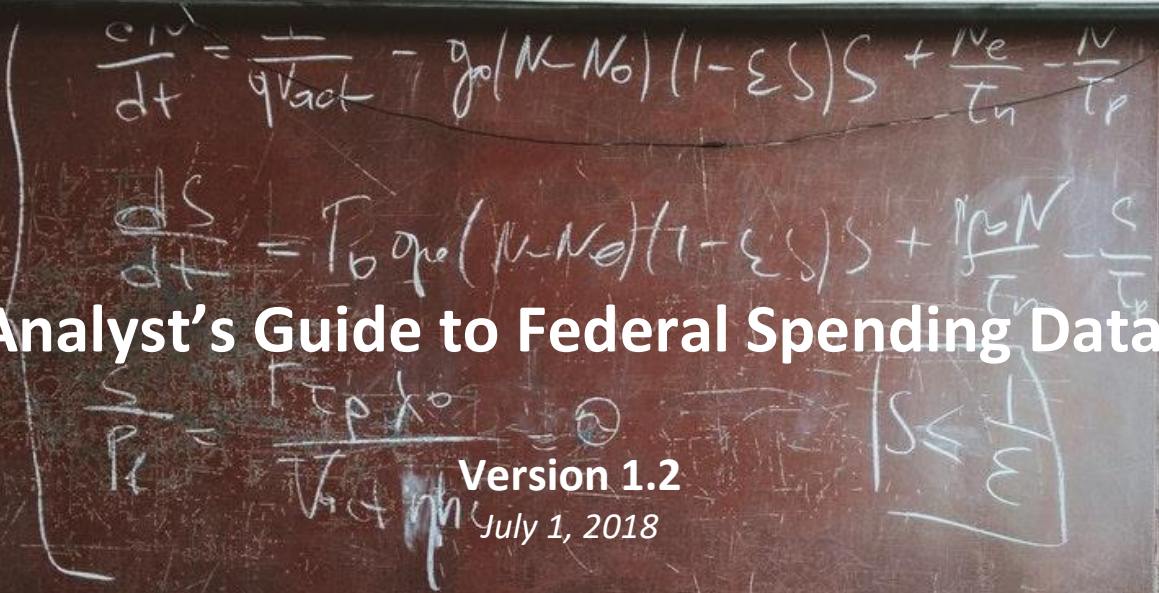


Analyst's Guide to Federal Spending Data

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Welcome to the Analyst's Guide to Federal Spending Data. Here, you'll find guidance on effectively using USAspending.gov data, making it easier for you to conduct analyses and develop tools using federal spending data.

If you'd like to recommend a question to be added to this guide, please share it on USAspending.gov's [Community page](#).

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General questions

What is the difference between a contract and a grant? Also, what is the difference between the data structure?

A contract is an agreement between the federal government and a recipient to provide goods and services to the government for a fee. Grants are a form of financial assistance, where a federal agency transfers a thing of value (either money or in kind) to the recipient in order for the recipient to carry out activities or projects to benefit the public.

Because of these differences, contract and financial assistance data have different structures, fields, and categorization systems. For example, financial assistance awards are categorized by the Catalogue of Federal Domestic Assistance (CFDA) tags, where contracts are categorized with Product and Service Codes. Furthermore, contract and financial assistance data are provided to USAspending.gov from two distinct feeder systems. Contract data is entered into a system called the Federal Procurement Data System (FPDS), which is managed by GSA, while financial assistance data is entered directly into a Treasury-managed system called the Broker.

What's the difference between an obligation and an outlay?

An obligation is a promise made by the government to spend funds immediately or at a later date as a result of a series of actions. An outlay takes place when those funds are actually spent, or paid out. For example, when the government enters into a contract or grant, typically, the entire value of the contract or grant is obligated. This is done because the government expects to make payments totaling that amount, so long as the agreed-to actions take place. When the government actually makes payments to a contractor or grantee, then the obligation to pay becomes an outlay.

What are negative obligations?

Negative obligations, or de-obligations, occur when agencies decrease previous obligations to correct errors or to reflect new information (for example, that the price of a project was lower than expected).

De-obligations are common in instances where the scope of a project changes. For example, if the government awards a contract for \$1 million, but later decides that it only requires work totaling \$400,000, it would de-obligate \$600,000, which would show up as negative \$600,000 in USAspending data.

How do I find the meanings of particular terms and field names?

There are a number of sources you can use to find definitions of terms and field names. Our Glossary (linked in the top navigation of USAspending.gov) lists plain-language definitions of terms used throughout the site. To learn more about contract data, you can reference the [FPDS data dictionary \(PDF\)](#), which details the structures of different fields. You can find more information about financial assistance award data in [the Data Dictionary](#).

Are outlays included in awards data?

Outlays are not included in awards data provided to USAspending by FPDS (see “What is the difference between a contract and a grant” above). However, Treasury has given federal agencies the opportunity to report outlays related to contracts and financial assistance on an optional basis. This data is not currently available for download, but we are working to make it available in the coming months.

Is there a data dictionary, glossary of terms, or other meta information on the fields available for download? How can I get agency data?

USAspending offers resources to help you get the most out of using the site. The [Data Dictionary](#) contains definitions of the hundreds of different data elements used in the DATA Act schema.

The Glossary contains definitions of technical terminology used on [USAspending.gov](#). The Glossary is linked in the top navigation and the site’s footer.

Metadata for USAspending.gov is available on [GitHub](#).

Finally, USAspending’s [FAQ page](#) provides additional advice for getting the most out of the site.

I’d like to use the API — where can I learn more about it?

The [API page](#) on USAspending.gov offers general API guidance, tutorials, request recipes, and more; it also [links to the most current API documentation](#).

How can I access the database?

To access the database, click on [Database Snapshots](#) in the Download Center drop-down (top nav).

How can I use the bulk download?

To perform bulk downloads, visit the [Custom Award Data page](#) (Download Center drop-down in the top

nav) or the [Award Data Archive](#). You may also be interested in downloading the [raw agency submission files](#), which require a greater degree of data manipulation to format into a dataset.

How can I see data connections between File C and File D data?

To see linkages between award financial data (File C) and procurement (File D1) and financial assistance data (File D2) data, you can use the following Structured Query Language (SQL) commands [found here on our Github page](#). More information about all data files, including Files C and D, can be found on the [DATA Act Information Model Schema \(DAIMS\)](#) portion of the Bureau of the Fiscal Service website.

Classifications/hierarchies/schema questions

What are Product and Service Codes and where is the taxonomy located?

Product and Service Codes (PSC) are a system that describes the type of product or service that's being purchased with a contract. You can find a list of Product Service Codes at [acquisition.gov](#). PSCs are only applicable to contracts.

How can I find funds related to a particular disaster or national event?

Each contract has a data element called the National Interest Action, and the values in this element are codes that identify the designated disaster that a contract is associated with. To learn more about which disaster or national event a contract is associated with, use this code.

Currently, financial assistance records — those for loans, grants, direct payments, insurance, and other types of assistance — do **not** have National Interest Actions, although there are discussions ongoing about whether to include them.

Agency-related questions

How can I track funds from a funding agency to a different awarding agency and finally to the recipient?

Contract and financial assistance data both include fields for funding and awarding agencies. This information is relevant when the funding agency is different from the awarding agency. In certain cases, one federal agency may provide money to fund a contract or a grant, which is administered by another agency.

Note: Some contracts have multiple funding agencies, if the activities provided are of interest to multiple agencies, but it can only have one awarding agency. Contract data only has the capacity to list one funding agency; if a contract is funded by multiple agencies, the document will list the agency that provides the most funding.

While contract and grant data does not reflect multiple funding sources, this information can be found through the financial side of the data, which shows all of the funding agencies (not just the predominant one) per transaction. You can use award identifiers (the FAIN for grants and the PIID for contracts) to link details in the award world (recipient information, awarding agency, etc.) to the financial side, where

you can find more information about the funding agency.

What is the difference between an awarding agency and a funding agency?

The awarding agency is the agency that creates and administers a contract, while the funding pays for the underlying goods and services provided. In most cases, the awarding and funding agency are the same. The division of funding and awarding agencies benefits many smaller agencies, who may not have the staff available to execute contracts.

Where is the full list of sub-tier agencies? How are sub-tier agencies managed over time?

Sub-tier agencies are the bureaus or divisions of larger federal agencies. For example the IRS is a sub-tier component of Treasury, as the FBI is for the Department of Justice. In June 2016, OMB posted an authoritative list of sub-tier agencies on MAX.gov; USAspending.gov made a copy of this list, adding historical sub-tier codes and names to ensure backwards compatibility and to allow the data to display properly on USAspending.gov.

Currently, the [list](#) of sub-tier agencies is static, and it will remain static until GSA launches a tool called Federal Hierarchy on beta.sam.gov, which is expected in the coming months.

Federal agencies will be responsible for using this tool to manage their agency structure (including Sub-Tier and Office). This tool will provide a comprehensive and up-to-date list of all Sub-Tiers and Offices, which USAspending.gov will access via API or daily data download.

Help! Why are there so many agency fields? Which one do I use?

Different fields are available for contracts and other types for financial assistance. To find what you're looking for, it's important to note the distinction between **funding agencies** and **awarding agencies**. Funding agencies are those that actually provide funding for awards, while awarding agencies are those that administer the awards; in most cases, the funding agency and the awarding agency are the same entity.

There are additional layers of hierarchy within funding and awarding agencies, which are represented by different organizational identifiers. These additional identifiers may or may not be completed for a given record, depending on the record type. They include the following:

- Awarding agency
 - Awarding sub-tier agency
 - Awarding office
- Funding agency
 - Funding sub-tier agency
 - Funding office

In summary, if you're interested in learning who funded various awards, refer to funding agency fields. If you want to know who's managing those awards, refer to awarding agency fields.

Loan-related questions

How is federal spending on loans/loan guarantees ("loan," for short) captured? These awards don't appear to use the Federal Action Obligation field that other award types do.

In the federal award landscape, spending is captured by the Federal Action Obligation field—**except in the case of loans.**

There are two data elements particular to loans: the Face Value and the Subsidy Cost. Because federal loans are expected to be repaid, the amount loaned out (the principal or Face Value) is not considered federal spending. It only becomes federal spending if and when the loan becomes unrecoverable in whole or part (through default, bankruptcy, loan forgiveness, and so on). This is where subsidy cost comes in. Subsidy cost is an estimation, made by the government, of what the loan will cost it over time; it's calculated based on a credit model particular to the program and, in some cases, the recipient's characteristics or credit history. Subsidy cost allows the government to budget for potential defaults on loans. It is the loan equivalent of federal spending, and when estimated accurately (especially if eventually updated based on the real-world performance of the loan), amounts to the same thing.

How do I understand spending on loans? What is a subsidy cost of zero?

When an agency reports a loan subsidy cost of zero, it means that the government agency has assessed a zero probability of the loan not being repaid — in effect, the loan won't cost the government any money. Note that subsidy cost only takes into account the loan itself and does not include administrative costs.

Do agencies update an award's subsidy cost if a recipient defaults? Can I see what the ultimate cost to the government was?

Currently, it's uncommon for agencies to update subsidy cost data on USAspending, even if new information comes to light or a loan recipient defaults; this means that loan spending data is generally less accurate than that of other award types.

Because of this, we've identified loans as an area of data quality concern. We are taking steps, through agency outreach and seeking policy change, to improve the accuracy of this data as a measure of federal spending.

Questions about contract awards and transactions

How do I uniquely identify contracts, since there are several modifications?

You can use a few data elements to help you identify contracts. These are the Procurement Instrument Identifier (PIID), the Parent Award Identifier (PAID), and the awarding sub-tier agency. All contracts have a PIID. If a given PIID has been reused (used by multiple agencies), you'll need to use both the PIID and the PAID to identify a contract. (Note: To uniquely identify a transaction, you'll need the PIID, Parent PIID, awarding sub-tier agency, modification, and transaction number.)

It's important to keep in mind that one record in USAspending.gov does not necessarily equal one contract; rather, one record equals one action taken on a contract (be that the creation of a contract or the modification to an existing contract).

How do I view all contracts under a given recipient for a particular time frame?

Each contract recipient has a recipient identifier known as a DUNS number. For most recipients, viewing all contracts is as simple as identifying and filtering by that DUNS number.

Larger entities with multiple locations or departments may have multiple DUNS numbers, which makes it

complicated to use this identifier alone to view all the contracts associated with a particular recipient (and within a particular timeframe). Viewing by Global Parent DUNS Number can be a good alternative for these recipients. You can also filter or subset contract data by: `AwardeeOrRecipientLegalEntityName`, or `Vendor Doing As Business Name` and grant data by: `UltimateParentLegalEntityName`.

Recipient Profiles, which are coming soon to `USAspending.gov`, will compile all the contracts for a given recipient, making the data easier to navigate and use.

What is the definition of PIID and PAID and when do I need to use them?

A PIID is a unique identifier assigned to a federal contract, purchase order, basic ordering agreement, basic agreement, and/or blanket purchase agreement. It's used to track the contract and any modifications or transactions related to it. Per the FAR, starting in October 2017 PIIDs for new contracts are unique across government; the new PIID format includes the Office Code, which renders it unique from all other PIIDs.

The PAID is the Parent Award Identifier (PAID). Not all PIIDs have PAIDs. If a given PIID has been reused (used by multiple agencies), you'll need to use both the PIID and the PAID to identify a contract.

What are the cases for when they'll be complete/empty?

The PIID field should never be blank — all awards have PIIDs. The PAID field might be blank, and this is nothing to be concerned about; the PAID field will be blank if the award has a unique PIID (in other words, one that hasn't been reused). Keep in mind that if an award does not have a unique PIID, you'll need to use the PAID to differentiate it from other awards.

What are IDVs? Do they involve double-counting with contracts under them?

Indefinite Delivery Vehicles (IDVs) are vehicles that facilitate the delivery of supply and service orders. Types of IDVs include:

- Blanket Purchase Agreement (BPA)
- Basic Ordering Agreement (BOA)
- Government-Wide Acquisition Contract (GWAC)
- Multi-Agency Contract
- Indefinite Delivery Contract (IDC)
- Federal Supply Schedule (FSS)
- Other Transaction (OT) Indefinite Delivery Vehicle (IDV)

Which fields of transactions should be summed up to find the current value of a contract?

As we stated previously, a record doesn't necessarily represent a single contract; rather, one record represents one action taken on a contract.

If a contract is represented by a single record (that is, if it has no modifications), you can look at that record to determine its current value (the action obligation elements).

If a contract is represented by several records (that is, if it has modifications), you'll need the total action obligations for the original contract plus all of the modifications to determine the current value.

Finally, it's worth noting that if all initially obligated money isn't used, the last modification will display

a negative amount. For example, if an initial contract was made for \$10,000 and an agency only used \$9,000 of that initial obligation, the last record would display an amount of -\$1,000.

Questions about financial assistance awards and transactions

How do I view all grants under a unique recipient in a given time period?

To view all the grants under a unique recipient within a given time period, you can use the same method provided for viewing unique contracts for a given recipient.

What is a FAIN and what is a URI and how do I know when to use them?

FAINs and URIs are types of unique identifiers — unique (within a given agency) sequences of characters that are tied to each financial assistance award throughout its lifespan.

The FAIN (Federal Award Identification Number) is an identification code assigned to a specific financial assistance award by an agency for tracking purposes. The FAIN is tied to that award (and all future modifications to that award) throughout the award's life, which allows users to track all the spending made on a single award. Within an agency, FAINs are unique; a new award must be issued a new FAIN. The FAIN may contain both numbers and letters.

The URI is similar to the FAIN, but its **only** intended use is as a unique identifier for an aggregate record. Aggregate records display awards made to individual recipients by county, state, or foreign country in order to protect the recipients' personally identifiable information. Because they are themselves aggregations covering a particular time period, aggregate awards are typically not modified with future transactions. As such, URIs (in their capacity as the unique award identifier of aggregate records) are generally only used once.

Questions about federal account data

What are federal accounts?

Federal accounts are found in the budget that the President submits to Congress for approval. Each federal account is comprised of a “family,” or grouping, of specific account numbers known as Treasury Account Symbols (TAS), through which spending actually occurs. The accounts give you an idea of how agencies receive and spend congressional funding to carry out their programs, projects, and activities. [Interest on the Public Debt](#), [Civil Service Retirement and Disability Fund](#), and [Student Financial Assistance](#) are examples of the more than 2,000 unique federal accounts of the U.S. government. Federal accounts also have associated Federal Account Symbols to identify them. For example, Student Financial Assistance has the Federal Account Symbol 091-0200.

With the size of the federal government, how are you be able to identify unique accounts?

Federal accounts are uniquely identified by the Agency Identifier and the Main Account Code. These codes are required for agency financial reporting.

Agency Identifier (AID): This is a 3-digit number that identifies the agency responsible for a Treasury account (“091” in the Student Financial Assistance example above).

Main Account Code (MAC): This 4-digit number forms the basis of the federal account (“0200” in the Student Financial Assistance example above).

Each Agency Identifier should have at least one federal account associated with it, so the agency can conduct its function and carry out its mission. Despite the name, there are instances where an Agency Identifier is shared among more than one agency. In these cases, each agency within the shared Agency Identifier will still have at least one federal account of its own.

TAS was mentioned before, what is that?

A Treasury Account Symbol (TAS) is a code that identifies critical information about each transaction that agencies report, such as the length of time that the specific account is available for use by the agency. Like federal accounts, each TAS has an Agency Identifier and a Main Account Code, along with several other codes:

- **Agency Identifier (AID):** 3 digits, Identifies the agency responsible for a Treasury account. Assigned by Congress.
- **Main Account Code (MAC):** 4 digits, identifies the TAS type and purpose. It cannot be blank.
- **Sub Account Code (SAC):** 3 digits, Identifies a sub-division of the TAS. It cannot be blank. A sub-account code of "000" means that the TAS is the parent account.
- **Allocation Transfer Agency ID (ATA):** 3 digits, Identifies an agency that receives funds through an allocation (non-expenditure) transfer.
- **Beginning Period of Availability (BPOA):** 4 digits, Identifies the first year that an appropriation account may incur new obligations. This is for annual and multi-year funds only.
AND
- **Ending Period of Availability (EPOA):** 4 digits, Identifies the last year that an appropriation account may incur new obligations. This is for annual and multi-year funds only.
OR (if no BPOA or EPOA)
- **Availability Type Code (ATC):** 1 digit, Instead of specific years, this one-letter code identifies the availability (or time period) for obligations to be made on the appropriation account. A TAS will have an “X” if there is an unlimited or indefinite period to incur new obligations.

In some cases, there may be multiple TASs in one federal account. In these instances, you can roll up to the federal account level by combining activity from all TASs that share a Main Account Code and Agency Identifier.

How exactly is a TAS different from a federal account?

Federal accounts are comprised of a TAS or multiple TASs. Let’s break it down to a relatable scenario. Say you have a bank account and in that account you have checking, growth, and savings. In this scenario, your bank account is the federal account and the checking, growth, and savings are your TASs. Checking, growth, and savings have different purposes and are at the level where transactions actually take place. These “TASs” would be grouped under your account based on your Social Security Number, the same way a federal account has a Federal Account Symbol. Just like checking, growth, and savings, the Student Financial Assistance federal account has several related TASs that have different obligation amounts.

What does it mean when one agency’s TAS are part of a second agency’s submissions?

Sometimes the funding associated with a TAS is executed by another agency than the one indicated by the Agency Identifier. When this occurs, quite often the executing agency will submit the financial and award information associated with the TAS. Since the funding was assigned by Congress to the agency indicated by the Agency Identifier, we group by Agency Identifier so that users can see both the budgetary resources assigned to the agency as well as the spending that flows from the related accounts.

What data is used to populate the federal accounts page on USAspending.gov?

The information that displays on the federal account page on USAspending.gov comes from the quarterly agency submissions. The account snapshot at the beginning of the page is data from the Appropriation Account Detail File (File A). The “Spending Over Time” and “Spending By Category” sections come from the information in the Object Class and Program Activity Detail File (File B). The “Spending by Award” section is from the Award Financial Detail File (File C) and the Award and Awardee attribute files (Files D1 and D2).

Can I download the federal account data?

The federal account data comes from agency submissions. This information can be downloaded from the [S3 Agency Submissions page](#). In the August 2018, it will also be available via the Custom Account Data page in the Download Center.

How can I see the federal accounts for prior years?

Prior to May 2017, agencies were not required to submit their financial data to be published on USAspending. The DATA Act of 2014 required that agency financial data be available to the public, to begin by May 2017. However, you may see agency financial data for 2017 and since then, by filtering by fiscal year. In addition, you can see similar – but not exactly the same – information in [Office of Management and Budget \(OMB\) budget appendices](#).