewed the quality of 208 single audits submitted to the FAC from April 1, 2003, through March 31, 2004.

While the scope of our review did not include the quality of single audits, during our review we identified issues with FAC data quality similar to those the PCIE identified. For example, the 2007 PCIE report noted deficiencies in the presentation and auditing of the schedule of expenditures of federal awards (SEFA). The report also stated that errors such as improperly identifying CFDA numbers could result in the auditor failing to identify applicable compliance requirements and incorrectly determining major programs. The PCIE recommended that the AICPA

²⁹The PCIE's function is now performed by the Council of the Inspectors General on Integrity and Efficiency (CIGIE), which was established as an independent entity within the executive branch by the Inspector General Reform Act of 2008, Pub. L. No. 110-409, § 7, 122 Stat. 4302, 4305-13 (Oct. 14, 2008), and is now codified, as amended, in part at 5 U.S.C. § 424. Prior to the establishment of CIGIE, the federal inspectors general operated under the auspices of two councils. These two predecessor councils were the PCIE, which was established by Executive Order 12301 on March 26, 1981, and the Executive Council on Integrity and Efficiency, which was established by Executive Order 12805 on May 11, 1992.

revise the *Government Auditing Standards and Circular A-133 Audits* (Audit Guide) to include procedures to ensure the accuracy of CFDA numbers in the SEFA. AICPA representatives stated that the AICPA revised the Audit Guide in 2008 to include consideration of controls over completeness and accuracy, including CFDA numbers. In addition, the AICPA developed and issued SEFA practice aids for auditors in 2009.

However, as discussed earlier in this report, we found instances of incorrectly labeled CFDA numbers in the FAC data during our review. We also judgmentally selected, downloaded, and compared the single audit report with the corresponding data collection form for several single audits and found instances of incorrectly reported CFDA numbers.

The 2007 PCIE report also found that 49 of the 208 audits reviewed did not include one or more required reporting elements in audit findings. The report recommended that the AICPA revise its Audit Guide to include illustrative examples of properly presented audit findings. AICPA representatives told us they addressed this recommendation by including examples of properly presented audit findings in periodic web events, conferences, and other training sessions, instead of the Audit Guide.

Officials from two agencies we interviewed stated that the FAC data collection form does not always contain all elements of a finding. We reviewed audit findings on a selection of FAC data collection forms from 2019 through 2021 and identified audit findings that did not include all elements or did not contain any details other than directing the reader to the audit report. The Census Bureau's instructions require the auditor to include detailed audit findings text on the data collection form instead of merely directing the reader to the single audit report for complete information on audit findings.

OMB's Progress on Single Audit Quality

In 2009, we recommended that OMB monitor the single audit process.³⁰ In response to our 2009 recommendations, OMB formed a working group in fiscal year 2010 to improve single audit quality. OMB continues to participate in periodic meetings with us and other professionals in the audit community to discuss single audit issues.

However, as of March 2024, OMB has not designated an entity to perform the next single audit quality review. OMB staff said that they have not

³⁰GAO, *Single Audit: Opportunities Exist to Improve the Single Audit Process and Oversight*, [GAO-09-307R](#) (Washington, D.C.: Mar. 13, 2009).

determined a need for conducting the government-wide audit quality project more frequently than the 6-year interval that the Uniform Guidance recommends and have not determined another appropriate interval. OMB staff added that when they revised the Uniform Guidance in fiscal year 2020, state auditors, independent auditors, and OIGs recommended that OMB initiate a government-wide single audit quality project study after it finalized the revisions and recipients and auditors had sufficient time to implement them. In October 2023, OMB again published proposed revisions to the Uniform Guidance in the *Federal Register*, including one proposed revision to remove the 6-year interval recommendation for performing the periodic government-wide single audit quality review. Therefore, it is unclear when OMB and federal agencies will perform the next government-wide single audit quality review.

OMB staff also stated that they do not currently have plans to initiate a government-wide single audit quality review because of the current environment of implementing new funding and laws related to COVID-19 relief, as well as the Infrastructure Investment and Jobs Act and the Inflation Reduction Act of 2022.³¹ OMB staff further stated that given recent changes in funding and audit requirements, any results of a government-wide review may not accurately depict government-wide issues in single audit quality. While we acknowledge that results may differ due to COVID-19 relief funding, a government-wide review could still provide valuable recommendations to improve the quality of single audits and the procedures for conducting them in the event of future disasters. OMB staff added that they will work with the Council of the Inspectors General on Integrity and Efficiency (CIGIE) and other stakeholders to determine an appropriate time to revisit this issue.

The Uniform Guidance requires OMB to periodically designate a federal agency to lead a government-wide project to determine the quality of

³¹Within the past several years, the federal government has enacted new laws that have provided trillions of dollars in funding to federal agencies across the government to respond to the COVID-19 pandemic, such as the CARES Act, Pub. L. No. 116-136, 134 Stat. 281 (Mar. 27, 2020); Consolidated Appropriations Act, 2021, Pub. L. No. 116-260, 134 Stat. 1182 (Dec. 27, 2020); and American Rescue Plan Act of 2021, Pub. L. No. 117-2, 135 Stat. 4 (Mar. 11, 2021). It also enacted the Infrastructure Investment and Jobs Act, Pub. L. No. 117-58, 135 Stat. 429 (Nov. 15, 2021), and the Inflation Reduction Act of 2022, Pub. L. No. 117-169, 136 Stat. 1818 (Aug. 16, 2022). Recipients of awards of funding appropriated in these laws may be subject to single audit requirements. The Grant Reporting Efficiency and Agreements Transparency Act of 2019, Pub. L. No. 116-103, 133 Stat. 3266 (Dec. 30, 2019), is still being implemented but aims to modernize and improve recipient reporting and strengthen oversight and management of federal grants, among other things.

single audits by providing a reliable estimate of the extent to which single audits conform to applicable requirements, standards, and procedures, and to make recommendations to address noted audit quality issues. The Uniform Guidance requires the government to perform this periodic project once every 6 years, or at alternative interval as OMB determines.³² However, as we mentioned above, the PCIE performed the last review in 2007, and OMB has not designated a federal agency to perform another review since. While the Uniform Guidance provides that the project may be completed at an alternative interval that OMB determines, federal internal control standards state management should establish and operate monitoring activities to monitor the internal control system and evaluate the results.³³

Given the trillions of dollars of COVID-19-related financial assistance provided in recent years, it is increasingly important that the FAC provide federal agencies with quality information on recipients' use of federal funds. As we have previously reported, the influx of relief funding led to an increase in the number of entities required to submit single audit reports, some for the first time. Representatives from the audit community and state and local government associations also expressed concern that there may not be enough qualified auditors available to address the increased number of audits.³⁴ In April 2023, the AICPA reported that 32 percent of the single audits it reviewed as part of its Peer Review Program for 2022 did not conform with applicable professional standards in all material respects. Without updating the Uniform Guidance to clarify how OMB will periodically complete a government-wide audit quality review at a regular interval, it cannot identify the effect that these issues have on the quality of single audit information in the FAC.

Currently, the Single Audit Act does not require OMB or another federal agency to review the quality of single audits government-wide. As we stated previously, the amount of federal funding provided to recipients and the number of recipients submitting single audits reports have both

³² 20 C.F.R. § 200.513(a)(3)(ii). On October 5, 2023, OMB published proposed revisions to the Uniform Guidance, which is in 2 C.F.R. part 200, in the *Federal Register* for public comments. One proposed revision removed the recommendation to perform the government-wide single audit quality project every 6 years and instead stated that it must be performed at an alternative interval that OMB determines.

³³ [GAO-14-704G](#).

³⁴ GAO, *COVID-19: Significant Improvements Are Needed for Overseeing Relief Funds and Leading Responses to Public Health Emergencies*, [GAO-22-105291](#) (Washington, D.C.: Jan. 27, 2022).

increased in recent years. Because of this, a government-wide single audit quality review is now even more important to help address government-wide quality issues that can lead to unreliable single audit information in the FAC. Federal agencies need reliable and high-quality single audit information for oversight purposes to allow them to report to Congress on how their agencies' funds are being spent. Congress should be made continuously aware of any deficiencies over time in federal award spending, including any deficiencies that may exist at a government-wide level. Statutorily requiring OMB to conduct government-wide reviews at a regular interval and report the results to Congress could help provide timely information for federal award oversight and help Congress make informed oversight, policy, and funding decisions. Federal agency coordination on the government-wide single audit quality review could help ensure inclusion of the perspectives of officials at agencies that administer federal awards and the auditors that review the spending of them.

The FAC Does Not Have the Capability to Identify Federal Award Recipients Required to Submit Single Audits

Those charged with oversight of federal funds cannot use the FAC to identify recipients that were required to submit a single audit but did not do so, including those that received federal awards from multiple federal agencies that, when combined, could have caused them to expend at least the \$750,000 minimum required to be subject to single audit requirements. A Census Bureau official stated that certain features could be implemented within the FAC, based on examining recipients' prior year expenditures, to make it possible to identify some that were potentially required to submit a single audit report but did not do so. For example, a Census Bureau official told us the FAC sent automated emails to recipients with incomplete or rejected submissions.

The FAC Cannot Identify Recipients Required to Submit Single Audits

The Single Audit Act and Uniform Guidance require a recipient to undergo a single audit if it spends \$750,000 or more from all sources of federal awards in its fiscal year. For example, if a city government spent \$400,000 it received from one federal agency's program and \$400,000 it received from a different federal agency's program in the same fiscal year, its total combined federal award expenditures from all federal sources for the fiscal year would be \$800,000. It therefore would be required to undergo a single audit and submit the report to the FAC.

The Single Audit Act requires OMB to identify recipients that spent \$750,000 or more in a fiscal year but did not submit the required single audit. Federal agencies also have oversight responsibilities for monitoring their federal award programs, including ensuring that single audits are completed and received in a timely manner and in accordance with

applicable guidance. OMB is responsible for ensuring that appropriate guidance exists for federal oversight.

Officials from four of the five selected federal agencies stated that they review their internal grants management databases to identify the single audits that recipients submitted in accordance with their grant agreements. OMB staff told us they expect agencies to develop their own processes for verifying if a recipient meets the \$750,000 expenditure threshold; however, none of the five agencies has a process to determine if a recipient had met the threshold by spending funds from multiple agencies and was therefore required to submit a single audit. Agency officials stated that they did not coordinate with other agencies, and therefore did not have access to other agencies' awards information to be able to make such a determination.

GSA officials stated that they are unable to determine the total population required to submit single audit reports because they do not have access to internal recipient spending data from federal agencies.

Some Recipients May Not Have Submitted Single Audits to the FAC

We identified two single audit reports that recipients did not post to the FAC. Although the recipients completed single audit reports and posted them on other public websites, the Uniform Guidance requires them to electronically submit the data collection form and the report to the FAC.³⁵

Our identification of these two missing single audit reports in the FAC indicates that there is a risk that additional recipients met the expenditure threshold but did not submit single audit reports to the FAC. This risk includes both recipients that underwent a single audit but did not submit the related audit report to the FAC and those that spent \$750,000 or more of federal awards but did not undergo a single audit as required.

The Single Audit Act requires the FAC to identify recipients that met the expenditure threshold but did not undergo single audits. A Census Bureau official stated that certain features could be implemented within the FAC to identify some recipients that were potentially required to submit a single audit report but did not do so based upon examining the recipients' prior year expenditures reported to the FAC or other sources. Agencies are responsible for tracking their recipients' spending; however, they currently do not have to report a list of recipients required to submit a single audit to the FAC. Without collaboration from agencies with access

³⁵2 C.F.R. § 200.512(d).

to internal recipient spending data, GSA cannot be certain that it is identifying all recipients that should have but did not undergo single audits.

Single audits are a crucial oversight tool to safeguard federal funds. Since the FAC currently does not have the capability to identify recipients that did not submit their single audit reports to the FAC, federal agencies cannot ensure that all required recipients are complying with single audit reporting requirements.

Errors Auditors Made When Completing the FAC Data Collection Form Could Affect the Accuracy of Single Audit Data

We found several instances in which the information on the FAC data collection form was inaccurate and inconsistent when compared with the single audit report.³⁶ The recipient's auditor completes portions of the form based on information from the single audit report, and the recipient certifies that all information was entered accurately and completely.

Examples of inaccuracies in the FAC data that we identified included the following:

- **Inaccurate CFDA numbers on the FAC data collection form.** Inaccurate CFDA numbers on the FAC data collection form were truncated or contained incorrect digits, causing them to appear to be associated with other federal programs. Agencies may use CFDA numbers, which generally consist of a two-digit agency identifier and a three-digit program extension, to identify single audit findings associated with a federal program.
- **Indirect awards inaccurately recorded as direct awards.** Awards reported as indirect awards, meaning they passed through another nonfederal entity (i.e., the pass-through entity) before going to the end recipient (i.e., the subrecipient), in the single audit report were reported as direct awards on the corresponding FAC data collection forms.³⁷ The Uniform Guidance requires federal agencies to follow up on single audit findings from their recipients' spending of direct

³⁶Pursuant to the Uniform Guidance, recipients that are subject to a single audit must submit to the FAC (1) a copy of their single audit report and (2) an accompanying data collection form providing information about the recipient, its federal awards, and the results of the single audit. 2 C.F.R. § 200.512(d).

³⁷A direct award is one a federal agency directly provides to a recipient entity that uses the funds. An indirect award is one a federal agency provides to a direct recipient (e.g., a state government that serves as the pass-through entity) that then distributes, or passes through, the award to subrecipient entities, such as nonprofit organizations or local government agencies within a state, to perform award activities.

awards, while pass-through entities follow up on single audit findings for indirect awards. Officials from selected agencies also told us they focus on addressing and resolving single audit findings only from direct awards.

- **Inaccurate audit opinions on major program findings.** We identified a recipient that reported modified opinions on compliance for two of its federal awards on its single audit report yet reported unmodified opinions on compliance for those same two awards on its data collection form. The Uniform Guidance requires auditors to provide an opinion as to whether the recipient complied with award requirements contained in laws, regulations, and the terms and conditions of federal awards that could have a direct and material effect on that federal program.³⁸ The data collection form also contains fields to report the auditor's opinion on compliance and whether specific audit findings contributed to the auditor's opinion for that major program.
- **Incorrectly included financial statement findings.** Recipients' FAC data collection forms reported financial statement audit findings. According to the Census Bureau's instructions, financial statement audit findings are not to be included on the FAC data collection form.
- **Incorrectly entered COVID-19 identifiers.** We identified one program that was denoted as COVID-19 related on the single audit report but not on the corresponding data collection form. To quickly distribute COVID-19-related funds at the onset of the pandemic, federal agencies sometimes incorporated COVID-19-related funding into an existing program's CFDA number. In the 2022 Single Audit Compliance Supplement,³⁹ OMB instructed entities to separately identify COVID-19-related funding in both their single audit reports and their data collection forms.
- **Incorrectly entered federal award expenditures.** Incorrectly truncated and rounded federal expenditure amounts were reported in 2 years of single audit reports. For example, a federal award

³⁸2 C.F.R. § 200.515(c). Auditor opinions on the recipient's compliance with award requirements by major program can be unmodified, qualified, or adverse, or they can be a disclaimer of opinion. These opinions range in severity and are based on the materiality of the compliance issues identified, if any.

³⁹The Compliance Supplement is an annually updated authoritative source for auditors that serves to identify existing important compliance requirements that the federal government expects to be considered as part of a single audit. Auditors use it to understand the federal program's objectives, procedures, and compliance requirements, as well as audit objectives and suggested audit procedures for determining compliance with the relevant federal program. 2 C.F.R. § 200.1.

expenditure of \$607,000 was recorded as only \$607 in the FAC data. Pursuant to the Uniform Guidance, recipients must prepare a SEFA that includes the total federal awards spent for their audit year. Census Bureau instructions direct recipients to report federal spending amounts to the nearest dollar on their data collection forms.

Many of the inaccuracies noted above were reported for several years without correction.

In addition to the inaccurate FAC data we found, officials from some of the five selected federal agencies told us of similar inconsistencies they had identified between the single audit report and data collection form that, in some cases, complicated their oversight. For example, officials from three of the selected federal agencies told us that inaccurate data collection forms listing indirect programs as direct programs caused them to spend additional time evaluating if their oversight activities were applicable to the recipient. Officials from two of the selected federal agencies also told us they considered recipients' audit opinions on compliance with award requirements when assessing risk. An inaccurate audit opinion on the data collection form may therefore potentially contribute to an inaccurate risk assessment for a recipient.

Census Bureau officials told us that, because the FAC automatically calculates cognizant and oversight agency assignments based on a recipient's direct expenditures, the recipient inaccurately categorizing direct and indirect awards could lead to an incorrect cognizant or oversight agency assignment. OMB staff told us that each agency is ultimately responsible for its own data quality because agencies own their data. The Uniform Guidance and the Census Bureau's guidance instruct recipients to certify that all information in the data collection form is accurate and complete.⁴⁰

The errors we identified in the FAC data suggest that as part of their certification, recipients are not always ensuring that the data collection form accurately matches the single audit report. Recipients could have caused inaccuracies by focusing their review only on the audit report instead of the data collection form or not exercising care in completing it.

⁴⁰U.S. Census Bureau, *Single Audit Checklist, Instructions, and Form, "2019-2021 (Uniform Guidance),"* accessed December 7, 2022, <https://facides.census.gov/InstructionsDocuments.aspx> (site discontinued). 2 C.F.R. § 200.512(b)(1). The Uniform Guidance requires the auditee to certify that the information included in the single audit report and data collection form in its entirety is accurate and complete.

Auditors could also have transferred information inaccurately from the recipient's single audit report to the data collection form by making typographical errors.

According to GSA, most recipients do not enter, review, or edit information in the FAC; they only visit the FAC once a year to certify audit information that their auditors submit. As the new administrator of the FAC, GSA provides guidance to assist auditors in completing the FAC data collection form and submitting the single audit report.

OIGs from our five selected federal agencies all reported performing reviews of their agencies' single audits. One OIG official also told us the office contacted recipients or their auditors to correct discrepancies between the single audit report and the data collection form.⁴¹ Four OIGs reported performing desk reviews or quality control reviews following the CIGIE guidance documents, *Guide for Desk Reviews of Single Audit Reports* and *Guide for Quality Control Reviews of Single Audit Reports*. The guidance states that a desk review should also be completed whenever a quality control review is performed.⁴²

We reviewed the most recently available CIGIE guidance and identified one reference instructing reviewers to verify that the data collection form reflects the results of the audit. We found that neither guide contained specific instructions for reviewers to perform procedures such as comparing the data collection form to the audit report.

The AICPA also publishes guidance for auditors conducting single audits. Its Audit Guide focuses on the steps necessary to conduct single audits, discusses the auditor's responsibility to complete the auditor sections of the data collection form, and refers auditors to the Census Bureau's instructions for completing the data collection form for further information. Representatives from the audit community told us that the Census Bureau has participated in AICPA webinars and conferences in the past

⁴¹The Uniform Guidance (2 C.F.R. § 200.513(a)(3)(ii)) requires the cognizant agency for audit to obtain or conduct quality control reviews on selected single audit reports. Some agencies have directed their OIGs to fulfill this requirement.

⁴²CIGIE's guidance states that desk reviews are conducted on single audits to determine whether single audits are acceptable under the Uniform Guidance (2 C.F.R. § 200.513(a)(3)(ii)) and identify any quality issues that may warrant revisions to the audit report. Quality control reviews determine whether the single audit was conducted in accordance with applicable auditing standards and if additional audit work is needed to support the report's conclusions.

to communicate changes to the data collection form to auditors. GSA stated that it will continue to work with professional audit organizations like the AICPA to communicate any changes to the FAC or its processes.

Inaccurate FAC data may prevent agencies from understanding the total population of audit findings that they may be responsible for resolving, causing them to spend additional time evaluating whether their oversight is applicable to a recipient's audit findings. Without additional GSA training to auditors and recipients to help ensure the accuracy and completeness of the data collection form, auditors may enter, and recipients may certify, information that is inaccurate. This may subsequently hinder both the public's ability to use the FAC and federal agencies' ability to conduct oversight. In addition, developing procedures to help ensure that federal agencies, CIGIE, and relevant OIGs are reviewing the accuracy and consistency of the data collection form when performing final checks of single audits would add a layer of quality assurance.

Government-Wide Analysis of FAC Data Could Help Federal Agencies Respond to Severe and Persistent Single Audit Findings

OMB has not established a strategy to use government-wide FAC data to assess the risk of single audit findings remaining unresolved. Most of the officials at the five selected federal agencies told us that the FAC currently functions well as a repository for single audits. However, officials from three of those agencies stated that additional FAC features, using existing information, could allow them to prioritize severe or persistent audit findings for resolution. Of the 44,104 total single audit findings reported for recipients of direct federal awards from 2017 to 2021, we found that 3,314, or 7.5 percent, contributed to an auditor's modified opinion on compliance with award requirements or a material weakness identified in internal control over compliance (severe) that repeated over multiple years (persistent). These audit findings were linked to over \$1 trillion of direct federal expenditures during that period.⁴³

⁴³The SEFA, which appears on each recipient's FAC data collection form and single audit report, links expenditures to associated single audit findings. A federal program's CFDA number identifies each finding on the SEFA and the amount of funds the recipient spent from that program. A single audit finding linked to an expenditure conveys a deficiency an auditor noted in the recipient's compliance with an individual program's requirements or the internal controls surrounding its use of that program's funds. Some recipients' findings apply to multiple programs if the auditors reported them as such. These expenditures linked to severe and persistent findings do not alone indicate the existence of questioned costs, fraud, or improper payments.

Assessing Risk of Unresolved Single Audit Findings Is Not Possible within the FAC

OMB does not have a strategy to use FAC data to assess the risk from single audit findings remaining unresolved. Analyzing the FAC data for risk factors across programs and agencies is not possible in its present version without substantial investment in analytical capacity. Census Bureau officials stated that the current FAC infrastructure and resources limited their ability to conduct analyses on behalf of agencies. GSA officials told us they are developing a FAC with enhanced capabilities at OMB's direction. Funding for GSA's version of the FAC relies on interagency agreements with federal agency partners, each of which must agree to contribute funds to cover a percentage of FAC costs that corresponds to its use of the system.

The Single Audit Act states that OMB should designate the entity maintaining the FAC to perform analyses to assist OMB in carrying out its responsibilities under the act. The Uniform Guidance states that agencies must provide to OMB the name of a key management single audit liaison. This official must promote interagency coordination by helping to enhance the utility of the FAC and to study ways to use single audit results to improve federal award accountability and best practices. Federal internal control standards state that management should identify, analyze, and respond to risks related to achieving defined objectives.⁴⁴ In the context of the FAC, severe findings that remain unresolved could lead to government-wide issues that exist apart from agency or program-specific risks controlled through existing processes.

Without a government-wide analysis of single audit data, OMB and federal agencies may not identify government-wide risks of recipients misusing federal awards or develop appropriate responses to those risks.

More Than \$1 Trillion of Federal Awards Were Linked to Severe and Persistent Single Audit Findings from 2017 to 2021

Of the reported \$6.97 trillion of direct federal awards that recipients spent from 2017 to 2021, we found that \$1.17 trillion, or about 16.7 percent, were linked to single audit findings that were both severe and persistent.

Severity of single audit findings. Recipients' auditors report a single audit finding that originated from either (1) an audit of compliance with major federal program award requirements (compliance audit) or (2) an auditor's review of internal control over compliance (internal control audit)

⁴⁴[GAO-14-704G](#).

on the FAC data collection form.⁴⁵ For the purposes of our audit, we defined a *severe finding* from a single audit as one that the auditor determined contributed to (1) a modified opinion on a compliance audit or (2) a material weakness on an internal control audit.⁴⁶ We identified 15,755 severe findings from 2017 to 2021 that were linked to \$2.26 trillion in direct expenditures of federal awards, including 6,901 audit findings linked to both a modified opinion and a material weakness.

Persistence of single audit findings. The FAC data collection form contains a field for the auditor to indicate whether a finding was repeated from the immediate prior audit. A repeat finding in the current year's audit report is one that is the same as or substantially similar to a finding from the previous year's audit, for which the recipient did not take the planned corrective action or the action it took was ineffective. The FAC identifies these audit findings with a reference number tied to the prior year's finding. For the purposes of our audit, we defined a *persistent finding* as one that two consecutive prior audits have identified, which the recipient's corrective action has therefore not resolved for 2 consecutive years.⁴⁷ We identified 7,071 persistent findings linked to \$2.16 trillion in direct expenditures of federal awards from 2017 to 2021.

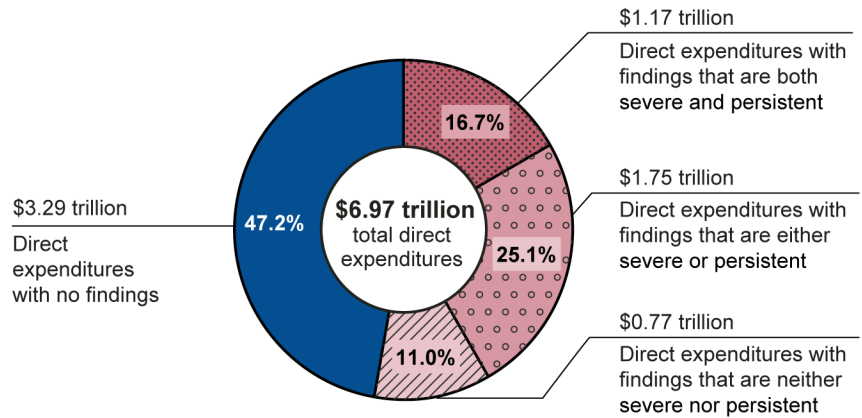
We also found that \$1.17 trillion of the \$6.97 trillion in total direct expenditures of federal awards from 2017 to 2021 was linked to single audit findings that were both severe and persistent, as figure 4 shows. These findings further represent 3,314, or 7.5 percent, of the total 44,104 single audit findings in the FAC data from 2017 to 2021.

⁴⁵A single audit also includes an audit of a recipient's financial statements. However, we did not review financial statement findings as part of our analysis because the FAC data collection form, which is the source of FAC data, only allows auditors to report the overall financial statement audit opinion and contains no fields to report financial statement audit findings.

⁴⁶A modified opinion is reported when the auditor (1) concludes that material noncompliance with applicable compliance requirements exists or (2) is unable to obtain sufficient appropriate evidence to conclude if material noncompliance with applicable compliance requirements exists. The categories of modified opinions are qualified, adverse, and disclaimer. A material weakness is a deficiency in internal control over compliance that indicates a reasonable possibility that material noncompliance with a federal program compliance requirement will not be prevented, or detected and corrected, on a timely basis.

⁴⁷We did not assess the root cause of single audit findings that remained unresolved for multiple years. We are planning additional work to explore the causes of unresolved findings and federal agency actions to address them.

Figure 4: Severity and Persistence of Single Audit Findings by Direct Expenditure of Federal Awards from 2017 to 2021



Source: GAO analysis of data from U.S. Census Bureau. | GAO-24-106173

Notes: Numbers may not sum due to rounding.

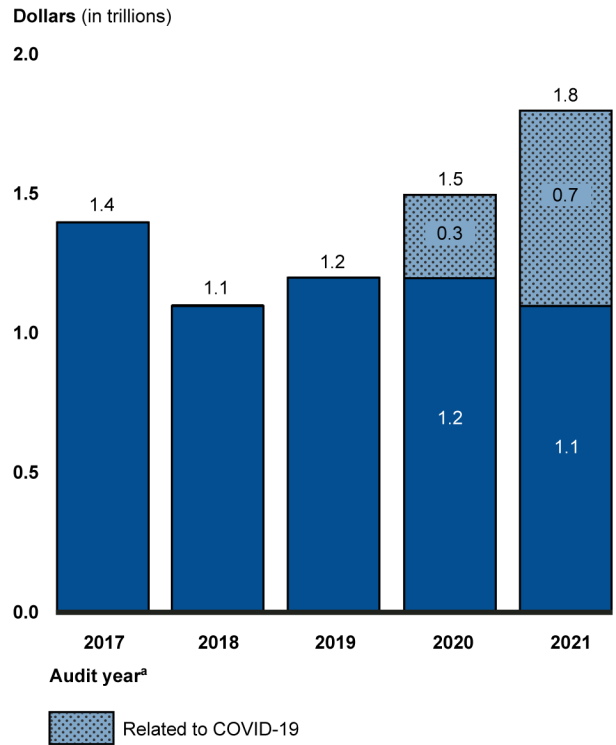
Severe finding: A finding that the auditor determined contributed to (1) a modified opinion on an audit of compliance with award requirements or (2) a material weakness identified in internal control over compliance.

Persistent finding: A finding identified in two prior single audits, which has therefore remained unresolved by the recipient's corrective action for 2 consecutive years.

Annual direct expenditures of federal awards in this figure include only those expenditures reported to the Federal Audit Clearinghouse (FAC) by recipients that spent \$750,000 or more of federal awards in an audit year. Direct expenditures of federal awards by recipients that did not meet the \$750,000 single audit threshold in their audit year are exempt from reporting to the FAC and are therefore not reported in these totals. The Uniform Guidance requires recipients to submit a report to the FAC within the earlier of 30 calendar days after receipt of the auditor's report(s) or 9 months after the end of the audit period (unless a different period is specified in a program-specific audit guide for a program audit). If the due date falls on a weekend or federal holiday, then the submission due date is the next business day. See 2 C.F.R. §§ 200.507(c)(1), 200.512(a)(1).

We identified an increase in direct expenditures of federal awards beginning in 2020 with the onset of the COVID-19 pandemic (see fig. 5). In addition, we found that some of the severe and persistent findings were linked to the \$69 billion of COVID-19 relief funds recipients spent from 2020 to 2021. This indicates that deficiencies an auditor noted prior to the pandemic also could have affected recipients' spending of COVID-19 relief funds.

Figure 5: Annual Direct Expenditures of Federal Awards, Including Spending Related to COVID-19, from 2017 to 2021



Source: GAO analysis of data from U.S. Census Bureau. | GAO-24-106173

Notes: Dollar values shown are rounded.

Annual direct expenditures of federal awards in this figure include only those expenditures reported to the Federal Audit Clearinghouse (FAC) by recipients that spent \$750,000 or more of federal awards in an audit year. Direct expenditures of federal awards by recipients that did not meet the \$750,000 single audit threshold in their audit year are exempt from reporting to the FAC and are therefore not reported in these totals. The Uniform Guidance requires recipients to submit a report to the FAC within the earlier of 30 calendar days after receipt of the auditor’s report(s) or 9 months after the end of the audit period (unless a different period is specified in a program-specific audit guide for a program audit). If the due date falls on a weekend or federal holiday, then the submission due date is the next business day. See 2 C.F.R. §§ 200.507(c)(1), 200.512(a)(1).

^aThe 12 months covered by a recipient’s single audit, referred to as the audit year, vary by recipient.

Some Findings Have Remained Unresolved since 2015 or Prior

We identified approximately 213 single audit findings that originated in 2015 or earlier that remained unresolved in 2021. These findings were

linked to \$243 billion, or 23 percent, of total direct expenditures of federal awards reported in the FAC for 2021.⁴⁸

We also identified 83 recipients whose 2021 findings have all remained unresolved since 2015. For example, we identified one recipient whose auditor found in 2015 that the recipient was not in compliance with the award requirements of two federal awards it had received, resulting in a finding. This finding remained unresolved as of 2021, and the auditor's opinion had changed from unmodified to modified and a material weakness. From 2015 to 2021, the recipient continued to receive and spend funds from the same two federal programs, including additional COVID-19 relief funding from one.

While the FAC enables users to identify if an entity reported the same single audit findings in the prior reporting year, there are no search features to summarize or analyze severe and persistent findings over multiple years. Without a tool to efficiently identify a recipient's ongoing unresolved material deficiencies from compliance and internal control audits, federal agencies may fail to fully understand the risks associated with providing awards to a recipient.

Officials at the five selected agencies told us that the FAC could include additional features to allow them to prioritize more severe or repeated audit findings for resolution, including supporting risk-based prioritization. Others told us that they developed their own internal tracking systems to monitor findings.

Identifying Factors Contributing to Single Audit Findings

We developed a logistic regression model to show an example of risk analysis using FAC data. Through the model, we identified several factors that contributed to a finding reported in one year and remaining unresolved in the next year.⁴⁹ These include (1) whether the finding was repeated or persistent in prior years, (2) the proportion of direct expenditures related to the finding in relation to the recipient's total direct expenditures of federal awards, (3) the cognizant agency assigned to the

⁴⁸We did not assess whether these audit findings continued to persist in 2022 and 2023 because all recipients may not have reported single audits from those years in the FAC as of the date of this report.

⁴⁹Our model did not produce a forward-looking prediction that a finding will be repeated in the future; rather, it analyzed previously reported 2019 data to determine if a finding from 2019 was reported in 2020.

recipient, and (4) the auditor's opinion on the recipient's financial statements.

This type of risk analysis provides valuable insights into federal agencies' findings that may warrant a higher priority for resolution. The model is not intended for agencies' direct use, as federal internal control standards require them to develop risk controls relevant to their circumstances.⁵⁰ See appendix V for more details on this model.

Conclusions

The FAC, a government-wide repository and database of single audit information, facilitates the oversight of trillions of dollars of federal awards. Given recent increases in the amounts of federal awards since the onset of the COVID-19 pandemic, it is increasingly important that the FAC provide federal agencies with quality information on recipients' use of federal funds.

We found that FAC data were not always accurate, consistent, and complete, which can limit federal agencies' ability to oversee federal award spending. Until GSA establishes a process to identify, analyze, and respond to certain FAC data errors, federal agencies may be hindered in their efforts to oversee federal award spending.

We also found that a lack of modernization in the FAC makes accessing and using FAC data challenging as FAC users would have to expend resources on preparing data to use single audit results for further analyses. While GSA continues to work with OMB and federal agencies to improve the FAC, we identified opportunities for system enhancements that could help modernize the FAC user experience.

In addition, we found that OMB has not initiated a government-wide single audit quality review in over 15 years or determined another appropriate interval in which to initiate one. Without regular government-wide reviews, quality issues could go unresolved and lead to unreliable single audit information in the FAC. Further, OMB periodically conducting government-wide reviews in coordination with federal agencies and reporting the results to Congress could help provide timely information for federal award oversight and help Congress make informed oversight, policy, and funding decisions.

⁵⁰[GAO-14-704G](#).

We also identified opportunities for OMB and GSA to work together to identify recipients that met the expenditure threshold but did not undergo single audits. We found that OMB could improve single audit information in the FAC by obtaining a list from federal agencies of all recipients that did not submit their single audits as required. In addition, devising a method to identify recipients that met the single audit expenditure threshold by spending funds from multiple agencies can help OMB and GSA ensure that the FAC contains complete information on all recipients' single audits. Because the FAC does not have the capability to identify recipients that did not submit their required single audit reports, federal agencies cannot ensure that all required recipients are complying with single audit reporting requirements.

We identified information on the FAC data collection form that was inaccurate and inconsistent when compared with the corresponding single audit report. Inaccurate FAC data may prevent agencies from understanding the total population of audit findings that they may be responsible for resolving, causing them to spend additional time evaluating whether their oversight is applicable to a recipient's audit findings. Without additional GSA and OMB training to auditors and recipients on how to ensure the accuracy and completeness of the data collection form, auditors may enter, and recipients may certify, information that is inaccurate. This may subsequently hinder both the public's ability to use FAC data and federal agencies' ability to conduct oversight.

Finally, we found that \$1.17 trillion, or about 16.7 percent, of the reported \$6.97 trillion of direct federal awards that recipients spent from 2017 to 2021 were linked to single audit findings that were both severe and persistent. OMB does not have a strategy for a government-wide analysis of FAC single audit data to assess the risk to the government from unresolved single audit findings. Without a government-wide analysis of FAC single audit data, OMB and federal agencies may not identify government-wide risks of recipients misusing federal awards or develop appropriate responses to those risks.

Matters for Congressional Consideration

We are recommending the following three matters for congressional consideration:

Congress should consider amending the Single Audit Act to require the Director of OMB to initiate a government-wide single audit quality review at a regular interval, such as the 6 years that the Uniform Guidance recommends. (Matter for Consideration 1)

Congress should consider amending the Single Audit Act to require the Director of OMB to submit a report on the findings from each government-wide single audit quality review to the appropriate committees of Congress. (Matter for Consideration 2)

Congress should consider amending the Single Audit Act to require the federal awarding agencies to work with the Director of OMB on a government-wide single audit quality review. (Matter for Consideration 3)

Recommendations for Executive Action

We are making the following 10 recommendations, including four to GSA and six to OMB.

The Administrator of GSA should develop a process to regularly identify, analyze, and respond to FAC data reliability issues that may affect federal oversight, such as establishing edit checks to mitigate issues related to data accuracy, consistency, and completeness. (Recommendation 1)

The Administrator of GSA should, in coordination with federal agencies and professional audit organizations, identify and prioritize features to enhance the usefulness of FAC data for federal oversight in accordance with federal data standards. (Recommendation 2)

The Administrator of GSA should, in coordination with federal agencies, develop proposed funding and timelines for implementing the identified and prioritized features to enhance the usefulness of FAC data for federal oversight through interagency agreements or other methods. (Recommendation 3)

The Director of OMB should, after consultation with federal agencies, implement the government-wide single audit quality review by naming a federal agency to lead the review as required by the Uniform Guidance. (Recommendation 4)

The Director of OMB should ensure that each of the federal agencies responsible for single audit oversight (cognizant and oversight agencies for audit) collects and reports to GSA a list of the recipients of its federal awards that should have submitted a single audit report for audit year 2023 and did not. (Recommendation 5)

The Director of OMB should work with the Administrator of GSA to establish formal guidance implementing an annual process for each of the federal agencies to collect and report to GSA a list of its federal award recipients that should have submitted a single audit report and did not

and to then communicate the guidance to federal agencies for single audits in 2024 and beyond. (Recommendation 6)

The Director of OMB should work with the Administrator of GSA to develop a method for determining federal award recipients that did not submit a single audit report but should have based on their combined funds received from multiple federal agencies and communicate this method to federal awarding agencies. (Recommendation 7)

The Administrator of GSA should, upon consulting with professional audit organizations, provide additional training to auditors and recipients to help ensure that they complete FAC data collection forms accurately, completely, and consistent with the audit report. (Recommendation 8)

The Director of OMB should consult with federal agencies, CIGIE, and relevant OIGs to discuss methods to help ensure that single audit report reviewers are verifying that the information in a single audit report aligns with the summary information entered on the FAC data collection form. These methods could include adding a procedure to conduct a final quality check in CIGIE's *Guide for Desk Reviews of Single Audit Reports*. (Recommendation 9)

The Director of OMB should work with GSA and agency key management single audit liaisons to develop a strategy to use FAC data to identify government-wide risks to federal award funds, such as single audit reports that contain findings that are severe or have remained unresolved for multiple years. This strategy should include steps to analyze and respond to significant risks identified. (Recommendation 10)

Agency Comments and Third-Party Views

We provided a draft of this report to OMB, GSA, the Census Bureau, and the AICPA for review and comment. In an email, the OMB liaison to GAO told us that OMB agreed with our recommendations. In its comments, reproduced in appendix VI, GSA agreed with our recommendations and stated that many of them align with the process GSA has established for the FAC. The Census Bureau and the AICPA provided technical comments, which we incorporated as appropriate.

We are sending copies of this report to the appropriate congressional committees, the Director of the Office of Management and Budget, the Administrator of the General Services Administration, the Director of the U.S. Census Bureau, the Secretary of Health and Human Services, the Secretary of Labor, the Secretary of Transportation, the Secretary of the Treasury, the Secretary of Homeland Security, and other interested

parties. In addition, the report is available at no charge on the GAO website at <https://www.gao.gov>.

If you or your staff have any questions about this report, please contact James R. Dalkin at (202) 512-3133 or dalkinj@gao.gov or Taka Ariga at (202) 512-4968 or arigat@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.



James R. Dalkin
Director
Financial Management and Assurance



Taka Ariga
Director and Chief Data Scientist
Science, Technology Assessment, and Analytics

List of Addressees

The Honorable Patty Murray
Chair
The Honorable Susan Collins
Vice Chair
Committee on Appropriations
United States Senate

The Honorable Ron Wyden
Chairman
The Honorable Mike Crapo
Ranking Member
Committee on Finance
United States Senate

The Honorable Bernard Sanders
Chair
The Honorable Bill Cassidy, M.D.
Ranking Member
Committee on Health, Education, Labor, and Pensions
United States Senate

The Honorable Gary C. Peters
Chairman
The Honorable Rand Paul, M.D.
Ranking Member
Committee on Homeland Security and Governmental Affairs
United States Senate

The Honorable Tom Cole
Chairman
The Honorable Rosa L. DeLauro
Ranking Member
Committee on Appropriations
House of Representatives

The Honorable Cathy McMorris Rodgers
Chair
The Honorable Frank Pallone, Jr.
Ranking Member
Committee on Energy and Commerce
House of Representatives

The Honorable Mark E. Green, MD
Chairman

The Honorable Bennie G. Thompson
Ranking Member
Committee on Homeland Security
House of Representatives

The Honorable James Comer
Chairman

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

The Honorable Jason Smith
Chairman

The Honorable Richard Neal
Ranking Member
Committee on Ways and Means
House of Representatives

Appendix I: Objectives, Scope, and Methodology

In this report, we examined (1) the reliability of the data contained in the Federal Audit Clearinghouse (FAC) for oversight purposes, including oversight of COVID-19 relief funding, (2) processes involved in using and overseeing the FAC, and (3) the extent to which federal award expenditures were linked to severe and persistent single audit findings reported in the FAC.

Analysis of FAC Data Reliability

To examine the reliability of the data contained in the FAC for oversight purposes, we downloaded and tested data from the complete single audit database from the FAC Image Management System¹—a public website that enables the query and download of information collected from the FAC data collection form, which federal award recipients and their auditors complete—for audits conducted of recipients during audit years 2015 through 2021. Audit year 2021 provided the most recent and complete population available at the time of our download because the Office of Management and Budget’s (OMB) *Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards* (Uniform Guidance) generally allows recipients 9 months after the end of their audit period in which to submit a single audit. In addition, OMB granted extensions to all recipients for submitting their single audits in 2021 because of the effects of the COVID-19 pandemic.² Further, the timing of the transition of the FAC from the U.S. Census Bureau to the General Services Administration (GSA) was initially scheduled to occur in 2022. We chose audits from 2021 to avoid an overlap between these two agencies’ single audit collection efforts.

We also downloaded and reviewed definitions for FAC tables, columns, and fields outlined in the Census Bureau’s data documentation, which we obtained from the FAC website. Some data were only available beginning in 2019, including datasets that contained text data on findings, corrective action plans (CAP), notes, and revisions. We downloaded our FAC data on January 12, 2023. We therefore did not include in our assessment any changes to the database after that date, including any revised or newly reported 2015 to 2021 single audits.

¹See <https://facdissem.census.gov/PublicDataDownloads.aspx> accessed January 12, 2023.

²Office of Management and Budget, *Promoting Public Trust in the Federal Government through Effective Implementation of the American Rescue Plan Act and Stewardship of the Taxpayer Resources*, OMB Memorandum M-21-20 (Washington, D.C.: Mar. 19, 2021).

Appendix I: Objectives, Scope, and Methodology

We primarily tested three of the 14 FAC data tables: General, Catalog of Federal Domestic Assistance (CFDA), and Findings.³ These tables provide the basic identifying information on audit reports (General), linkages to expenditures of federal funds (CFDA), and core information on audit findings (Findings). These tables contained the most important information to understand oversight of federal funds using single audits. The Census Bureau structured FAC data by fiscal year, in which the year of the recipient’s fiscal year-end date matches the fiscal year the data indicates. For example, the General table for fiscal year 2019 data will contain audits with fiscal year-end dates from January 1, 2019, through December 31, 2019. Table 1 provides descriptions of the information contained in all 14 FAC data tables.

Table 1: Federal Audit Clearinghouse Data Tables and Descriptions

Table name	Description of contents
General	General information, such as the Employer Identification Number (EIN), address, and contact information for recipients and auditors, of each submission.
Agency	Information about which federal agencies require copies of the report of each submission.
CFDA	Catalog of Federal Domestic Assistance number (CFDA) information from the federal awards page of each submission.
EIN	Secondary EIN information of each submission. ^a
DUNS	Secondary Data Universal Numbering System (DUNS) information of each submission. ^a
CPAs	Secondary certified public accountants’ (CPA) information of each submission. ^b
Findings	Finding information for federal awards with audit findings of each submission.
Passthrough	Information about pass-through entities for indirect awards of each submission.
Notes	Information from the note to the schedule of expenditures of federal awards of each submission.
Findings Text	Findings text information for federal awards with audit findings of each submission.
CAP Text	Corrective action plan (CAP) information for audit findings of each submission.
Revisions	Information about what items were updated or changed when a revision was submitted of each submission.
Formatted Findings Text	Formatted findings text information of each submission.
Formatted CAP Text	Formatted CAP text information of each submission.

Source: Federal Audit Clearinghouse, U.S. Census Bureau. | GAO-24-106173

^aAn audit may cover multiple EINs and DUNS. The primary EIN and DUNS information is recorded on the General table, while all additional EIN and DUNS information is recorded on the EIN and DUNS tables, respectively.

³The terminology for the identifier used to track federal award programs transitioned from CFDA to Assistance Listing Number in 2020. For the purposes of our report, we refer to this identifier throughout as the CFDA number because it is the terminology that the Census Bureau used in its policies and procedures for the FAC during the scope of our review.

^bMultiple audit organizations may have conducted the audit work. The lead or coordinating auditor's information is recorded in the General table, while all additional auditors' information is recorded on the CPAs table.

To prepare the FAC data for analysis, we wrote a series of data processing scripts. For these scripts, we did not clean the raw FAC data, but rather conducted tests on the raw data to assess the reliability of the database. To determine a complete population of CFDA numbers of federal programs, we compared three references available on SAM.gov that contain CFDA data from three government-run websites: Data.Gov, Grants.Gov, and USASpending.gov. We assessed each reference to find the highest number of matches by CFDA number when compared to the FAC data. We determined the USASpending.gov reference table from January 14, 2023, to be the most comprehensive resource and used it to create CFDA number and two-digit prefix reference tables for use in some of our tests.⁴

To test the reliability of the FAC data, we chose three dimensions from GAO's guide for *Assessing Data Reliability*⁵ as criteria for this analysis and defined them as follows:

Accuracy: The extent to which recorded data reflect the actual underlying information.

Consistency: The extent to which data are sufficiently clear and well defined to yield comparable results in similar analyses. For example, if data are entered at multiple sites, inconsistent interpretation of data entry rules can lead to data that, taken as a whole, are unreliable.

Completeness: The extent to which relevant data records and fields are present and sufficiently populated.

We used professional judgment to select relevant tests of the FAC data from this guide and grouped tests into related categories for accuracy, consistency, and completeness. We selected tests and adapted them to review the FAC for reliability issues that could affect single audit reporting and federal oversight. These electronic tests formed the basis of our findings related to the reliability of this dataset for likely audit purposes. Appendixes II, III, and IV provide descriptions of FAC data reliability tests we performed.

⁴January 14, 2023, was the closest available date of download for the SAM.gov reference following the date on which we downloaded the complete FAC database—January 12, 2023.

⁵GAO, *Assessing Data Reliability*, [GAO-20-283G](#) (Washington, D.C.: Dec. 2019).

For all the tests described, one data analyst drafted the test and a second data analyst independently verified and confirmed the accuracy of the code used. A specialist also conducted a technical review and provided assurance that the analysis was relevant, valid, reliable, and technically sound.

Understanding and Analysis of FAC Processes and Accessibility

To examine processes involved in using and overseeing the FAC, we interviewed officials from the agency responsible for the FAC during the scope of our audit—the Census Bureau. GSA took over maintenance of the FAC from the Census Bureau and began to take single audit submissions in September 2023, which was after our audit work ended. To understand the FAC transition and plans for future processes for ensuring data reliability, we also interviewed officials from GSA. Lastly, we interviewed officials from OMB, which is the agency directed to prescribe guidance for implementing the Single Audit Act and designate the agency to administer the FAC.

We obtained and reviewed relevant documentation related to laws and guidance governing single audits and the FAC. These included the Single Audit Act;⁶ OMB’s Uniform Guidance, reprinted in title 2 of the *U.S. Code of Federal Regulations*;⁷ OMB’s Federal Data Strategy Action Plan;⁸ Executive Order 14058, *Transforming Federal Customer Experience and Service Delivery to Rebuild Trust in Government*;⁹ and relevant OMB circulars.

We reviewed background documentation on single audits and the FAC, including our report, *Single Audits: Improvements Needed in Selected Agencies’ Oversight of Federal Awards*,¹⁰ and the *Report on National Single Audit Sampling Project* by the President’s Council on Integrity and

⁶The Single Audit Act is codified, as amended, at 31 U.S.C. §§ 7501-7506, and implementing OMB guidance is reprinted in 2 C.F.R. § 200 subpart F.

⁷See 78 Fed. Reg. 78,590 (Dec. 26, 2013); 85 Fed. Reg. 49,506 (Aug. 13, 2020); and 2 C.F.R. part 200. Previously, this guidance was contained in eight individual OMB circulars before the Uniform Guidance superseded them.

⁸The Federal Data Strategy originated in OMB’s *Federal Data Strategy: A Framework for Consistency*, OMB Memorandum M-19-18 (Washington, D.C.: June 4, 2019), and calls for annual government action plans to guide federal agency implementation of the strategy.

⁹Exec. Order No. 14058, *Transforming Federal Customer Experience and Service Delivery to Rebuild Trust in Government*, 86 Fed. Reg. 71,357 (Dec. 16, 2021).

¹⁰GAO, *Single Audits: Improvements Needed in Selected Agencies’ Oversight of Federal Awards*, [GAO-17-159](#) (Washington, D.C.: Feb. 16, 2017).

Efficiency (PCIE).¹¹ We also reviewed relevant policies and procedures obtained from the Census Bureau for uploading information to the FAC, including public user guides and data documentation.

We searched for recipients that may have failed to submit single audits to the FAC by using FAC data to identify recipients that submitted a single audit in 2019 and reported federal expenditures that year of at least \$2 million but did not submit a single audit to the FAC for 2020. We then searched for these same recipients by their Data Universal Numbering System numbers using USASpending.gov, filtering our results for recipients with grant, loan, or direct payment obligations exceeding \$750,000 in 2020. We then manually reviewed public websites other than the FAC to attempt to locate these recipients' 2020 single audit reports.

We also compared a nongeneralizable selection of 10 single audit reports based on spot checks of some data discrepancies to identify instances where the FAC data collection form did not consistently reflect the information reported in the single audit report. To accomplish this, we downloaded and compared the single audit reports and corresponding FAC data collection forms from our selected single audits to document various examples of uncorrected errors in the data collection forms.

The single audit reports we reviewed were not selected using statistical sampling techniques. We determined that performing a statistical review of single audit reports would involve significant resources that extend beyond the scope of the objectives of our audit. For this reason, observations from the example single audit reports are not generalizable to the entire population of single audits reported to the FAC within the scope of our audit. Rather, we listed them here as narrative examples of inaccuracies that exist in single audit data.

¹¹The PCIE's function is now performed by the Council of the Inspectors General on Integrity and Efficiency (CIGIE), which was established as an independent entity within the executive branch by the Inspector General Reform Act of 2008, Pub. L. No. 110-409, § 7, 122 Stat. 4302, 4305-13 (Oct. 14, 2008), and is now codified, as amended, in part at 5 U.S.C. § 424. Prior to the establishment of CIGIE, the federal inspectors general operated under the auspices of two councils. These two predecessor councils were the PCIE, which was established by Executive Order 12301 on March 26, 1981, and the Executive Council on Integrity and Efficiency, which was established by Executive Order 12805 on May 11, 1992.

Federal Agency Selection for Analysis and Interview

To select federal agencies as part of our first and second objectives, we analyzed FAC data we downloaded on August 10, 2022. These data were used for scoping and design purposes only and were not used when conducting our tests of the reliability of FAC data in our first objective.

To determine which agencies reported the most expenditures in the FAC, we downloaded FAC data from 2019 through 2020. We then downloaded a list of current CFDA numbers from SAM.gov and matched the CFDA number listed in the FAC to an agency and subagency name.

We also identified expenditures related to COVID-19 relief programs based on the FAC data. To identify a list of federal programs that COVID-19 relief laws funded, we reviewed the 2020 Single Audit Compliance Supplement and the December 2020 Single Audit Compliance Supplement Addendum.¹² We compared these programs with those we identified in the FAC data. We first identified COVID-19-related expenditures by searching the FAC data for “COVID-19” (and other variations such as “COVID - 19” and “COVID19”) in the fields for program name and additional award information. We then matched the results by CFDA number with our list of federal programs that COVID-19 relief laws funded.

We assigned FAC expenditures to agencies primarily by using the first two digits of the CFDA number, which functioned as an agency identifier. Because unknown CFDA numbers and those associated with research and development funding used “U” and “RD” in their CFDA numbers, respectively, we assigned those CFDA numbers to agencies using the first two digits.

We calculated the sum of all expenditures by agency to determine annual agency expenditure totals in 2019 and 2020. To determine each agency’s total COVID-19-related expenditures for 2020, we then recalculated the sum of agency expenditures by using only expenditures that were identified as being related to COVID-19. We also calculated direct and indirect expenditure aggregations for additional context but did not use

¹²The Compliance Supplement is an annually updated authoritative source for auditors that serves to identify existing important compliance requirements that the federal government expects to be considered as part of a single audit. Auditors use it to understand the federal program’s objectives, procedures, and compliance requirements, as well as audit objectives and suggested audit procedures for determining compliance with the relevant federal program. 2 C.F.R. § 200.1.

those totals for the overall ranking. We then ranked the agencies from largest to smallest for each of the following metrics:

- total expenditure amounts in 2019 and 2020;
- total COVID-19-related expenditure amounts in 2020;
- change in expenditure totals from 2019 to 2020, in dollars; and
- percentage change in expenditure totals from 2019 to 2020, as a proportion of 2019 expenditures.

Together, these metrics helped us identify some of the federal agencies with the greatest amounts of expenditures in the FAC that could have been affected by a large influx of COVID-19 relief funding in 2020. After ranking agencies by these metrics individually, we then averaged the ranks to determine an overall computation of agency rank. We then selected the five agencies with the highest overall rankings for further analysis: the Departments of Labor (DOL), Transportation (DOT), the Treasury, Health and Human Services (HHS), and Homeland Security (DHS). Within each of the top five agencies, we also calculated the subagency with the highest ranking from each agency. These subagencies were the Employment and Training Administration, DOL; Federal Transit Administration, DOT; Departmental Offices, Treasury; Centers for Medicare and Medicaid Services, HHS; and Federal Emergency Management Agency, DHS.

We then interviewed officials within our selected subagencies that administered federal awards related to the expenditures we identified. We conducted structured interviews to understand how federal agencies used the FAC to fulfill their oversight responsibilities of federal awards, including any data reliability issues they encountered. We also interviewed officials in their respective Offices of Inspector General (OIG) to understand how they used the FAC to support oversight and monitoring of federal awards (see table 2).

Table 2: List of Subagencies Interviewed

Department of Health and Human Services

Centers for Medicare and Medicaid Services

Audit Resolution Division

Administration for Children and Families

Office of Inspector General (OIG)

Department of Homeland Security

Appendix I: Objectives, Scope, and Methodology

Office of the Chief Financial Officer, Federal Emergency Management Agency
OIG
Department of Labor
Employment and Training Administration
OIG
Department of Transportation
Federal Aviation Administration
Federal Highway Administration
Federal Transit Administration
OIG
Department of the Treasury
Bureau of the Fiscal Service
Office of Recovery Programs
Community Development Financial Institutions Fund
Internal Revenue Service
Social Impact Partnerships to Pay for Results Act (Departmental Offices)
Treasury Executive Office for Asset Forfeiture – Treasury Forfeiture Fund
OIG

Source: GAO. | GAO-24-106173

In addition, we interviewed members of audit and accountability organizations on how they use the FAC and on additional FAC features that they suggested could improve oversight of federal awards.¹³ We also interviewed officials from the Census Bureau, GSA, and OMB to understand any feedback they received from FAC users and any FAC updates expected in the future.

Analysis of Selected Agencies' FAC Data for Severe and Persistent Findings

To determine the extent to which federal award expenditures were linked to severe and persistent single audit findings reported in the FAC, we downloaded the complete FAC single audit database for audit years 2015 to 2021. For the purposes of our engagement, we considered a finding to be persistent if it was a repeat of a finding reported in two prior, consecutive audits from 2015 through 2021. We defined severity based on our judgment of auditor's findings. We defined a severe finding for a single audit as one that contributes to an auditor's determination of either

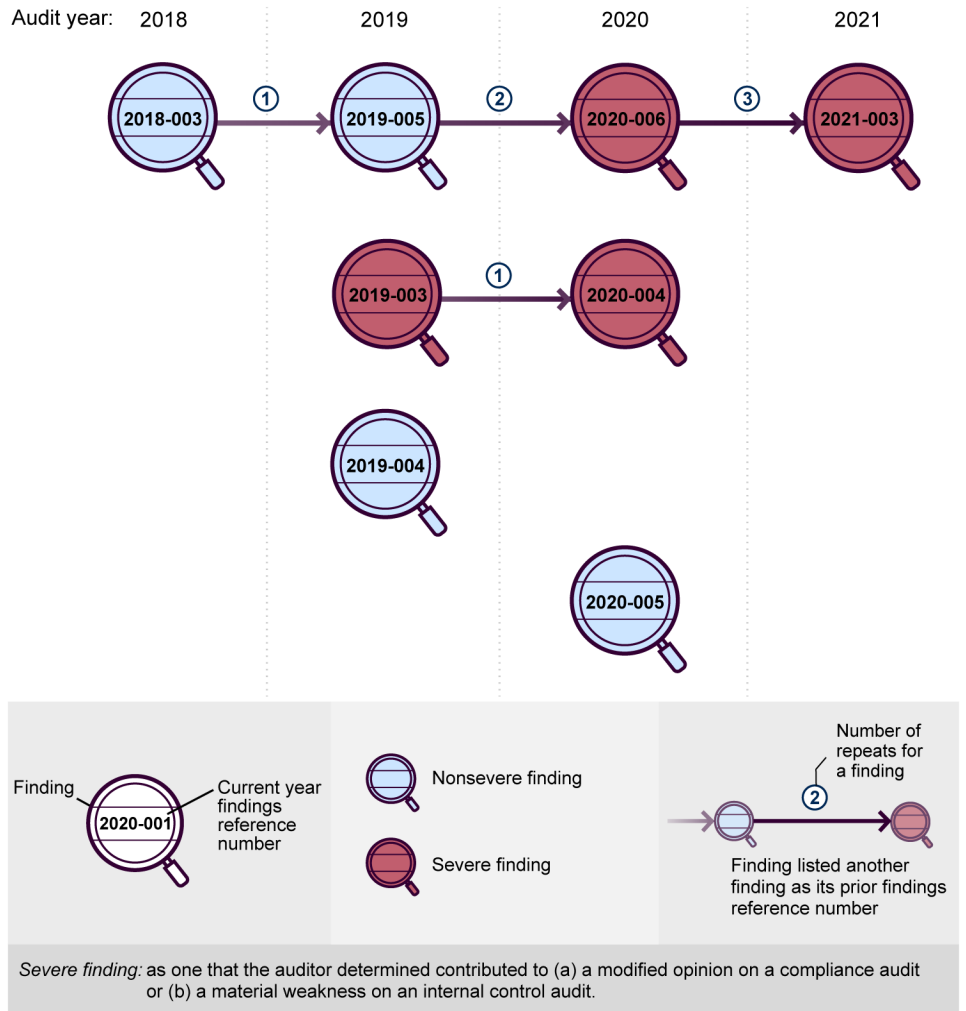
¹³Members of audit and accountability organizations include the Pandemic Response Accountability Committee; CIGIE; the American Institute of Certified Public Accountants; and the National Association of State Auditors, Comptrollers, and Treasurers.

- a. a modified opinion on an audit of compliance with award requirements or
- b. a material weakness identified in internal control over compliance.

Auditors assign a reference number to each finding and prior finding in the FAC database. To determine which findings were repeated, we excluded findings and prior finding reference numbers that were (1) not formatted correctly, (2) referred to findings that were not unique, or (3) occurred outside our scope (2015 to 2021) or after the auditor reported the finding. If the given prior finding reference numbers referred to multiple prior audit years, we used only the references to the prior findings with the year closest to the current finding.

For each recipient, we constructed a directed graph where the vertices represented findings and the edges represented whether a finding listed another finding as its prior findings reference number (see fig. 6).

Figure 6: Examples of Repeated and Persistent Findings Identified through a Directed Graph



Source: GAO analysis of data from U.S. Census Bureau; GAO (icons). | GAO-24-106173

Notes: This graph shows an example of a directed graph in which vertices represent findings and edges represent whether a finding listed another finding as its prior findings reference number. Graphs were analyzed to determine the number of connected prior findings for each finding.

A repeated finding in the current year’s audit report is one that is the same as or substantially similar to a finding from the previous year’s audit, for which the recipient did not take the planned corrective action or the action it took was ineffective. We defined a persistent finding as one that two consecutive prior audits have identified, which the recipient’s corrective action has therefore not resolved for 2 consecutive years.

The last three digits of the current year findings reference number may not match the prior year’s finding. For example, 2021-003 lists 2020-006 as its prior.

Figure 6 shows the following:

- In 2018, one new finding (2018-003) was reported.
- In 2019, one repeat finding (2019-005) and two new findings (2019-003 and 2019-004) were reported.
- In 2020, one persistent and severe finding (2020-006), one repeat and severe finding (2020-004), and one new finding (2020-005) were reported.
- In 2021, one persistent and severe finding (2021-003) was reported.

The maximum length of a path from a finding to any of its possible prior findings represented the maximum number of repeats for that finding. When considering which paths to include when determining the maximum length, we excluded paths using an edge between nonconsecutive audit years, unless the audit covered a biennial or other period greater than a year.

Findings data are reported on the FAC data collection form when an auditor enters them into the summary Schedule of Findings and Questioned Costs—a schedule that summarizes the results of the audit and reports any program-related findings that contributed to an overall opinion on the recipient’s compliance with award requirements or internal control over compliance. A finding can be linked to multiple different agencies, programs, and expenditures in the FAC data if a recipient received funds from multiple agencies or programs. The severity of the finding may also differ between agencies and programs. Therefore, we summarized a finding across all expenditures to which it was linked. We considered it to be severe if the auditor reported any expenditures as contributing to the auditor’s modified opinion or material weakness.

However, when totaling expenditures, we considered only the severity of the finding specifically linked to the expenditure, rather than using the findings reference number that could apply to multiple agencies and programs. We tracked persistence and the number of repeats for a finding only by using the findings and prior findings reference numbers.

In addition to our analysis of selected agencies’ severe and persistent findings, we followed up with our five selected agencies to understand how they used the FAC as part of their process to track, prioritize, and resolve persistent findings. We selected a nongeneralizable sample of four persistent findings from each of our five federal agencies. We presented agency officials with our selected persistent findings and

requested the management decision letters associated with the persistent findings. Further, we asked agencies to describe their processes for resolving and tracking repeat findings, such as the persistent findings in our identification, as well as their processes for prioritizing findings using FAC data.

We also developed a risk model to show an example of government-wide data analysis that could be performed to allow agencies to proactively identify risk for their resolution efforts. We chose to analyze the risk of a 2019 finding being unresolved in 2020 to provide an illustrative example of how modeling could identify ongoing risk factors to expenditures of federal funds. We used a least absolute shrinkage and separation operator logistic model with findings, expenditures, and audit details from the FAC. Through the model, we identified several significant factors that contribute to a finding reported in 2019 remaining unresolved in 2020, including whether the finding was repeated or persistent and whether the finding was severe, in that it contributed to a modified opinion or material weakness.

This model is one of many possible models that could be developed to show that government-wide risk analysis is possible and could yield valuable insights to federal agencies attempting to help recipients resolve findings from single audits. It is not intended for direct use by agencies, which federal standards require to develop risk controls relevant to their circumstances. See appendix V for more details on our modeling approach.

We conducted this performance audit from July 2022 to April 2024 in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

Appendix II: Tests of Federal Audit Clearinghouse Single Audit Data Accuracy

GAO's guide on *Assessing Data Reliability* defines accuracy as “the extent that recorded data reflect the actual underlying information.”¹ This appendix presents descriptions and results of tests that could affect the accuracy of Federal Audit Clearinghouse (FAC) data. For the purposes of reporting, we classified the following tests under accuracy and grouped them as follows:

- **Tests against Documentation**
- **Tests of FAC Identifier Columns**
- **Tests of FAC Column Values**

We identified some evidence of accuracy issues across several types of tests that could affect the reliability of the data. Issues we identified in these tests could also affect other aspects of data reliability, such as consistency and completeness (see apps. III and IV, respectively). However, based on these tests and our use of the data in this report, we found the data sufficiently reliable for analyzing the severity and persistence of single audit findings unless otherwise indicated.

Tests against Documentation

The U.S. Census Bureau published a data download key (data documentation) to document the FAC database tables on its public website. The following tests checked the data documentation from January 2023 against data downloaded from the same period, covering audits from 2015 through 2021, to determine the accuracy of the FAC data. These tests identified potential instances of data or documentation inaccuracies, such as the Census Bureau not updating data documentation to reflect changes to data columns.

As the documentation provides basic explanations of data values, the FAC database should accurately match Census Bureau documentation. We tested (1) columns with categories for expected values and (2) that data column names matched documentation.

Test Columns with Categories for Expected Values

We tested columns in three separate FAC data tables for 2015 through 2021 data—General, Catalog of Federal Domestic Assistance (CFDA), and Findings—against the expected values listed in the data documentation. For example, the General FAC table has many columns that contain “Y” or “N” values (representing “yes” and “no”), such as responses for whether an audited program met the definition of a major program. We also tested columns for which the data documentation

¹GAO, *Assessing Data Reliability*, [GAO-20-283G](#) (Washington, D.C.: Dec. 2019).

allowed multiple values, such as columns classifying compliance requirements. This test did not cover columns with large numbers of potential values, such as identifier columns or columns where recipients or their auditors entered text freely.

Test results. We identified some evidence of inaccuracies in expected values when compared with the data documentation. Most columns with set values in the three selected FAC tables matched the values listed in the data documentation.

Specifically, all 30 of the columns that included a “Y” or “N” contained values expected based on the data documentation. Two other columns that allowed a single value to be entered also had expected values. For example, the column describing the period covered by an audit allowed entry of one value (annual, biennial, or other). See table 3.

Table 3: Count of Federal Audit Clearinghouse Table Columns Checked against Documentation for Expected Values, 2015–2021

Table	Total columns checked	Yes/no columns with expected values	Other single value columns with expected values
General	19	17 of 17 ^a	2 of 2
Catalog of Federal Domestic Assistance	6	6 of 6	N/A
Findings	7	7 of 7	N/A

Legend: N/A = not applicable.

Source: GAO analysis of data from U.S. Census Bureau. | GAO-24-106173

^aTwo additional columns did not have “Y” or “N”; they were blank and were not listed as being collected from 2015 through 2021 (the years of our dataset).

We also reviewed columns that allowed multiple set values. For example, the “type requirement” column in the Findings table uses letters to code different types of compliance requirements that an auditor would test, which can include multiple requirements. We tested five columns that allowed multiple set values to determine if they contained the expected values. We identified unexpected values as follows:

- **Type report on financial statements:** This column from the General table identifies the type of report issued for financial statements; according to the data documentation, one of four letters should be used (A, D, Q, or U). We identified cases where recipients or their auditors entered “S” or “AS.” We noted that the data collection form contains an option for reporting financial statements that were

prepared in accordance with a special purpose framework and those recipients appeared to be associated with “S” or “AS” entries for that column. However, neither “S” nor “AS” appear as available options on the Census Bureau’s data documentation for this column.

- **Type requirement:** This column from the Findings table allows auditors to enter a letter aligning with different categories of type requirement failure (coded as letters A through P). All letters were in the expected range, but we identified some letters that the Census Bureau instructions said should not be included (D, K, and O), including use of words like “AND” and “COMPLIANCE.” All these errors occurred in 2015.²

Test That Data Table Column Names Match Documentation

We compared column names from FAC data from 2015 through 2021 with information in the data documentation the Census Bureau provided. Specifically, this test compared the names of columns of selected tables in the data—General, CFDA, Passthrough, Certified Public Accountant (CPA), Findings Text, and Findings—with the names in the data documentation to identify missing columns in either.

Test results. We identified some evidence of data tables not matching data documentation. Most column names matched exactly in the data documentation and the columns of the selected FAC data tables (83 percent of columns). A smaller number of columns had naming variations in the data tables and documentation (9 percent) but were clearly the same column. For example, one column in the CFDA table contained minor name differences—“R&D” in the data documentation and “RD” in the data table.

The remaining 7 percent of columns appeared in either the selected FAC data tables or the data documentation and did not appear to have an obvious match. We found unmatched columns in the General, CFDA, and CPA tables (see table 4).

²According to Census Bureau officials, most single audit submissions for audit year 2015 were subject to guidance contained in OMB Circular No. A-133 (now superseded by the Uniform Guidance), which also allowed entries of D and K for that audit year. Entries of D and K were also allowed per guidance from the *2014 Compliance Supplement Part 2 – Matrix of Compliance Requirements*.

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Table 4: Examples of Columns Appearing in Either FAC Data Tables or FAC Data Documentation

FAC table	Column name	Description	In the FAC data tables	In the FAC documentation	Census Bureau response
General	COG_OVER	Column identifying whether a recipient has a cognizant or oversight agency ^a	x		Will be added to documentation
General	FYSTARTDATE	Date		x	Not published ^b
General	INITIALDATERECEIVED	Date		x	Will be removed from documentation
General	FORMDATERECEIVED	Date		x	Will be removed from documentation
General	COMPONENTDATERECEIVED	Date		x	Will be removed from documentation
General	AUDITEECERTIFYNAME	Text column		x	Not published ^b
General	AUDITEECERTIFYTITLE	Text column		x	Not published ^b
CFDA	EIN	Organization identifier	x		Will be added to documentation
CFDA	FINDINGS	Unknown ^c	x		Will be added to documentation
CFDA	QCOSTS2	Unknown ^c	x		Will be added to documentation
CPA	SEQNUM	Number		x	Should have been removed ^d

Legend:

CFDA: Catalog of Federal Domestic Assistance

CPA: Certified Public Accountant

FAC: Federal Audit Clearinghouse

Source: GAO analysis of data from U.S. Census Bureau. | GAO-24-106173

^aCOGAGENCY and OVERSIGHTAGENCY are General table variables that have a numeric code identifying the federal agency assigned as cognizant or oversight for a recipient. COG_OVER classifies whether that recipient has a cognizant or oversight agency and aligns with these codes.

^bThe Census Bureau confirmed that three columns were never published in the downloadable dataset, though the bureau does collect data for these fields and the data can be accessed through queries of the website.

^cUnknown data fields are cases where the variable was not listed in the data documentation and the variable was entirely blank in our data from 2015 through 2021. Based on the available information, it is unknown what the variable should contain.

^dThe Census Bureau confirmed that this field was discontinued after 2013, likely because it was not useful for data users, and should have been removed from the documentation.

Tests of FAC Identifier Columns

The FAC uses certain columns to uniquely identify key aspects of single audits, such as individual findings or federal programs providing funding to recipients. These tests checked the accuracy of FAC identifier columns. For example, we tested the accuracy of the format of the CFDA number to ensure that it matched the standard format used in other federal data systems.

The extent to which columns in the FAC data that identify specific units, such as federal programs or audit findings, are accurately formatted affects a user's ability to track federal expenditures to specific programs or findings. We tested the accuracy of the format of the following columns: (1) the CFDA number for all data, (2) the CFDA number for the Coronavirus Relief Fund (CRF), and (3) numbers that reference audit findings.

Test Format of CFDA Number (All Data)

We tested the format and validity of all CFDA numbers within the CFDA table of the FAC database.³ CFDA numbers with a standard format consist of a two-digit prefix and a three-digit extension separated by a period or (##.###).⁴ The two-digit prefix identifies the federal agency, and the three-digit extension identifies the specific program from that agency. We tested that numbers within the CFDA table of the FAC database followed that structured format.

In addition to the structured format, FAC instructions allow recipients or their auditors to enter a specific number when a CFDA number is unknown (the extension format for this case in the instructions is "U##") or if the CFDA number is unknown and the program is part of the research and development cluster (the extension format for this case in the instructions is "RD"). Accordingly, we reviewed the data for CFDA numbers with these extensions and for potential unknown and research and development records that did not use the extensions in the instructions, but were clearly of that type (e.g., ##.UNKNOWN or ##.N/A).

³The terminology for the identifier used to track federal assistance programs transitioned from CFDA to Assistance Listing Number in 2020. For the purposes of our report, we refer to this identifier throughout as the CFDA number because it is the terminology the Census Bureau used in its policies and procedures for the FAC during the scope of our review.

⁴For the purposes of this report, we refer to a standard format as one that follows the expected pattern of ##.###. R&D and unknown CFDA numbers that have separate entry formats that Census Bureau instructions allowed are divided into two groups. Instruction format numbers are those CFDA numbers that followed the Census Bureau's instructions. Free entry numbers are CFDA numbers that clearly appeared to fall within a category but did not follow the Census Bureau's instructions.

Although we were unable to comprehensively separate all unknown and research and development records from records with errors in the CFDA format, we classified CFDA numbers as unknown or research and development when identifiable. In addition, we verified whether the properly formatted CFDA numbers matched to an existing federal program listed in SAM.gov by joining the properly formatted CFDA numbers with those in the current SAM.gov file as of January 2023.

Test results. We identified some evidence of improperly formatted CFDA numbers in the FAC. We determined that this issue does pose some risk because inaccurate CFDA numbers prevent linking of findings to programs and expenditures. Our analysis does not track persistent findings down to the CFDA number level of detail. This risk may affect the accuracy of expenditure totals we summarize by program but does not prevent us from presenting a summary based on the available FAC data.

We identified 273,503 CFDA numbers that did not follow the standard format. However, the Uniform Guidance and FAC instructions allow auditors to enter a nonstandard number when a CFDA number is unknown or the program is unknown and in the research and development cluster. We also performed additional procedures to remove identifiable unknown and research and development CFDA numbers that did not follow the FAC's instructions for CFDA number formatting. Specifically, we identified cases that did not follow the Census Bureau's instructions and were

- likely unknown CFDA numbers that were entered inconsistently either as "Unknown," "N/A," and "XXX," among others, or
- likely research and development CFDA numbers that were entered inconsistently either as "Research" or "R&D."

We accounted for as many of these likely entries as we could identify, but we could not comprehensively identify all possible mislabeled research and unknown entries, as shown in table 5.

**Appendix II: Tests of Federal Audit
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Table 5: Different Types of CFDA Number Formatting Issues Identified in the FAC Data, 2015–2021

	Nonstandard format	Standard format	Total
Potential Standard CFDA	50,176	4,106,686	4,156,862
RD Grant - free entry	78	0	78
RD Grant - instruction format	162,957	0	162,957
Unknown CFDA - free entry	10,925	0	10,925
Unknown CFDA - instruction format	49,367	0	49,367
Sum	273,503	4,106,686	4,380,189

Legend:

CFDA: Catalog of Federal Domestic Assistance

FAC: Federal Audit Clearinghouse

RD: Research & Development

Source: GAO analysis of data from U.S. Census Bureau. | GAO-24-106173

After accounting for correctly entered and identifiable unknown and research and development CFDA numbers, we identified an estimated 50,176 FAC records that we would expect to have followed the standard CFDA number format but had inaccurately formatted numbers. Although this is proportionally small against the entire dataset of FAC records, these inaccurate records can still relate to billions of dollars of federal expenditures. Examining these data, we found instances of

- duplicative agency codes entered (e.g., 84.84.177 instead of 84.177);
- specific contracts or grant award numbers entered instead of the CFDA number; and
- suffixes on CFDA numbers that were not supposed to be there (e.g., 93.243A instead of 93.243).⁵

We identified changes over time related to the number of nonstandard CFDA numbers in the FAC, as shown in figure 3 in our report. Specifically, we identified a decrease in nonstandard CFDA number formatting from 2015 to 2016. This corresponds to a change in the FAC

⁵While most agencies follow the standard, five-digit format for their CFDA numbers, some agencies have exhausted their available unique three-digit numbers to identify programs and have resorted to reusing program numbers, according to Census Bureau officials. For example, agencies can distinguish such programs by adding an extra letter to the CFDA number. While these CFDA numbers with letter suffixes do not appear on SAM.gov, they may be referenced on the federal agencies' websites and in the Office of Management and Budget's annual Compliance Supplement.

data collection form to the 2016–2018 form version. Census Bureau officials confirmed that no edit checks of the data existed prior to 2016. With introduction of checks, the number of nonstandard CFDA numbers dropped to almost 0 from 2016 through 2018. However, Census Bureau officials told us those edit checks were not included in the 2019–2021 version of the form due to an error. From 2019 through 2021, we saw the number and percentage of nonstandard CFDA numbers entered into the FAC increase. While these nonstandard entries increased in 2019, they remained below the 2015 levels.

When comparing the CFDA numbers in the FAC data with the official tables in SAM.gov, we found numbers that did not match. Specifically, none of the research and development, unknown, or nonstandard CFDA numbers in the FAC were able to be matched with SAM.gov. In addition, a small portion of the standard format CFDA numbers in the FAC did not match to SAM.gov, about 1 percent, or 43,500 rows in the CFDA table. These unmatched CFDA numbers with the standard CFDA number format occurred across many agencies and all years in scope (2015 to 2021). The largest number of mismatches occurred in 2015, with most agencies seeing declines in mismatches over the period.

Test Format of CFDA Number (CRF Only)

As part of the data collection process, recipients or their auditors list all the audited entity’s federal awards spent during the year. For each federal award, the recipient or its auditor lists the program name and the CFDA number. We tested the accuracy of the federal program name and CFDA number for a single program, the Department of the Treasury’s CRF. Specifically, we searched for instances where auditors entered a program name that included “Coronavirus Relief Fund” but did not enter the CFDA number of that program (21.019). However, we note that this test is not a comprehensive search for all the ways that CRF expenditures could be mislabeled.

Additionally, we tested whether the CFDA number that was entered matched to a known number from the SAM.gov listing of all CFDA numbers to identify potentially mislabeled CRF expenditures. We excluded entries that used known CFDA numbers for other programs since those could be examples of expenditures from different programs that were mislabeled as CRF.

Test results. We identified some evidence of inaccuracies in CFDA numbers for the CRF program. We determined that this issue does pose some risk when linking findings to specific programs, as inaccurate CFDA numbers prevent us from comprehensively linking findings to programs

and identifying the correct program for an expenditure. We only tested the CRF program, but this issue could exist for other programs. This risk may affect the accuracy of expenditure totals we summarize but does not prevent us from presenting a summary based on the available FAC data.

Altogether, we identified 119 audits where auditors listed an expenditure on a federal program name that included “Coronavirus Relief Fund” but did not use the 21.019 CFDA number or a CFDA number that matched to our SAM.gov reference. See table 6 for randomly selected illustrative examples we found.

Table 6: Nongeneralizable Examples of Audits of Coronavirus Relief Fund Expenditures with an Inaccurate Catalog of Federal Domestic Assistance (CFDA) Number, 2020–2021

CFDA	Federal Audit Clearinghouse federal program name	Number of audits
21.090	CORONAVIRUS RELIEF FUND (LAW ENFORCEMENT)	1
21.U01	CORONAVIRUS RELIEF FUNDS	1
29.019	COVID -19- CORONAVIRUS RELIEF FUND	1
20.019	COVID-19 - CORONAVIRUS RELIEF FUND	1
20.019	COVID 19 CORONAVIRUS RELIEF FUND	1
20.019	COVID-19 - CORONAVIRUS RELIEF FUND (PPRP) FY21	1
21.999	COVID-19 CORONAVIRUS RELIEF FUND FOR LOCAL GOVERNMENTS	1
21.109	CORONAVIRUS RELIEF FUND GRANT - HIGHER ED	1
78.818	CORONAVIRUS RELIEF FUND	1
21.109	CORONAVIRUS RELIEF FUNDS	2

Source: GAO analysis of data from U.S. Census Bureau. | GAO-24-106173

We identified that the expenditures listed for those potentially mislabeled programs totaled \$155,638,683. Further, we determined that 20 of these audits indicated that these expenditures were direct awards from a federal agency, totaling \$36,792,752 in direct expenditures. We noted that these possibly mislabeled CRF direct expenditures did not have findings associated with them. If any of these identified expenditures were truly direct awards by Treasury from the CRF program, Treasury would be responsible for their oversight. However, we cannot conclude that each listed expenditure truly was from the CRF program without performing additional manual reviews of each audit.

Test Format of Findings Reference Numbers

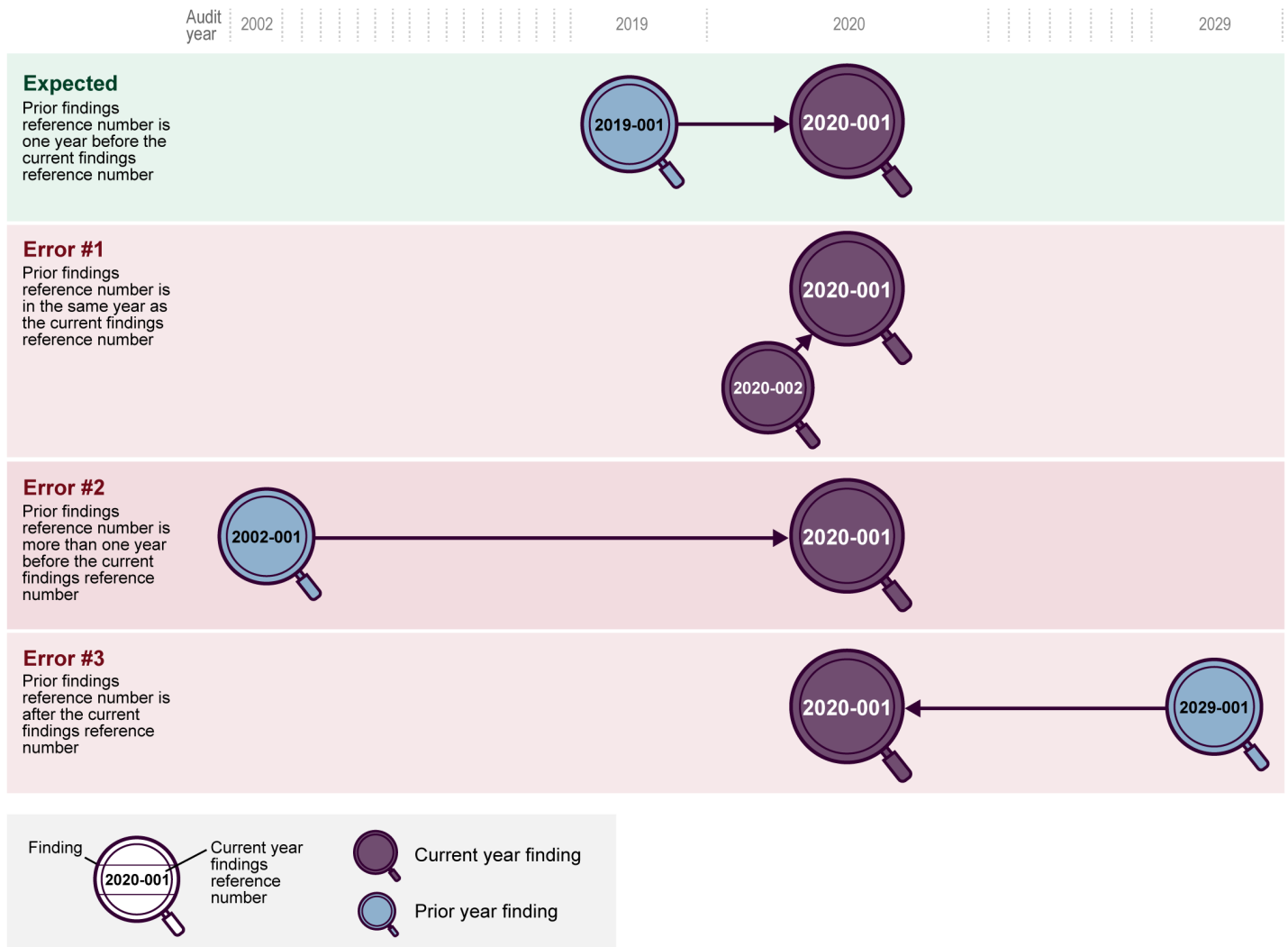
Findings in the FAC data are tracked using findings reference numbers in the current year and prior findings reference numbers for previous audits. To ensure that identifiers for findings were associated with the accurate reporting year within the Findings table in the FAC data, we tested the format and matching of findings reference numbers and related prior findings reference numbers. Specifically, we ensured that both the prior and current year findings reference numbers were reported in the Findings table according to the correct structure—four-digit audit year with three additional digits—and matched to the appropriate audit year. We also verified that the prior findings reference number was from a reporting year that occurred before the current findings reference number.

Test results. We identified some evidence of inaccuracies in findings reference numbers and prior findings reference numbers. We determined that this issue poses a risk to data reliability for analyzing the severity and persistence of single audit findings because our analysis uses findings reference numbers and prior findings reference numbers to track persistence of findings over time. Inaccuracies in these identifiers reduce the number of potential linkages that we can make in the data and may cause an undercount in our estimate of the total number of persistent findings over time.

Out of 98,890 findings in the FAC, we observed only five that contained inaccurately reported fields for the findings reference number according to the standard structure and reporting year. However, we observed 1,375 instances in this same population in which the year reported within the findings reference number did not match the current audit year because it was in the incorrect format, was blank, or was from a year other than the current audit year.

For the prior findings reference number in the Findings table, all records were reported according to the standard structure; however, we observed 3,223 records in which the year in the prior findings reference number was not the year directly prior to the findings reference number. We observed instances in which the audit year in the prior year reference number was identical to the current audit year, and instances where the audit year in the prior finding reference number was from multiple years prior to the current finding audit year, including one instance of a finding from 2017 referring to a prior year findings reference number from 2002. See figure 7 for illustrative examples.

Figure 7: Unexpected Sequences Identified in Findings Reference Number and Prior Findings Reference Number in Federal Audit Clearinghouse Data



Source: GAO analysis of data from U.S. Census Bureau; GAO (icons). | GAO-24-106173

According to Census Bureau officials, most of these unexpected sequences are likely due to recipients or auditors misreporting the prior finding reference number. However, some examples could have been entered intentionally. For example, if two recipients merge, it is possible for two audits to occur in the same audit year with identical findings reference numbers.

Tests of FAC Column Values

We tested some FAC data table columns for accurate values based on the nature of the data in each column. For example, we tested single audit submission dates in the FAC general table to identify out-of-sequence dates.

FAC data columns should have information that accurately matches the single audit processes and in expected ranges. Columns that contain information that is not meaningful or falls outside of expected values could indicate data entry errors. We determined the accuracy of FAC column values by testing (1) the order of dates, (2) columns with automatically calculated numbers, (3) columns with automatically generated text, (4) the federal expenditures column for negative or illogically low values, and (5) that records were in the correct audit year.

Test for Accurate Date Order

We tested the order of dates reported in the FAC general table to ensure that they followed expected sequencing. Specifically, we tested the following assertions related to date sequences.

- a. **Fiscal year-end date is first.** We tested that the fiscal year-end date for the recipient was before the following:
 - I. The date when data were entered into the system.
 - II. The date the audit was accepted into the FAC, which is the date used to measure timeliness of single audits per the Uniform Guidance.
 - III. The date when all processing of a submission is finished and is posted on the FAC's website.
- b. **Date a submission was accepted was after the date data were first entered.** We tested that the date the audit was accepted into the FAC is after the date when data were entered into the system, unless there was a corresponding entry in the Revisions table for that audit.⁶

⁶According to Census Bureau officials, if a recipient resubmits an audit the date listed as the accepted date will not be updated in the FAC, but the auditor signed date will be. This should be tracked in the Revisions table, which only contained data for audits in 2019 or later. If the dates are out of sequence, there should be a record in the Revisions table for 2019 or later.

- c. **Date a submission was posted online was after the date it was accepted.** We tested that the date when an audit was posted online occurred after the date the audit was accepted into the FAC.

Test results. We identified some evidence for out-of-order dates, including audit fiscal year-end dates occurring after the FAC accepted an audit and audits the FAC accepted before they were entered into the FAC. Other date sequences had no evidence of errors. When testing the expected order of dates in the FAC data, we tested the following assertions:

- **Fiscal year-end date should be first in sequence.** We found three records with fiscal year-end dates after the date the audit was accepted (0.001 percent). The sequence of dates for data entered into the system and date published were always correct for fiscal years 2015 through 2021.
- **Date a submission was accepted should occur after the date data were first entered.** We found this assertion to be mostly true in the FAC data. For most years, about 2 percent of dates were out of order, with 2019 having a particularly high number of out-of-sequence dates. However, when we accounted for allowable revisions that affected the FAC acceptance date, only .01 percent of audits remained out of order.⁷
- **Date a submission was posted online should occur after the date it was accepted.** All audits from 2015 through 2021 had an audit-posting date that occurred after the FAC accepted the audit.

Test Calculated Number
Columns for Accuracy

For audits covering 2015 through 2021, we tested the accuracy of three dollar totals that the FAC automatically calculated:

- **CFDA table to program total column:** The FAC automatically generates an expenditures total for each individual federal program by summing the amount spent for all line items with the same CFDA prefix and extension.
- **CFDA table to cluster total column:** The FAC automatically generates an expenditures total for each individual federal program by

⁷According to Census Bureau officials, the FAC sometimes back-dated submission acceptance dates. For example, this could occur if the FAC was temporarily offline, which prevented a recipient from meeting its filing deadline.

summing the amount spent for all line items with the same cluster name.⁸

- **General table to total federal expenditure column:** The FAC automatically generates an expenditures total by summing the amount spent for all line items for CFDA expenditure amounts (identified by the audit year and DBKEY).

Specifically, we independently calculated totals from the amount column in the CFDA table following the descriptions in Census Bureau data documentation for 2019 through 2021. We verified that these totals matched the ones that the FAC automatically generated.

Test results. We identified some evidence for inaccurate automatically calculated expenditure fields.

- **CFDA table to program total column.** In verifying the total program expenditures that the FAC automatically generated, we identified 332 audits from 2015 through 2021, or 0.013 percent, that did not accurately match the correct program total in the CFDA table.
- **CFDA table to cluster total column.** In verifying the total cluster expenditures that the FAC automatically generated, we identified 2,688 combinations of audits and cluster names from 2015 through 2021, or 0.5 percent, that did not accurately match the correct cluster total in the CFDA table. The mismatches by cluster total increased from year to year, from 36 mismatches in 2015 to 939 mismatches in 2021.
- **General table to total federal expenditure column.** In verifying the total federal expenditures that the FAC automatically generated, we identified 55 audits from 2015 through 2021, or 0.02 percent, that did not accurately match the correct federal expenditures total in the General table.

Test Automatically Generated Text for Accuracy

We tested if the federal program name column in the CFDA table for 2021 audits was populated. The Census Bureau added the column with the release of the 2019 FAC data collection form, to create consistency in the federal program name and make data analysis easier. The Census Bureau populated the column based on a lookup table. We determined whether the federal program name column was populated or not populated, and whether the corresponding CFDA number for that entry

⁸A cluster of programs, such as the research and development cluster, is a grouping of closely related programs that share a common compliance requirement. 2 C.F.R. § 200.1.

was found in a reference table we obtained through SAM.gov. We then identified instances where the federal program name column was populated, but its corresponding CFDA number was not identified in our reference table, as well as the opposite: when the federal program name column was not populated, but the CFDA number was identified in our reference table. Both instances are unexpected and could represent data reliability issues.

Test results. We identified some evidence for inaccuracy and incompleteness in the federal program name in the CFDA table field based on our CFDA reference table from SAM.gov. We used our SAM.gov reference table to identify CFDA program names for our data preprocessing to avoid issues of missing program names when the CFDA number is identifiable.

We identified 126 CFDA numbers that had been used for 2019 or 2020 audits that did not have a federal program name entry in any audit. These were also CFDA numbers that were identified in our SAM.gov CFDA reference. These could represent CFDA numbers that are missing from the Census Bureau's federal program name list. The 126 numbers represent about 5.7 percent of the known federal program names in the Census Bureau's data.

We also identified 1,360 CFDA numbers where the federal program name appeared in some audits but not others. The Census Bureau explained that some of these instances may be due to audits being revised.

Test Federal Expenditure Column for Negative or Low Entries

We tested the column containing federal expenditures in the CFDA table to determine if

- dollar amounts of federal expenditures in the FAC were negative or had negative totals when aggregated by recipient, audit in a given year, or federal program, which would be unexpected, or
- the amounts for expenditures in a fiscal year were less than the single audit threshold of \$750,000 or more as the Uniform Guidance prescribes.

Test results. We identified some evidence for negative expenditures, negative aggregations, and recipient expenditures in a given year under the Uniform Guidance threshold. We identified no related data reliability issues from this test for analyzing the severity and persistence of single audit findings because negative expenditures can legitimately occur in the FAC and are unlikely to affect our analysis at the highly aggregated level.

Some of our statistical analyses calculated totals at the audit level, where negative expenditures can have a larger effect. In those cases, only positive valued expenditures were summed for modelling factors to avoid negative totals and properly calculate proportions with the total expenditures as the denominator.

Specifically, we identified 84,357 negative and 9,708 zero-dollar expenditure amounts in the FAC CFDA table. Negative expenditures are allowed to be recorded in the FAC and occur as a relatively small percentage of rows and expenditures, accounting for 2 percent and less than 1 percent, respectively. When totaling all federal expenditures by recipient or by individual audit, we found no cases where total expenditures were negative. However, when totaling all federal expenditures by federal program, using CFDA number, we found totals that were negative (1,465, or about 5 percent, of unique CFDA numbers). Most of these negative expenditures did not follow the standard CFDA format.

We also identified 4,573 expenditures where the amount listed for total federal expenditures for a recipient was below the single audit threshold of \$750,000 in 2015. Almost all these under-threshold expenditures occurred in 2015, which was part of a transition period from the prior single audit threshold of \$500,000.⁹ All of the records that were under the \$750,000 threshold were in a range from \$500,000 to \$749,963.

Test That Records Are in the Correct Audit Year

We conducted two tests related to the audit year column:

- We tested that the audit year for each FAC record matched the fiscal year-end the recipient reported in the General table.
- We tested that the audit year column in each FAC table matched the year in the table's file name.¹⁰ For example, we tested that all audits from the 2019 General table listed 2019 as their audit year.

Test results. We identified some evidence for fiscal year-end dates that did not match FAC audit years and no evidence for records of audit years outside of the expected table. We determined that these issues do not

⁹The issuance of the Uniform Guidance, effective on December 26, 2013, raised the expenditure threshold from \$500,000 to \$750,000. See 78 Fed. Reg. 78,590 (Dec. 26, 2013). One FAC record in audit year 2016 was under the threshold, making the total under the \$750,000 threshold 4,574.

¹⁰The Census Bureau provided FAC data in .zip files for each year. Each .zip file contained a text file for each FAC table that year with the year included in the file name.

pose a risk to data reliability for analyzing the severity and persistence of single audit findings. We did not use these dates in our analysis, and the errors identified occurred in a very small percentage of rows.

We tested all 14 tables of the FAC to determine if the source table identifying the audit year matched the audit year column in that table. All records in all 14 tables matched as expected.

We identified three cases where the audit year listed on the General table did not match the recipient's reported fiscal year-end date.¹¹

¹¹Our date order and audit year tests identified two records that appeared to be in error in both tests. The date order found an additional record that appeared to be an error only for that test, and the audit year test found an additional record that appeared to be an error only for that test.

Appendix III: Tests of Federal Audit Clearinghouse Single Audit Data Consistency

GAO's guide, *Assessing Data Reliability*, defines consistency as "whether data are sufficiently clear and well defined to yield comparable results in similar analyses."¹ This appendix presents descriptions and results of a series of tests related to the consistency of data in the Federal Audit Clearinghouse (FAC). For the purposes of reporting, we classified the following tests under consistency and grouped them as follows:

- **Tests for Duplication**
- **Tests for Consistent Data Entry**
- **Test for Consistency with Other FAC Information**

We identified some evidence of consistency issues that could affect the reliability of the data across several types of tests. Issues we identified in these tests could also affect other aspects of data reliability, such as accuracy and completeness (see apps. II and IV, respectively). However, based on these tests and our use of the data in this report, we found the data reliable for analyzing the severity and persistence of single audit findings unless otherwise indicated.

Tests for Duplication

These tests examined the data for evidence of duplication. For example, we tested for rows of data that were entirely duplicated and duplicated data where we expected to see unique entries, including audits, findings, or expenditures.

Duplicated data are not consistent with expected values in the FAC and could indicate data entry errors. We assessed the consistency of FAC data by testing the FAC for duplicative information in (1) whole data rows and (2) unique identifiers.

Test for Duplication of Whole Rows of Data

We tested all 14 FAC tables for completely duplicated rows. Specifically, we tested for instances where multiple rows in a table contained identical information in all columns and counted the number of extra (duplicated) rows that existed.

Test results. We identified no evidence for duplicated rows for 12 of the 14 tables, and some evidence for duplicated rows in two tables. Specifically, we identified two of the 14 tables in the FAC that contained completely duplicated rows: the Agency table and the Passthrough table. We found the following in each table:

¹GAO, *Assessing Data Reliability*, [GAO-20-283G](#) (Washington, D.C.: Dec. 2019).

- **Agency table.** We identified 17 duplicated rows, 16 of which occurred in 2015 and one of which occurred in 2017. This duplication represented 0.006 percent of all the rows in the table.
- **Passthrough table.** We identified 30,237 duplicated rows (1.2 percent) of all rows in the table. Duplication appeared in all years for the Passthrough table but was a consistently small portion of the duplication in each year.²

Test for Inappropriate Duplication of Unique Identifiers

We tested the columns that when combined uniquely identify³ audits, findings, and expenditures in four selected tables of the FAC: General, Catalog of Federal Domestic Assistance (CFDA), Findings, and Findings Text tables. In the four selected tables, we conducted the following tests.

1. **General table.** We tested two columns for inappropriate duplication: (1) DBKEY (uniquely identifies recipients) and (2) audit year. Together, these two columns allow a user to uniquely identify audits.
2. **CFDA table.** We tested DBKEY, audit year, and ELECAUDITSID for inappropriate duplication. Together, these columns allow a user to uniquely identify federal expenditures.
3. **Findings table.** We tested DBKEY, audit year, the linking identifier for CFDA records and findings, as well as the findings reference number. Combining DBKEY, audit year, and finding reference number allows a user to uniquely identify a finding within an audit. According to U.S. Census Bureau officials, it may be possible that some of these entries were valid, for example, if different agencies in a state government reported findings for the same program with slightly different audit opinions. However, it is likely an error in reporting. Our test counted only the number of times this duplication occurred. We were not able to determine the cause of duplication because we reviewed only the data and did not review the full single audit reports.

²The Passthrough table tracks information on funds provided to pass-through entities. A pass-through entity is a nonfederal entity that provides a subaward to a subrecipient to carry out part of a federal program. 31 U.S.C. § 7501(a)(15); 2 C.F.R. § 200.1.

³A unique identifier is an identifier that marks a particular record as unique from every other record. Any analysis that calls for combining or linking data from more than one dataset by, for example, using a unique identifier could have data analysis or reliability considerations.

4. **Findings Text table.** We tested DBKEY, audit year, and the findings reference number.⁴

Test results. We identified some evidence of duplicate identifiers in the Findings and Findings Text tables (two out of the four tables tested). We summarized the severity of a finding across a set of expenditures; the persistence of a finding is not traceable to the expenditure level. Moreover, to avoid double-counting expenditures linked to a finding, we uniquely identified the expenditures (using the expenditure identifier) linked to a finding and totaled the expenditure amounts for those unique expenditures.

We found no evidence of inappropriate duplication in the General or CFDA tables but found potential inappropriate duplication in other tables. Specifically:

- **Findings table.** The Findings table contained multiple instances of an expenditure, identified by its unique identifier, being repeatedly linked to the same finding reference number, identified by its unique identifier. This resulted in \$114 billion of federal expenditures that could be counted multiple times when combining data from the Findings and CFDA tables. In some cases, we identified instances where duplicated unique identifiers contained different information related to the findings.
- **Findings Text table.** This table contained one audit with findings text separated into multiple rows. This is the only instance that we found of repeated identifier entries.

Tests for Consistent Data Entry

These tests examined data entered in related columns in FAC tables for logical consistency. For example, we tested data entered for the DBKEY—a variable that uniquely identifies recipients that submit single audits—for inconsistent data entries in columns like the name of the recipient.

Inconsistent data entered in related FAC data columns could indicate data entry errors. We assessed the consistency of data entered in FAC column values by testing (1) unique identifiers, (2) audit opinion and

⁴The Findings Text table does not contain the linking identifier for CFDA records and audit findings.

major program determinations, (3) cluster names, and (4) other related columns.

Test for Consistent Data Entry by Unique Identifiers

We tested the consistency of data entered based on unique identifiers in three data tables: the General table, the CFDA table, and the Findings table. For each table, we tested the following columns:

- **General table.** The General table includes information on audit submissions, and the column DBKEY identifies recipients that submit single audits to the FAC. A recipient appears multiple times in this table because of multiple entries with different audit years. We tested recipients for inconsistent entries of information about their organization, in the following columns:
 - Employer Identification Number,
 - Data Universal Numbering System number,
 - Recipient Name, and
 - Entity Type.
- **CFDA table.** The CFDA is a government-wide list of federal programs, projects, services, and activities that provide assistance or benefits to a variety of recipients. The CFDA column identifies the federal agency and specific program. We tested the CFDA table for inconsistent entries of information about the program, in the following columns:
 - Major Program Designation and
 - Major Program Opinion.
- **Findings table.** The Findings table contains information on the findings associated with each audit report. The columns DBKEY, audit year, and findings reference number combine to allow the user to identify specific findings for a given audit. We tested findings with the same findings reference number for inconsistent entries about the finding, in the following columns: Modified Opinion, Other Noncompliance, Material Weakness, Significant Deficiency, Other Findings, Questioned Costs, Repeated Finding, and Prior Finding Reference Number.

Test results. We conclude based on our analysis that issues from inconsistent data entry for the same unique identifier do exist in the FAC tables we tested. These consistency issues are generally a small portion of entries in the FAC, less than 1 percent for several columns tested. Some tested columns, such as recipient name and type of entity, had

higher percentages of inconsistent entries. The percentage of inconsistent results (multiple values for a given identifier) are shown in table 7.

Table 7: Percentage of Inconsistent Entries of Data by Unique Identifying Column in Selected Federal Audit Clearinghouse Tables

Table	Unique identifier	Column tested	Percentage of inconsistent results
General	Recipient ^a	Employer Identification Number	1.4
General	Recipient ^a	Data Universal Numbering System Number	3.9
General	Recipient ^a	Recipient Name	30.7
General	Recipient ^a	Entity Type	11.4
Catalog of Federal Domestic Assistance (CFDA)	Federal program ^b	Major Program Designation	0.9
CFDA	Federal program ^b	Major Program Opinion	0.1
Findings	Finding ^c	Modified Opinion	0.5
Findings	Finding ^c	Other noncompliance	0.5
Findings	Finding ^c	Material Weakness	0.2
Findings	Finding ^c	Significant Deficiency	0.2
Findings	Finding ^c	Other Findings	0.1
Findings	Finding ^c	Questioned Costs	0.6
Findings	Finding ^c	Repeat Finding	0.8
Findings	Finding ^c	Prior Finding Reference Number	0.2

Source: GAO analysis of data from U.S. Census Bureau. | GAO-24-106173

^aRecipient is uniquely identified by the DBKEY column in the General table. Results check for inconsistent entries for a given DBKEY.

^bFederal program is uniquely identified by the CFDA column in the CFDA table. Results check for inconsistent entries for a given CFDA.

^cA finding for a given audit is uniquely identified by a combination of columns in the Findings table: DBKEY (recipient), Audit Year (which helps identify the specific audit), and finding reference number (identifier for a specific finding).

Test for Internal Consistency of Audit Opinion and Major Program

We tested for inconsistencies between the given Major Program Opinion on compliance with award requirements in the General and CFDA tables compared with its findings in the Findings table. The Major Program Opinion should be a summary of the findings, where audits with Unmodified (“U”) opinions should not have any findings where the Modified Opinion field is a “Y.” Similarly, we also tested that audits with

Modified (“Q,” “D,” and “A”) opinions have at least one finding where the Modified Opinion field is “Y.”

Test results. We identified some evidence of inconsistency between the Major Program Opinion in the General table and the Findings table. We found two types of inconsistencies:

- **Major program audits marked as unmodified that had audit findings in the Findings table.** We identified 687 audits that were marked as having an unmodified opinion on compliance with award requirements in the General table, while the Findings table contained modified opinions on compliance with award requirements for findings.
- **Major program audits marked as having modified opinions that did not appear in the Findings table.** We identified 488 audits marked as having modified opinions on compliance with award requirements in the General table of the FAC that did not have a modified finding in the Findings table.

Test for Internal Consistency of Cluster Names

We tested the consistency of the use of the State Cluster Name column and the Other Cluster Name column with the more general Cluster Name column. These columns are from the CFDA table. If a CFDA number has a text entry in the State Cluster Name column, then that number should have a corresponding entry titled State Cluster in the Cluster Name column for that recipient. Similarly, if a CFDA number has a text entry in the Other Cluster Name column, then we expected to see a corresponding entry titled Other Cluster Not Listed Above or Other Cluster for that number in their Cluster Name column. We tested to determine if that was always the case.

Test results. We identified no evidence of a data reliability risk related to using the State Cluster Name column in the CFDA table of the FAC and some evidence for a data reliability risk with the Other Cluster Name column.

For the State Cluster column, we found 4,466 CFDA numbers that had an entry titled State Cluster in their Cluster Name columns. We determined that each of those entries had a nonblank entry in its corresponding State Cluster Name column.

We found the phrases “Other Cluster” and “Other Cluster Not Listed Above” appeared on the Cluster Name column for 9,790 entries in the CFDA table. However, of those 9,790, we identified 975 entries (about 10

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percent) that had a blank entry in their corresponding Other Cluster Name column.

Test for Internal Consistency across Other Related Columns

We identified several related columns in FAC data tables that have logical relationships. Generally, we tested the data in the first column for a given value and then compared them to the data in the second column (or group of columns) to confirm that they have an expected logical value. See table 8 for the specific tests.

Table 8: Tests for Logical Consistency between Related Columns in the Federal Audit Clearinghouse (FAC)

Test	FAC table(s)	First column name	First column value	Related column(s)	Related column(s) value
1	General	Period covered by the audit ^a	“Other”	Number of months covered by the audit	Number of months should have an entry
2	General	Special purpose framework required ^b	“Y”	Type Report Special Purpose – Auditor’s opinion Special Purpose Framework – Type of framework	Both columns describing the auditor’s opinion and type of framework should have an entry
3	General and Findings	General - Questioned Costs ^c	“Y”	Findings – Questioned Costs	“Y”
4	Catalog of Federal Domestic Assistance	Passthrough award ^d	“Y”	Passthrough Amount	Passthrough amount should have an entry
5	Findings	Repeat findings ^e	“Y”	Prior Findings Reference Number	Prior Findings Reference Number should have an entry

Legend:
Y: Yes;
Other: Other.

Source: GAO analysis of data from U.S. Census Bureau. | GAO-24-106173

^aPeriod covered refers to the period that a given audit covers; this column can have three values: annual, biennial, or other. If the “other” option is entered, we would expect the related column number of months to have an entry describing the period covered.

^bAudits can use different frameworks as the basis of accounting. The special purpose framework required column indicates if that framework is used as a basis for accounting. If this column has a “Y,” the related framework column would list the special purpose framework used, such as cash basis, tax basis, regulatory basis, contractual basis, or other basis. Similarly, the type report special framework column should identify the auditor’s opinion on the special purpose framework. When the special purpose framework required column has a “Y,” those two columns should have entries.

^cAudits that identify questioned costs have columns identifying questioned costs in the General and Findings table, which indicate whether the audit disclosed any known questioned costs (Y/N). Within the General table, the questioned costs column indicates whether any questioned costs were identified in the audit, including all possible findings. Within the findings table, questioned costs are identified at the expenditure finding level, and as a result, a single audit can contain multiple questioned costs. These two tables should consistently identify audits with questioned costs.

^dNonfederal entities may pass federal funds using a subaward to a subrecipient to carry out part of a federal program. The CFDA table has a column indicating whether entities passed through funds to subrecipients. If this column has a “Y,” the related passthrough amount field should have an entry noting the amount passed through.

^oAuditors submitting information to the FAC on the FAC data collection form are instructed to identify whether a finding is a repeat finding from the prior year. The Findings table captures this information in two columns: repeat finding and prior finding reference number. If the repeat findings column has a "Y," then the prior findings reference number should have an entry.

Test results. We identified some consistency issues across related columns. Four of our five tests listed above did not identify any consistency issues. For the third test of questioned costs, all cases in the General table marked with a "Y" had a corresponding questioned costs entry in the Findings table. However, we found 15 cases with questioned costs in the Findings table that were not identified with questioned costs in the General table. These all occurred in 2015.

Test for Consistency with Other FAC Information

This test examined the cognizant agency listed in the FAC database for each recipient and compared it to a list of cognizant agencies that the Office of Management and Budget (OMB) developed. Specifically, it tested the information in the database against a publicly available spreadsheet.

The extent to which the cognizant agency is consistent between the FAC and OMB sources affects federal agency officials' ability to accurately determine the level of oversight needed for a recipient.

We tested the consistency of recipients' identified cognizant agency entered into the FAC database against a spreadsheet containing a list of recipient cognizant agencies OMB prepared that was available on the FAC website for audit year 2021 (OMB list). Based on the *Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards* (Uniform Guidance) requirements, OMB assigns cognizant agencies every 5 years. We used OMB's list from 2021 for our analysis. This analysis excludes audits of recipients that did not have a cognizant agency assigned and were listed as having an oversight agency in audit year 2021.

Test Results

We identified some evidence for misrepresented cognizant agencies in the FAC. There were discrepancies between what was reported in the OMB list and in the FAC dataset. We determined that this issue does pose a risk to data reliability for analyzing the severity and persistence of single audit findings in the context of cognizant agencies. There is not currently a definitive answer for what is the cognizant agency for some recipients.

There were 1,884 audits with a listed cognizant agency in the FAC's General table for the year 2021.⁵ Most audits, 1,656, with a listed cognizant agency in the FAC's General table matched the OMB list. However, we identified three types of inconsistencies between the OMB list and the FAC data table.

1. **Inconsistent cognizant agency in each source.** In 2021, there were 201 recipients based on the FAC DBKEY (10.7 percent) with different cognizant agencies in the General table and the OMB list. For example, a recipient may have the Department of Veterans Affairs listed as its cognizant agency in the FAC data but have the Department of Housing and Urban Development listed as its cognizant agency on the OMB list.
2. **Audited entities listed in FAC data that do not appear in the OMB list.** In 2021, there were 27 recipients based on the FAC DBKEYs (1.4 percent) that were not linked to a cognizant agency in the OMB list.
3. **Audited entities listed in the OMB list that do not appear in the FAC data.** There were 217 DBKEYs (10.5 percent of the OMB list) in 2021 that were listed in the OMB list but did not have a listed cognizant agency in the General table of the FAC. The 217 auditees were all listed in the FAC as having an oversight agency because none of them expended greater than \$50 million in 2021.

⁵This analysis excludes oversight agencies.

Appendix IV: Tests of Federal Audit Clearinghouse Single Audit Data Completeness

GAO's guide, *Assessing Data Reliability*, defines completeness as the "extent to which relevant data records and fields are present and sufficiently populated."¹ This appendix presents descriptions and results of a series of tests related to the completeness of data in the Federal Audit Clearinghouse (FAC). For the purposes of reporting, we classified the following tests under completeness:

- **Tests for Missing Data in FAC Table Columns**
- **Test for Missing Linkages between FAC Tables**

Our tests of the FAC identified some evidence of completeness issues that could affect the reliability of the data across several types of tests.² Issues identified in these tests could also affect other aspects of data reliability, such as accuracy and consistency (see apps. II and III, respectively). However, based on these tests and our use of the data in this report, we found the data reliable for analyzing the severity and persistence of single audit findings unless otherwise indicated.

Tests for Missing Data in FAC Table Columns

These tests examined columns of FAC tables for potentially missing data where they would be expected to exist. For example, we tested for both missing values in columns overall and missing values related to specific data points, such as identifiers for COVID-19-related expenditures.

The extent to which FAC data are complete affects federal agencies' ability to obtain sufficient information related to their recipients' single audits. We assessed the completeness of the FAC data by testing for missing data related to (1) common missing values, (2) references to prior findings, (3) COVID-19 identifiers, and (4) text of audit findings.

Test for Common Missing Values

We tested for missing values using multiple ways for data to be labeled as missing. This includes computer coded as missing; blank text; or written text indicating that data are missing, such as "not applicable."³ We tested all columns of selected tables (General, Catalog of Federal Domestic Assistance (CFDA), Findings, Findings Text, Certified Public

¹GAO, *Assessing Data Reliability*, [GAO-20-283G](#) (Washington, D.C.: Dec. 2019).

²We also checked for potentially missing single audit submissions and identified two single audit reports that were not posted to the FAC as required. However, we were unable to systematically identify a complete population of missing single audits with the data available.

³Computer coded refers to a special value that indicates missing data in the programming language used for the analysis.

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Accountant (CPA), and Passthrough) from 2015 through 2021. The FAC data documentation and instructions will sometimes allow recipients to use “NA” or “Not Applicable” as a valid response or not enter information. We excluded these cases from our counts of missing data. For example, some variables collect information on a major program. Because all programs are not designated as major programs, data would not be expected to be entered for all programs. This test checked for an entry in a column but did not verify the accuracy or consistency of those entries.

Test results. We identified some evidence for missing values in columns of selected FAC tables. We found that all six of the selected FAC tables had some columns with missing values. After excluding columns that were expected to contain some missing values, the number of unexpected missing values was 28 of 135 columns across all six selected FAC tables.

Most of those columns had a small percentage of missing values (less than 0.5 percent). Specifically, 6 of 28 columns were missing more than 0.5 percent of the values in the table. While any missing data are a potential threat to data reliability, we focused our analysis on columns with more than 0.5 percent of the values missing. See table 9 for the columns that our analysis identified had unexpected missing data (see table 9).

Table 9: Columns with Unexpected Missing Data from Selected Federal Audit Clearinghouse (FAC) Tables

Source of column	Relevant columns with more than 0.5 percent missing data	Percentage of entries missing
Entered by auditors or recipients with unexpected missing data	CPAFIRMNAME	0.6
	AUDITEEMAIL	0.5
	CPAEMAIL	0.5
Census Bureau generated values with unexpected missing data	CFDAPROGRAMNAME ^a	11.5
	CLUSTERTOTAL	31.8
	PROGRAMTOTAL	10.8

Source: GAO analysis of data from U.S. Census Bureau. | GAO-24-106173

Note: FAC columns missing less than 0.5 percent are not listed.

^aCensus Bureau added the CFDAPROGRAMNAME in 2019. Years before 2019 had a higher percentage of missing values. The table presents the percentage of missing entries from 2019 through 2021.

Several of the columns with missing data had a greater occurrence of missing values in earlier years of data collection, with completeness

improving over time. For example, missing values in the automatically generated columns were most common in earlier years, and data completeness improved over time.

Test for Prior Finding Reference Number

When a repeat finding is reported in a single audit, the auditor is supposed to provide the prior finding reference number (PFRN), which identifies the finding from the prior year that is being repeated and serves as a link from the repeated finding in the current year to the previously reported audit finding. The expected format of the PFRN is YYYY-###, with YYYY representing the audit year, and ### an auditor-generated three-digit number starting with 001.

We tested that each of the PFRNs from 2016 through 2021 audits matched to a prior finding for that recipient. To do so, for PFRNs where the year (YYYY) was greater than or equal to 2015, we identified the prior audits relative to when the PFRN was reported for the same recipient and checked that the given PFRN matched a findings reference number in those prior audits. For example, if a recipient's 2021 audit contained a repeat finding reported with PFRN 2020-001, we ensured that a findings reference number of 2020-001 from their audits prior to 2021 existed in the FAC data.

Further, we noted whether there were any prior audits available for the recipient. If prior audits were available, then a finding may have been missing from the final report (or inaccurately labeled), or a specific year of audits may be missing or not submitted to the FAC. However, if no prior audits were available, then the test could suggest that there are audits missing from the FAC data. It is important to note that we cannot determine the cause of potentially missing PFRNs solely by this factor and test whether a recipient was required to submit a single audit in prior years.

Test results. We identified some evidence for a data reliability risk related to completeness due to unidentifiable audits and findings using the given prior finding reference numbers. We determined that this issue does pose some risk to data reliability for analyzing the severity and persistence of single audit findings. If audits and findings are missing or not identifiable, we may underestimate the true number of prior audits that a finding was linked to through prior finding reference numbers and therefore underestimate the true number of persistent findings. However, this does not prevent us from identifying persistent findings with the FAC data that are available or analyzing persistent findings for our purposes.

**Appendix IV: Tests of Federal Audit
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We identified 1,303 audits that contained PFRNs that were not matched to their prior years' FAC data from 2016 through 2021, as table 10 shows. For example, we identified when a 2021 audit with PFRN 2020-001 did not have a corresponding finding identified as 2020-001 in the recipient's audit data prior to 2021.

Table 10: Count and Percentage of 2016–2021 Audits with Missing Prior Findings Reference Numbers (PFRN)

Year	2016	2017	2018	2019	2020	2021	Total
Total number of audits	36,984	36,898	36,993	37,251	39,657	43,179	230,962
Audits with findings	6,818	6,816	6,647	6,306	6,071	6,876	39,534
Audits with PFRNs that were not match-able	287	238	221	230	162	165	1,303
Percentage of audits with findings with a PFRN that was not matchable	4.2%	3.5%	3.3%	3.6%	2.7%	2.4%	3.30%

Source: GAO analysis of data from U.S. Census Bureau. | GAO-24-106173

Test for Complete COVID-19 Identifiers

This test sought to identify the extent to which FAC data contained the necessary identifiers to designate expenditures as being related to COVID-19 relief funding. The Office of Management and Budget (OMB) Compliance Supplement issued in August 2020 directed entities reporting to the FAC to include “COVID-19” in the data collection form on each expenditure line associated with COVID-19 relief funds.⁴

Specifically, we tested the completeness of this reporting in the data by determining if entities identified expenditures related to COVID-19 using “CARES Act” or “Coronavirus” instead of “COVID-19.” It is important to note that this was not a comprehensive test of all possible alternatives for identifying COVID-19 expenditures, given the naming variations that could be possible (i.e., COVID, CARES, C19, etc.).

Test results. We identified some evidence for alternative identifiers that entities may have used to identify COVID-19-related expenditures. The rate at which the phrases CARES Act or Coronavirus were used but were not identified as a COVID-19 expenditures is very small (less than 1 percent of expenditures), and the definitions of severity and persistence do not depend on this field. Estimates of COVID-19-related expenditure totals may be affected but are reliable enough for our report.

⁴Office of Management and Budget, “Other Audit Advisories” app. VII of 2 C.F.R. Part 200, Appendix XI Compliance Supplement (Aug. 2020).

Examples we identified of federal program names reported in the FAC data as containing expenditures referring to Coronavirus or CARES Act, instead of COVID-19, which OMB's 2020 Compliance Supplement specified, included Coronavirus State and Local Fiscal Recovery Funds, Coronavirus Food Assistance Program, and Section 8 Housing Choice Vouchers.

Test for Completeness of Findings Text

We tested the findings text column in the Findings Text table from 2019 through 2021 for evidence of incompleteness.⁵ Specifically, we searched the findings text column for examples where the text provided no or minimal detail and referred the reader back to the single audit report, which is a .pdf document. This search was based on keywords and phrases, such as “see,” “on pdf,” and “of pdf,” and a text length of less than 100 characters.⁶ While this provides evidence of potential completeness issues in findings text, this approach of searching for specific phrases does not capture every case where text may be incomplete.

Test results. We identified some evidence of incomplete findings text and redirection to the single audit report. We identified at least 134 examples of findings text that redirects the reader to the audit report with no or little additional detail. For example, in some cases auditors only entered “See Schedule of Findings and Questioned Costs for chart/table” without any additional information describing the finding. The Census Bureau's instructions allow auditors to refer to charts in the audit report, but there are specific instructions to describe the finding and not just reference the report.

Test for Missing Linkages between FAC Tables

This test examined unique identifier columns in FAC tables where links between two tables were missing. For example, we tested whether the Findings table with general information about a finding links completely to the Findings Text table, which contains narrative text describing the audit finding.

⁵We did not test the completeness of findings text for years before 2019 because the FAC began collecting findings text in 2019. The scope of this test covered all available findings text through 2021.

⁶In addition, we searched text for the elements of a finding—condition, criteria, cause, and effect—and found cases where these were not identifiable. However, there is not a standardized format for auditors to follow when presenting elements of a finding; therefore, we do not present the results as a potential data reliability error in this appendix.

The extent to which the FAC data can be appropriately linked affects decisions about reliability and requires considering the quality of data matches. We assessed the completeness of the FAC data by testing for missing linkages between selected FAC tables.

Recipients submit their single audit data to the FAC by completing the data collection form (SF-SAC). The FAC splits the data collected from all data collection forms and stores that information across multiple tables. Each table holds a different aspect of the information. For example, the Findings table contains findings information from each audit report.

Columns that contain audit-specific identifying information hold the values that allow information in different audit tables to be merged back together as one. We checked that all values of these identifying columns were present and accounted for as we merged data together from selected tables in the FAC: General, CFDA, and Findings.

We tested the merge between two tables at a time. We checked the data for complete identifying columns in the selected tables of the FAC from 2015 through 2021.

Test results. We identified some evidence for incomplete merges between tables in the FAC. Only one CFDA row did not match to the Findings table, and the Agency, Passthrough, and Findings Text/Corrective Action Plan (CAP) Text tables were not used for our summarization in this engagement.⁷

Below we include results of incomplete merges between selected FAC tables where at least 100 records did not merge.

- General table to Agency table
 - A total of 1,687 audits from the General table were not identifiable in the Agency table. Most of these were 2019 audits (1,370), with no identified cases in 2021 audits.
- General table to Notes table
 - A total of 132 audits from the General table were not identifiable in the Notes table.
- CFDA table to Passthrough table

⁷CAP Text refers to the text of the CAP developed for a finding.

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- A total of 300,099 expenditures from the CFDA table were not identifiable in the Passthrough table; however, 296,744 (about 99 percent) of those expenditures were from the 2015 data, indicating that this issue was largely resolved in subsequent years.⁸
- A total of 732 entries from the Passthrough table were also not identifiable in the CFDA table. We observed that the number of unidentifiable pass-through entries in the CFDA table increased year to year in 2015 to 2021 data.
- Findings table to Findings Text table
 - A total of 310 findings from the Findings table were not identifiable in the Findings Text table.
 - A total of 88 Findings Text table entries were not identifiable in the Findings table.
- Findings table to CAP Text table
 - A total of 316 findings from the Findings table were not identifiable in the CAP Text tables.
 - A total of 101 CAP Text table entries were not identifiable in the Findings table.

⁸According to Census Bureau officials, most 2015 single audit submissions would have been subject to the guidance contained in OMB Circular No. A-133 (now superseded by the Uniform Guidance), which did not require collection of pass-through information.

Appendix V: Risk Modeling

Model for Government-Wide FAC Data Analysis

To identify federal award expenditures linked to severe and persistent single audit findings reported in the Federal Audit Clearinghouse (FAC), we developed a risk model for government-wide data analysis. Such an analysis could be performed to allow agencies to proactively identify risk to help focus resolution efforts. We chose to analyze the risk of a 2019 finding being unresolved in 2020 to provide an illustrative example of how modeling could identify ongoing risk factors to expenditures of federal funds. We selected a parsimonious description of the model to best identify the most important factors.

We first created a model matrix to analyze factors that could predict the resolution of 2019 findings in 2020 audits. We structured the model data so that each row was a finding in 2019 and the model outcome was the resolution status of the finding in 2020. If we found that a 2019 finding was used as a prior finding reference number in a 2020 audit, then we considered it to be unresolved; otherwise, we considered it resolved. We only used findings in our model if (1) we identified a 2020 audit for the same recipient in our dataset and (2) the finding was associated with direct expenditures from a federal agency. We also removed findings that were missing or had a blank compliance area.¹ Overall, we included 7,708 findings in our model matrix.

We analyzed the following factors for each finding: the recipient's compliance audit opinion and compliance area of the finding; whether the finding was repeated, persistent, or severe; questioned costs reported; agencies linked to the finding's related expenditures; whether multiple agencies were linked to the finding's related expenditures; if direct expenditures were passed through to a subentity; the recipient's financial statement audit opinion; if the recipient reported that it was a state or local government entity type; and the cognizant agency assigned.

All factors were coded as 0 or 1 indicator variables. Because a finding can be linked to multiple expenditures from the same recipient, we summarized the findings details across its expenditures. For example, if a finding was reported as a repeat finding for expenditures from one agency but not another, we considered the finding as a repeat finding when fitting our model. We removed any factors that did not result in at least 15 observations for each level of the factor.

¹Compliance area refers to the specific compliance requirement that an auditor was testing that generated the audit finding.

We also included one continuous predictor variable, which was the proportion of direct expenditures related to the finding in relation to the recipient's total direct expenditures. This is a value between 0 and 1. For example, a value of 1 for this proportion would mean that a finding was linked to all direct expenditures that a recipient reported. Overall, 74 explanatory variables were included in the model matrix. We analyzed this dataset using logistic regression models, where a "1" in the response variable indicated the finding was unresolved in the 2020 audit.

We used a method based upon the least absolute shrinkage and separation operator (LASSO) penalty for regularization over our set of candidate explanatory variables. Regularization is the strategy of penalizing model complexity (where a larger number of model factors is a more complex model) to enumerate a list of candidate models at a sequence of penalty values. LASSO adds a penalty term based on the absolute value of the coefficients that are in the model. The penalty weight is typically denoted as λ , and the penalty may result in many of the coefficients being shrunk toward zero. Dropping out coefficients from the model results in a more parsimonious description of the model, and due to the penalty, the remaining coefficients have evidence that their impact on model fit outweighs their increase on model complexity at a candidate penalty weight.

We selected a model based on the lambda (λ) value that minimized the Bayesian Information Criteria (BIC). The BIC tends to lead to simpler models with fewer factors, which better suited our goal of identifying the most important factors that predicted findings resolution between 2019 and 2020. We compared our model results between a corrected Akaike Information Criterion minimizing model and our BIC minimizing model to evaluate whether the BIC model had markedly different predictive performance but did not observe a large difference (see table 11). We opted for a more deterministic approach to select our λ using all our observations and the BIC (instead of a cross-validation approach) because of our inferential goals. Other modelers and applications will need to consider what approach meets their goals.

Table 11: Comparison of Model Features and Accuracy between AICc and BIC Models

Model λ selection metric	Number of parameters	Overall in-sample accuracy ^a
AICc minimizing	43	71.1%
BIC minimizing	11	70.4%

Legend: AICc = corrected Akaike Information Criterion; BIC = Bayesian Information Criterion.

Source: GAO analysis of data from U.S. Census Bureau. | GAO-24-106173

^aFindings were grouped into “Resolved” and “Unresolved” groups based on whether their predicted probability of being unresolved was greater than 0.5.

We present a breakdown of the overall in-sample accuracy for our BIC minimizing model in table 12, comparing the known and predicted outcomes for our 2019 findings.

Table 12: Comparison of Known and Predicted Outcomes for 2019 Single Audit Findings

		Bayesian Information Criteria minimizing model prediction	
		Resolved	Unresolved
Known 2020 resolution status	Resolved	4,688	506
	Unresolved	1,779	735

Source: GAO analysis of data from U.S. Census Bureau. | GAO-24-106173

From the table above, out of the overall total of 7,708 findings, 2,514 (33 percent) of them were unresolved in 2020. Our model predicted that 1,241 of our findings would remain unresolved, and 735 (59 percent) of those predictions were correct. Our model factors were able to identify a subset of findings where the rate of unresolved findings was almost twice what it is in the starting population. By successfully distinguishing unresolved findings, the model could, for example, help an agency to prioritize audit resolution efforts more efficiently or a program office identify high-risk recipients based on their predicted probability of findings resolution.

Lastly, we applied a postselection inference process that Taylor and Tibshirani described.² Their procedure generates estimates of coefficient p-values and confidence intervals for LASSO coefficients at a fixed

²J. Taylor and R. Tibshirani, *Post-Selection Inference for l1-Penalized Likelihood Models*, Can J Stat. 2018;46(1):41-61. doi:10.1002/cjs.11313 (Mar. 6, 2017: Ottawa, ON).

lambda. We generated these estimates using the lambda, which minimized the BIC.

Through the model, we identified several significant factors that contribute to a finding reported in 2019 remaining unresolved in 2020. These factors include (1) whether the finding is repeated or persistent;³ (2) whether the finding was severe, in that it contributed to a modified opinion or material weakness; (3) the proportion of direct expenditures related to the finding in relation to the recipient’s total direct expenditures; (4) the cognizant agency assigned to the recipient; and (5) the financial statement opinion that the recipient received. This model is one of many possible models that could be developed to show that government-wide risk analysis is possible and could yield valuable insights to federal agencies attempting to help recipients resolve findings from single audits. It is not intended for direct use by agencies, which federal standards require to develop risk controls relevant to their circumstances. Examples of significant factors and the range of estimated impact on the odds ratio (with a 90 percent confidence interval) of being unresolved are shown in table 13.

Table 13: Impact on Odds Ratio of Being Unresolved for Selected Model Factors

Factor	Lower limit of impact on odds ratio (90% CI)	Upper limit of impact on odds ratio (90% CI)
Finding was repeated for any expenditure	2.061	2.557
Finding was repeated in two prior, consecutive audits from 2015 through 2021 for any expenditure (persistent)	1.489	1.939
Finding contributed to a modified opinion or a material weakness for any expenditure	1.206	1.650
Finding represented both a modified opinion and a material weakness for any expenditure	1.202	1.605
Finding was in an audit with a significant deficiency on a recipient’s financial statements	1.270	1.547

Legend: CI = confidence interval.

Source: GAO analysis of data from U.S. Census Bureau. | GAO-24-106173

Note: The model predicted whether a finding in 2019 would be unresolved in a 2020 audit.

³For the purposes of our audit, we defined a finding as persistent if it is a repeat of a finding reported in two prior, consecutive audits. Persistence tracks if a finding was reported in multiple prior audits, and resolution is tracking if the finding will be reported again in the next audit.

Appendix VI: Comments from the U.S. General Services Administration

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The Administrator

March 26, 2024

The Honorable Gene L. Dodaro
Comptroller General of the United States
U.S. Government Accountability Office
Washington, DC 20548

Dear Comptroller General Dodaro:

The U.S. General Services Administration (GSA) appreciates the opportunity to review and comment on the draft report, *Single Audits: Improving Federal Audit Clearinghouse Information and Usability Could Strengthen Federal Award Oversight* (GAO-24-106173).

GAO made the following four recommendations to GSA.

1. The Administrator of GSA should develop a process to regularly identify, analyze, and respond to Federal Audit Clearinghouse (FAC) data reliability issues that may affect federal oversight, such as establishing edit checks to mitigate issues related to data accuracy, consistency, and completeness.
2. The Administrator of GSA should, in coordination with federal agencies and professional audit organizations, identify and prioritize features to enhance the usefulness of FAC data for federal oversight in accordance with federal data standards.
3. The Administrator of GSA should, in coordination with federal agencies, develop proposed funding and timelines for implementing the identified and prioritized features to enhance the usefulness of FAC data for federal oversight through interagency agreements or other methods.
4. The Administrator of GSA should, upon consulting with professional audit organizations, provide additional training to auditors and recipients to help ensure that they complete FAC data collection forms accurately, completely, and consistent with the audit report.

We agree with the recommendations from GAO. Many of these align with the process and product roadmap that GSA has established for the FAC, and GSA is committed to taking action to respond to data reliability issues with FAC data to increase its usefulness for Federal oversight.

U.S. General Services Administration
1800 F Street NW
Washington DC 20405-0002
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**Appendix VI: Comments from the U.S. General
Services Administration**

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If you have any additional questions or concerns, please do not hesitate to contact Gianelle E. Rivera, Associate Administrator, Office of Congressional and Intergovernmental Affairs, at (202) 501-0563.

Sincerely,



Robin Carnahan
Administrator

cc: James R. Dalkin, Director, Financial Management and Assurance
Taka Ariga, Director and Chief Data Scientist, Science, Technology
Assessment, and Analytics

Appendix VII: GAO Contacts and Staff Acknowledgments

GAO Contacts

James R. Dalkin, (202) 512-3133 or dalkinj@gao.gov

Taka Ariga, (202) 512-4968 or arigat@gao.gov

Staff Acknowledgments

In addition to the contacts named above, Michelle Philpott (Assistant Director), Andrew Kurtzman (Assistant Director), Laura DuFief (Auditor-in-Charge), Eric Charles, Teressa Gardner, Minsoo Kim, Vivian Ly, Beth Reed Fritts, Michael Tennenbaum, Jingxiong Wu, Carl Barden, and Anne Rhodes-Kline made significant contributions to this report.

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