Tips for developing an NSF Data Management Plan

Per NSF, beginning January 18, 2011, all NSF proposals must include a supplementary document of no more than two pages labeled “Data Management Plan.” (See the following page for a summary of the relevant NSF guidelines.) The supplemental document should describe how the proposal will conform to the NSF policy on the dissemination and sharing of research results. Given the variety of science supported, each NSF directorate has been asked to provide specific guidelines on the preparation of directorate specific data management plans. As of January 3, 2011, the following directorates have published their specific guidelines available at the following url:


- Engineering Directorate (ENG)
  Directorate-wide Guidance
- Geological Sciences Directorate (GEO)
  Division of Earth Sciences
  Integrated Ocean Drilling Program
  Division of Ocean Sciences
- Mathematical and Physical Sciences Directorate (MPS)
  Division of Astronomical Sciences
  Division of Chemistry
  Division of Materials Research
  Division of Mathematical Sciences
  Division of Physics
- Social, Behavioral and Economic Sciences Directorate (SBE)
  Directorate-wide Guidance

FAQs
In addition, NSF has published a listing of FAQs on the new requirement and it is available at http://www.nsf.gov/bfa/dias/policy/dmpfaqs.jsp. Please share with your faculty and your proposal support staff to ensure that all PSU NSF proposals as of January 18, 2011, have a data management plan included. Please remain cognizant that even if the project does not create any data, we are required to submit a data management plan indicating that no plan is required.

Broad Resources (Beyond NSF): The following resources are excellent resources for constructing a data management plan and have a broader focus than just NSF.

A good resource on understanding how “data people” view data management is very instructive for understanding what they put into their plans, regardless of funding agency. See what the California Digital Library has put together in the past for ideas on what the elements of a plan could be: http://cdlib-stage.cdlib.org/services/uc3/datamanagement/documenting.html

The Inter-University Consortium for Political and Social Research (ICPSR), of which Penn State is a member, has its own guidance on Data Management Plans:
http://www.icpsr.umich.edu/icpsrweb/ICPSR/dmp/index.jsp

The Association of Research Libraries also has a good overview of the requirement at:
Section J. Special Information and Supplementary Documentation

Plans for data management and sharing of the products of research. Proposals must include a supplementary document of no more than two pages labeled “Data Management Plan”. This supplement should describe how the proposal will conform to NSF policy on the dissemination and sharing of research results (see AAG Chapter VI.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. Fastlane will not permit submission of a proposal that is missing a Data Management Plan. Proposals for supplementary support to an existing award are not required to include a Data Management Plan.

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 supplement 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 may 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, coming under Intellectual Merit or Broader Impacts or both, as appropriate for the scientific community of relevance.