DATA Act Information Model Schema (DAIMS)
Increasing Demands for Data

- Barriers to using existing data:
  - Data is locked away in siloed systems.
  - Complex data cannot be linked or combined easily with other data sets.
  - Lack of consistency, timing, and quality challenges.

- U.S. First Open Data Law: Digital Accountability and Transparency Act of 2014 (DATA Act)
  - “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”
Overview

Goal

Track $3.8 trillion dollars in annual spending on a quarterly basis and link data from the budget, accounting, procurement and financial assistance databases into one common format that allows for comparability across government.

Challenge

Challenge: Collect, store and display more than 400 data elements from over 100 federal agencies.
Spending Data Hierarchy

Level 1: Federal Spending
($3.8 Trillion in FY16)

Level 2: Budget Functions
(Agriculture)

Level 3: Federal Accounts
(Child Nutrition Programs)

Level 4: Program Activity & Object Class
(National School Lunch Program, School Breakfast Program, Child and Adult Care Feeding Program, Other Mandatory Activities, Etc.)

Level 5: Award
(Contracts, Grants, Direct Payments, Loans and Insurance)
DATA Act Reporting Process Flow

DATA Act Information Model Schema (DAIMS)
Released in April 2016. Contains 400+ data elements

DATA Act Broker
Full Broker released in September 2016. Agency files are combined and validated.

Certification
Senior Accountable Officials (SAO) certify FY17 Q2 data by April 30, 2017

Data Store
Once certified, agency data is transmitted to the Treasury Data Store.
The DATA Act Schema provides a standardized definition and conceptual model for the information relevant to the domain and public reporting of U.S. Federal spending.

The Schema informs:

- How data providers select and organize information to submit
- What information is stored and how it is related
- How consumers can access and interpret information
Information Flow

**Additional Future Reporting Workflow**
Quarterly Reporting – DATA Act

**Existing Reporting Workflow**
Daily/Bi-weekly Reporting - FFATA

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**Data Act Broker**

- **Agency Uploaded Data**
  - (A) Appropriations Account
  - (B) Object Class and Program Activity
  - (C) Award Financial
  
  Defined in the Reporting Submission Specification (RSS)

  
  In accordance with SF 133/OMB Circular A-11/USSGL

- **Broker Extracted Data**
  - Award and Awardee Attributes
    - (D1) Award and Awardee Attributes (Procurement)
    - (D2) Award and Awardee Attributes (Financial Assistance)
  - (E) Additional Awardee Attributes
  - (F) Sub-award Attributes

  Defined in the Interface Definition Document (IDD)

- **Validations**
  - (Field level for A, B, and C; Cross validation for A to F)
  - Agency Certify Data

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**Public Website**

- Public Website – DATA Act Quarterly Reporting
- Public Website – Daily/Twice Monthly Data Reporting

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**Note:** For May 2017 implementation, D1 will be extracted from the USAspending site which pulls data from FPDS daily. D1 will be pulled from FPDS directly in the long term.
DATA Act Schema Components

- **Information Flow** – provides an overview of the reporting timeframes and sources of the data.

- **Reporting Submission Specification (RSS)** – includes a listing of the data elements with specific instructions for federal agencies to submit content in the appropriate format.

- **Interface Definition Document (IDD)** – contains a listing of the elements, with supporting metadata to understand what data will be pulled from government-wide systems and from agency financial assistance systems.

- **DAIMS Diagrams** – visual representations of how the data elements from the RSS and IDD fit together in context.

- **Online Data Dictionary** – a comprehensive list of data elements with definitions and minimal metadata, like definition and data category.

- **XBRL Schema Files** – machine-readable version of the data standard that includes accounting-related and award-related content.
File A through F are aligned to the DATA Act objectives

- **File A** contains appropriation summary level data that are aligned to the SF133 reporting.
- **File B** includes obligation and outlay information at the program activity and object class level.
- **File C** reports the obligations at the award and object class level.
- **File D1 and D2** report the award and awardee details that are linked to File C.
- **File E** includes the additional prime awardee attribute.
- **File F** includes sub-award information.
DATA Act Element Relationships

**Account Data**
(All Federal Spending)

(A) Appropriations Account
- **Level:** Treasury Account Symbol, excluding sub-account (TAS)
- **Reporting cadence:** Quarterly
- **Source:** Agency financial management systems

**Example elements:**
- Budget authority appropriated (amount)
- Unobligated balance (amount)
- Amount of other budgetary resources

(B) Object Class and Program Activity
- **Level:** TAS & program activity & object class
- **Reporting cadence:** Quarterly
- **Source:** Agency financial management systems

**Example elements:**
- Obligated amount (by program activity & object class)
- Outlay (gross)

**Award Data**
(procurement and financial assistance)

(C) Award Financial
- **Level:** TAS & object class & award ID
- **Reporting cadence:** Quarterly
- **Source:** Agency financial management systems

**Example elements:**
- Award linkage
- Transaction obligated amount
- TAS
- Object class
- (Program activity code - optional)

(D1) Award and Awardee Attributes (Procurement)
(DATA Act Broker Extract: Quarterly)
- **Level:** Linked at award document level (includes award modifications)
- **Reporting cadence:** Quarterly extraction from FPDS by data broker; Daily submission to FPDS (in existing format)
- **Source:** FPDS/agency procurement management systems

**Example elements:**
- awardee/recipient unique identifier, award characteristics information, awarding entity information, award amount information, awardee legal entity name and address

(D2) Award and Awardee Attributes (Financial Assistance)
(DATA Act Broker Extract: Quarterly)
- **Level:** Linked at award document level (includes award modifications)
- **Reporting cadence:** Quarterly extraction from ASP by data broker; Bi-weekly submission to ASP (in new format)
- **Source:** ASP/agency financial assistance management systems

**Example elements:**
- awardee/recipient unique identifier, award characteristics information, awarding entity information, award amount information, awardee legal entity name and address

(E) Additional Awardee Attributes
(DATA Act Broker Extract: Quarterly)
- **Level:** Awardee/Recipient Unique Identifier
- **Reporting cadence:** Quarterly extraction from SAM by data broker
- **Source:** SAM (Highly Compensated Officer Data)

**Example elements:**
- Awardee/recipient top 5 highly compensated officers

(F) Sub-award Attributes
(DATA Act Broker Extract: Quarterly)
- **Level:** Award ID & sub-award number
- **Reporting cadence:** Quarterly extraction from FRS by data broker
- **Source:** FRS

**Example elements:**
- Sub-award number and amount
DATA Act Benefits

- Goal: *Better Data, Better Decisions, Better Government*

- DATA Act Information Model Schema (DAIMS) provides a foundation for linking financial data to other data sets to improve outcomes and identify savings.

<table>
<thead>
<tr>
<th>Link to Management Data</th>
<th>Link to Outcome Data</th>
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<tr>
<td>Performance</td>
<td>State and local</td>
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<tr>
<td>Information Technology</td>
<td>Economic</td>
</tr>
<tr>
<td>Human Resources</td>
<td>Support evidence-based analysis</td>
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- Financial data use by private sector to generate economic value