

Data Management Plan (DMP) Sufficiency Checklist

Purpose

The **Data Management Plan (DMP) Sufficiency Checklist** is designed to serve as an aid in assessing a data management plan (DMP) required of research projects funded by USDOT.

After completing this checklist, you should be able to determine whether researchers have thought through all facets of data management planning.

Format of DMPs

The DMP you are evaluating should have been written as a narrative and contain five sections:

- *Data Description*
- *Data Access*
- *Data Storage and Retention*
- *Data Standards*
- *Timing*

Organization of this Checklist

You will find an explanation of each DMP section at the top of each page. These sections in turn provide prompts for the type of information you should find in the DMP you are evaluating. Please click or mark the checkbox that best rates the completeness of the response to each prompt in the DMP.

NOTE: Some statements may not apply to all projects. Other answers may be more or less complete.

If you feel that the researcher should supply more detailed information for a prompt, you may make a note in section 7. **Notes and Questions**.

After you have completed evaluating a section, total up the number of boxes you have checked in each column. If a majority of responses do not rate “Explained Fully,” it may be necessary to ask the proposer to revise their DMP.

While you will still need to make a subjective assessment of a submitted DMP, the checklist should support your decision making by providing a quantitative measure of the DMP.

Getting Assistance

If you would like personal assistance, the ITS JPO Data Access CoE is available to provide training for using this form, and for evaluating data management plans. Please contact the Data Curator at data.itsjpo@dot.gov.

Definitions

[To be inserted]

A. Your Information

A.01 Grant Manager/Evaluator: Click here to enter your name.

A.02 ORCID or other identifier: Click here to enter your ORCID or other identifier, if applicable.

A.03 Contact information: Click here to enter your email and phone number here.

A.04 Mode: Click here to enter your office.

A.05 Date: Click here to choose a date.

A.06 Grant or Contract number: Click here to enter the grant or contract number, if applicable.

A.07 DMP length: Click here to enter the number of pages in the DMP.

A.08 After review, the evaluator found the submitted data management plan to be:

☐ **Sufficient:** No further action is required by the researcher.

☐ **Not sufficient:** The data creator must revise the DMP in the areas indicated in Section 7.

Research Proposal Information

0. Researcher Information

0.01 Lead researcher, PI, or lead staff name: Click here to enter researcher name.

0.02 Lead researcher contact information: Click here to enter contact information here.

0.03 Organization: Click here to enter the home organization of the lead listed above.

0.04 Title of Research Proposal/Project: Click here to enter the title of proposal or project.

0.05 This is an ☐ initial DMP or a ☐ revised DMP.

1. Data Description:

The **Data Description** section should describe the nature, scope, and scale of the data set(s) that will be collected and/or produced. This section is required for the draft DMP.

Data Description Narrative Evaluation Prompts		Explained Fully	Partially Explained	No information	Not applicable
1.01	Provide all DOT or transportation-related identification numbers for this data set.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1.02	Provide the data set name.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1.03	A) Describe the purpose of the data set including how it relates to the broader purpose of the research project. B) If using existing data, describe the relationship between the data you are collecting and existing data. C) Discuss the potential value the data set will have over the long-term to the research project and other consumers.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1.04	Specify the type and scale of the data that will be generated (e.g., numerical data, image data, text sequences, video, audio, database, modeling data, source code, etc.).	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1.05	Describe the methods for collecting the data (e.g., simulated; observed; experimental; software; physical collections; sensors; satellite; enforcement activities; researcher-generated databases, tables, and/or spreadsheets; instrument generated digital data output such as images and video; etc.)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1.06	Provide the principal investigator's full name (first and last name), title, organization, and email OR full name, title, organization and email of the person that could answer questions about the data set.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1.07	(Yes or No) Indicate whether the data set requires controlled access. Controlled access is defined as restricting access to certain groups of persons due to data containing personally identifiable information (PII), information that threatens privacy of an individual or group, information that threatens confidentiality of a person or group, and/or contains confidential business information.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Total of checked boxes for each column, out of 7:					

Evaluation questions:

- Did a majority of the prompts rate "Explained Fully"?
- Do you have a complete picture of: What data will be gathered; How much data to expect; Who is responsible for managing data; and, How the data will be managed?

If not, this section may not be sufficiently detailed.

Please note any outstanding questions you have about how the data is described, in Section 7. **Notes and Questions.**

2. Data Access:

The **Data Access** section describes what data will be publicly shared, how data sets will be shared, and how others will access them.

- Indicate whether the data set contains private or confidential information.
- Describe what, if any, privacy, ethical, or confidentiality concerns are raised due to data sharing.

Data Access Narrative Evaluation Prompts		Explained Fully	Partially Explained	No information	Not applicable
2.01	The DMP provides the data set name using the same title for the data set as in section 1.1.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2.02	The DMP includes lists the specific data element requiring controlled access. This element must map to data elements in the data dictionary.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2.03	The DMP provides an explanation on why controlled access is required for this data elements, such as privacy, confidential business information, security, etc. In addition, include any relevant privacy and security agreements (e.g. non-disclosure agreements, memoranda or understanding, sub-contracts, etc.)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2.04	The DMP provides the FOIA code(s) associated with your request for controlled access of this data element.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2.05	The DMP provides the methods and processes that will be taken to safeguard this data, such as redacting the data element.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2.06	The DMP states if they will be providing a redacted version of this data set to a public access system. If so, lists what public access system the redacted data set will be stored in.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2.07	The DMP states identifies the individuals who are responsible for carrying out the methods and processes for safeguarding this data. This can be the Technical POC for the data set.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2.08	The DMP indicate what tools or software is required to read or view the data.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Total of checked boxes for each column, out of 8:					

Evaluation questions:

- Did a majority of the prompts rate “Explained Fully”?
- Do you have a complete picture of: The fact that data will be available in open formats; and, if Controlled Access is needed for any data sets.

If not, this section may not be sufficiently detailed.

Please note any outstanding questions you have about which standards are being used, in Section 7. **Notes and Questions.**

3. Access Policies:

In the **Access Policies** section, the researcher should describe how they would comply with DOT public access requirements, while also protecting any personal and confidential information. The DMP you are evaluating should:

- List research team data management roles
- State whether data will be publicly accessible, and explain if it will not be publicly accessible
- State whether the data will contain personal or business confidential information
- Explain how confidential data will be anonymized

Access Policies Narrative Evaluation Prompts		Explained Fully	Partially Explained	No information	Not applicable
3.01	The DMP lists the roles data-creation team members have in data management, including any limitations on team member access due to the presence of personal or confidential information.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.02	The DMP states whether the data can be shared with the public.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.03	The DMP describes what data will be shared, how data files will be shared, and how others will access them.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.04	The DMP indicate whether the data contain private or confidential information.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.05	The DMP discusses how researchers will guard against disclosure of identities and/or sensitive information, if applicable.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.06	The DMP list what processes the researchers will follow to provide informed consent to participants, if applicable.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.07	The DMP state the party(ies) responsible for protecting the data.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.08	The DMP describes what, if any, privacy, ethical, or confidentiality concerns are raised due to data sharing.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.09	If applicable, the DMP describes how data will be deidentified before sharing.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.10	The DMP identifies what restrictions on access and use you will place on the data, if applicable.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.11	If applicable, the DMP discusses additional steps, if any, needed to protect privacy and confidentiality.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Total of checked boxes for each column, out of 11:					

Evaluation questions:

- Did a majority of the prompts rate “Explained Fully”?
- Do you have a complete picture of: Research team members’ roles in data management; Whether the data will be publicly accessible; and Whether the data might contain personally identifiable or business confidential information?

If not, this section may not be sufficiently detailed.

Please note any outstanding questions you have about any access policies, in Section 7. **Notes and Questions.**

4. Data Storage and Retention:

In the **Data Storage and Retention** section, the researcher should describe where they intend to store data, why they have chosen that particular option, and how long they intend to retain the data in these storage systems.

Data Storage and Retention Evaluation Prompts		Explained Fully	Partially Explained	No information	Not applicable
4.01	The DMP state the Data Storage System(s) the data will be stored in. Indicate whether the storage system(s) for the data set is an ITS JPO System, Secure Data Commons (SDC), Third Party – Public System (e.g. fully publicly accessible system), or Third Party – Private System (e.g. controlled access system).	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4.02	The DMP indicates if the data storage system is a “Third Party – Public System” or “Third Party – Private System”, then provide the system name, a short description of the system and the URL to the data set contained within the system. If the data set is no longer stored in this system, it is understood that the URL will no longer be working.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4.03	The DMP provides the date this data set was initially stored in this data storage system. If they are live-streaming data, this may be the initial ingest date. If this is the initial data set, provide the planned date of storage.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4.04	The DMP provides the duration for which the data set will be maintained in the data storage system.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4.05	The DMP provides the date on which the data set is no longer accessible to users in this storage system.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Total of checked boxes for each column, out of 5:					

Evaluation questions:

- Did a majority of the prompts rate “Explained Fully”?
- Do you have a complete picture of: where the data will be stored and long it will be retained? If not, this section may not be sufficiently detailed.

Please note any outstanding questions you have about re-use, redistribution, and derivative products policies, in Section 7. **Notes and Questions**.

5. Data Standards:

In **Data Standards**, the researcher describes the data standards used, provide access to the data's metadata and data dictionary, and provide any requirements for reading the data.

Data Standards Narrative Evaluation Prompts		Explained Fully	Partially Explained	No information	Not applicable
5.01	The DMP lists the name(s) of what format(s) the data will be collected, submitted, and/or preserved (note that these formats may be the same).	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5.02	The DMP lists the URIs of the data collection format standard(s) for the data.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5.03	The DMP indicates whether the data collection format standard is "Open" or "Proprietary."	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5.04	The DMP provides an explanation for using the chosen data collection format. If they are using proprietary or non-standard data formats, they have discussed their rationale for using those standards and formats here. If they are using standard data formats, also state that here and why the standard applies to this data set.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5.05	The DMP lists any special tools required to read or view this data and/or its data standards; including tools needed for all types of workstations (e.g. personal computer (PC), Mac, Chromebook, etc.).	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5.06	The DMP outlines the procedures for ensuring that different versions of the data sets are identifiable, properly controlled and used.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5.07	The DMP lists the metadata standards used for the data set.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5.08	The DMP indicates whether metadata will be submitted to ITS JPO with the dataset.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5.09	The DMP indicates whether a data dictionary for the dataset will be submitted to ITS JPO with the dataset.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Total of checked boxes for each column, out of 9:					

Evaluation questions:

- Did a majority of the prompts rate "Explained Fully"?
- Do you have a complete picture of: Anticipated formats that data will use, provide references to the standards used (if they exist), and include data dictionaries as appendices?

If not, this section may not be sufficiently detailed. Please note any outstanding questions you have about archiving and preservation plans, in Section 7. **Notes and Questions**

6. Timing:

In the **Timing** section, the researcher provides the period in which data will be produced, collected and submitted to ITS JPO

Data Storage and Retention Evaluation Prompts		Explained Fully	Partially Explained	No information	Not applicable
6.01	The DMP provides the date on which the project will begin data collection.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6.02	The DMP provides the date on which the project will end the data collection.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6.03	The DMP indicates the frequency with which changes and additions are made to the data set after the initial data set is created.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Total of checked boxes for each column, out of 3:					

Evaluation questions:

- Did a majority of the prompts rate “Explained Fully”?
- Do you have a complete picture of: when the data will be provided and frequency after? If not, this section may not be sufficiently detailed.

Please note any outstanding questions you have about re-use, redistribution, and derivative products policies, in Section 7. **Notes and Questions.**

7. Notes and Questions:

(Please preface notes and questions with the appropriate statement number from above.)