
Office of Inspector General

Audit Report

DOT'S DATA ACT READINESS: THE DEPARTMENT IS ON SCHEDULE TO MEET THE MAY 2017 REPORTING DEADLINE

Department of Transportation

Report Number: FI-2017-005

Date Issued: November 4, 2016





Memorandum

U.S. Department of
Transportation

Office of the Secretary
of Transportation
Office of Inspector General

Subject: **INFORMATION**: DOT's DATA Act
Readiness: The Department Is on Schedule To
Meet the May 2017 Reporting Deadline
Department of Transportation
Report Number: FI-2017-005

Date: November 4, 2016

From: Louis C. King
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Information Technology Audits

Reply to
Attn. of: JA-20

To: Assistant Secretary for Budget and Programs/Chief Financial Officer

The Department of Transportation (DOT) is the second largest grant making entity in the Federal Government. The Department passes 75 percent of its budget to States, localities, research institutions, and individuals in the form of grants. In fiscal year 2015, DOT awarded over \$67 billion to its grantees and contractors in support of various programs designed to ensure safe, fast, and efficient transportation in the United States. In 2014, Congress passed the Digital Accountability and Transparency Act¹ (DATA Act) to reinforce Federal agencies' compliance with the Federal Funding Accountability and Transparency Act of 2006² (FFATA) which requires departments to maintain transparent and reliable information on Federal spending and financial assistance for public review. The Department of the Treasury makes this information available to the public, via USASpending.gov.

The DATA Act also requires that Federal inspectors general issue three reports assessing the completeness, timeliness, quality, and accuracy of the data that their agencies submit to USASpending.gov. The act requires the first inspectors general's report be submitted to Congress by November 7, 2016. However, the act does not require agencies to submit spending data to USASpending.gov until May 8, 2017. Consequently, the first inspectors general report cannot be completed by the date mandated because the data will not be available to test. As an alternative, the Council of the Inspectors General on Integrity and Efficiency

¹ Public Law 113-101.

² Public Law 109-282.

(CIGIE) proposed that inspectors general conduct reviews of their agencies' readiness for implementation of the act.³ Accordingly, we assessed (1) DOT's DATA Act Implementation Plan, and (2) the progress of its implementation efforts through August 2016.

We conducted this review in accordance with generally accepted Government auditing standards. To conduct our work, we reviewed applicable statutes and documentation, and interviewed Department and Enterprise Services Center⁴ (ESC) personnel. See exhibit A for more details on our scope and methodology and exhibit B for the Department's Operating Administrations (OA) whose personnel we interviewed. Because this report is primarily for informational purposes for Congress, we are not making recommendations at this time.

RESULTS IN BRIEF

In accordance with implementation guidance provided by the Office of Management and Budget (OMB) and Treasury, the Department has conducted activities in support of its readiness to meet the May 2017 reporting deadline. The Department created a department-wide DATA Act Working Group which is comprised of representatives from the Office of the Secretary (OST), all DOT OAs, and ESC. The DATA Act Project Management Office (PMO) has department-wide responsibility for the oversight of the implementation efforts. The PMO has developed an implementation plan and employed a number of controls to monitor the OAs and ensure they meet established milestones and other target dates. Additionally, ESC created an internal DATA Act team that consists of a cross-functional group of ESC personnel. ESC's DATA Act team has been communicating and collaborating with the Department of the Treasury (Treasury), the DOT DATA Act working group, and ESC's other Federal agency customers. ESC developed its own comprehensive DATA Act implementation plan with input from DOT and its other Federal agency customers. ESC's implementation effort will occur in 2 phases: (1) development of the implementation plan and (2) enhancement of DATA Act reporting.

The Department is adequately making progress on its implementation effort and is meeting its timeframes. The most significant challenge it has encountered is a software developer's delay in issuing key software modifications. These modifications, or patches, are crucial to the Department's ability to meet the May

³ In the letter submitted to the Senate Committee on Homeland Security and Government Affairs and the House Committee on Oversight and Government Reform on December 2015, CIGIE identified the timing anomaly with the oversight requirements in the DATA Act. Although CIGIE determined the best course of action was to delay the reports, it is encouraging inspectors general to undertake DATA Act readiness reviews well in advance of the first November 2017 report.

⁴ ESC is a division of the DOT that provides financial management and information technology support services. It is required to report information in accordance with the DATA Act on behalf of the Department and its other Federal agency customers.

2017 reporting deadline. The first patch was due to be released in August 2016; however, it was not released until September 2016. Once released, the patches have to be tested, and if testing is successfully completed, installed. With three additional patches remaining to be released, further delays in releasing of the patches could jeopardize the Department's ability to meet the May 2017 reporting deadline. However, ESC has communicated that if the patches do not work, they will be able to develop a workaround to ensure the Department can meet the May 2017 reporting deadline.

BACKGROUND

The DATA Act establishes government-wide standards for the collection of consistent, reliable, and searchable financial data to be made available to the public at USASpending.gov. These standards are intended to make it easier for taxpayers and policy makers to understand how Federal agencies spend taxpayer dollars, and improve agencies' spending oversight and data-centric decision-making. They require the collection of 57 specific data elements⁵ on entities that receive Federal awards of grants, loans, and contracts. Each Federal agency must report to USASpending.gov these data in accordance with the standards. The act also standardizes requirements for recipients' reporting of financial data to USASpending.gov.

In May 2015, the Office of Management and Budget (OMB) issued Memorandum M-15-12—Increasing Transparency of Federal Spending by Making Federal Spending Data Accessible, Searchable, and Reliable—which outlines how Federal agencies must implement the DATA Act standards. The guidance requires each agency to develop an implementation plan and for each plan to include proposed timelines, resource estimates, and any foreseeable challenges. It also directs Federal shared service providers for financial management to report to OMB specific information about anticipated costs and timelines necessary for them to implement the DATA Act.

ESC offers a range of financial management and information technology services to various Federal agencies. As a designated shared service provider, DOT, through ESC, reports financial data to Treasury and non-financial award data and procurement data to USASpending.gov for customers using ESC PRISM⁶ on behalf of the Department and other Federal agencies. ESC's also supports its customers to meet reporting requirements under the DATA Act.

⁵ A data element is any unit of data defined for processing, such as a unique recipient identifier or Federal award amount.

⁶ PRISM is a browser-based purchasing management system that tracks all phases of procurement from requisition, award, and close-out and integrates with Delphi, DOT's financial management system, through Service Oriented Architecture (SOA) web services.

The majority of non-financial award data and procurement data is reported to USASpending.gov by DOT OAs using their grants management systems, stand-alone OA PRISM environments, or manual upload.

To assist with implementation, the Department of Treasury created the Data Act Playbook which recommends the eight steps to help agencies fulfill the requirements of the Act (table 1).

Table 1. DATA Act Playbook Steps and Definitions

No.	Step	Definition
1	Organize Your Team	Create an agency DATA Act work group including impacted communities within your agency and designate a Senior Accountability Officer (SAO).
2	Review Elements	Review the list of DATA Act elements and participate in data definitions standardization.
3	Inventory Data	Perform an inventory of agency data and associated business processes and systems.
4	Design & Strategize	Plan changes to systems and business processes to capture financial, procurement, and financial assistance data.
5	Execute Broker ^a	Implement a “broker” at the agency. The broker is a virtual data layer at the agency that maps, ingests, transforms, validates, and submits agency data into a format consistent with the DATA Act Schema (i.e., data exchange standards).
6	Test Broker Implementation	Test broker outputs to ensure data are accurate and reliable.
7	Update Systems	Implement other system changes (e.g., establish linkages between program and financial data, and capture any new data).
8	Submit Data	Update and refine process (repeat 5-7 as needed).

^a Currently the broker is managed by Treasury and referred to as the DATA Act broker.
Source: Department of Treasury DATA Act Playbook.

DOT’S IMPLEMENTATION PLAN IS ADEQUATE

Implementation efforts undertaken by both the Department and ESC comply with OMB and Treasury guidance for successful implementation of the DATA Act requirements. DOT and ESC have both developed separate, comprehensive implementation plans to guide their efforts, and in the case of ESC, the efforts of

its Federal agency customers as well. Adequate planning increases the likelihood that DOT will successfully implement the DATA Act.

The Department's Implementation Efforts Comply with DATA Act Requirements

As required by OMB, OST has established a PMO that has responsibility for department-wide oversight of the implementation effort. The Project Management Office has developed a comprehensive implementation plan to guide the Department through the implementation effort. The plan, which follows the guidance set forth in the DATA Act Playbook, includes estimates of resource requirements and an implementation timeline. It also discusses how the Department can leverage its current IT systems, scheduled system upgrades, and the work that ESC does.

As also required by OMB, OST has appointed a senior accountable official (SAO) in the PMO, and established a DATA Act Working Group that is responsible for validating the financial and award level data submitted to the DATA Act Broker. The Working Group is made up of subject matter experts from OST, all OAs, and ESC. The SAO and the PMO oversee the implementation process and meet with the Working Group and its members on a bi-weekly basis to share information on the progress of the implementation effort.

The PMO has provided the OAs a checklist for the implementation effort, and receives monthly progress reports from the OAs which it compiles into status reports for OMB. The PMO also disseminates information to the OAs through notes, agendas, data calls, and email communications. As of August 31, 2016, the Department had not missed any milestone target dates.

The PMO selected Pipeline and Hazardous Material Safety Administration (PHMSA) to serve as a pilot to determine the difficulty of tracing DATA Act elements such as Federal award ID numbers⁷ across agency business processes, systems, and applications; and identify gaps. PHMSA did not identify any significant gaps in its data inventory.

ESC Has Developed an Implementation Plan to Help Its Customers Comply with the Act

To help its customers, ESC has developed a separate two-phase implementation plan. The first phase focuses on the development, building, and execution of the implementation document, and consists of researching, analyzing, and designing the ESC's implementation plan, while strategizing with customer agencies in an

⁷ A Federal Award ID number (FAIN) is a unique number assigned to each award for financial assistance within a Federal agency.

effort to support the customer agencies with their implementation plans. The second phase focuses on enhancing DATA Act reporting.

In addition, as part of the DOT's pilot program, ESC conducted exercises to confirm that it has system capabilities and data linkages between financial and award management systems to produce DATA Act reports. These exercises confirmed that Delphi, the Department's core financial system, can:

- Identify links between financial and award management systems;
- Tie documents to journal activity; and
- Reconcile information in DATA Act reports to other mandated submissions.

DOT IS ON TRACK TO MEET ITS MILESTONES ALTHOUGH SOFTWARE UPDATES MAY IMPACT PROGRESS

The Department has made progress in its implementation plan and has completed several milestones. However, a software developer missed the deadline for providing a necessary software update. If the developer misses additional deadlines, it could impact DOT's progress.

DOT Is Meeting Its Milestones

DOT officials are meeting the milestones set forth in the implementation plan, which are based on the DATA Act Playbook. Table 2 shows steps that have been completed and due dates for the ones that remain.

Table 2. DATA Act Playbook Steps and DOT Status

No.	Step	Status
1	Organize Your Team	Completed
2	Review Elements	Completed
3	Inventory Data	Completed
4	Design & Strategize	Completed
5	Execute Broker	Planned completion date: fiscal year 2017, second quarter
6	Test Broker Implementation	Planned completion date: fiscal year 2017, second quarter
7	Update Systems	Planned completion date: fiscal year 2017, second quarter
8	Submit Data	Planned completion date: fiscal year 2017, fourth quarter

Source: Updated Implementation Plan for Federal Spending Transparency and the DATA Act of 2014.

Delays in Release of Software Patches May Impact DOT's Implementation Effort

The Department has encountered one obstacle that may cause delays in its efforts. Specifically, the Department needs four key software patches to update its financial data systems in order to meet the requirements of the DATA Act. The patches are needed to link accounting transactions to the appropriate awards. For example, one patch provides the capability for each Federal award ID number to remain consistent as it moves through the Department's feeder financial systems to interface with Delphi. The four patches, once applied to Delphi, will enable the linkage needed to facilitate ESC's timely upload of financial data to the DATA Act Broker, reduce reporting errors, and associate expenditures with individual awards as required by FFATA and the DATA Act.

Despite the urgency of these patches, the software developer has fallen behind schedule in producing them. The developer's schedule for the release of the patches was August 2016, October 2016, November 2016 and January 2017. The first patch, however, was not released until September 2016 and is now undergoing the required testing prior to installation. While DOT still believes it is on schedule, further delays in receiving the software patches increase the risk that the May 2017 reporting deadline will not be met. However, according to ESC

officials, if the patches do not work, they will be able to develop an alternative to capture the Award IDs so the Department can meet its reporting requirements.

CONCLUSION

The Department has taken and planned actions needed in order to address the requirements of the DATA Act. Other than uncertainties surrounding the developer's patches, nothing came to our attention that will likely impede the Department's ability to meet the requirements of the DATA Act, including the May 2017 reporting date.

RECOMMENDATIONS

Because the nature of this report is primarily for informational purposes for Congress, we are not making recommendations.

AGENCY COMMENTS AND OFFICE OF INSPECTOR GENERAL RESPONSE

We provided the Department with a draft copy of this report on October 20, 2016 and received its response on October 31, 2016, which is included in its entirety in the appendix to this report. In its response, the Department concurred with our assessment and emphasized that other than uncertainties surrounding the developer's patches, nothing will likely impede the Department's ability to meet the requirements of the DATA Act by the May 2017 reporting date.

ACTIONS REQUIRED

We made no recommendations in this report that require Agency actions at this time.

We appreciate the courtesies and cooperation of the Department of Transportation's DATA Act Working Group representatives during this assessment. If you have any questions concerning this report, please call me at (202) 366-1407, or George Banks, Program Director, at (410) 962-1729.

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cc: DOT Audit Liaison, M-1

EXHIBIT A. SCOPE AND METHODOLOGY

We conducted this audit between June and October 2016 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.

To accomplish our work, we obtained an understanding of the laws, legislation, directives, and any other regulatory criteria and guidance related to the Department's responsibilities to report financial and payment information under the DATA Act. Additionally, we obtained an understanding of the Department's governance structure, processes, and controls planned and established by interviewing officials responsible for the implementation of the DATA Act at the Department level and at the OAs. During these interviews, we discussed DATA Act implementation strategies and any significant challenges in carrying out the implementation plan.

We reviewed documentation of the Department's implementation of the DATA Act including creation of the department-wide DATA Act Working Group and the Working Group's review of DATA Act elements and definitions established by OMB and Treasury. We assessed whether the Working Group reviewed the list of data standards established by OMB and Treasury and how the Working Group identified data elements applicable to each OA. We also assessed how the Working Group communicates identified issues relating to the data standards to the OAs, OMB, Treasury, and other DATA Act interagency advisory committees.

We also obtained an understanding of ESC's role in the Department's DATA Act implementation efforts. During our interview with ESC, we gained an understanding of its governance structure, processes, and controls planned and established regarding implementation activities related to the DATA Act effort.

We assessed whether the Department and ESC had developed comprehensive implementation plans to satisfy reporting requirements under the DATA Act, in accordance with applicable guidance.

Lastly, we compared the status of required or planned actions to targeted action dates and determined the extent of progress achieved.

EXHIBIT B. ENTITIES VISITED OR CONTACTED

We conducted DATA Act-related interviews with each DOT operating administration or component unit shown below, including ESC.

Federal Aviation Administration (FAA)

Enterprise Services Center (ESC)

Federal Highways Administration (FHWA)

Federal Transit Administration (FTA)

Federal Railroad Administration (FRA)

National Highway Traffic Safety Administration (NHTSA)

Maritime Administration (MARAD)

Pipeline and Hazardous Materials Safety Administration (PHMSA)

Federal Motor Carrier Safety Administration (FMCSA)

Office of the Secretary (OST)

Office of the Inspector General (OIG)

Working Capital Fund (WCF)

John A. Volpe National Transportation Systems Center (Volpe)

Saint Lawrence Seaway Development Corporation (SLSDC)

EXHIBIT C. MAJOR CONTRIBUTORS TO THIS REPORT

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APPENDIX. AGENCY COMMENTS



U.S. Department of
Transportation
Office of the Secretary
of Transportation

Memorandum

Subject: **INFORMATION:** Management Response to DOT Office of Inspector General (OIG) Draft Report, *DOT's DATA Act Readiness: The Department Is on Schedule to Meet the May 2017 Reporting Deadline* October 31, 2016

From: Shoshana M. Lew
Chief Financial Officer and
Assistant Secretary for Budget and Programs 

To: Louis C. King
Assistant Inspector General for Financial and Information Technology Audits

As the Office of Inspector General found in its audit, the Department of Transportation (DOT) is committed to fully implementing the mandates of the Digital Accountability and Transparency Act of 2014 (DATA Act) by the May 2017 deadline. We are well on our way to making Federal-spending data more accessible, searchable, and reliable by implementing Government-wide data standards and solidly linking data recorded in our financial with financial assistance and procurement data.

Throughout the DATA Act implementation process, both the Office of Management and Budget and the Department of Treasury commended DOT as an active partner. From the outset, we communicated DATA Act goals and expectations across DOT's Operating Administrations (OAs) and business lines. We also established a strong governance structure and a cross-functional Project Management Office to oversee the implementation of the DATA Act. As part of our strategy, we determined that DOT could benefit from standardizing how we report grants, loans, and other forms of financial assistance. We developed a standardized Financial Assistance Identification Number (FAIN) structure, which all OAs will use to number and identify their financial assistance awards. DOT will be the first Federal government agency to establish a standard FAIN structure.

We concur with the OIG's assessment that reaching our milestones is contingent on several outstanding actions by the private vendor that provides software to many Federal agencies. The Enterprise Services Center is tracking and working with the vendor to resolve issues discovered in the first update/patch that it provided in September 2016. We anticipate successful and timely resolution, and expect full implementation of the first patch by December 2016. The vendor has promised delivery of the remaining patches in October and December, respectively.

We appreciate the opportunity to comment on OIG's draft report and agree that, other than uncertainties surrounding the vendor delivering the patches on time, nothing will likely impede the

Department's ability to meet the requirements of the DATA Act by the May 2017 reporting date. If you have any further questions or require additional information, please contact Madeline Chulumovich, Director, Office of Audit Relations and Program Improvement, at (202) 366-6512.