What to Include in a Data Management Plan (DMP)

The National Science Foundation (NSF)* suggests that your Data Management Plan address these five topics:

1. **Types of data, samples, and other materials to be produced in the course of the project**

Describe the research products to be produced in the course of the proposed project. These products may be categorized as observational, experimental, reference, derived or simulated. Data types could include data generated by computer, data collected from sensors or instruments, images, audio files, video files, reports, surveys or patient records. Indicate which of the research products will be shared and at what stage (raw, processed, analyzed).

2. **Standards to be used for data and metadata format and content**

Identify the format(s) of data files that will be created over the course of the project and the types of metadata that will be included. Standards are often determined by the accepted best practices within a discipline. If possible, identify who will create the metadata, and at what stage.

3. **Policies for providing access and enabling sharing**

Describe mechanisms for providing access, maximizing security and protecting privacy, if applicable. If the data is of a sufficiently sensitive nature (human subjects concerns, potential patentability, etc.) that general public access is inappropriate, articulate the means by which granular control and access will be achieved – e.g.: data requestors will be able to access the data provided a data use agreement is first executed; data will be available only within a secure virtual network. NSF recognizes that legal and ethical requirements may preclude sharing of some kinds of data. Trade secrets and commercial information are also not subject to the data-sharing requirement.

The UCSD Office of Contract and Grant Administration has provided standard language^ for this section:

"Intellectual property and data generated under this project will be administered in accordance with both University and NSF policies, including the NSF Data Sharing Policy and *AAG Chapter VI.D.4*.

Ownership of sole or joint inventions developed under the project will be owned by the institution(s) employing the inventor(s). Inventors shall be determined by U.S. Patent law, Title 35 USC. University and Participating investigators/institutions will disclose any inventions developed under the project and such inventions will be reported and managed as provided by NSF policies. Sole inventions will be administered by the institution employing the inventor. Joint inventions shall be administered based on

mutual consultation between the parties. Similar procedures will be followed for copyrights."

4. Provisions for re-use, re-distribution, and the production of derivatives

Describe usage rights, licenses or other policies related to re-use and re-distribution of data.

The UCSD Office of Contract and Grant Administration has provided standard language^ for this section:

"Access to databases and associated software tools generated under the project will be available for educational, research and non-profit purposes.   Such access will be provided using web-based applications, as appropriate.

Materials generated under the project will be disseminated in accordance with University/Participating institutional and NSF policies.   Depending on such policies, materials may be transferred to others under the terms of a material transfer agreement.

Publication of data shall occur during the project, if appropriate, or at the end of the project, consistent with normal scientific practices.   Research data which documents, supports and validates research findings will be made available after the main findings from the final research data set have been accepted for publication.   Such research data will be redacted to prevent the disclosure of personal identifiers."

5. Plans for archiving and preserving access to data and materials

Describe means by which you will provide access to data and applicable time frame. Describe means for preserving data, if different from above.

*See NSF guidelines on DMPs
at: http://www.nsf.gov/pubs/policydocs/pappguide/nsf11001/gpg_2.jsp - dmp

^See OCGA guidance on DMPs:
http://ocga.ucsd.edu/Proposals/NSF/Grants/NSF_Grant_Data_Management_Plan.html
This page was adapted from guidance provided by the University of Michigan
http://lw.lsa.umich.edu/research/resources/facultytoolkit, and Cornell University
http://data.research.cornell.edu.