United States Department of Agriculture
Office of the Chief Financial Officer
Financial Management Services

DATA Act Financial Assistance Reporting

Module 3

~ File D2 Details and Preparation ~

2025

D2 Detail and Preparation Topics

- Introduction
- Data Elements
- Proofread and Troubleshoot D2 File
- File Submission Process
- Key Requirements
- Agency Responsibilities
- Knowledge Check

Introduction

The DATA Act File D2 Award and Awardee Attributes for Financial Assistance is prepared twice each month to report financial assistance award and awardee data according to Treasury's Governmentwide Spending Data Model (GSDM). OCFO maintains a database with D2 file data for each agency. This database is called the *Repository*.

Data originates in agency management systems and is supplied to the Repository database.

- For agencies using ezFedGrants as their management system, OCFO generates the D2 File for submission to the Repository using the agencies' data recorded within that system.
- Agencies not using ezFedGrants submit D2 data as a flat file (.csv) to the Repository via the agency's FMMI Dropbox using File Transfer Protocol (FTP). See pages 14-16 below on File Submission Process using FileZilla or WinSCP.

The Repository reviews the data before submission to Treasury.

Processes within the Repository ensure the file is properly formatted. OCFO performs several simple checks and notifies agencies of formatting issues which would prevent the file submission to Treasury.

The Repository submits data to Treasury for further review.
The data is submitted at least twice monthly through a Treasury portal called the Financial Assistance Broker Submission (FABS). Processes within FABS perform an extensive review and validation of submitted data. Records that pass this validation step are published to USAspending.gov. Records with at least one data field error are not published. Agencies must correct these errors and submit a fresh file via the FTP process.

File D2 data is compared to File C data monthly.
The FAINs and/or Obligation Amounts may differ due to timing of D2 file reporting. OCFO notes the mismatch for agency review. Agencies should determine if corrective actions are needed.

This training session provides specific details on File D2 data, file preparation, troubleshooting, and submission.

File D2 Data Elements
~ Overview

Federal Policies guiding certain File D2 data elements

FAINs must be in both financial systems and award management systems. 2CFR Part 200.211 (a)(3); OMB M-15-12 Attachment 1, Section IV; and OMB MPM 2016-03 Section B.

CFDA Number (now called Assistance Listing) must be created before announcing the Financial Assistance Notice of Funding Opportunity and must be published before an award is signed. **2CFR 200.202** and 2CFR 200.203(a)(3)

Unique Entity Identifier (UEI) Requirement is outlined in 2CFR Part 25

Award Description must be understandable to the general public and provide as much information as possible.

- OMB M-18-16 (page 4) Description must be in plain English
- OMB Controller Alert August 2020 List of required components
- OMB M-22-02 footnote 5 (page 3) Expanded information about components

Requirements related to **Funding Opportunity** and **Indirect Cost Share** data as well as reporting awards funded by **multiple Assistance Listings** are outlined in OMB M-22-02.

The OCFO required structure for D2 files is outlined the Error and Values Workbook (E&V) which is updated at least annually and available on the **DATA Act Resources for Web page**. The "D2 Template" tab has the D2 file layout, and the "D2 Field Specs" tab has data specifications such as definition, maximum length, and required vs. optional or conditional. Please note that the E&V is updated frequently so please always get the most recent version from the Resources page.

The official federal D2 data elements and specifications are available in the **GSDM Reporting Submission Specification (RSS)** in the "FABS" tab and in the **Interface Definition Document (IDD)** in the "D2-Award" tab. Reporting requirements and details are provided in the **GSDM Practices and Procedures (P&P)**. These documents are available within Treasury's Data Transparency site, accessible ***here***.

OMB requires 57 Standard Elements: **https://portal.max.gov/portal/assets/public/offm/DataStandardsFinal.htm**

File D2 Data Elements
~ Authoritative Sources

When reporting DATA Act records, some data fields must be populated with data residing at external official sites or systems.

MPM 2016-03, Appendix A summarizes the authoritative sources for each file, including existing validations and assurances over the data and files reported to USAspending.gov.

The GSDM RSS "Domain Values" tab and the GSDM Practices and Procedures document expand upon this information. For File D2, a list of relevant authoritative sources is provided in the E&V "Authoritative Sources" tab.

All documents are accessible via the **DATA Act Resources for Web** page.

D2 Data Elements related to authoritative sources.

Recipient name, address and UEI

- The entity must exist on SAM registration with valid UEI and be active in most cases
- The entity address must be the Physical Address as populated in SAM

CFDA Number (now called Assistance Listing)

This Number must exist in SAM.gov Assistance Listings and be active at time of award

City, County, and State Codes for Place of Performance

Data used for creating the Primary Place of Performance Code (PPOP Code) should be accurate based on these authoritative sources

Congressional Districts and ZIP codes

Congressional Districts and ZIP codes for both the recipient and the Place of Performance must exist in the State indicated by the address or PPOP Code.

USDA

File D2 Data Elements
~ Award Data

The following few slides will list and describe the D2 Data Elements. To make your review easier, we have grouped them according to the type of information being presented to the public on USAspending.gov.

- **FAIN** No more than 30 characters and must be unique within each agency. Each agency/staff office determines its FAIN formatting. If an agency uses the ezFedGrants system, FAIN numbers will follow the formatting used within the system.
- **URI** Identifier used for the rare records reported as Record Type 1 (aggregation of more than one award per record).
- **Record Type** USDA reports all awards as Record Type 2 unless there is a Personal Identifiable Information (PII) concern. 2CFR 200 Part 25 restricts the applicability of PII concerns. Please consult with OCFO TARD before reporting PII-related records.
- **Action Type** The original award is always Action Type A. Amendments or modifications will be B, C, or D
  See Error and Value Workbook (E&V) "Field Values" tab for details.
- **Action Date** The date the award document was signed by the agency. This date changes on subsequent activity that requires new signatures, such as amendment activity. Modifications/Amendments must have Action Date corresponding to when the amendment/modification was signed.
- **Assistance Type** Currently, OMB has named 10 Assistance Types. Several are for grants and cooperative agreements. There are specific codes for loans, direct payments and other non-grant types of assistance. See E&V "Field Values" tab for a list of codes.
- **Period of Performance** *Optional.* Populate both or leave both blank and ensure Start date is before End date
  M-22-02 states that change to the Period of Performance End Date must be updated at USAspending.gov. This is considered an Amendment/Modification action.

File D2 Data Elements
~ Award Data - *continued*

- **Place of Performance**
  - **PPOP Code** The Primary Place of Performance Code consists of 7 characters which indicate the location that benefits from the Federal funds. This location may be completely different than the Recipient location. Typically, this code consists of the 2-character State Code followed by 5 characters representing city or county.
  - There are 4 additional data element fields related to Place of Performance: PPOP Country Code is required, but Congressional District, ZIP codes, and Foreign-related fields have a variety of conditions. Please see the E&V "D2 Field Specs" and "PPOP Specs" tab for details. Additionally, see GSDM P&P v1.1.1: Appendix A, Basic FABS Validation Rules Summary Table for conditions related to Record Types 1, 2, and 3; Appendix B, Instructions for Location Codes (pp. 54-56) for conditions related to Country Code, Congressional District, and Primary Place of Performance (PPOP) Summary Chart (for the six types of PPOP Performance Areas); and refer to Section 2.4.4.

- **Congressional Districts** Two Fields: One for the recipient (LegalEntity) and one for the Primary Place of Performance**.** Congressional Districts must exist within the State indicated by zip code or PPOP Code. Treasury derives the Congressional District when a valid zip code is provided. Congressional Districts can be confirmed at ***https://www.house.gov/representatives/find-your-representative***

- **Award Description *Critical field***. A plain English detailed description of the purpose of each award (not just program purpose). Descriptions should provide activities to be performed, deliverables/expected outcomes, and intended beneficiaries. *Modification records should include the reason for modification within the Award Description field.* ***https://oig.treasury.gov/system/files/2021-01/Controller_Alert_Award_Description_Data_Quality_for_Financial_Assistance_Awards.pdf***

- **Funding Opportunity Number and Goals Text** These elements apply to discretionary (not mandatory) grants and cooperative agreements which are published on Grants.gov. This field must be blank for non-grants, such as loans and direct payments.

- **SAI Number** Some States apply a State Assigned Number to an award. Usually noted as SAI Exempt or as a Blank.

File D2 Data Elements
~ Program and Financial Data

- **CFDA Number** refers to the program's "Assistance Listing" on SAM.gov. The data will always start with "10." followed by a 3-digit number specific to the Assistance Listing, such as 10.123.
  - This field is part of the Primary Key on D2. This means that the CFDA reported on records when an award is amended or modified must match exactly.
  - Please be aware that a CFDA Number ending in zero is at risk of losing the zero if a .csv file is opened directly into Excel. See the document, **Safely Open .CSV to Excel**, on the DATA Act Resources page for instructions to open .csv documents without losing leading or trailing zeroes.
  - If you submit a record with the trailing zero missing: 10.14 rather than 10.140, the record will be rejected and remain on the agency error report, even if a subsequent submission has the correct format.

- **Federal Action Obligation** field contains the dollar amount that has been obligated within FMMI or the agency's financial system. This field will be blank for Loan Awards. See Loan Amount fields below.

- **Non-federal Funding Amount** refers to recipient's dollars being applied to the award's work as described in the award agreement.

- **Loan Amount Fields** There are 2 amount fields designated for loans.
  - **Face Value** (**FaceValueOfDirectLoanOrLoanGuarantee**) of the loan represents the full value of the loan.
  - **Subsidy** (**OriginalLoanSubsidyCost**) amount represents federal dollars reserved in FMMI/financial systems for use as needed. Please review the *GSDM Practices & Procedures (P&P)* for details.

- **Indirect Cost Federal Share** field refers to the total amount of any single Federal award action that is allocated, per the award recipient's indirect costs as approved in the award budget. Please review the *GSDM P&P* for details.

File D2 Data Elements
~ Agency Data

There are various levels/types of Agency Data reported on File D2.

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The Federal Hierarchy at SAM.gov organizes the federal government into at least 3 levels:

- **Agency** (Department)
- **SubTier** (Components)
- **Office** (usually associated with a program/Assistance Listing (CFDA)

In DATA Act Reporting, each of these levels are reported as either "Funding" or "Awarding" types.
There are 3 Federal Hierarchy levels for each type: Agency, SubTier, and Office.

- **Funding** refers to the Agency/SubTier/Office that receives the appropriation but is not directly involved with awards funded by the appropriation. These fields are usually populated with USDA data but occasionally noted as another Department.
- **Awarding** refers to the Agency/SubTier/Office that awards funds to recipients and monitors each award throughout the life of the award. These fields are always populated with USDA data.

The codes for Financial Assistance SubTiers and Offices are provided in the File D2 Error and Value Workbook (E&V) "Office-Subtier" tab. If your Office is not listed in the workbook, please contact the TARD Team.

Hints:

- Awarding Agency is *always*: '012' for USDA
- Awarding SubTier Agency is the code related to your component agency/staff office, such as 12K2
- Awarding Office Code is assigned at SAM.gov and available in the E&V Workbook.

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File D2 Data Elements
~ Recipient Data

- **Recipient Name** Must match SAM.gov registration.
- **Recipient UEI** Must be an active registration in SAM.gov when applying but no later than date of the Award signing.
- **Recipient Location**
  Street address (3 fields available), ZIP code (2 fields), Country, Congressional District (for domestic recipients), and three fields specific to foreign recipients.
  NOTE: The street address must match the recipient's *physical address* in SAM.gov registration.
- **Recipient Business Type** See selections on the right. Identifies the type of entity (government, business, university, individual) as recorded in Section 9 "Applicant Type" in the SF-424 application.

  IMPORTANT NOTE: Business codes in SAM registrations do not correlate with those on SF-424. Always use a Business Type noted in the E&V "Field Values" tab rather than the one recorded in SAM.gov registrations.

A	State government
B	County Government
C	City or township Government
D	Special District Government
E	Regional Organization
F	U.S. Territory or Possession
G	Independent School District
H	Public/State Controlled Institution of Higher Education
I	Indian/Native American Tribal Government (Federally Recognized)
J	Indian/Native American Tribal Government (Other than Federally Recognized)
K	Indian/Native American Tribal Designated Organization
L	Public/Indian Housing Authority
M	Nonprofit with 501C3 IRS Status (Other than Institution of Higher Education)
N	Nonprofit without 501C3 IRS Status (Other than Institution of Higher Education)
O	Private Institution of Higher Education
P	Individual
Q	For-Profit Organization (Other than Small Business)
R	Small Business
S	Hispanic-serving Institution
T	Historically Black Colleges and Universities (HBCUs)
U	Tribally Controlled Colleges and Universities (TCCUs)
V	Alaska Native and Native Hawaiian Serving Institutions
W	Non-domestic (non-US) Entity
X	Other

File D2 Data Elements
~ System and Agency Use Data

These fields are used for OCFO processing of File D2 as well as agency convenience.

System and Processing Use:
This data is used by OCFO for the Repository and not displayed on USAspending.

- **FLEX_Fiscal Year**
- **FLEX_ Posting Period**
- **FLEX_ Agency System ID**
- **FLEX_ Agency Business Area**

Agency Use:

- **FLEX_ Tracking** field is provided for agency internal use. Can be used for internal notes. (25-character limit)
- **FLEX Source File Name** is *not* part of the D2 file. It does appear in FMMI HANA Reports to help agencies identify the file that contained the record.
- **Correction Delete Indicator** field ("C" for correcting and "D" for deleting)
  Used to flag a record that is *already published at USAspending* which the agency needs to delete or correct. This tells USAspending to override a previous record or to delete the record. Deleting a record at USAspending IS A RARE OCCURRENCE. Please review "**File D2 - Deleting Records from USAspending"** and consult with OCFO TARD.

Obsolete Fields:
DUNS Number and **Fiscal Year and Quarter Correction** fields are obsolete and always left Blank.

File D2 Data Elements
~ Helpful Notes and Nuances

Fields that should always be blank
- Fiscal Year and Quarter Correction
- DUNS Number

Fields that are allowed to be blank
- Correction Delete Indicator
- SAI Number
- Legal Entity Address Lines 2 & 3
- Flex Tracking Field
- Period of Performance fields
- Legal Entity Foreign Province Name and Postal Code

Field requirements that depend on certain factors
- URI (only populated on Record Type 1 aggregate records)
- Non-federal funding (if applicable)
- Indirect Cost Share (based on Assistance Type)
- Funding Opportunity fields (based on Assistance Type and optional until FY24)
- Congressional District can be blank ***IF*** a valid ZIP code is provided

OTHER REPORTING NUANCES

- If copy-pasting an Award Description from a Microsoft document, please be sure to paste as "Plain Text".
- The Initial award must be reported as Action Type A and published to USAspending before reporting any modification/amendment action.
- Modifications or Amendments to awards must be reported, especially if the initial obligation amount changes or the period of performance end date has been shortened or extended.

The "File D2 Error and Values Workbook" located on the USDA DATA Act Resources for Web page provides essential information for file preparation.

Proofread and Troubleshoot D2 File

Best Practice: When working on your file, save your Excel version as a "Working File". You can then save the final .csv file in a folder as your actual/final submission. If errors/issues are found, go back to the "Working File" to make corrections, then save as a brand new .csv file for resubmission.

Important Note: If a .csv is opened directly into Excel, leading and trailing zeroes can be lost. See "Safely Open .CSV to Excel" on Resources page.

QUESTIONS TO ASK YOURSELF

1. Is the filename properly formatted with no slashes, hyphens, quotes, or spaces?
2. Are all the data element columns present and in correct order? See D2 Template in E&V.
3. Is the label for each column properly spelled and formatted? (top row) See D2 Template in E&V.
4. Do any narrative fields have hard returns or special characters?
   * Note: When copy-pasting from a Word doc, be sure to paste as "text only."
5. Do any amount fields have commas, dollar signs, or parentheses? For example: "($2,000)" rather than "-2000"
6. Are all required fields populated?
7. Are the conditional fields populated according to the rules for that field?
8. Do any data exceed the maximum allowable for that element?
9. Do your CFDA numbers adhere to the 10.### format?
10. Are your date fields properly formatted? Should be exactly 8 digits: yyyymmdd.
11. Check Header row and empty rows in file.
    - Does the header row include only official headers? If not, delete empty columns including any trailing columns.
    - Does the file have any empty rows? If so, delete them.
12. Are zeroes missing on any data fields that have leading or trailing zeroes? CFDA "10.12" instead of "10.120"? ZIP code "4576" instead of "04576"? Assistance Type "4" instead of "04"?
    * Note: If zeroes are missing, *dispose of the .csv file* and go back to your "Working File" to resolve and save a fresh .csv file for submission.

File Submission Process
~ Setting up your FTP Connection

You will need a File Transfer Protocol (FTP) application: "FileZilla" or "WinSCP"

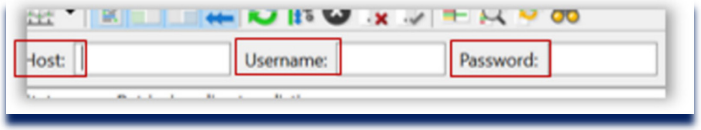
Contact your agency's IT department for assistance

Setting the parameters for your agency's "Dropbox"

Host (Server IP Address): 199.139.136.71 (This is an OCFO Repository Server.)

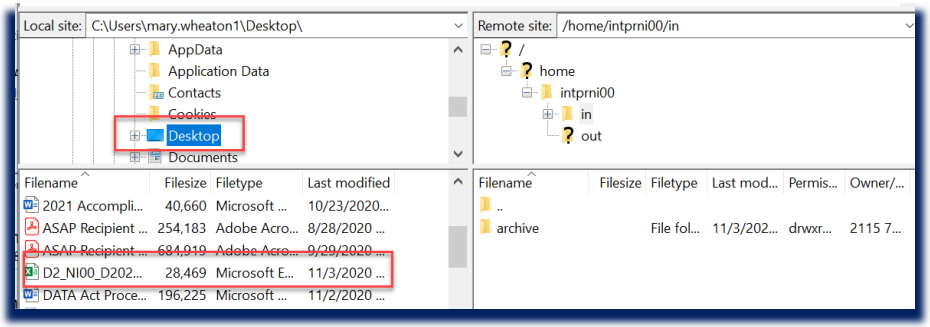
Username: intpr<agencybusinesscode> (such as "intprfs00")

Password: Each agency/staff office has its own password. Contact TARD to obtain the password for your agency/staff office. It can be used by all personnel in your agency, as needed.



The FTP Screen is divided into 4 quadrants.

- On the left "Local site" is a view of your computer file folders. Use the top left to select folder of interest which will then open the folder contents in the lower left quadrant.
- On the right "Remote site" is a view of your Dropbox. Use the top right to select the "in" folder which will then open the server's location to place your file. You will see an Archive folder inside the "in" folder where copies of your submissions are kept.

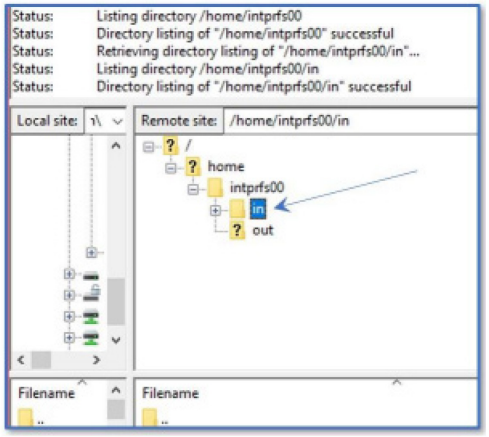


File Submission Process
~ Submitting File via FTP

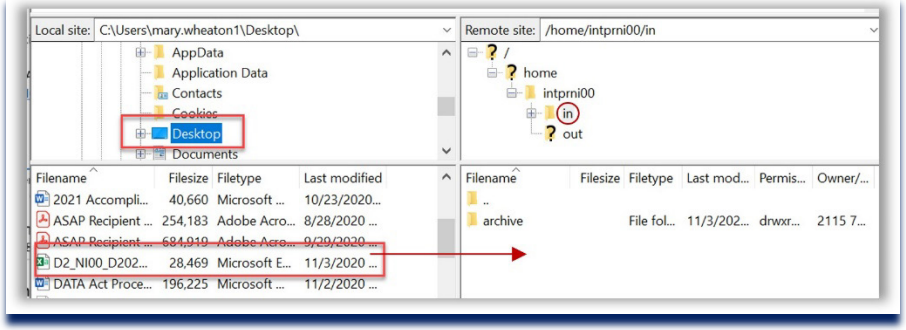
Moving your .csv file into the Dropbox for submission to the OCFO Repository

Important: Ensure the file has been placed in the "in" folder within the Dropbox.

1. Double click the "in" folder on the Remote site to open it.



2. Drag your file from your Local site folder on the left and drop it into the Remote site "in" folder under the "intpr…" box on the right: **/home/intpr<*agencybusinesscode*>/in** …EXAMPLE: */home/intprfs00/in.*
You will see a notation that the file transferred from your site.



- When OCFO ingests files to the Repository server, they disappear from the "in" folder, and a copy appears in the "Archive" folder.
- A confirmation email with a copy of the file is sent to the agency's Shared Mailbox within 15 minutes. If not, please contact OCFO.

Additional activities to ensure your file moves through the OCFO processing.

- Watch your agency Shared Mailbox closely. During the D2 process you will receive emails pertinent to the acceptance of files (noted above), rejection for format issue (D2 process failure), and completion of the OCFO submission process.
- Details on Error Reports are found in Module 4.

File Submission Process
~ OCFO Submission of D2 to USAspending

OCFO submits your .csv file to USAspending for validation, feedback, and publication

Step 1: FMS OCFO saves the D2 file data in the USDA DATA Act Repository and reviews the file to ensure proper formatting and character count. The records for each agency are compiled into one D2 file which is submitted to Treasury's Financial Assistance Broker Submission (FABS). This final file is called the FABS File. (FABS is the portal to USAspending.gov.)

* Example: AMS submits 3 files to OCFO between August 7th and August 20th. The files are combined into one file for the next processing date (in this case, August 21st). This will be the AMS FABS File submitted to FABS.

Step 2: The agency's FABS File data is reviewed by Treasury for proper formatting and to ensure all data adheres to DATA Act Reporting Requirements. The validation rules are available in the GSDM Validation Rules. These are accessible on **Treasury's GSDM site**.

Step 3. FABS provides Error and Warning Reports which can be found in a FMMI Canned Reports area.

- Records with **no errors** are published to USAspending.gov for public view
- Records **with errors** are not published to USAspending. These must be corrected by the agency and resubmitted to OCFO as soon as possible to meet OMB's requirements.
- Records **with warnings** are published to USAspending.gov. However, agencies should review the warnings and strive to improve data quality in future submissions. Warnings FABS3.3 and FABS3.5 should be resolved as soon as possible because they indicate incomplete data on USAspending.gov.

Key Points
~ Key Requirements

Agencies must ensure D2 data are supplied to the OCFO timely.

- Non-loan award data must be submitted within 2 weeks of the award. Loan award data must be submitted within 30 days of the award.
- Agencies must ensure that all reportable awards have been published within the timing mandated by OMB.
- Agencies with data held in FMMI's ezFedGrants system must ensure all D2 elements are populated for movement to the OCFO Repository.
- Records in ezFedGrants are extracted from ezFedGrants on 1st and 16th of the month for next processing date.
- Agency files are due to the agency Dropbox twice each month on the 2nd & 17th. The files are processed at early morning on the 3rd & 18th. A "clean-up" process runs on the 6th & 21st allowing the agency to correct errors and resubmit in same reporting window (submit by COB on 5th and 20th).

D2 data is linked to File C financial data by recording the FAIN in FMMI (or agency financial system).

USAspending creates an award page on the site when the D2 file data has been published. File C's financial system data is then added to the award page that has the same FAIN. Therefore, a FMMI obligation made at the end of a month will not appear on USAspending until the D2 file has been published to USAspending the following month. Total obligations on the site FAIN must comport. All obligations/deobligations must be reported in both files.

Data must correspond to External sites.

- CFDA for new awards must be active on SAM.gov Assistance Listings.
- Recipients of new and amended awards must have an active SAM registration with UEI.
- Entity and Primary Place of Performance ZIP codes and Congressional Districts must exist in State reported.

USDA

Key Points
~ Agency Responsibilities

File D2 Reporting Responsibilities

1. Ensure the D2 file is named properly. Ensure data meets all requirements before submitting to the OCFO Repository. Be sure the file is placed into the correct FTP Dropbox folder ("in" folder).
2. Don't open .csv directly into Excel. Open with Notepad or import the data using Excel's Import function.
3. The Primary Key Fields on Amendment/Modified awards must match those reported on the Original award, i.e., FAIN (or URI), Awarding SubTier, CFDA Number. In addition, an Amendment/Modification Number must be populated on amended/modified records.
4. Agencies are responsible for tracking the progress of records from Dropbox to USAspending.gov.
   See this document for a helpful checklist: **File D2 Tracking Checklist**
   NOTE: This document, like the E&V, is essential for reporting D2 files successfully.
5. ezFedGrants agencies must ensure that data reported by ezFedGrants is accurate. These agencies can find the reported records within FMMI's Public Folders within the Canned Reports area.
6. Agencies are responsible to correct any identified errors within their source systems and resubmit a corrected file as soon as possible. Data on USAspending must match agency management system data, including ezFedGrants.
7. Agencies no longer are required to submit a signed File D2 Certification Letter to OCFO at the beginning of each month. The agency Quarterly DATA Act Reporting Assurance Statement incorporated the D2 Certification Statement that previously was included in the File D2 Certification Letter.

USDA

Check Your Knowledge: Questions

QUESTIONS

True/False:

1. Copies of the D2 files I submitted to the Dropbox can be found in the agency Shared Mailbox and the Dropbox Archive folder.
2. Since records with warnings are published to USAspending.gov, I don't need to take any action on them.

Multiple Choice:

1. Which of these filenames are allowable? *Pick Two*.
    a. USDA_April_2023_FS_MD12458
    b. D2_NI00_D20230416_T001253.csv
    c. D2_RD00_D20230516T001253.csv
    d. D2_AM00_D20230205_T001253_corrections.csv
    e. D2_FX00_ D20230416_T001253 .csv
2. Which USDA CFDA/Assistance Listing Number is properly formatted?
    a. 10.178
    b. 10.48
    c. 12.550

Check Your Knowledge: Answers

ANSWERS

1. Answer is True: The D2 file is copied into the Archive folder and emailed to the agency.
2. Answer is False: Agencies should review the warnings and strive to improve data quality in future submissions. Warnings FABS3.3 and FABS3.5 should be resolved as soon as possible because they indicate incomplete data on USAspending.gov.

Multiple Choice (Correct Answer is Highlighted):

1. Which of these filenames are allowable? Pick Two.
   a. USDA_April_2023_FS_MD12458 (not within allowable rules)
   b. D2_NI00_D20230416_T001253.csv
   c. D2_RD00_D20230516T001253.csv (missing underscore)
   d. D2_AM00_D20230205_T001253_corrections.csv
   e. D2_FX00_ D20230416_T001253 .csv (see spaces)
2. Which CFDA/Assistance Listing number is properly formatted?
   a. 10.178
   b. 10.48
   c. 12.550A