**NSF Data Management Plan Outline**

As of January 18, 2011, the National Science Foundation requires allproposals to include a Data Management Plan. This document must be no longer than two pages in length (although investigators may use a portion of the 15-page Project Description for a Data Management Plan longer than two pages) and should describe how the proposed project will conform with [NSF policy on the dissemination and sharing of research results](http://www.nsf.gov/bfa/dias/policy/dmp.jsp). Many NSF Divisions and Directorates also have specific requirements for Data Management Plans (e.g., ENG, GEO, MPS, and SBE). Be sure to carefully review program solicitations or individual NSF Division and Directorate web pages for additional information.

Below is an excerpt from the NSF Grant Proposal Guide pertaining to Data Management Plans:

“Proposals must include a document of no more than two pages uploaded under “Data Management Plan” in the supplementary documentation section of FastLane. This supplementary document should describe how the proposal will conform to NSF policy on the dissemination and sharing of research results (see Chapter XI.D.4), and may include:

1. the types of data, samples, physical collections, software, curriculum materials, and other materials to be produced in the course of the project;

2. the standards to be used for data and metadata format and content (where existing standards are absent or deemed inadequate, this should be documented along with any proposed solutions or remedies);

3. policies for access and sharing including provisions for appropriate protection of privacy, confidentiality, security, intellectual property, or other rights or requirements;

4. policies and provisions for re-use, re-distribution, and the production of derivatives; and

5. plans for archiving data, samples, and other research products, and for preservation of access to them.

Data management requirements and plans specific to the Directorate, Office, Division, Program, or other NSF unit, relevant to a proposal are available at: <http://www.nsf.gov/bfa/dias/policy/dmp.jsp>. If guidance specific to the program is not available, then the requirements established in this section apply.

Simultaneously submitted collaborative proposals and proposals that include subawards are a single unified project and should include only one supplemental combined Data Management Plan, regardless of the number of non-lead collaborative proposals or subawards included. In such collaborative proposals, the data management plan should discuss the relevant data issues in the context of the collaboration.

A valid Data Management Plan may include only the statement that no detailed plan is needed, as long as the statement is accompanied by a clear justification. Proposers who feel that the plan cannot fit within the limit of two pages may use part of the 15-page Project Description for additional data management information. Proposers are advised that the Data Management Plan must not be used to circumvent the 15-page Project Description limitation. The Data Management Plan will be reviewed as an integral part of the proposal, considered under Intellectual Merit or Broader Impacts or both, as appropriate for the scientific community of relevance.”[[1]](#footnote-1)

The following outline is suggested to provide a framework for investigators to develop Data Management Plans conforming to NSF requirements. The bulleted prompts should be used to guide the development of text for each required section. The [Office of Proposal Development](http://research.unl.edu/proposaldevelopment/) can provide a review of and comments on draft Data Management Plans prior to proposal submission to help ensure the plan addresses NSF criteria and is easy for proposal reviewers to understand.

**Data Management Plan**

**Types of Data, Samples, Physical Collections, Software, Curriculum Materials, and Other Materials**

* Describe the nature of the data, samples, physical collections, software, curriculum materials and other materials that will be collected or generated during this project, including amount and content
* Describe the types of data, samples, etc. that will be collected or generated (e.g., observational or qualitative data, model output, preserved samples and specimens, etc.)
* Describe how these data, samples, etc. will be collected or generated
* Describe any existing data, samples, etc. that will be used, including the source, and the relationship between existing resources and those collected or generated during the proposed project

**Data and Metadata Standards**

* Detail the standards that will be used for the format and content of data and contextual details (metadata) if these standards exist, including rationale for using these standards
* If there are no existing relevant data and metadata standards, or standards are inadequate, document this and provide potential remedies
* Discuss the file format(s) that will be used for the project, and provide a brief rationale for the selected format(s)
* List metadata that will be needed to make collected or generated data meaningful and describe how metadata will be collected or generated

**Policies for Access and Sharing, Provisions for Protection/Privacy**

* Discuss how data will be made available, including resources needed to make data available
* Discuss when data will be made available, including details on any periods when data will be withheld and reasons for withholding
* Describe any processes and/or costs for outside entities to gain access to data
* Discuss whether the original collector/creator of data and/or the PI will retain the right to use data exclusively for any period of time
* Discuss any ethical and/or privacy issues relating to the data, and how these will be resolved (specifically, state whether data will be subject to the Health Insurance Portability and Accountability Act (HIPAA) of 1996 or any other relevant regulations regarding information privacy)
* Discuss applicable IRB protocols and how the project team will comply with these
* Discuss the ownership of any applicable copyright and other intellectual property and how the dataset will be licensed (including any necessary restrictions or delays on data sharing)

**Policies and Provisions for Re-use, Redistribution, and Production of Derivatives**

* Describe any permission restrictions that will be placed on the data, and why
* Discuss the audience for whom the data are intended and any other individuals/organizations likely to be interested in the data
* Discuss any reasons that data and/or its derivatives should not be shared, redistributed, or re-used

**Plans for Archiving and Preserving Data, Samples, and Other Research Products**

* Discuss long-term plans for archiving and storage of data, samples, etc.
* Identify the data repository/archival center at which data will be deposited and backup procedures
* Identify the location at which samples will be retained, including any special storage needs (e.g., refrigeration)
* Discuss any preparation that will be necessary before data or samples may be stored (e.g., transfer of data to storage devices, preservation of samples, etc.)
* Discuss any accompanying materials (e.g., metadata, software) that will make data re-usable once it has been archived
* Describe other materials such as references, research papers, journal articles, the original proposal, etc. that will be archived and the location and manner of archival; also discuss any preparation of these materials for archival (e.g., scanning)
* Identify the length of time that data and other materials will be archived/stored and what will happen to the data and other materials at the end of that period

**This document is intended to supplement, not replace, instructions provided in NSF program solicitations or the NSF *Proposal and Award Policies and Procedures Guide*.**

1. Excerpted from: *The National Science Foundation Proposal and Award Policies and Procedures Guide*. November 2018, Effective February 25, 2019. NSF 19-1, OMB Control Number 3145-0058. Available online in html and .pdf formats at: https://www.nsf.gov/pubs/policydocs/pappg19\_1/index.jsp. [↑](#footnote-ref-1)