

UNIVERSITY OF WYOMING

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Dear Colleagues,

This letter contains information and links to resources to help you meet the new data management requirements for NSF proposals. NSF requirements to maintain and share data are not new, however the requirement for formal planning and documentations is. In particular:

- “Plans for data management and sharing of the products of research, including preservation, documentation, and sharing of data, samples, physical collections, curriculum materials and other related research and education products should be described in the Special Information and Supplementary Documentation section of the proposal.”¹ This is a supplementary document of at most two pages that will be uploaded to your proposal in FastLane.
- Each proposal (other than proposals for supplementary support to an existing award) submitted to the NSF with a due date of January 18, 2011 or later must include such a data management plan, and starting January 18, 2011, FastLane will not accept submission of proposals that do not include a data management plan. For a small number of proposals, a statement, along with a clear justification, that no data management plan is necessary will suffice.
- In your future NSF proposals, the section on *Results from prior NSF Support* should include a section that provides “evidence of research products and their availability, including, but not limited to: data, publications, samples, physical collections, software, and models, as described in any Data Management Plan.”²

A data management plan should describe how it conforms to the following tenets, which suggest that the focus should be on how researchers will share and disseminate data resulting from the proposed project with the scientific community in a timely, reliable, and lasting fashion, and not on how data will be (internally) managed for use by the researchers involved in the project:

- Investigators are expected to promptly prepare and submit for publication, with

¹ From NSF GPG, Chapter 2, Section 1.

² From NSF GPG, Chapter 2, Section 2.

authorship that accurately reflects the contributions of those involved, all significant findings from work conducted under NSF grants.

- Investigators are expected to share with other researchers, at no more than incremental cost and within a reasonable time, the primary data, samples, physical collections and other supporting materials created or gathered in the course of work under NSF grants. Grantees are expected to encourage and facilitate such sharing. Privileged or confidential information should be released only in a form that protects the privacy of individuals and subjects involved.
- Investigators and grantees are encouraged to share software and inventions created under the grant or otherwise make them or their products widely available and usable.
- The Bayh-Dole act allows universities to own the intellectual property developed through the course of performing research. The placement of proprietary information used to develop patents, into any form of data repository constitutes a public disclosure and therefore may disqualify patent rights the University may claim as a result of research. Thus it is critical that any information leading to the development of a patent must be disclosed to the University of Wyoming Research Products Center (<http://uwadmnweb.uwyo.edu/RPC>) (307 766-2520). RPC staff will help guide the researcher as they develop NSF grant-related information for placement into a data repository of any type.
- NSF normally allows grantees to retain principal legal rights to intellectual property developed under NSF grants to provide incentives for development and dissemination of inventions, software and publications that can enhance their usefulness, accessibility and upkeep. Such incentives do not, however, reduce the responsibility that investigators and organizations have as members of the scientific and engineering community, to make results, data and collections available to other researchers.
- NSF program management will implement these policies for dissemination and sharing of research results, in ways appropriate to field and circumstances, through the proposal review process; through award negotiations and conditions; and through appropriate support and incentives for data cleanup, documentation, dissemination, storage and the like.

Possible items to include in a data management plan include:

- Expected data from project. A description of the "types of data, samples, physical collections, software, curriculum materials" that the product will produce, and the expected retention time for each. Note that retention of research data should be retained for at least three years after the conclusion of the award or three years after public release, whichever is later.
- Standards. A description of the "standards that will be used for data and

metadata format and content," or in the case that such standards do not exist, of the documentation plans.

- Access. A description of the project's policies and plans for "access and sharing including provisions for appropriate protection of privacy, confidentiality, security, intellectual property, or other rights or requirements." More specifically, an outline of the media and dissemination approaches that will be used to share the results and data with the public and the scientific community.
- Data storage. Plans for archival of and "preserving access" to the resulting data, including details about the physical and cyber resources and facilities that will be used.

The evaluation of data management plans will become part of each NSF panels' job, and may impact funding recommendations. Thus, PIs should be careful to design a thoughtful, discipline specific data management plan. Each NSF Directorate and Program may have additional recommendations or requirements, which can be found at <http://www.nsf.gov/bfa/dias/policy/dmp.jsp>. A list of FAQs and responses at <http://www.nsf.gov/bfa/dias/policy/dmpfaqs.jsp>.

It is important to note that NSF allows the costs of implementing data management plans to be included in direct costs; University Indirect Costs will not be used for this purpose.

The University of Wyoming provides the following short-term options

- For NSF grants submitted after January 18, 2011, UW-IT will provide the service of hosting datasets ranging from 2 GB to 50 GB for a one-time charge of \$2 per GB per year, payable at the time of deposit. This service provides UW researchers with a permanent globally, accessible URL for data, secure replicated storage (i.e. multiple copies of data, including onsite and offsite storage), a mechanism for generating and using metadata.
- Researchers expecting to preserve datasets larger than 50 GB should discuss their special needs with UW-IT prior to submitting an NSF proposal.

The Research Office will host a Q&A discussion about NSF Data Management plans in the spring semester.

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