GUIDANCE ON NATIONAL SCIENCE FOUNDATION (NSF) DATA MANAGEMENT PLANS
UPDATED ON August 19, 2014

[Formatting instructions:
  a. Use one of the following typefaces identified below:
     • Arial, Courier New, or Palatino Linotype at a font size of 10 points or larger;
     • Times New Roman at a font size of 11 points or larger; or
     • Computer Modern family of fonts at a font size of 11 points or larger.
  b. No more than six lines of text within a vertical space of one inch.
  c. Margins, in all directions, must be at least an inch.]

All proposals submitted on or after January 18, 2011 must describe plans for data management and sharing of the products of research, or explain the absence of the need for such plans. NSF will not permit submission of a proposal that is missing a Data Management Plan.

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.

Proposals must include the plan as a supplementary document of no more than TWO (2) pages. The NSF Policy Office advises that you NOT include URLs in this document, as this may be viewed as an attempt to circumvent page limits. NOTE: Data management requirements and plans may vary by NSF Directorate, Office, Division, or Program – please see Directorate specific guidance on page 3.

Basic Template

Unless otherwise specified in a specific program solicitation or by a directorate’s office or division (please see below: Directorate Specific Guidance), your plan may include:

A. Types of Data

Types of data: describe existing data to be used and any data to be collected. Include both quantitative and qualitative such as samples, physical collections, software, curriculum materials, images, audio and other materials to be used during the project.

B. Data Standards

Indicate standards to be used for formatting the data. Examples include:
Quantitative: CSV and control card, STATA, SPSS, Tab delineated and DDI, Graph ML and SAS. Images: JPEG or TIFF Audio: MP3 or WAV
Also describe any documentation you will generate to explain the data, including any metadata format and content.
If existing standards are absent or deemed inadequate, this should be documented along with proposed solutions or remedies.
C. Access Policies

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

Harvard University has developed and adopted a Research Data Security Policy requiring appropriate technical and process protections for confidential research data: http://www.security.harvard.edu/research-data-security-policy

Under the policy, research data is classified into levels to indicate the sensitivity of the data. The levels range from Level 1 for "De-identified research information about people and other non-confidential research information" to Level 5 for "Extremely sensitive information about individually identifiable people."

Data at each level is subject to a set of detailed technical and administrative process protections that are appropriate to protect the security, privacy and confidentiality of the particular type of data. This policy has been formally adopted by the University and applies to all research involving confidential data whether funded or not.

Harvard has a university-wide policy addressing the required protections for intellectual property arising from research. These policies can be found here: http://otd.harvard.edu/resources/policies/

Data will not be encumbered with intellectual property rights (including copyright, database rights, license restrictions, trade secret, patent or trademark) by any party (including the investigators, investigators’ institutions, and data providers); nor is it subject to any additional legal requirements.

D. Redistribution Policies

Describe policies for reuse and redistribution and production of derivatives.

Sample Recommended Language:
The principal investigators and their institutions will hold the copyright for the research data they generate but will grant redistribution rights to [repository] for purposes of data sharing. Also see Section C above, paragraph 4 and Section E below.

E. Plans for Archiving, Preservation and Access.

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

Sample Recommended Language (if using Dataverse as the document repository):
The Principal Investigator will make the research data content available for archiving, preservation and access within the Data Preservation Alliance for the Social Sciences ("Data-PASS") through the Data-PASS terms of use.

NOTE: If your research does not require data management, you must include the plan along with the statement that “No detailed data management plan is needed.” You must also provide a clear justification as to why no data management plan is needed.
Directorate Specific Guidance - Which Guidelines Apply to my Proposal?

Please note that if a program announcement or solicitation provides guidance on preparation of data management plans, the solicitation guidance must be followed. If no solicitation guidance is provided, please follow the guidance issued by the Directorate/Program/Division. If no guidance is available from either of these sources, then you must follow the requirements established in the NSF 2014 Grant proposal Guide (GPG):


- Biological Sciences Directorate (BIO)
  - Directorate-Wide Guidance
- Computer & Information Sciences & Engineering (CISE)
  - Directorate-Wide Guidance
- Education & Human Resources Directorate (EHR)
  - Directorate-Wide Guidance
- 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

ADVICE FOR FACULTY - DISCUSS YOUR PLAN IN ADVANCE WITH YOUR PROGRAM OFFICER

It is likely that research and collaborative activities in your particular field already have informal or formal approaches that address the above requirements. This new component, however, will require additional time to prepare. The NSF Policy Office has asked that you discuss your proposed plans as well as any questions or concerns with your program officer(s). NSF expects that guidance will evolve over time and with experience.
ALLOWABLE COSTS FOR PLANS

Where applicable and reasonable, costs to support dissemination and data management may be included in your budget. The costs of documenting, preparing, publishing, disseminating and sharing research findings and supporting material are allowable charges against the grant. Please see: http://www.nsf.gov/pubs/policydocs/pappguide/nsf14001/nsf14_1.pdf.

Plans to support costs beyond the term of the award should also be considered and discussed with your program officer, chair, dean and/or department chair.

SUBAWARDS OR COLLABORATIVE PROPOSALS

If more than one institution is participating in a submission, only one data management plan should be submitted.

REFERENCES AND RESOURCES

DMP Tool Resources – Guidance Documents and Advice for PIs
https://dmptool.org/guidance?method=get&scope1=all

Data Management & Sharing Frequently Asked Questions (FAQs)

National Science Foundation, Proposal and Award Policies and Procedures Guide


Association of Research Libraries’ Resources on DMPs
http://www.arl.org/rtl/eresearch/escien/nsf/nsfresources.shtml