Data Management Plan Guidelines

American University (AU), a Carnegie-classified research university, is deeply committed to ensuring the integrity and reliability of research it conducts and strongly supports the creation, dissemination and transfer of research results to benefit society and to expand the knowledge base in the arts, humanities, social and natural science disciplines.

As a non-profit academic institution, AU understands when research is supported by public funds, the data obtained should be appropriately and responsibly managed, and such data should be shared to maximize benefits to the taxpayer.

The National Science Foundation (NSF) and other federal funding agencies require proposals to include plans for managing data and sharing of the results of research that it funds. The Data Management Plan should detail how the proposal will conform to the sponsor’s policy on the dissemination and sharing of research results. If no data are involved in a particular proposed project, the Data Management Plan can be very short and simply state this fact.

Many factors—some of them discipline- or field-specific—are involved in the management of data. The Data Management Plan should reflect best practices in the area of research, and it should be appropriate to the data produced.

The process of preparing a Data Management Plan gives the PI and collaborators an opportunity to address prior to starting the project, such matters as:

- The types of data that the project might generate and eventually share with others, and under what conditions;
- How data are to be organized, managed, maintained, archived, curated, and protected against distortion;
- Factors that might complicate or compromise the data or their management, for example possible legal or ethical restrictions, human subjects concerns, etc;
- The level at which data are to be aggregated, prior to sharing them with others in the scientific community, given that community’s norms on data;
- The mechanism for sharing data and/or making them accessible to others;
- Other types of information that should be maintained and shared regarding data, e.g. the way it was generated, analytical or procedural information, and any associated metadata.

What type of data is covered under a Data Management Plan?

The federal definition of data covered by a Data Management Plan is provided in 2 CFR 215, *Uniform Administrative Requirements for Grants and Agreements with Institutions of Higher Education, Hospitals, and Other Non-Profit Organizations* (also known as OMB Circular A-110). Research data are defined as:

“The recorded factual material commonly accepted in the scientific community as necessary to validate research findings, but not any of the following: preliminary analyses, drafts of scientific papers, plans for future research, peer reviews, or communications with colleagues. This “recorded” material excludes physical objects (e.g., laboratory samples). Research data also do not include:

(A) Trade secrets, commercial information, materials necessary to be held confidential by a researcher until they are published, or similar information which is protected under law; and
(B) Personnel and medical information and similar information the disclosure of which would constitute a clearly unwarranted invasion of personal privacy, such as information that could be used to identify a particular person in a research study.”
Sample Outline for a Data Management Plan

A Data Management Plan typically contains the following sections; however please check the sponsor’s specific requirements:

☐ Data description and nature of the data: This section should provide a general overview of the nature of the data or other materials produced under the funding agency’s sponsored project. What are the characteristics of the data? What type of data will be generated? If your data is of a sensitive nature (related to human subjects for example), it should be noted in this section and addressed more fully in later sections.

☐ Standards to be used for data and metadata format and content: This section should provide short summary of the data standards and metadata standards you will use over the course of your projects. The term, “metadata” refers literally to “data about the data,” and they usually take the form of a list of elements used to describe the data. What file formats will be used for the data (if applicable)? What metadata will be collected and maintained to make the data meaningful?

☐ How will the project save the details of the data and metadata? How will the accuracy and validity of the data and metadata be assured?

☐ Describe the method for preserving the data: This section should provide a short summary of how the data will be preserved and made available for sharing. Some of the issues to be addressed are:

☐ Will the data be shareable? (If the data will not be shareable, please explain why here.)

☐ How and when will you make the data available? (If there are any embargo periods due to contractual arrangements please detail those here.)

☐ What is the process others would use for gaining access to the data?

☐ Does the original data collector/creator/principal investigator retain the right to use the data before opening it up to wider use? If yes, for how long?

☐ What, if any, provisions will be made for appropriate protection of privacy, confidentiality, security, intellectual property, or other rights or requirements if necessary?

☐ State how long the data will be kept: 2 CFR 215 (OMB Circular A-110) mandates that original data be kept at least 3 years from the end of the project providing there are no ongoing investigations. However, the common practice is to keep the original data in perpetuity. Some issues you might want to address in this section are:

☐ What is the long-term strategy for maintaining and archiving the data?

☐ Where will the data be stored?

☐ What transformations will be needed to allow data sharing (de-identifying or aggregating the data, etc.)?

☐ What metadata and/or documentation will be created and where will it be stored?

☐ How long will the data be kept?

References and helpful links:

• NSF Overview of the Dissemination and Sharing of Research Results (including Directorate-level guidance): http://www.nsf.gov/bfa/dias/policy/dmp.jsp


• Guide to Data Management Plans: http://subjectguides.library.american.edu/dmp