

NSF Data Management Plan Guidelines

Data Management Plan

To the extent feasible and consistent with applicable law and policy; agency mission; resource constraints; U.S. national, homeland, and economic security, digitally formatted scientific data resulting from unclassified research supported wholly or in part by NSF funding should be stored and publicly accessible to search, retrieve, and analyze. NSF requires applicants for funding to prepare a DMP. The current requirement, which was a January 18, 2011 implementation of the Foundation's long-standing data-sharing policy, specifies that 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 as stated in the *Grant Proposal Guide*. The DMP may address:

- The types of data, samples, physical collections, software, curriculum materials, and other materials to be produced in the course of the project;
- 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);
- Policies for access and sharing, including provisions for appropriate protection of privacy, confidentiality, security, intellectual property, or other rights or requirements;
- Policies and provisions for re-use, re-distribution, and the production of derivatives; and
- Plans for archiving data, samples, and other research products, and for preservation of access to them ([Grant Proposal Guide II.c.2.i](#)).

Guidance and data management requirements and plans specific to the directorate, office, division, program, or other NSF unit are available at: <http://www.nsf.gov/bfa/dias/policy/dmp.jsp>. Individual solicitations may also include specific guidance or requirements. NSF's FastLane system will not permit submission of a proposal that is missing a DMP.

Exceptions to the release of data

Small Business Innovation Research (SBIR)/Small Business Technology Transfer (STTR) proposals and any other proposal may allow for exceptions for proprietary or otherwise restricted data, including but not limited to personally identifiable information, business confidential information, security, among other concerns outlined in section 4.a. of the OSTP memo. Any such data management issues as well as conditions that might affect, delay, or limit data sharing should be discussed in the DMP. Coordination with the Cognizant Program Officer prior to submitting the proposal is also advised. Other potential restrictions are described in Section 7.5.2.

DMP evaluation

DMPs are reviewed as an integral part of the merit review of the proposal, considered under Intellectual Merit or Broader Impacts or both, which are criteria established by the NSB. These criteria are described in the [Grant Proposal Guide III.A.2](#) and are used to review every proposal submitted to NSF. Results of the merit review process are not made public but are provided to the proposing investigators.

Data deposit and citation

Data that underlie the findings reported in a journal article or conference paper should be deposited in accordance with the policies of the publication and according to the procedures laid out in the DMP included in the proposal that led to the award on which the research is based. In the future, NSF will explore whether all data underlying published findings can be made available at the time of publication. The reference to the data cited should include the NSF award number and appropriate attribution as well as other attributes required by the publisher or the repository where the material is deposited (e.g., metadata, persistent identifier, and so on). Effective January 2013, NSF permitted proposers to include citations to data sets in the Biographical Sketches in proposals, requiring (among other data elements) names of all authors, date of publication or release, and Universal Resource Locator (URL) or other persistent identifier (see [Grant Proposal Guide, Chapter II C.2.f.i \(c\)](#)).

All data resulting from the research funded by the award, whether or not the data support a publication, should be deposited at the appropriate repository as explained in the DMP. Metadata associated with the data should conform to community standards and the requirements of the host repository. At a minimum, data elements should include acknowledgement of NSF support as well as the award number and appropriate attribution.

As implementation of NSF's public access initiative unfolds over the next years, NSF expects to explore a series of options to leverage existing data repositories, extend approaches already in use in the development of DMPs, develop standards for repositories and metadata in consultation with the community, and enhance reporting and evaluation procedures (see Sections 7.1.1, 7.3, and 7.4).