

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, timining 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

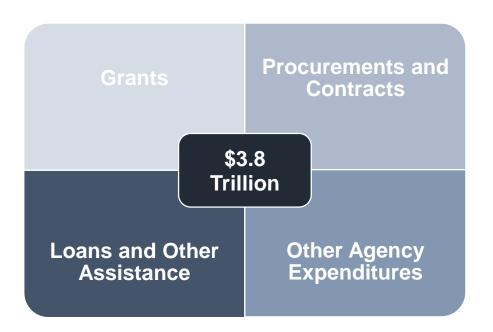


Goal

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.

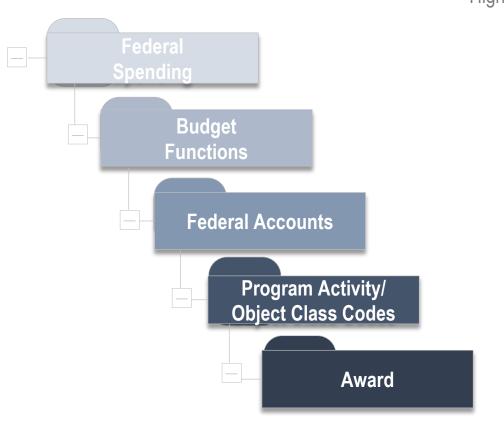
Challenge

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



Spending Data Hierarchy





High Level

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

Level 2: Budget Functions (Agriculture)

Level 3: Federal Accounts (Child Nutrition Programs)

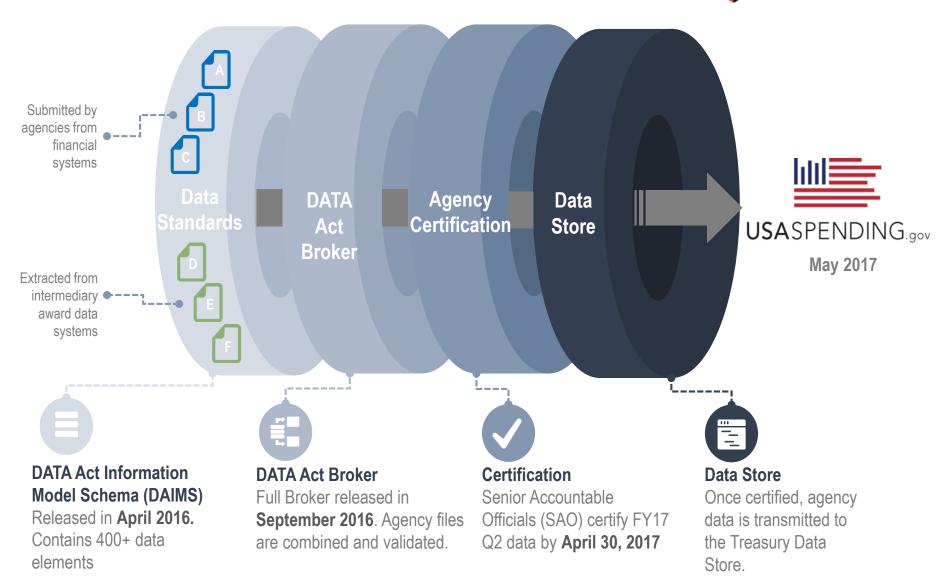
Level 4: Program Activity & Object Class (National School Lunch Program, School Breakfast Program, Child and Adult Care Feeding Program, Other Mandatory Activities, Etc.)

Level 5: Award (Contracts, Grants, Direct Payments, Loans and Insurance)

Lower Level

DATA Act Reporting Process Flow





DATA Act Information Model Schema (DAIMS)



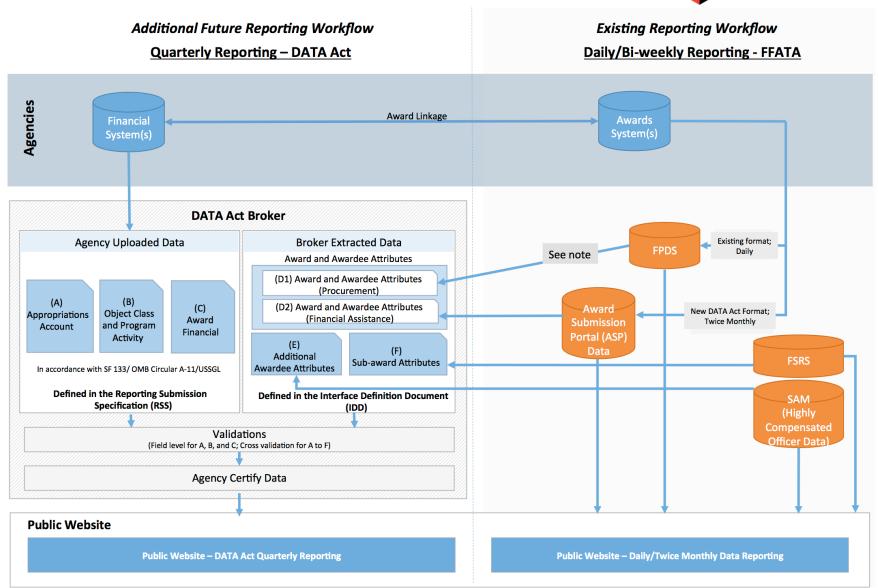
The DATA Act Schema provides a standardized definition and conceptual model for the information relevant to the domain and public reporting of U.S. Federal spending.

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





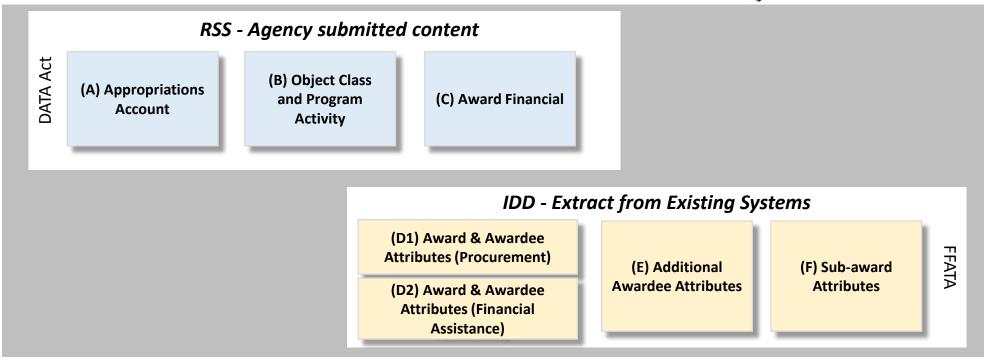
DATA Act Schema Components



- ▶ 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.

DATA Act Schema Components





- ▶ 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

Award

Linkage

Identifiers



Account Data

(All Federal Spending)

(A) Appropriations Account

 $\textbf{Level:} \ \mathsf{Treasury} \ \mathsf{Account} \ \mathsf{Symbol}, \mathsf{excluding} \ \mathsf{sub-account}$

(TAS)

Reporting cadence: Quarterly

Source: Agency financial management systems

Example elements:

- · Budget authority appropriated (amount)
- · Unobligated balance (amount)
- · Amount of other budgetary resources

TAS

TAS & Object Class

(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

Awardee / recipient unique ID

(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

Award Linkage

(F) Sub-award Attributes (DATA Act Broker Extract: Quarterly)

Level: Award ID & sub-award number

Reporting cadence: Quarterly extraction from FSRS

by data broker Source: FSRS

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.

Link to Management Data	Link to Outcome Data
Performance	State and local
Information Technology	Economic
Human Resources	Support evidence-based analysis

▶ Financial data use by private sector to generate economic value