U.S. Department of Education
Office of Inspector General

The Department's Compliance Under the DATA Act

November 13, 2019
ED-OIG/A19T0004

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Statements that managerial practices need improvements, as well as other conclusions and recommendations in this report, represent the opinions of the Office of Inspector General. The appropriate Department of Education officials will determine what corrective actions should be taken.

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UNITED STATES DEPARTMENT OF EDUCATION
OFFICE OF INSPECTOR GENERAL

Audit Services

November 13, 2019

TO: Denise L. Carter
Acting Assistant Secretary
Office of Finance and Operations

FROM: Bryon S. Gordon
Assistant Inspector General for Audit

SUBJECT: Final Audit Report, "The Department's Compliance Under the DATA Act," Control Number ED-OIG A19T0004

Attached is the subject final audit report that consolidates the results of our review of the Department's compliance under the DATA Act. We have provided an electronic copy to your audit liaison officer. We received your comments concurring with the findings and recommendations in our discussion draft audit report.

U.S. Department of Education policy requires that you develop a final corrective action plan within 30 days of the issuance of this report. The corrective action plan should set forth the specific action items and targeted completion dates necessary to implement final corrective actions on the findings and recommendations contained in this final audit report. Corrective actions that your office proposes and implements will be monitored and tracked through the Department's Audit Accountability and Resolution Tracking System.

In accordance with the Inspector General Act of 1978, as amended, the Office of Inspector General is required to report to Congress twice a year on the audits that remain unresolved after 6 months from the date of issuance.

We appreciate your cooperation during this review. If you have any questions, please contact Michele Weaver-Dugan, Regional Inspector General for Audit, Internal Operations/Philadelphia Audit Team at (202) 245-6941 or Michele.Weaver-Dugan@ed.gov.

Attachment

FINAL REPORT

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Results in Brief

What We Did

The objectives of our audit were to assess the (1) completeness, accuracy, timeliness, and quality of the financial and award data submitted for publication on USASpending.gov and (2) U.S. Department of Education's (Department) implementation and use of the Government-wide financial data standards established by the Office of Management and Budget (OMB) and U.S. Department of the Treasury (Treasury).

Overall Conclusion

We found that the Department's fiscal year (FY) 2019, first quarter financial and award data submitted for publication on USASpending.gov was generally complete, accurate, timely, and of higher quality.[1] In addition, we found that the Department fully implemented and are using the Government-wide financial data standards established by OMB and Treasury.

What We Found

We found that the Department generally met reporting requirements under the Digital Accountability and Transparency Act of 2014 (DATA Act). Specifically, we found that the Department had adequate controls over its DATA Act source systems and submission processes to provide reasonable assurance that it met reporting requirements under the DATA Act. Further, we found that Files A (Appropriations Account), B (Object Class and Program Activity), and C (Award Financial Data)[2] were generally complete, and the Department's quarterly DATA Act submission was timely. However, we found that File C did not include 36 records that should have otherwise been recorded in the quarter. Specifically, records were excluded from File C because the Department did not have an adequate process to assess programming code, test for missing records, and obtain all required data as soon as File C is generated. We also found that Files A and B were generally accurate, and that valid linkages established by the DATA Act existed between Files A, B, and C. Lastly, we determined that the Department reported the data in accordance with established Government-wide financial data standards.

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[1] The Council of the Inspectors General on Integrity and Efficiency (CIGIE) Federal Audit Executive Council (FAEC) Inspectors General Guide to Compliance Under the DATA Act (DATA Act Review Guide), dated February 14, 2019, states that quality is determined using the midpoint of the range of the proportion of errors (error rate) for completeness, accuracy, and timeliness. The highest of the three error rates was used as the determining factor of quality.

[2] A listing of seven DATA Act files along with related descriptions and data sources can be found in Tables 1 and 2 within the Background section of this report.

We also found that improvements could be made in the quality of the Department's data in Files C and D2 (Financial Assistance Award and Awardee Attributes). Specifically, while we determined that the overall quality of the data in Files C and D2 is considered higher,[3] 15.7 percent, the Department could further improve the completeness, accuracy, and timeliness of the data elements contained in File D2. We found that this occurred because Award Identification linkages did not exist between selected records in File C and File D2.

Because linkages did not exist between File C and File D2, the CIGIE FAEC DATA Act Working Group required that all required data elements for each record would be counted as errors for completeness, accuracy, and timeliness. As such, we concluded that the data elements for these selected records were not accurate, complete, timely, and therefore of quality. By ensuring that linkages exist between File C and D2, the Department could improve the quality of submitted DATA Act data.

What We Recommend

We made two recommendations to improve the Department's DATA Act reporting. Specifically, we recommend that the Senior Accountable Official ensure that corrective actions identified by the Department during the audit are implemented, including update the programming code, implement a reconciliation process to test for missing records, and obtain all required data as soon as File C is generated. We also recommend that the Senior Accountable Official design, document, and implement a process to ensure that linkages exist between Files C and D2 prior to being certified and submitted to USASpending.gov, including verifying that Financial Assistance Broker Submissions are published by Treasury, and that File D2 is complete.

We provided a draft of this report to the Office of Finance and Operations (OFO) for comment. OFO concurred with the findings and recommendations. OFO's comments are summarized at the end of each applicable finding. We did not make any changes to the audit findings or recommendations as a result of OFO's comments. The full text of OFO's response is included at the end of this report.

[3] The DATA Act Review Guide defines a higher level of data quality as having an error rate that falls between 0 and 20 percent.

Introduction

Background

The DATA Act,[4] enacted in May 2014, aimed to establish Government-wide data standards for financial data and provide consistent, reliable, and searchable Government-wide spending data that is displayed accurately for taxpayers and policy makers on USASpending.gov. The DATA Act also sought to improve the quality of data submitted to USASpending.gov by holding Federal agencies accountable for the completeness and accuracy of the data submitted. The DATA Act required that Federal agencies report financial and award data in accordance with established Government-wide data standards beginning in May 2017, and every quarter thereafter

In May 2015, OMB and Treasury published 57 data standards and required Federal agencies to report financial data in accordance with these standards for DATA Act reporting. OMB provided additional guidance in May 2016, that outlined requirements for Federal agencies to associate data in agency financial systems with a unique award identification number to facilitate the linkage of summary-level (Files A and B) and record-level (Files C through F) data. The guidance also provided that on a quarterly basis, agency Senior Accountable Officials must provide reasonable assurance that their agency's internal controls support the reliability and validity of the agency's summary-level and record-level data submitted to Treasury for publication on USASpending.gov.

In June 2018, OMB issued guidance requiring agencies to develop a Data Quality Plan to achieve the objectives of the DATA Act.[5] The Data Quality Plan must consider incremental risks to data quality in Federal spending data and any controls that would manage such risks in accordance with OMB Circular No. A-123. Once developed by the agency, quarterly certifications of data submitted by Senior Accountable Officials, or the designee should be based on the consideration of the Data Quality Plan and the internal controls documented by the agency.

The DATA Act Information Model Schema details how the data flows from the agency financial and awards systems to USASpending.gov (see Appendix B). As established by Treasury, agencies are required to certify and submit the DATA Act files identified in Table 1 and Table 2 to USASpending.gov via a DATA Act Broker[6] operated by Treasury within 45 days of the end of each quarter.

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[4] Public Law 113-101 (May 9, 2014).

[5] OMB M-18-16, Appendix A to OMB Circular No. A-123, *Management of Reporting and Data Integrity Risk*, dated June 6, 2018.

[6] The DATA Act Broker enables federal agencies to upload, validate, and certify quarterly financial data.

Table 1. Agency-Created Files

DATA Act File	DATA Act File Name	Description of DATA Act File	Data Source	Upload Frequency
File A (Summary-Level Data)	Appropriations Account	Budget authority by appropriations account	Department's internal financial systems.	Quarterly via the DATA Act Broker Submission
File B (Summary-Level Data)	Object Class and Program Activity	Obligations and outlays by object class and program activity		
File C (Record-Level Data)	Award Financial Data	Financial Award detail information		

Table 2. DATA Act Broker-Generated Files

DATA Act File	DATA Act File Name	Description of DATA Act File	Data Source	Upload Frequency
File D1 (Record-Level Data)	Procurement Award and Awardee Attributes	Award-level financial data and information about the recipients of procurement awards	Federal Procurement Data System	The Department uploads procurement award data to the Federal Procurement Data System within 3 days of contract award. Data is uploaded daily to USASpending.gov.
File D2 (Record-Level Data)	Financial Assistance Award and Awardee Attributes	Award-level financial data and information about the recipients of financial assistance awards	Department's internal financial systems.	The Department uploads to USASpending.gov bi-monthly via the financial assistance broker submission. Data is uploaded daily to USASpending.gov.
File E (Record-Level Data)	Additional Awardee Attributes- Highly Compensated Officer Data	Personnel and other information about entities receiving federal funds	System for Award Management	Data is uploaded daily to USASpending.gov.
File F (Record-Level Data)	Sub-Award Attributes	Financial data and information about the entities receiving subawards made by recipients of federal funds	Federal Subaward Reporting System	Data is uploaded daily to USASpending.gov.

The DATA Act requires at least one linkage between all of the seven DATA Act files, such as the Treasury Account Symbol for Files A, B, and C, or the Award Linkage Identifier for File C through D2.

The files are subjected to individual and cross file automated validation rules performed by the DATA Act Broker. Any errors noted must be corrected and the files resubmitted. Warnings do not require any corrections, but the agency should make note of the

issues. Once the files successfully pass the validations, the Senior Accountable Official can certify the data and submit it for publication on USASpending.gov.

The DATA Act requires the Office of Inspector General (OIG) of each Federal agency to review a statistically valid sample of the spending data submitted by its Federal agency and to submit to Congress a publicly available report assessing the completeness, timeliness, quality, and accuracy of the data sampled and the implementation and use of the Government-wide financial data standards by the agency. CIGIE identified a timing anomaly with the oversight requirements contained in the DATA Act. The first Inspector General reports were due to Congress in November 2016; however, Federal agencies were not required to report spending data until May 2017. To address this reporting date anomaly, the Inspectors General provided Congress with their first required reports by November 8, 2017, 1 year after the statutory due date, with two subsequent reports to be submitted following on a 2-year cycle. On December 22, 2015, the CIGIE chair issued a letter detailing the strategy for dealing with the IG reporting date anomaly and communicated the strategy to the Senate Committee on Homeland Security and Governmental Affairs and the House Committee on Oversight and Government Reform.

In consultation with the Government Accountability Office (GAO), the CIGIE FAEC DATA Act Working Group developed the CIGIE FAEC Inspectors General Guide to Compliance Under the DATA Act (DATA Act Review Guide), dated February 2019. The DATA Act Review Guide established a consistent methodology and reporting approach across the Inspector General community. Our audit followed the procedures established in this review guide.

Finding 1. The Department Generally Met DATA Act Reporting Requirements

We found that the Department met many of the reporting requirements under the Digital Accountability and Transparency Act of 2014 (DATA Act). Specifically, we found that the Department had adequate controls over its DATA Act source systems and submission processes to provide reasonable assurance that it met reporting requirements under the DATA Act. Further, we found that Files A (Appropriations Account), B (Object Class and Program Activity), and C (Award Financial Data) were generally complete, and the Department's quarterly DATA Act submission was timely. We also found that Files A and B were accurate, and that valid linkages established by the DATA Act existed between Files A, B, and C. Lastly, we determined that the Department reported the data in accordance with established Government-wide financial data standards.

Assessment of Internal Controls Over DATA Act Source Systems and Submission Process

We found that the Department has adequate internal controls in place over its financial and award systems and these systems can be relied upon as authoritative sources for information reported by the Department in accordance with the DATA Act. We reviewed internal control testing of the Department's DATA Act source systems, including the Financial Management Support System, Contracting and Purchasing Support System, and the Department's grant management system, G5, performed by independent auditors as part of the Department's annual A-123 review and annual financial statement audit. We found the work performed was sufficient in scope for the purpose of our review and noted that the independent auditors did not identify significant deficiencies, material weaknesses, and/or other substantive errors in the internal controls over the DATA Act source systems.

In addition, we determined that the Department has implemented internal controls over its DATA Act submission process and has developed a Data Quality Plan, as required. Specifically, the Department uses an independent validation process to test the reportable record-level data (File C) before submitting and certifying it to the DATA Act Broker. These tests include reconciliation of record-level data to the Statement of Budgetary Resources and the Department's Trial Balance. The Department uses the data validation rules developed by Treasury to test the summary-level award data (Files A and B) before submitting and certifying it in the DATA Act Broker. These tests include reconciliation of the summary-level data against "SF-133 Report on Budget Execution and Budgetary Resources" reports (SF-133) obtained from the Government-wide Treasury Account Symbol Adjusted Trial Balance System. The Department relies on existing pre-DATA Act controls to provide assurances over the accuracy, completeness,

timeliness, and quality of the non-financial record-level data attributes contained in Files D1 through F, such as the data validations that are built into the Financial Assistance Broker Submission for financial assistance data. We found that the Department's Data Quality Plan, dated February 2019, met the requirements outlined in OMB guidance, though a Department official noted that the Data Duality Plan was not used by the Department for the FY 2019, first quarter DATA Act submission certified in March 2019.

DATA Act Submission Was Complete[7] and Timely[8]

Treasury requires that agencies submit its quarterly DATA Act submissions within 45 days after the quarter ends. We evaluated the Department's DATA Act submission of Files A, B, and C to the DATA Act Broker and determined that the submission was submitted timely within 45 days of quarter end.[9] Further, we determined that the submission was generally complete. To be considered a complete submission, we evaluated Files A, B, and C to determine that all transactions and events that should have been recorded were recorded in the proper period. While Files A and B were complete, we found that File C did not include 36 records that should have otherwise been recorded in the quarter.

These records were excluded because of weaknesses in the Department's process for determining the completeness of File C. After notifying the Department of these excluded records, the Department identified issues with the programming code used to compile File C. Specifically, when certain fields, including the "Amount", "Fund", and "Object Class" were identical between different records, the query used by the Department returned only one record when multiple records existed. The Department discovered a discrepancy in File C during the reconciliation process. However, the Department presumed that the discrepancy was caused by a timing difference between when File C was generated and when the nonreportable report was generated, but did not identify the issue with the code during the validation process.

Based upon discussions during audit fieldwork, the Department noted that it plans to update the programming code for future submissions, will add a step to the reconciliation process to test for missing records, and will ask its contractor to provide

[7] The DATA Act Review Guide defines completeness as a measure of transactions and events that should have been recorded are recorded in the proper period.

[8] The DATA Act Review Guide defines timeliness as the reporting of the Department's DATA Act submission to the DATA Act Broker is in accordance with the schedule established by the Treasury DATA Act Project Management Officer.

[9] The Treasury DATA Act Project Management Officer established a due date of March 20, 2019 for FY 2019, first quarter DATA Act submissions.

all required data as soon as File C is generated in the future to avoid potential timing differences.

Summary-Level Data and Linkages for Files A, B, and C

We reconciled Files A and B to determine if they were accurate. Through our test work, we noted that Files A and B were generally accurate. Additionally, we reconciled the linkages between Files A, B, and C to determine if the linkages were valid and to identify any significant variances between the files. Our test work did not identify any significant variances between Files A, B, and C. During our test work, we found that data elements in File A matched to the Department's SF-133. Further, we identified 4 program activity names/codes out of 148 in File B (2.7 percent) that were not listed in the 2019 Detailed Budget Estimates by Agency Appendix in the President's Budget. According to Department officials these programs should have been provided with a different code, "Unknown". We also found that the Department's year-to-date reporting of File A matched the total appropriations reported in the April 2019 SF-133 except for one obligation that was not recorded because it was from another Agency and not required to be reported by the Department. We found an insignificant (less than 0.08 percent) variance in obligations between the totals in File B when tested against File A. We also found an insignificant (less than 0.0002 percent) variance between the totals in File C when tested against the Department's Custom Trial Balance. Lastly, we found that File A linked to File B by the Treasury Account Symbol, and that File C linked to File B through the Treasury Account Symbol and object class.[10]

Implementation and Use of Data Standards

We evaluated the Department's implementation and use of the government-wide financial data standards for spending information as developed by OMB and Treasury.[11] We found that the Department has fully implemented and is consistently using those data standards as defined by OMB and Treasury for Files A through D2 (Financial Assistance Award and Awardee Attributes). We found that the Department reported Files A, B, and C in accordance with established Government-wide financial data standards. This included reporting data that contained all applicable standardized data elements and all data elements being presented in conformance with the established data standard for those elements.

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[10] We did not test the linkage by program activity element as required by the DATA Act Review Guide since it is optional reporting requirement for File C that the Department has chosen not to report on.

[11] Section 4 of the DATA Act, enacted May 9, 2014 and OMB MPM No. 2016-03, Additional Guidance for DATA Act Implementation: Implementing Data-Centric Approach for Reporting Federal Spending Information," dated May 3, 2016

Recommendations

We recommend that the Senior Accountable Official:

1.1 Ensure that corrective actions identified by the Department during the audit are implemented, including update the programming code, implement a reconciliation process to test for missing records, and obtain all required data as soon as File C is generated.

OFO Comments

OFO concurred with the finding and recommendation. OFO stated that it implemented changes to the programming code on October 27, 2019. OFO also plans to generate File C and the non-Federal Procurement Data System reportable contracts report within the same business day to minimize timing differences and ensure that data is more reliable to perform reconciliation.

OIG Response

OFO's comments were responsive to the recommendation. We did not make any changes to the finding or recommendation as a result of OFO's comments.

Finding 2. Improvements Could be Made in the Quality of Record-Level Data

We also found that improvements could be made in the quality of the Department's record-level data in Files C (Award Financial Data) and D2 (Financial Assistance Award and Awardee Attributes). Specifically, while we determined that the overall quality[12] of the data in Files C and D2 is considered higher, 15.7 percent, the Department could further improve the completeness, accuracy, and timeliness the data elements contained in File D2. We found that a higher error rate occurred because Award Identification linkages did not exist between selected records in File C and File D2.

Record-Level Data and Linkages for Files C and D2

We selected a sample of 250 records in File C and tested 39 data elements in File C and D2 for completeness, accuracy, and timeliness.[13] The overall error rates based upon the sample records are discussed further below. The error rates for the tested File C and D2 data elements, if not discussed below, can be found in Appendix C.

Completeness

The projected error rate of for the completeness of the data elements is 14.1 percent.[14] A data element was considered complete if the required data element that should have been reported was actually reported.

Accuracy

The projected error rate for the accuracy of the data elements is 15.7 percent.[15] A data element is considered accurate when amounts and other data relating to recorded transactions were recorded in accordance with the Department's DATA Act Information Model Schema Reporting Submission Specifications, Interface Definition Document, and the online data dictionary, and agree with the authoritative source records.

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[12] Quality is determined using the midpoint of the range of the proportion of errors (error rate) for completeness, accuracy, and timeliness.

[13] The sample did not include any procurement records in File D1 (Procurement Award and Awardee Attributes).

[14] Based on a 95 percent confidence level, the projected error rate for the completeness of the data elements is between 10.3 percent and 17.9 percent.

[15] Based on a 95 percent confidence level, the projected error rate for the accuracy of the data elements is between 11.9 percent and 19.4 percent.

Timeliness

The projected error rate for the timeliness of the data elements is 14.1 percent.[16] The timeliness of data elements was based on the reporting schedules defined by financial assistance requirements.

Quality

The quality of the data elements was determined using the midpoint of the range of the error rates for completeness, accuracy, and timeliness. The highest of the three error rates was used as the determining factor of quality. The following table provides the range of error in determining the quality of the data elements. Based upon the highest error rate of 15.7 percent, we determined that the quality of the Department's DATA Act data is considered higher.

Table 3. Data Quality Levels

Highest Error Rate	Quality Level[17]
0%-20%	**Higher**
21%-40%	**Moderate**
41% and above	**Lower**

We found this primarily occurred because Award Identification linkages did not exist between selected records in File C and File D2. Specifically, 44 selected records in File C (17.6 percent) were not linked to File D2.[18] The Award Identification linkage did not exist because the Department does not have a process for ensuring that data submitted to USASpending.gov is published by Treasury and is not ensuring that File D2 is complete prior to certifying the quarterly DATA Act submission. Specifically, the Department submitted to USASpending.gov the Financial Assistance Broker Submission covering transactions occurring between December 1, 2018 and December 15, 2018. However, this submission was not published by Treasury. Since the transactions were not

[16] Based on a 95 percent confidence level, the projected error rate for the timeliness of the data elements is between 10.3 percent and 17.9 percent.

[17] As defined in the DATA ACT Review Guide.

[18] OMB Memo M-15-12, Increasing Transparency of Federal Spending by Making Spending Data Accessible, Searchable, and Reliable, dated May 8, 2015, and the DATA Act Implementation Playbook, Version 2.0, dated June 24, 2016, require that record-level financial and award data in File C should be linked to the corresponding record-level data attribute files using the Financial Assistance Identifier Number or Unique Record Identifier for financial assistance records in File D2.

published, there were no records to be extracted by the DATA Act Broker when creating File D2 at the end of the quarter. Further, the Department did not identify this error during the reconciliation process because the Department does not ensure that File D2 is complete by testing the linkages between File C and File D2.

Because linkages did not exist between File C and File D2, the CIGIE FAEC DATA Act Working Group, FY 2019 DATA Act Audit Frequently Asked Questions, required that all required data elements for each record would be counted as errors for completeness, accuracy, and timeliness. As such, we concluded that the data elements for these selected records were not accurate, complete, timely, and therefore of quality. By ensuring that linkages exist between File C and D2, the Department could improve the quality of submitted DATA Act data.

Recommendations

We recommend that the Senior Accountable Official:

2.1 Design, document, and implement a process to ensure that linkages exist between Files C and D2 prior to being certified and submitted to USASpending.gov, including verifying that Financial Assistance Broker Submissions are published by Treasury and that File D2 is complete.

OFO Comments

OFO concurred with the finding and recommendation. OFO stated that, as part of the File D2 submission, it will verify the publish date and time to ensure the data is published and posted to USASpending.gov.

OIG Response

OFO's comments were responsive to the recommendation. We did not make any changes to the finding or recommendation as a result of OFO's comments.

Appendix A. Scope and Methodology

Our audit followed procedures established in the DATA Act Review Guide prepared by CIGIE FAEC DATA Act Working Group. The DATA Act Review Guide established a consistent methodology and reporting approach across the Inspector General community.

To accomplish our objective, we reviewed applicable laws, regulations, Department policies and procedures, and OMB and Treasury guidance related to the Department's reporting responsibilities under the DATA Act, and GAO "Standards for Internal Control in the Federal Government." We conducted interviews with Department staff in OFO and the Office of the Chief Information Officer (OCIO) responsible for implementing DATA Act requirements and certifying and reporting required data. We also reviewed prior OIG and GAO audit reports with relevance to our audit objective.

Assessment of Internal Controls Over DATA Act Source Systems and Processes

We gained an understanding of the internal controls over the Department's DATA Act source systems and related reporting processes. Specifically, we reviewed internal controls testing performed by independent financial statement auditors to determine whether the controls over financial and award systems were properly designed, implemented, and operating effectively and could be relied upon as authoritative sources for information reported by the agency in accordance with the DATA Act. To do this we coordinated with the OIG Financial Statement Internal Audit Team to obtain and review the independent auditor's working papers assessing the internal controls of the Department's source systems, including the Financial Management Support System, Contracting and Purchasing Support System, and G5 as part of the annual financial statement audit. We determined that the work performed by the independent auditors was sufficient to conclude on the adequacy of the internal controls relating to those systems.

We also obtained and reviewed the Education's Central Automated Processing System Information Technology Assessment Report, dated September 12, 2018, which assessed internal controls related to the Financial Management Support System, Contracting and Purchasing Support System, and G5 conducted on behalf of the Department to comply with A-123 reporting requirements. Lastly, we assessed the Department's development and implementation of the data quality plan to review risks identified by the Department.

DATA Act Submission Was Complete and Timely

To determine whether the Department's FY 2019, first quarter DATA Act submission was complete we obtained and reviewed the Department's DATA Act submission to the DATA Act Broker for Files A, B, and C, the Senior Accountable Official assurance statement, and DATA Act Broker validation reports. Overall, we reviewed the Department's methodology for determining that all required transactions were reported and how it ensures that transactions not required to be reported are not reported. We reviewed the Department's validation and reconciliation process of Files A (Appropriations Account), B (Object Class and Program Activity), and C (Award Financial Data). For File A, we verified that File A contained all Treasury Account Symbol from which funds were obligated. For File B, we verified that object class codes in File B matched the codes defined in Section 83 of OMB Circular A-11,[19] Object Classification (MAX Schedule O), and verified that program activity names and codes matched the names and codes defined in the Detailed Budget Estimates by Agency Appendix in the President's Budget. For File C, we reconciled the financial and non-financial data elements in File C to the Department's systems of record including Financial Management Support System, Contracting and Purchasing Support System, and G5. We also reviewed the Department's programming code used to extract data from its systems to determine whether it was appropriately including all transactions that should have been included for the period. Lastly, for Files A, B, and C, we reviewed correspondence between OFO and OCIO in identifying variances and resolving errors.

To determine that the submission was timely, we compared the submission date to the reporting scheduled established by the Treasury DATA Act Project Management Office.

Summary-Level Data and Linkages for Files A, B, and C

To determine whether File A was accurate we matched the data elements in File A, including the Agency Identifier, Main Account Code, Sub Account Code, Budget Authority Appropriated Amount, Budget Authority Availability Amount, Gross Outlay Amount by Treasury Account Symbol, Unobligated Balance, to the Department's SF-133. To determine whether File B was accurate we verified that all object class codes from File B match the codes defined in Section 83 of OMB Circular A-11 and that all program activity names and codes from File B match the names and codes defined in the Detailed Budget Estimates by Agency Appendix in the President's Budget (Program and Financing Schedule). Further, we verified that the totals of File A and File B matched. To test the linkages between Files A, B, and C, we first matched the financial data in File B to File A using the established cross-file data validation rules developed by OMB and Treasury. To

[19] OMB A-11, Preparation, Submission, and Execution of the Budget, dated July 1, 2016.

test the linkage between Files C and B, we assessed whether File C linked to File B by the Treasury Account Symbol and object class.

Suitability of File C for Sampling

We used sampling to achieve our audit objectives. To determine whether File C was suitable for sampling, we assessed the sufficiency of the Department's method of determining whether File C is complete and contains all transactions and linkages that should be included, as well as the Department's methodology for resolving broker warnings between Files C and D1 (Procurement Award and Awardee Attributes/D2 (Financial Assistance Award and Awardee Attributes). We assessed whether File C links to File B through the Treasury Account Symbol and object class. Finally, we tested that File C links to Files D1/D2 by the Award Identification Number. We assessed this linkage between File C and Files D1/D2 to determine whether Award Identification Numbers that exist in File C, exist in File D1/D2 and vice versa.

Sampling Methodology

From the Department's File C DATA Act submission, which we determined was suitable for sampling, we obtained the population of 116,500 records reported in the first quarter, FY 2019. Because of the results of previous work, we assumed that the error rates we would observe would not exceed 20 percent. [20] Consequently, we selected a statistical random sample of 250 records from File C to estimate the prevalence of inaccurate, incomplete, or untimely reporting of data elements within each record with a precision of 5 percent or better at the 95 percent confidence level.

Record-Level Data and Linkages for Files C and D2

Detailed Testing of Record-Level Data

In addition, we performed the following steps on Files C and D2[21] to assess the accuracy, completeness, and timeliness of the selected records:

Accuracy

To test the accuracy of File C data elements, we matched the data to the Department's grants management system, G5. For File D2, we tested data elements against the system of record for the data element including G5, and the U.S. Census Bureau, U.S. House of Representatives, and Dun and Bradstreet websites.

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[20] The Department's Compliance Under the DATA Act (ED-OIG/A19R0005), dated November 7, 2017.

[21] The sample did not include any procurement records in File D1.

Completeness

To assess the completeness of the sampled data, we determined if the data is required to be reported for the selected record using the Department's DATA Act Information Model Schema Interface Definition Document. If required, we assessed whether the data element was included in the appropriate files.

Timeliness

To assess the timeliness of the data elements, we verified that for each of the required data elements that should have been reported, the data elements were reported in accordance with the reporting schedules defined for each file. For File C, we verified that the award financial data elements for selected records were reported within the quarter in which it occurred by comparing the transactions against the Department's G5. For File D2, we verified that the financial assistance award data elements were reported no later than 30 days after award, in accordance with Federal Funding Accountability and Transparency Act of 2006. To accomplish this we confirmed that data elements for all selected records were submitted in the Department's twice-monthly Financial Assistance Broker Submission.

Quality

To assess the quality of the data in record-level records in Files C and D2, we determined the midpoint of the range of the error rates for completeness, accuracy, and timeliness. The highest of the three error rates was used as the determining factor of quality.

Detailed Testing of Record-Level Linkages

To test the linkage between File C and File D2, we reviewed whether financial assistance awards in the sample selected from File C matched the Financial Assistance Identifier Numbers or Unique Record Identifiers contained in File D2. In addition, we also reviewed whether the Transaction Obligated Amount in File C matched the Federal Action Obligation amount in File D2.

Calculating Error Rates

Error rates were calculated and projected for the results of each completeness, accuracy and timeliness of the data elements. An average rate of error was first calculated for each record based on the total data elements required to be reported (including optional data elements chosen to be reported by the agency) for that record. To calculate the overall error rates, the average rates of error by record were averaged over the total number of sample items tested. We used the Testing Results Spreadsheet tool developed by the CIGIE FAEC DATA Act Working Group to summarize the results of the detailed record-level test of data elements for Files C and D2.

Department's Implementation and Use of Data Standards

To assess whether the Department's implementation of the Government-wide financial data standards was appropriate, we reviewed the Department's data inventory and mapping for Files A through D2 to ensure that the Department consistently used the government-wide data standards and identified the appropriate source systems where the data resides. To assess the use of the Department's data standards, we verified that all required elements were included in Files A, B, and C and were presented in conformance with the established data standards.

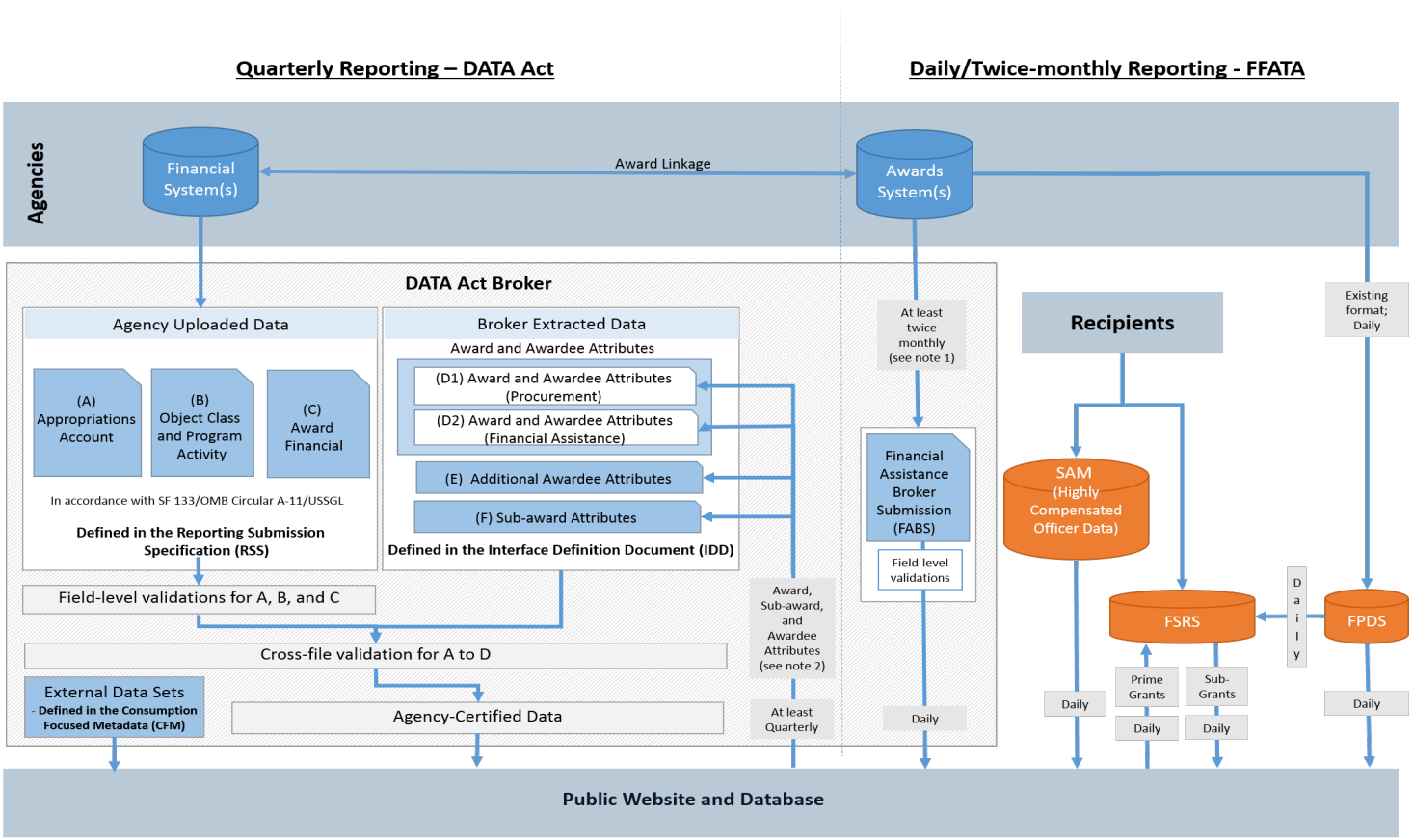
Testing Limitations for Data Reported from Files E and F

File E (Additional Awardee Attributes – Highly Compensated Officer Data) of the DATA Act Information Model Schema contains additional awardee attribute information the DATA Act Broker extracts from the System for Award Management. File F (Sub-Award Attributes) contains sub-award attribute information the DATA Act Broker extracts from the Federal Funding Accountability and Transparency Act of 2006 Subaward Reporting System. Files E and F data remains the responsibility of the awardee in accordance with terms and conditions of Federal agreements; and the quality of this data remains the legal responsibility of the recipient. Therefore, agency senior accountable officials are not responsible for certifying the quality of File E and F data reported by awardees, but they are responsible for assuring controls are in place to verify that financial assistance awardees register in System of Award Management at the time of the award. As such, we did not assess the completeness, timeliness, and accuracy of the data extracted from System of Award Management and Federal Funding Accountability and Transparency Act of 2006 Subaward Reporting System via the DATA Act Broker.

We conducted fieldwork at Department offices in Washington, D.C., during the period April 2019 through October 2019. We provided our audit results to Department officials during an exit conference conducted on October 15, 2019.

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

Appendix B. DATA Act Information Flow Diagram



Note 1: The Financial Assistance Broker Submission (FABS) replaces the Award Submission Portal (ASP).
Note 2: D1 and D2 pull in all award data associated with the submitting agency and agency-specified action dates. E pulls in highly-compensated officer information for DUNS numbers that appear in an agency's D1 and D2. F pulls in all sub-award data associated with the awards that appear in an agency's D1 and D2.

Schema Version 1.3
June 29, 2018

Appendix C. Department's Data Element Results

Department's Results listed in descending order by accuracy error rate percentage.				
Accuracy (A), Completeness (C), Timeliness (T)				
Data Element No. (CE=File C testing, DE=File D2 testing)	Data Element Name	Error Rate Percentage[22]		
		A	C	T
DE1	Award/Recipient Legal Entity Name	24.0*	17.6	17.6
DE6	Ultimate Parent Legal Entity Name	18.0*	0.0	0.0
DE31	Primary Place of Performance Congressional District	18.0*	0.0	0.0
DE7	Legal Entity Country Code	17.6	17.6	17.6
DE8	Legal Entity Country Name	17.6	17.6	17.6
DE13	Amount of Award	17.6	17.6	17.6
DE16	Award Type	17.6	17.6	17.6
DE19	Catalog of Federal Domestic Assistance (CFDA) Number	17.6	17.6	17.6
DE20	Catalog of Federal Domestic Assistance (CFDA) Title	17.6	17.6	17.6
DE22	Award Description	17.6	17.6	17.6
DE25	Action Date	17.6	17.6	17.6

[22] All estimates from the sample have a precision no greater than plus or minus 5 percentage points unless otherwise noted.

DE33	Primary Place of Performance Country Name	17.6	17.6	17.6
DE34	Award ID Number	17.6	17.6	17.6
DE35	Record Type	17.6	17.6	17.6
DE37	Business Types	17.6	17.6	17.6
DE44	Awarding Agency Name	17.6	17.6	17.6
DE45	Awarding Agency Code	17.6	17.6	17.6
DE46	Awarding Sub Tier Agency Name	17.6	17.6	17.6
DE5	Legal Entity Address	13.6	0.0	0.0
DE3	Ultimate Parent Unique Identifier	12.5*	12.5*	12.5*
DE4	Ultimate Parent Legal Entity Name	12.5*	12.5*	12.5*
DE30	Primary Place of Performance Address	7.3	0.0	0.0
DE27	Period of Performance Current End Date	1.0	0.0	0.0
CE34	Award ID Number (FAIN)	0.0	0.0	0.0
CE50	Object Class	0.0	0.0	0.0
CE51	Appropriation Account	0.0	0.0	0.0
CE53	Obligation	0.0	0.0	0.0
DE2	Awardee/Recipient Unique Identifier	0.0	0.0	0.0
DE11	Federal Action Obligation	0.0	0.0	0.0
DE12	Non-Federal Funding Amount	0.0	0.0	0.0
DE23	Award Modification/Amendment Number	0.0	0.0	0.0
DE26	Period of Performance Start Date	0.0	0.0	0.0

DE32	Primary Place of Performance Country Code	0.0	0.0	0.0
DE36	Action Type	0.0	0.0	0.0
DE42	Funding Office Name	0.0	0.0	0.0
DE43	Funding Office Code	0.0	0.0	0.0
DE47	Awarding Sub Tier Agency Code	0.0	0.0	0.0
DE48	Awarding Office Name	0.0	0.0	0.0
DE49	Awarding Office Code	0.0	0.0	0.0
CE56	Program Activity	NA	NA	NA
DE14	Current Total Value of Award	NA	NA	NA
DE38	Funding Agency Name	NA	NA	NA
DE39	Funding Agency Code	NA	NA	NA
DE40	Funding Sub Tier Agency Name	NA	NA	NA
DE41	Funding Sub Tier Agency Code	NA	NA	NA
*Indicates a precision greater than 5 percent.[23]				

[23] With the exception of DE1, Award/Recipient Legal Entity Name, the data elements were not required to be reported for a portion or most of the sample as they were optional under conditions identified in the DATA Act Informational Model Schema. The DATA Act Review Guide required that if an optional data element was reported, only those sampled records that had reported data should be assessed for accuracy, completeness, and timeliness and included in the projection. This effectively reduced the sample size for these specific data elements and reduced the precision of their estimates. For DE1, the actual error rate exceeded the estimated error rate.

Appendix D. Analysis of the Accuracy of Dollar Value-Related Data Elements

Our testing included tests of certain dollar value-related data elements, such as obligation, federal action obligation, and amount of award. The table below shows the results of the accuracy of the data elements related to dollar value.

Accuracy of Dollar-Value Related Data Elements							
Data Element		Accurate	Not Accurate	N/A	Total Tested	Total Tested Error Rate	Absolute Value of Errors
CE53	Obligation	250	0	0	250	0.0%	-
DE11	Federal Action Obligation	206	0	44	250	0.0%	-
DE13	Amount of Award	206	44	0	250	17.6%	$805,153.05
	Total	**662**	**44**	**44**	**750**		

Appendix E. Acronyms and Abbreviations

CIGIE	Council of the Inspectors General on Integrity and Efficiency
DATA Act	Digital Accountability and Transparency Act of 2014
DATA Act Review Guide	CIGIE FAEC Inspectors General Guide to Compliance Under the DATA Act
Department	U.S. Department of Education
FAEC	Federal Audit Executive Council
FY	fiscal year
GAO	Government Accountability Office
OCIO	Office of the Chief Information Officer
OFO	Office of Finance and Operations
OIG	Office of Inspector General
OMB	Office of Management and Budget
SF-133	SF-133 Report on Budget Execution and Budgetary Resources
Treasury	U.S. Department of the Treasury

OFO Comments

UNITED STATES DEPARTMENT OF EDUCATION

OFFICE OF FINANCE AND OPERATIONS

MEMORANDUM

DATE: November 1, 2019

TO: Bryon S. Gordon
Assistant Inspector General for Audit

FROM: Denise Carter
Acting Assistant Secretary

SUBJECT: Audit of the Department's Compliance Under the DATA Act
Control Number ED-OIG/A19T0004

We appreciate the opportunity to respond to the draft audit results of the Office of Inspector General's (OIG) review of the Department's compliance with reporting requirements under the Digital Accountability and Transparency Act of 2014 (DATA Act).

Following is the response to each finding and recommendation.

Overall Comments

We are pleased that the OIG has concluded that the Department had adequate controls over its DATA Act source systems and submission processes to provide reasonable assurance that it met reporting requirements under the DATA Act.

The OIG provided two findings and two recommendations. We concur with the findings and the recommendations. Our responses are below:

Finding 1

To be considered a complete submission, we evaluated Files A, B, and C to determine that all transactions and events that should have been recorded were recorded in the proper period. While Files A and B were complete, we found that File C did not include 36 records that should have otherwise been recorded in the quarter.

These records were excluded because of weaknesses in the Department's process for determining the completeness of File C. After notifying the Department of these excluded records, the Department identified issues with the programming code used to compile

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File C. Specifically, when certain fields, including the "Amount", "Fund", and "Object Class" were identical between different records, the query used by the Department returned only one record when multiple records existed. The Department discovered a discrepancy in File C during the reconciliation process. However, the Department presumed that the discrepancy was caused by a timing difference between when File C was generated and when the nonreportable report was generated, but did not identify the issue with the code during the validation process.

We recommend that the Senior Accountable Official:

1.1 Ensure that corrective actions identified by the Department during the audit are implemented, including update the programming code, implement a reconciliation process to test for missing records, and obtain all required data as soon as File C is generated.

Corrective Action:
File C generation code had a defect that was reporting only one record when more than one row has same reporting data elements, including the award number, fund, object class, and Program Category Code. This code issue has been addressed, with the corrective action implemented in production on 10/27/2019 such that 2019 Q4 reporting is not impacted by the issue.

As mentioned in the report, the independent reconciliation performed by the Office of Finance and Operations identified these discrepancies. However, due to the insignificant dollar amount difference identified and other inherent reporting constraints, the issues were not identified immediately. To address the reporting constraints, the Department will generate File C and the non-Federal Procurement Data System reportable contracts report within the same business day to minimize the timing differences and ensure that data is more reliable to perform reconciliation.

Finding 2

We also found that improvements could be made in the quality of the Department's record-level data in Files C (Award Financial Data) and D2 (Financial Assistance Award and Awardee Attributes). Specifically, while we determined that the overall quality of the data in Files C and D2 is considered higher, 15.7 percent, the Department could further improve the completeness, accuracy, and timeliness of the data elements contained in File D2. We found that a higher error rate occurred because Award Identification linkages did not exist between selected records in File C and File D2.

We recommend that the Senior Accountable Official:

2.1 Design, document, and implement a process to ensure that linkages exist between Files C and D2 prior to being certified and submitted to USASpending.gov, including verifying that Financial Assistance Broker Submissions are published by Treasury and that File D2 is complete.

Corrective Action

The Department determined that there was a rollback of the published data by Department of Treasury due to a processing issue they encountered. The Department was not informed of the rollback. To ensure this will not happen again, as part of the D2 submission, the publish date and time will be verified to ensure the data is published and posted to USASpending.gov.

We appreciate the opportunity to review and respond to the report. If you have any questions, or need additional information regarding this response, please contact Gail Matthews at 202-245-8074.