National Science Foundation (NSF)
Data Management Plan

The National Science Foundation (NSF) now requires that all requests for funding contain a data management plan (DMP) addressing how the proposed project will comply with the agency's data sharing policy.

Please consult the solicitation and the guidance from the cognizant NSF directorate *before* **preparing your data management plan**, of no more than two pages in length**.** Review the NSF guidelines on data management plans and read the NSF Data Management and Sharing Frequently Asked Questions before starting.

Consider including information on the following points when writing your plan.

   I.   **Expected Data -** Describe the types of data, samples, physical collections, software, curriculum materials, and other materials to be produced in the course of the project. Describe the expected types of data to be retained. Describe the sources, products, formats and estimated size or amount.
   1. How will data be managed and maintained until they are shared with others?
   2. Describe the lowest level of aggregated data that PIs might share with others in the scientific community, given that community's norms on data.
   3. If you will be using existing data, state that fact and include where you got it. What is the relationship between the data you are collecting and the existing data?
   4. Not included: preliminary analyses, drafts of scientific papers, plans for future research, peer reviews, or communications with colleagues. Raw data is considered preliminary analysis.

   II.   **Period of Data Retention**
   1. The plan should describe the period of data retention.

   III.   **Data Formats -** Describe 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). Describe the way it was generated, as well as analytical and procedural information.
   1. Describe the file formats you will use for your data and what details (metadata) are necessary for others to understand and use your data.
   2. Describe all standard formats and metadata you are using and why have you chosen them.
   3. Describe any software or other tools that are necessary to read the data.

   IV.   **Data Dissemination -** Describe the policies for public access and sharing including provisions for appropriate protection of privacy, confidentiality, security, intellectual property, or other rights or requirements. Who is likely to be interested in the data?
   1. Describe which data will be shared. The DMP should describe the specific data formats, media, and dissemination approaches that will be used to make data available to others, including any metadata and clearly articulate how sharing is to be implemented. Will it

be deposited in a publicly available database, available for download from a web site, available upon request?
2. Describe when the data will be shared. Public release of data should be at the earliest reasonable time.
3. Address how privacy and confidentiality will be protected in the case of human subjects' research.
4. Address how data are to be shared and managed if industry partners, center members, or other major stakeholders are involved.

V. **Data storage and preservation of access -** Describe the plans for archiving data, samples, and other research products, and for preservation of access to them, including physical and cyber resources and facilities.