The Digital Accountability Transparency Act Schema

*Draft Version 0.5*

# Background

The DATA Act directs the Office of Management and Budget (OMB) and the U.S. Treasury Department (Treasury) to establish government-wide data standards for federal funds and entities receiving such funds. While standard data definitions will help to ensure that information will be consistent and comparable, a standard data exchange, as part of our implementation to make financial management data more accessible and reusable and provide the necessary linkages between financial events. By making federal spending data accessible, searchable, reusable and more reliable, the public can understand how government spending impacts their communities. The standard data exchange will also reduce the need for massive system changes across federal agencies to collect information and allow agencies to focus on managing data.

Accordingly, Treasury will issue data exchange guidelines that leverage industry standards to structure financial and non-financial data with metadata, or supplemental information that describes, explains, locates, or otherwise makes it easier to retrieve and understand the data.

The technical standard is based on XBRL (eXtensible Business Reporting Language)**,** a freely available and global standard for describing and exchanging business information. XBRL provides a standards-based way to communicate and exchange business information between systems. These communications are defined by metadata set out in taxonomies, which capture the definition of individual concepts as well as the relationships between those concepts and their semantic meaning.

Treasury will require agencies, to the extent practicable, to submit data for posting on USAspending.gov (or successor site) via a standard data exchange called the “Digital Accountability Transparency Act Schema” (DATA Act Schema).

The standard data exchange, or DATA Act Schema, has two components: a standard taxonomy and a standard format, or “language” for exchanging data. The DATA Act Schema includes the required DATA Act data elements and related metadata, including relationship and validation rules. The DATA Act Schema will provide a comprehensive view of the data definition standards and their relationships to one another.

Treasury has created a draft subset of the DATA Act Schema based upon a subset of U.S. Standard General Ledger (USSGL), which is expressed in XBRL. The draft schema can be found [here](http://fedspendingtransparency.github.io/data-exchange-standard/). Additional components of the DATA Act Schema will be created in the future to capture other data elements (see Figure 1). For data transmission within the federal government and to external stakeholders, Treasury may leverage a combination of additional formats (e.g. JSON, Protocol Buffer, CSV, etc.) derived from the DATA Act schemas standard representation. This will allow matching of the optimal format given data volume, performance, and data presentation needs.

The DATA Act Schema will be revised periodically and is expected to evolve over time to capture unique requirements for more complex or specialized areas and to reflect changes due to law or regulation.

The DATA Act Schema, includes both the technical representation and the “human readable” taxonomy documentation [here](http://fedspendingtransparency.github.io/data-exchange-standard/).

**Important:** *The draft schema does not constitute official USSGL guidance and should not be used as official guidance by federal agencies or the public. For official guidance, see* [*http://tfm.fiscal.treasury.gov/v1/supplements/ussgl.html*](http://tfm.fiscal.treasury.gov/v1/supplements/ussgl.html)*.*

# Summary

The draft DATA Act Schema, as depicted here in Figure 1, is a model that includes the DATA Act data [element](http://fedspendingtransparency.github.io/dataelements/) areas. The model represents both awards (i.e. Financial Assistance, Procurement, and Loan) and financial data (i.e., Obligations, Outlays).

The DATA Act Schema will be composed of several schemas, standardizing the representation of financial assistance, procurement, and loan award data as well financial data.

Figure 1: The DATA Act Schema



The structure of the DATA Act Schema is such that a complete representation is “compiled” by assembling a set of schemas via a parent PALETTE schema to represent a specific business concept around financial assistance, procurement, loans, either singularly or in any combination.

Each of these schemas can be seen as a building block to assemble structured data oriented to US Government business concepts.

# Scope of Release

This document defines the current release of the draft DATA Act Schema for review. The draft DATA Act Schema is a work in progress and, as such, this is a living document intended to change with each new release.

In the current release, a baseline draft of the Financial Assistance Award schema (depicted in blue) is being released for review along with an updated USSGL financial schema. Subsequent releases will begin to include the other schemas (depicted in grey) as they are drafted.

Figure 2: Awards relationship to USSGL accounts

## Broader Considerations

### The Interaction of the Financial Assistance Award and Financial Modules

It is important to note that the modular structure of the DATA Act Schema allows for both a one-to-one OR a one-to-many relationship between an award (e.g., financial assistance, procurement, loan, etc.) and the [object class](https://fedspendingtransparency.github.io/whitepapers/objectclass/) (objectClass) of a USSGL account and its transactions. The USSGL account transaction and the award are linked by the award identifier (awardID) in the DATA Act Schema.



As depicted in Figure 2, each award transaction entry contains a link called an awardID which identifies and links it directly to the USSGL accounts and transaction for that award. The USSGL accounts and transactions also contain an object class descriptor, which allows the accounts and transactions to be associated with one or more object class values. These can be at both the summary USSGL account level and the detailed transaction level.

**Important:** As stated previously, this representation of object class does not constitute as official USSGL guidance. For official guidance, see <http://tfm.fiscal.treasury.gov/v1/supplements/ussgl.html>.

### Benefits: Enhanced Analytic Capabilities

The implementation of a DATA Act Schema creates a common language across information assets and can represent data across multiple systems. This creates some distinct advantages around:

Improved business intelligence capabilities across disparate sources of data

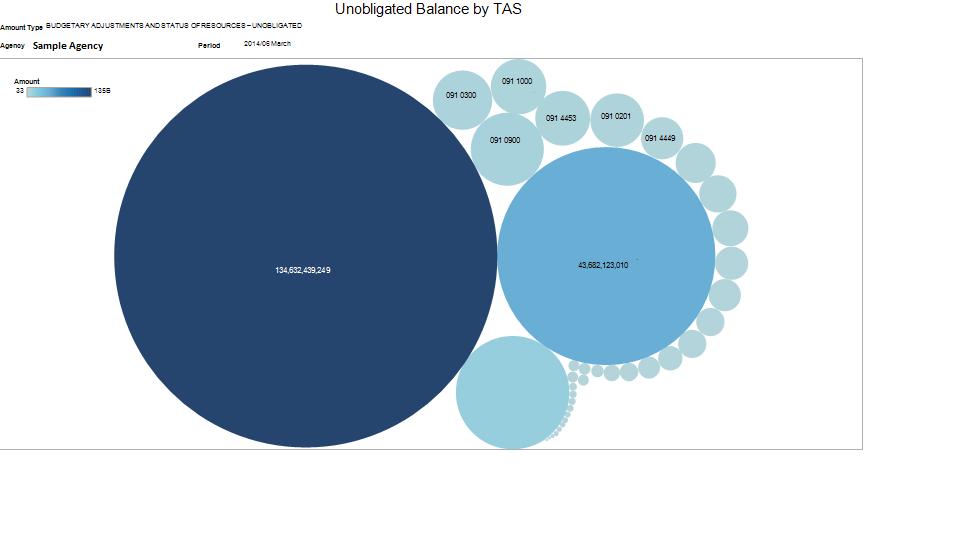
More effective self-service of business intelligence

Cross-agency analysis opportunities

Elimination of redundant reporting/report updates and maintenance

For example, by implementing the DATA Act Schema, a user can enhance and enable real-time analysis of balances of budget authority by appropriations account, which can better enable agencies to manage their programs.

Figure 3: Budget Authority (illustrative example)

The analysis in Figure 3 represents a sample of how a user could analyze information on obligations unpaid/pre-paid/advanced, segment it by apportionment category, budget authority, etc., and review the detailed USSGL account entries.

# Derived DATA Act Elements

The DATA Act Schema provides the structure to supply detailed account transaction-level data which can be automatically calculated into summary level information. Below are a list of DATA Act elements which are considered summary-level and a description of how those values could be derived from the detailed account transaction-level data.

While the capability exists, we are not requiring agencies to supply any detailed account transaction-level data to calculate these items in the first phase of implementation. Instead, these calculated values will be supplied by the agencies directly in order to simplify initial compliance with the DATA Act.

|  |  |
| --- | --- |
| **Data Element Name** | **Aggregate values** |
| Appropriations Account | Summary based on the TAS/TAFS (i.e. 01X1234) |
| Amount of Budget Authority Appropriated | Calculated based on USSGL account balances, There are a number of USSGL accounts which make up this value including; Appropriated. |
| Obligated Amount | Calculated based on USSGL account balances and difference between opening and closing balances, Main USSGL accounts are 480100, 480200, 490100, 490200\*\* |
| Unobligated Amount | Calculated based on USSGL account balances, Main USSGL accounts are 445000, 451000, 461000 and 465000\*\* |
| Amount of other budgetary resources | Calculated based on USSGL account balances, including Contract, Borrowing, and Spending Authority from Offsetting Collections |
| Outlay | Calculated based on USSGL account balances and difference between opening and closing balances, Main USSGL accounts are 480200 and 490200\*\* |

\*\*Note that the USSGL accounts listed don't make up the entire population of possible USSGL accounts for those balances, but those will be the biggest accounts.

# Technical Summary

## Purpose and Scope

The modular taxonomies of the DATA Act Schema are intended to provide a standardized format for representing the data fields found in the U.S. Government’s agency accounting and operation systems and transactional reports to allow agencies to tag journal entries, accounting master files, and historical summary status reports in XML. Each module can be seen as a taxonomy which extends GEN and is meant to enable modules to be used as building blocks, parts of a whole, to assemble structured data oriented to US Government business and accounting concepts beyond the needs of the DATA Act. Agencies can adopt this standard and add modules to extend the data for their own internal reporting and data exchange purposes. We can also see opportunities to extend this structure at the intergovernmental level to standardize data for budget formulation.



GEN

The GEN schema provides the basic element declarations common across all modules in the DATA Act Schema. Treasury Account Symbol (TAS), for example, exists as a concept for both awards and financial data. Placing the TAS within the GEN file allows the structure to be shared and changed in one place should the TAS change.

### USSGL-FINANCIAL

USSGL-Financial models the uniform chart of accounts and technical structure of financial data as laid out in USSGL guidance, creating a standardized representation of federal agency accounting data.

### AWARD

The AWARD schema provides the basic element declarations common across all award based modules (Financial Assistance, Procurement, Loan, etc...)

### FINANCIAL ASSISTANCE

The FINANCIAL ASSISTANCE schema provides element declarations specific to financial assistance awards and defines the content structure of financial assistance.

### PROCUREMENT

The PROCUREMENT schema provides element declarations specific to procurement awards and defines the content structure of procurement.

## Scope of Architecture

This document defines the technical architecture of the DATA Act Schema. It is strictly limited to aspect related to the organization of the technical artifacts (schemas, etc.) and does not address any issues related to how the concepts defined in the taxonomy should be used or applied.

# The Structure of the DATA Act Schema

The structure of the DATA Act Schema is such that a complete representation is “compiled” by assembling a set of schemas via a parent “palette” schema (which is always in the file named da-palette-xxx.xsd).

Since the content models of many elements vary depending on the combination of modules that are being used in any one application, the taxonomy schemas are separated into multiple physical files that are connected by means of <include> and <import> statements.

There is one general schema (da-gen-2015-05-05.xsd) that is imported by the others. Each module’s schema is divided into two main parts – the element declarations (in da-xxx-2015-05-05.xsd) and the content model declarations (in da-xxx-content-2015-05-05.xsd – which <include>s da-xxx-2015-05-05.xsd to form a complete schema) where “xxx” is the name for the relevant module(s). For example, a palette which includes FINANCIAL ASSISTANCE award information and USSGL FINANCIAL information to support detailed drill down capability would be named “da-palette-finassist-ussglfin-2015-05-05.xsd”

## Physical Folder Organization

### gen

Path: /gen/da-gen-2015-06-02.xsd

### ussglfin

Path: /ussglfin/da-ussglfin-content-2015-06-02.xsd

### award

Path: /award/da-award-content-2015-06-02.xsd

### finassist

Path: /finassist/da-finassist-content-2015-06-02.xsd

### loan (proposed future addition)

Future implementation

### plt

#### case-ussglfin

Path: /plt/case-ussglfin/da-palette-ussglfin-2015-06-02.xsd

#### case-finassist

Path: /plt/case-finassist/da-palette-finassist-2015-06-02.xsd

#### case-finassist-ussglfin

Path: /plt/case-finassist-ussglfin/da-palette-finassist-ussglfin-2015-06-02.xsd

#### case-loan

Future implementation

#### case-loan-ussglfin

Future implementation

# Schema reference – USSGL Financial



## Financial DATA Act Elements

Element: accountingEntries

Proposed Type: complex

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Data Element** | **Description** | **Type** | **MinOccurs** | **MaxOccurs** |
| fiscalYear | Designates the fiscal year for which the data is being submitted. | Simple: stringItemType | 0 | 1 |
| Period | Designates the month for which the data is being submitted. This is a 2 digit number that starts with 01 for October and goes through 12 for September. | Simple: stringItemType | 0 | 1 |
| [USSGLentryHeader](#_USSGLentryHeader) | - | Complex: USSGLentryHeaderComplexType | 0 | unbounded |

### USSGLentryHeader

Element: USSGLentryHeader

Proposed Xml Type: complex

Definition Source: http://fedspendingtransparency.github.io/dataelements/

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Data Element** | **Description** | **Type** | **MinOccurs** | **MaxOccurs** |
| [treasuryAccountSymbol](#_TreasuryAccountingSymbol) | Complex element representing the component Treasury Account Symbol. Refer to the complex type treasuryAccountSymbol (linked at the left) for more details. | Complex: treasuryAccountSymbolComplexType | 1 | 1 |
| [entryDetail](#_entryDetail) | Complex element representing the entry detail for USSGL accounting entries. Refer to the complex type entryDetail (linked at the left) for more details. | Complex: entryDetailComplexType | 1 | Unbounded |
| obligatedAmount | Obligation means a legally binding agreement that will result in outlays, immediately or in the future. When you place an order, sign a contract, award a grant, purchase a service, or take other actions that require the Government to make payments to the public or from one Government account to another, you incur an obligation. It is a violation of the Antideficiency Act (31 U.S.C. 1341(a)) to involve the Federal Government in a contract or obligation for payment of money before an appropriation is made, unless authorized by law. This means you cannot incur obligations in a vacuum; you incur an obligation against budget authority in a Treasury account that belongs to your agency. It is a violation of the Antideficiency Act to incur an obligation in an amount greater than the amount available in the Treasury account that is available. This means that the account must have budget authority sufficient to cover the total of such obligations at the time the obligation is incurred. In addition, the obligation you incur must conform to other applicable provisions of law, and you must be able to support the amounts reported by the documentary evidence required by 31 U.S.C. 1501. Moreover, you are required to maintain certifications and records showing that the amounts have been obligated (31 U.S.C. 1108). Additional detail is provided in Circular A‐11. | Simple: amountItemType | 1 | 1 |
| unobligatedAmount | Unobligated balance means the cumulative amount of budget authority that remains available for obligation under law in unexpired accounts at a point in time. The term “expired balances available for adjustment only” refers to unobligated amounts in expired accounts.  Additional detail is provided in Circular A‐11. | Simple: amountItemType | 1 | 1 |
| budgetAuthorityAppropriated | A provision of law (not necessarily in an appropriations act) authorizing an account to incur obligations and to make outlays for a given purpose. Usually, but not always, an appropriation provides budget authority. | Simple: amountItemType | 1 | 1 |
| otherBudgetaryResources | New borrowing authority, contract authority, and spending authority from offsetting collections provided by Congress in an appropriations act or other legislation, or unobligated balances of budgetary resources made available in previous legislation, to incur obligations and to make outlays. | Simple: amountItemType | 1 | 1 |
| Outlays | Payments made to liquidate an obligation (other than the repayment of debt principal or other disbursements that are "means of financing" transactions). Outlays generally are equal to cash disbursements but also are recorded for cash-equivalent transactions, such as the issuance of debentures to pay insurance claims, and in a few cases are recorded on an accrual basis such as interest on public issues of the public debt. Outlays are the measure of Government spending. | Simple: amountItemType | 1 | 1 |
| appropriationAccount | The basic unit of an appropriation generally reflecting each unnumbered paragraph in an appropriation act. An appropriation account typically encompasses a number of activities or projects and may be subject to restrictions or conditions applicable to only the account, the appropriation act, titles within an appropriation act, other appropriation acts, or the government as a whole. An appropriations account is represented by a TAFS. | Simple: stringItemType | 1 | 1 |

#### entryDetail

Element: entryDetail

Proposed Xml Type: complex

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Data Element** | **Description** | **Type** | **MinOccurs** | **MaxOccurs** |
| [account](#_account) | Identifies the USSGL account. The USSGL account must be in the USSGL chart of accounts. | Complex: accountComplexType | 1 | 1 |
| Amount | This field contains the balance of the USSGL account. Each USSGL account must have a balance. | Simple: amountItemType | 1 | 1 |
| debitCreditCode | Indicates whether the amount reported is debited or credited to the USSGL account | Enumeration: debitCreditCodeItemType | 1 | 1 |
| beginningEndIndicator | Indicates whether the balance or an USSGL account/attribute combination is at the start of the fiscal year or at the end of a period | Enumeration: beginningEndIndicatorItemType | 1 | 1 |
| programActivity | A specific activity or project as listed in the program and financing schedules of the annual budget of the United States Government. | Simple: stringItemType | 1 | 1 |

#### account

Element: account

Proposed Xml Type: complex

Source: <http://fedspendingtransparency.github.io/dataelements/>, http://fedspendingtransparency.github.io/whitepapers/award-id-description/

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Data Element** | **Description** | **Type** | **MinOccurs** | **MaxOccurs** |
| accountNumber | Represents the USSGL account number. | Simple: stringItemType | 1 | 1 |
| objectClass | Categories in a classification system that presents obligations by the items or services purchased by the Federal Government. Each specific object class is defined in OMB Circular A-11 Section 83.6. | Enumeration  objectClassComplexType | 1 | 1 |
| awardID | Represents the common concept of the unique identifier of the specific award being reported. | Simple: stringItemType | 1 | 1 |
| accountDescription | The description of the account | Simple: stringItemType | 1 | 1 |

# Schema reference – Financial Assistance



## award

Element: award

Proposed Xml Type: complex

Source: http://fedspendingtransparency.github.io/dataelements/

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Data Element** | **Description** | **Type** | **MinOccurs** | **MaxOccurs** |
| awardDescription | Represents the common concept of a brief description of the purpose of an award. | Simple: stringItemType | 1 | 1 |
| awardID | Represents the common concept of the unique identifier of the specific award being reported. | Simple: stringItemType | 1 | 1 |
| parentAwardID | Represents the common concept of the unique identifier of the award under which the specific award is issued (such as a Federal Supply Schedule). | Simple: stringItemType | 1 | 1 |
| [awardAmounts](#_Type:_awardAmounts_3) | Represents the common concept of an award amount, including the:   * Funding Action Obligation * Current Total Funding Obligation Amount On Award * Non Federal Funding Amount | Complex: awardAmountsComplexType | 0 | 1 |
| [awardeeInformation](#_Type:_awardAmounts_2) | Represents the common concept of awardee information, including:   * Business Type * Awardee Legal Business Name * Ultimate Parent Unique Identifier * Awardee Unique Identifier * Awardee Unique Identifier Supplemental * Ultimate Parent Legal Business Name * Awardee Address | Complex: awardeeInformationComplexType | 1 | 1 |
| [awardingAgency](#_Agency) | Represents the common concept of an awarding agency within the context of a financial assistance award. | Complex: agencyComplexType | 0 | Unbounded |
| [awardingSubTierAgency](#_Agency) | Represents the common concept of an awarding sub tier agency within the context of a financial assistance award. | Complex: agencyComplexType | 0 | Unbounded |
| [periodOfPerformance](#_Type:_periodOfPerformance) | Represents the common concept of the period of performance associated with an award within the context of a financial assistance award. | Complex: periodOfPerformanceComplexType | 0 | 1 |
| modificationAmendmentNumber | Represents the common concept of the identifier of an action being reported that indicates the specific subsequent change to the initial award, within the context of a financial assistance award. | Simple: stringItemType | 1 | 1 |
| [fundingSubTierAgency](#_Agency) | Represents the common concept of a funding sub tier agency within the context of a financial assistance award. | Complex: agencyComplexType | 0 | Unbounded |
| [fundingAgency](#_Agency) | Represents the common concept of a funding agency within the context of a financial assistance award. | Complex: agencyComplexType | 0 | Unbounded |
| [primaryPlaceOfPerformance](#_address) | Represents the common concept of an address for the primary place of performance of an award. | Complex: addressComplexType | 0 | 1 |
| [highlyCompensatedOfficer](#_Type:_highlyCompensatedOfficer_1) | Represents the common concept of a highly compensated officer. | Complex: highlyCompensatedOfficerComplexType | 0 | 5 |
| recordType | Represents the common concept of a record type within the context of a financial assistance award. | simple: recordTypeItemType | 1 | 1 |
| typeOfAction | Represents the common concept of a type of action within the context of a financial assistance award. | enumeration: typeOfActionItemType | 1 | 1 |
| typeOfTransactionCode | Represents the common concept of a type of transaction code within the context of a financial assistance award. | Enumeration: transactionCodeItemType | 1 | 1 |
| [catalogOfFederalDomesticAssistanceProgram](#_Type:_catalogOfFederalDomesticAssis_1) | Represents the common concept of a Federal Domestic Assistance Program within the context of a financial assistance award. | Complex: catalogOfFederalDomesticAssistanceProgramComplexType | 0 | 1 |

#### Awardee Information

Element: awardeeInformation

Proposed Xml Type: complex

Source: <http://fedspendingtransparency.github.io/dataelements/>, http://fedspendingtransparency.github.io/whitepapers/unique-id-business-name/

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Data Element** | **Description** | **Type** | **MinOccurs** | **MaxOccurs** |
| businessType | Represents the common concept of a business type of an awardee within the context of a financial assistance award. | Enumeration: businessTypeItemType | 1 | 1 |
| awardeeLegalBusinessName | The name of the awardee or recipient that relates to the unique identifier. For U.S. based companies, this name is what the business ordinarily files in formation documents with individual states (when required). | Simple: stringItemType | 1 | 1 |
| ultimateParentUniqueIdentifier | Represents the common concept of a unique identifier (DUNS number) for the ultimate parent of an awardee within the context of a financial assistance award. | simple: integerItemType | 1 | 1 |
| awardeeUniqueIdentifier | The unique identification number for an awardee or recipient. Currently, the identifier is the 9-digit number assigned by Dun & Bradstreet, Inc. referred to as the DUNS® number. | simple: integerItemType | 1 | 1 |
| awardeeUniqueIdentifierSupplemental | Represents the common concept of a unique identifier supplemental (DUNS+4) for an awardee within the context of a financial assistance award. | simple: stringItemType | 1 | 1 |
| ultimateParentLegalBusinessName | Represents the common concept of a legal business name for the ultimate parent of an awardee within the context of a financial assistance award. | Simple: stringItemType | 1 | 1 |
| [awardeeAddress](#_address) | The awardee or recipient’s legal business address where the office represented by the Unique Entity Identifier (as registered in the System for Award Management) is located. In most cases, this should match what the entity has filed with the State in its organizational documents, if required. The address is made up of five components: Address Lines 1 and 2, City, State Code, and ZIP+4 or Postal Code. | Complex: addressComplexType | 1 | 1 |

### 

### Award Amounts

Element: awardAmounts

Proposed Xml Type: complex

Source: http://fedspendingtransparency.github.io/whitepapers/amount/

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Data Element** | **Description** | **Type** | **MinOccurs** | **MaxOccurs** |
| federalFundingAmount | Amount of the Federal government’s obligation or contingent liability, in dollars. Represents the common concept of the federal funding amount for an award within the context of a financial assistance award. | Simple: amountItemType | 0 | 1 |
| totalFundingAmount | Federal funding amount plus non-Federal funding amount in dollars. Represents the common concept of the total funding amount for an award within the context of a financial assistance award. | Simple: amountItemType | 0 | 1 |
| nonFederalFundingAmount | Amount of non-Federal funding, in dollars. Represents the common concept of the nonfederal funding amount for an award within the context of a financial assistance award. | Simple: amountItemType | 0 | 1 |

### Catalog of Federal Domestic Assistance Program

Element: catalogOfFederalDomesticAssistanceProgram

Proposed Xml Type: complex

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Data Element** | **Description** | **Type** | **MinOccurs** | **MaxOccurs** |
| catalogOfFederalDomesticAssistanceTitle | The title of the Federal award was funded in the CFDA. | Simple: stringItemType | 0 | 1 |
| catalogOfFederalDomesticAssistanceNumber | The number assigned to the Catalog of Federal Domestic Assistance. The Catalog of Federal Domestic Assistance (CFDA) is a government-wide compendium of Federal projects, services, and activities that provide assistance or benefits to the American public. It contains financial and non-financial assistance administered by departments and establishments of the Federal government. Each activity is assigned a unique number by agency that follows the activity throughout the assistance lifecycle enabling data and funding transparency. The complete CFDA number is a five digit number, XX.XXX, where the first two digits represent the Funding Agency and the second three digits represent the activity. | Simple: stringItemType | 0 | 1 |

### Period of Performance

Element: periodOfPerformance

Proposed Xml Type: complex

Source: http://fedspendingtransparency.github.io/whitepapers/period-of-performance/

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Data Element** | **Description** | **Type** | **MinOccurs** | **MaxOccurs** |
| periodOfPerformanceStartDate | Represents the common concept of the period of performance start date for an award within the context of a financial assistance award. | Simple: dateItemType | 0 | 1 |
| periodOfPerformanceActionDate | Represents the common concept of the period of performance action date for an award within the context of a financial assistance award. | Simple: dateItemType | 0 | 1 |
| periodOfPerformanceCurrentEndDate | Represents the common concept of the period of performance current end date for an award within the context of a financial assistance award. | Simple: dateItemType | 0 | 1 |
| periodOfPerformancePotentialEndDate | Represents the common concept of the period of performance potential end date for an award within the context of a financial assistance award. | Simple: dateItemType | 0 | 1 |

# Schema reference – Procurement



## Award

Element: award

Proposed Xml Type: complex

Source: http://fedspendingtransparency.github.io/dataelements/

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Data Element** | **Description** | **Type** | **MinOccurs** | **MaxOccurs** |
| awardDescription | Represents the common concept of a brief description of the purpose of an award within the context of a procurement award. | Simple: stringItemType | 1 | 1 |
| awardID | Represents the common concept of the unique identifier of the specific award being reported. | Simple: stringItemType | 1 | 1 |
| parentAwardID | Represents the common concept of the unique identifier of the award under which the specific award is issued (such as a Federal Supply Schedule) within the context of a procurement award. | Simple: stringItemType | 1 | 1 |
| [awardAmounts](#_Type:_awardAmounts_1) | Represents the common concept of an award amount within the context of a procurement award, including:  fundingActionObligation  currentTotalValueOfAward  potentialTotalValueOfAward | Complex: awardAmounts | 0 | 1 |
| [awardeeInformation](#_Type:_awardeeInformation_1) | Represents the common concept of awardee information associated with an award within the context of a procurement award, including:  businessType  awardeeLegalBusinessName  ultimateParentUniqueIdentifier  awardeeUniqueIdentifier  awardeeUniqueIdentifierSupplemental  awardeenaics  ultimateParentLegalBusinessName  awardeeAddress | Complex: awardeeInformation | 1 | 1 |
| [awardingAgency](#_Agency) | Represents the common concept of an awarding agency within the context of a procurement award. | Complex: agencyComplexType | 0 | Unbounded |
| [awardingSubTierAgency](#_Agency) | Represents the common concept of an awarding sub tier agency within the context of a procurement award. | Complex: agencyComplexType | 0 | Unbounded |
| [periodOfPerformance](#_Type:_periodOfPerformance_1) | Represents the common concept of the period of performance associated with an award within the context of a procurement award. | Complex: periodOfPerformanceComplexType | 0 | 1 |
| modificationAmendmentNumber | Represents the common concept of the identifier of an action being reported that indicates the specific subsequent change to the initial award, within the context of a procurement award. | Simple: StringItemType | 1 | 1 |
| [fundingSubTierAgency](#_Agency) | Represents the common concept of an funding sub tier agency within the context of a procurement award. | Complex: agencyComplexType | 0 | Unbounded |
| [fundingAgency](#_Agency) | Represents the common concept of a funding agency within the context of a procurement award. | Complex: agencyComplexType | 0 | Unbounded |
| [primaryPlaceOfPerformance](#_address) | Represents the common concept of an address for the primary place of performance of an award. | Complex: addressComplexType | 0 | 1 |
| [highlyCompensatedOfficer](#_Type:_highlyCompensatedOfficer_1) | Represents the common concept of a highly compensated officer. | Complex: highlyCompensatedOfficerComplexType | 0 | 5 |
| recordType | Represents the common concept of a record type within the context of a procurement award. | simple: recordTypeItemType | 1 | 1 |
| typeOfAction | Represents the common concept of a type of action within the context of a procurement award. | enumeration: typeOfActionItemType | 1 | 1 |
| typeOfTransactionCode | Represents the common concept of a type of transaction code within the context of a procurement award. | Enumeration: transactionCodeItemType | 1 | 1 |
| specialLegislativeIndicator | Represents the common concept of a special legislative indicator within the context of a procurement award. | Simple: stringItemType | 0 | 1 |

### Awardee Information

Element: awardeeInformation

Proposed Xml Type: complex

Source: <http://fedspendingtransparency.github.io/dataelements/>, http://fedspendingtransparency.github.io/whitepapers/unique-id-business-name/

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Data Element** | **Description** | **Type** | **MinOccurs** | **MaxOccurs** |
| businessType | Represents the common concept of a business type of an awardee within the context of a financial assistance award. | Enumeration: businessTypeItemType | 1 | 1 |
| awardeeLegalBusinessName | Represents the common concept of a legal business name for an awardee within the context of a financial assistance award. | Simple: stringItemType | 1 | 1 |
| ultimateParentUniqueIdentifier | Represents the common concept of a unique identifier (DUNS number) for the ultimate parent of an awardee within the context of a financial assistance award. | simple: integerItemType | 1 | 1 |
| awardeeUniqueIdentifier | Represents the common concept of a unique identifier (DUNS number) for an awardee within the context of a financial assistance award. | simple: integerItemType | 1 | 1 |
| awardeeUniqueIdentifierSupplemental | Represents the common concept of a unique identifier supplemental (DUNS+4) for an awardee within the context of a financial assistance award. | simple: stringItemType | 1 | 1 |
| [awardeenaics](#_North_American_Industry) | NAICS of awardee business | Complex: naicsComplexType | 1 | 1 |
| ultimateParentLegalBusinessName | Represents the common concept of a legal business name for the ultimate parent of an awardee within the context of a procurement award. | Simple: stringItemType | 1 | 1 |
| [awardeeAddress](#_address) | Represents the common concept of an awardee legal business address within the context of a procurement award. | Complex: addressComplexType | 1 | 1 |

#### Type: awardeenaics

The North American Industry Classification System (NAICS) is the standard used by Federal statistical agencies in classifying business establishments for the purpose of collecting, analyzing, and publishing statistical data related to the U.S. business economy.

Element: awardeenaics

Proposed Xml Type: complex

Source: <http://www.census.gov/eos/www/naics/index.html>, http://fedspendingtransparency.github.io/whitepapers/naics/,

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Data Element** | **Description** | **Type** | **MinOccurs** | **MaxOccurs** |
| naicsNumber | The identifier that represents the North American Industrial Classification System Code assigned to the solicitation and resulting award identifying the industry in which the contract requirements are normally performed. | Simple: integerItemType | 0 | 1 |
| naicsDescription | The title associated with the NAICS Code. | Simple: stringItemType | 0 | 1 |

## Award Amounts

Element: awardAmounts

Proposed Xml Type: complex

Source: http://fedspendingtransparency.github.io/whitepapers/amount/

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Data Element** | **Description** | **Type** | **MinOccurs** | **MaxOccurs** |
| fundingActionObligation | The amount that is obligated or de-obligated by a particular transaction. Represents the common concept of the funding action obligation amount for an award within the context of a procurement award. | Simple: amountItemType | 0 | 1 |
| potentialTotalValueofAward | The total value of the government's potential financial liability to pay on the specific award as of the date of the action being reported if all potential pre-determined or pre-negotiated options were exercised (represented in U.S. dollars). This value must be greater than or equal to the Current Total Value of Award. | Simple: amountItemType | 0 | 1 |
| currentTotalValueOfAward | The total value of the government's financial liability to pay on the specific award as of the date of the action being reported (represented in U.S. dollars). This value must be greater than or equal to the Current Total Obligation Amount on Award. | Simple: amountItemType | 0 | 1 |

## Period Of Performance

Element: periodOfPerformance

Proposed Xml Type: complex

Source: http://fedspendingtransparency.github.io/whitepapers/period-of-performance/

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Data Element** | **Description** | **Type** | **MinOccurs** | **MaxOccurs** |
| periodOfPerformanceStartDate | Represents the common concept of the period of performance start date for an award within the context of a procurement award. | Simple: dateItemType | 0 | 1 |
| periodOfPerformanceActionDate | Represents the common concept of the period of performance action date for an award within the context of a procurement award. | Simple: dateItemType | 0 | 1 |
| periodOfPerformanceCurrentEndDate | Represents the common concept of the period of performance current end date for an award within the context of a procurement award. | Simple: dateItemType | 0 | 1 |
| periodOfPerformancePotentialEndDate | Represents the common concept of the period of performance potential end date for an award within the context of a procurement award. | Simple: dateItemType | 0 | 1 |
| periodOfPerformanceOrderingPeriodEndDate | The date on which, for the award referred to by the action being reported if it is an indefinite delivery vehicle, no additional orders referring to it may be placed. Administrative actions related to this award may continue to occur after this date. The period of performance end dates for orders issued under the indefinite delivery vehicle may extend beyond this date. | Simple: dateItemType | 0 | 1 |

# Schema reference – Award



## Common Award Elements

Source: http://fedspendingtransparency.github.io/dataelements/

| **Data Element** | **Description** | **Type** |
| --- | --- | --- |
| awardDescription | A brief description of the purpose of the award. | Simple: stringItemType |
| awardID | The unique identifier of the specific award being reported. | Simple: integerItemType |
| parentAwardID | The identifier of the award under which the specific award is issued (such as a Federal Supply Schedule). | Simple: integerItemType |
| [awardingAgency](#_Agency) | Represents the common concept of and awarding agency. | Complex: agencyComplexType |
| [awardingSubTierAgency](#_Agency) | Represents the common concept of a name and code for the federal department or agency, commission, board or other organization that does not have a parent department that issued the federal award action. | Complex: agencyComplexType |
| modificationAmendmentNumber | The identifier of the action being reported that indicates the initial award or a specific subsequent change to the award. | Simple: stringItemType |
| [fundingSubTierAgency](#_Agency) | The name and code for the 1st tier agency, bureau, office, division or other organization within a federal department that provided the predominant amount of funding for the specific federal award action. When the organization is one that is not a federal department with 1st tier agencies, office, bureaus or divisions; the code used as the Funding Department Code may be used. | Complex: agencyComplexType |
| [fundingAgency](#_Agency) | The name and code for the federal department or agency, commission, board or other organization that does not have a parent department that provided the predominant amount of funding for the specific federal award action. | Complex: agencyComplexType |
| [primaryPlaceOfPerformance](#_address) | Represents the common concept of an address for the primary place of performance of an award. | Complex: addressComplexType |
| [highlyCompensatedOfficer](#_Type:_highlyCompensatedOfficer_1) | Represents the common concept of a highly compensated officer which includes the officer’s first name, last name, and compensation. | Complex: highlyCompensatedOfficerComplexType |
| recordType | Information should be identified in the FAADS PLUS files using the 'Record Type' field as follows:  1 - County-level aggregate reporting (for payments to individuals and other amounts identifiable by a geographical unit)  2- Normal transaction-level (action-by-action) reporting. These are non-aggregate records. | Enumeration: recordTypeItemType |
| typeOfAction | The record should instead use the 'Type of Action' data element to identify the type of change to the award as follows: 'B' - Continuation (funding in succeeding budget period which stemmed from prior agreement to fund amount of the current action) 'C' - Revision (any change in Federal Government's financial obligation or contingent liability in existing assistance transaction amount of the change in funding; or any change in Recipient Name, Recipient Address, Project Period or Project Scope 'D' - Funding adjustment to completed project | Enumeration: typeOfActionItemType |
| typeOfTransactionCode | Type of Assistance: The type of assistance provided by the award.  (From FAADS user guide)  02 = block grant (A)  03 = formula grant (A)  04 = project grant (B)  05 = cooperative agreement (B)  06 = direct payment for specified use, as a subsidy or other non-reimbursable direct financial aid (C)  07 = direct loan (E)  08 = guaranteed/insured loan (F)  09 = insurance (G)  10 = direct payment with unrestricted use (retirement, pension, veterans benefits, etc.) (D) 11 = other reimbursable, contingent, intangible, or indirect financial assistance | Enumeration: transactionCodeItemType |
| fundingActionObligation | The federal funding amount being obligated or deobligated by the action (represented in U.S. dollars). | Simple: amountItemType |
| businessType | Two-position numeric code which depicts the type of recipient or borrower. Government codes: 00 = State government 01 = county government 02 = city or township government 04 = special district government 05 = independent school district 06 = State controlled institution of higher education Nonprofit agencies: 11 = Indian tribe 12 = other nonprofit Private: 20 = private higher education 21 = individual 22 = profit organization 23 = small business 25 = all other | Enumeration: businessTypeItemType |
| awardeeLegalBusinessName | The name of the awardee that relates to the Awardee DUNS Number. For U.S. based companies, this also normally relates to the name on incorporation documents filed with the individual states (when this is required). | Simple: stringItemType |
| ultimateParentUniqueIdentifier | 9-digit number assigned by Dun & Bradstreet, Inc. (D&B) that uniquely identifies the global parent (as determined by D&B) related to the Awardee DUNS Number | Simple: integerItemType |
| awardeeUniqueIdentifier | 9-digit number assigned by Dun & Bradstreet, Inc. (D&B) to identify unique business entities, which is used as the identification number for Federal Awardees | Simple: integerItemType |
| awardeeUniqueIdentifierSupplemental | DUNS number assigned by D&B plus a 4-character suffix that may be assigned by a business concern. (D&B has no affiliation with this 4-character suffix.) This 4-character suffix may be assigned at the discretion of the business concern to establish additional SAM records for identifying alternative electronic funds transfer (EFT) accounts for the same concern. | Simple: stringItemType |
| ultimateParentLegalBusinessName | The name of the global parent of the awardee that relates to the Global Parent DUNS Number. | Simple: stringItemType |
| [awardeeAddress](#_address) | Represents the common concept of an awardee legal business address. | Complex: addressComplexType |
| periodOfPerformanceStartDate | The date on which, for the award referred to by the action being reported, awardee effort begins or the award is otherwise effective. | Simple: dateItemType |
| periodOfPerformanceActionDate | The date the action being reported was issued / signed by the government or a binding agreement was reached. | Simple: dateItemType |
| periodOfPerformanceCurrentEndDate | The current date on which, for the award referred to by the action being reported, awardee effort completes or the award is otherwise ended. Administrative actions related to this award may continue to occur after this date. This date does not apply to indefinite delivery vehicles under which definitive orders may be awarded. | Simple: dateItemType |
| periodOfPerformancePotentialEndDate | The date on which, for the award referred to by the action being reported if all potential pre-determined or pre-negotiated options were exercised, awardee effort completes or the award is otherwise ended. Administrative actions related to this award may continue to occur after this date. This date does not apply to indefinite delivery vehicles under which definitive orders may be awarded. | Simple: dateItemType |

### Highly Compensated Officer

Element: highlyCompensatedOfficer

Proposed Xml Type: complex

Source: http://fedspendingtransparency.github.io/whitepapers/highlycompensatedofficers/

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Data Element** | **Description** | **Type** | **MinOccurs** | **MaxOccurs** |
| highlyCompensatedOfficersFirstName | The first name of an individual identified as one of the five most highly compensated "Executives." "Executive" means officers, managing partners, or any other employees in management positions. | Simple: stringItemType | 1 | 1 |
| highlyCompensatedOfficersMiddleInitial | The middle initial of an individual identified as one of the five most highly compensated “Executives.” “Executive” means officers, managing partners, or any other employees in management positions. | Simple: stringItemType | 1 | 1 |
| highlyCompensatedOfficersLastName | The last name of an individual identified as one of the five most highly compensated "Executives." "Executive" means officers, managing partners, or any other employees in management positions. | Simple: stringItemType | 1 | 1 |
| highlyCompensatedOfficersCompensation | The cash and noncash dollar value earned by the one of the five most highly compensated “Executives” during the awardee's preceding fiscal year and includes the following (for more information see 17 CFR 229.402c2): salary and bonuses, awards of stock, stock options, and stock appreciation rights, earnings for services under non-equity incentive plans, change in pension value, above-market earnings on deferred compensation which is not tax qualified, and other compensation. | Simple: amountItemType | 1 | 1 |

# Schema Reference – GEN (General Elements)

 Provides definitions of standard types located in GEN base schema

## Agency

A permanent or semi-permanent organization that is responsible for the oversight and administration of specific functions.

Element: agency

Proposed Type: complex

Source: http://www.fiscal.treasury.gov/fsservices/gov/acctg/cars/factsheet\_tas.htm

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Data Element** | **Description** | **Type** | **MinOccurs** | **MaxOccurs** |
| agencyIdentifier | The code for the federal department or agency, commission, board or other organization that does not have a parent department that issued the federal award action. This field supports a 3 digit agency identifier and drops the leading zero in any 2 digit agency supplied. | Simple: integerItemType | 0 | 1 |
| agencyName | The code for the federal department or agency, commission, board or other organization that does not have a parent department that issued or provided the predominant amount of funding for the specific federal award action. | Simple: stringItemType | 0 | 1 |
| [agencyOffice](#_agencyOffice) | Represents the common concept of an agency office within an agency, including office code and office name. | Complex: agencyOfficeComplexType | 0 | Unbounded |

### Agency Office

Element: agencyOffice

Proposed Type: complex

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Data Element** | **Description** | **Type** | **MinOccurs** | **MaxOccurs** |
| officeIdentifier | Contracting Office Code: The agency supplied code of the contracting office that executed the transaction (per a recent FAR change, will be the Activity Address Code). | Simple: integerItemType | 0 | 1 |
| officeName | Contracting Office Code: The name associated with the agency supplied code of the contracting office that executed the transaction (per a recent FAR change, will be the Activity Address Code). | Simple: stringItemType | 0 | 1 |

## Treasury Account Symbol

An identification code assigned by the Department of the Treasury, in collaboration with the Office of Management and Budget and the owner agency, to an individual appropriation, receipt, or other fund account. (These accounts are defined in TFM Volume I, Part 2, and Chapter 1500.) The term "Treasury Account Symbol" is a generic term used to describe any one of the account identification codes assigned by the Department of the Treasury. The term "Treasury Appropriation/Fund Symbol" (TAFS) is used to describe a particular type of TAS-one with budget authority. All financial transactions of the Federal Government are classified by TAS for reporting to the Department of the Treasury and the Office of Management and Budget.

Element: treasuryAccountSymbol

Proposed Type: complex

Source: <http://www.fiscal.treasury.gov/fsservices/gov/acctg/cars/factsheet_tas.htm>

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Data Element** | **Description** | **Type** | **MinOccurs** | **MaxOccurs** |
| [agency](#_Agency) | Identifies the department or agency that is responsible for the account. | Complex: agencyComplexType | 0 | 1 |
| allocationTransferAgencyIdentifier | Identifies the department or agency that is receiving funds through an allocation (non-expenditure) transfer. | simple: IntegerItemType | 0 | Unbounded |
| mainAccountNumber | Identifies the account in statute. Represents the type of Fund and the purpose of the account within that Fund. For Example:  Trust Fund: 8501  Trust Revolving Fund: 8402  General Fund (customs duties): 0300 | Simple: integerItemType | 0 | 1 |
| subAccountSymbol | Identifies a Treasury-defined sub-division of the main account. Example: available receipt. | Simple: integerItemType | 0 | Unbounded |
| beginningPeriodOfAvailability | In annual and multi-year funds, identifies the first year of availability under law that an appropriation account may incur new obligations. | Simple: dateItemType | 0 | Unbounded |
| endingPeriodOfAvailability | In annual and multi-year funds, identifies the last year of funds availability under law that an appropriation account may incur new obligations. | Simple: dateItemType | 0 | Unbounded |
| availabiltyTypeCode | In appropriations accounts, identifies an unlimited period to incur new obligations; this is denoted by the letter "X" | Enumeration: availabilityTypeCodeItemType | 0 | 1 |

## Address

Element: address

Proposed Type: complex

Source: http://fedspendingtransparency.github.io/dataelements/

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Data Element** | **Description** | **Type** | **MinOccurs** | **MaxOccurs** |
| [streetAddress](#_streetAddress) | Represents the common concept of a street address with multiple lines. | Complex: streetAddress | 0 | 1 |
| City | Represents the common concept of a City. | Simple: stringItemType | 0 | 1 |
| State | Represents the common concept of a State | Enumeration: stateItemType | 0 | 1 |
| County | Represents the common concept of a county. | Simple: stringItemType | 0 | 1 |
| postalCode | Represents the common concept of a Non-United States postal code | Simple: stringItemType | 0 | 1 |
| zipCodePlus4 | Represents the common concept of a United States Zip code + 4 | Simple: stringItemType | 0 | 1 |
| countryName | The name corresponding to the Country Code. | Simple: stringItemType | 0 | 1 |
| countryCode | Code for the country in which the awardee or recipient is located, using the ISO 3166-1 Alpha-3 GENC Profile, and not the codes listed for those territories and possessions of the United States already identified as “states.” | Simple: stringItemType | 0 | 1 |
| congressionalDistrict | The congressional district in which the awardee or recipient is located. This is not a required data element for non-U.S. addresses. | Enumeration: congressionalDistrictItemType | 0 | 1 |

## Street Address

Element: streetAddress

Proposed Type: complex

Source: http://fedspendingtransparency.github.io/dataelements/

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Data Element** | **Description** | **Type** | **MinOccurs** | **MaxOccurs** |
| streetAddressLine | Represents a single line of a physical address. | Simple: stringItemType | 0 | 2 |

# Appendix

## Supporting Meta-data Identified

Meta-data is descriptive data which creates context for the data it is describing. For example, an agency identifier is typically a number (e.g., 71) but the meta-data of a description (e.g., Department of Agriculture) provides the end user with an understanding of what “71” means. This list represents some of the meta-data identified during the initial taxonomy development process. As the DATA Act schema matures, additional sources can be identified and documented here.

* USSGL Chart of Accounts Descriptions
* Agency descriptions/names
* NAICS codes and descriptions
* DUNS numbers and meta-data

## Version History

* Version 0.1 – Public Release: Initial release of the draft DATA Act Schema financial taxonomy
* Version 0.2 – Public Release: Baseline release of DATA Act Schema financial taxonomy.
  + Updated Treasury Account Symbol (TAS) to component TAS.
  + Updated to include an agency complex type consisting of an agency name and agency identifier and formalized folder structure for supporting future module releases.
  + Updated address complex type to support multiple street address lines
  + Changed awardNumber and parentAwardNumber in USSGL-FIN to standardized term awardID and parentAwardID- Github defines these as awardID and parentAwardID which is how it is also declared in the Financial Assistance taxonomy
* Version 0.3
  + Updated to include county as a standard element under the standard address complex type
  + Updated to support variable number of highly compensated officers by removing “top5” from the element names (top5HighlyCompensatedOfficer -> highlyCompensatedOfficer)
  + Updated to include Financial Assistance and Procurement specific elements
  + Renamed element subTierAgency to awardingSubTierAgency to distinguish from fundingSubTierAgency
  + Renamed element performancePlaceAddress to primaryPlaceOfPerformance
  + Renamed elements from performancePeriod to periodOfPerformance
  + Revised DATA Act element parentAwardID from integerItemType to stringItemType to be consistent with awardID.
  + Revised the address complex type to accommodate variable number of streetAddressLine by adding a complex type of streetAddress
  + Revised awardeeParentDUNS to ultimateParentUniqueIdentifier and awardeeParentLegalBusinessName to ultimateParentLegalBusinessName
  + Removed examples and length requirements (not defined by the schema) and included # of occurrences.
* Version 0.4
  + Changed “Treasury Accounting Symbol” to “Treasury Account Symbol” within this document.
  + Renamed the complex type treasuryAccountingSymbol to treasuryAccountSymbol.
  + Removed the specialLegislativeIndicator element.
  + Renamed the element fundingActionObligation to federalFundingAmount
  + Renamed the element currentTotalFundingObligationAmountOnAward to totalFundingAmount
  + Renamed the element catalogOfFederalDomesticAssistanceProgramTitle to catalogOfFederalDomesticAssistanceTitle within the complex type catalogOfFederalDomesticAssistanceProgram
  + Renamed the element catalogOfFederalDomesticAssistanceProgramNumber to catalogOfFederalDomesticAssistanceNumber within the complex type catalogOfFederalDomesticAssistanceProgram
* Version 0.5: – Public Release: Initial release of the award level DATA Act Schema taxonomy
  + Updated definitions of awardeeLegalBusinessName, awardeeUniqueIdentifier, and awardeeAddress.
  + Added new element highlyCompensatedOfficersMiddleInitial.
  + Updated definitions of countryName, countryCode, and congressionalDistrict.
  + Update the Max Occurrence of streetAddressLine.

# Glossary

The following is a list of important terms and definitions.

* **Common elements:** An element of the XML schema which are shared across various modules of the DATA Act Schema.
* **Complex type element** (complex type): An XML element that contains other elements and/or attributes.
* **Element**: A block of text in an XML document made up of a start and end tag, and the content between the tags. Empty tags are also elements. For example, <price>$12.60</price> and <price/> are both elements.
* **Schema**: A technology-neutral term for the definition of the structure of an XML document.
* **XML**: XML stands for eXtensible Markup Language and is designed to describe data. XML is a software- and hardware-independent tool for carrying information.
* **XBRL (eXtensible Business Reporting Language):** a freely available and global standard for exchanging business information. XBRL allows the expression of semantic meaning commonly required in business reporting. The language is XML-based and uses the XML syntax and related XML technologies such as XML Schema, XLink, XPath, and Namespaces. One use of XBRL is to define and exchange financial information, such as a financial statement. The XBRL Specification is developed and published by XBRL International, Inc. (XII).  
  XBRL is the standard upon which the DATA Act schema is based.