

Natural Hazards Engineering Research Infrastructure (NHERI)

> DesignSafe: Publish your Data Event

December 6, 2021

Joy M. Pauschke, Ph.D., P.E. NHERI/ECI Program Director Division of Civil, Mechanical and Manufacturing Innovation Directorate for Engineering jpauschk@nsf.gov

NATIONAL SCIENCE FOUNDATION

□ NSF Policy on Dissemination & Sharing of Research Results

□ NSF Policy on Data Management Plans

NSF Directorate for Engineering Guidance on Data Management Plans

□ Why Your Project Data Matters – on NHERI DesignSafe!



NSF Policy on Dissemination and Sharing of Research Results NSF 22-1, Proposal and Award Policies and Procedures Guide (PAPPG)

https://www.nsf.gov/pubs/policydocs/pappg22_1/pappg_11.jsp#XID4

"a. Investigators are expected to promptly prepare and submit for publication, with authorship that accurately reflects the contributions of those involved, all significant findings from work conducted under NSF grants. Grantees are expected to permit and encourage such publication by those actually performing that work, unless a grantee intends to publish or disseminate such findings itself.

b. Investigators are expected to share with other researchers, at no more than incremental cost and <u>within a reasonable time, the primary data,</u> <u>samples, physical collections, and other supporting materials created or gathered in the course of work under NSF grants. Grantees are expected to</u> <u>encourage and facilitate such sharing.</u> Privileged or confidential information should be released only in a form that protects the privacy of individuals and subjects involved. General adjustments and, where essential, exceptions to this sharing expectation may be specified by the funding NSF Program or Division/Office for a particular field or discipline to safeguard the rights of individuals and subjects, the validity of results, the integrity of collections, or to accommodate the legitimate interest of investigators. A grantee or investigator also may request a particular adjustment or exception from the cognizant NSF Program Officer.

c. <u>Investigators and grantees are encouraged to share software and inventions created under the grant or otherwise make them or their products</u> widely available and usable.

d. 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.

e. NSF program management will implement these policies for dissemination and sharing of research results, in a way appropriate to field and circumstances, through the proposal review process; through award negotiations and grant conditions; and through appropriate support and incentives for data cleanup, documentation, dissemination, storage and the like.

f. Each NSF grant contains, as part of the grant general terms and conditions, an article implementing dissemination and sharing of research results."



NSF Policy on Data Management Plans NSF 22-1, Proposal and Award Policies and Procedures Guide (PAPPG)

https://www.nsf.gov/pubs/policydocs/pappg22_1/pappg_2.jsp#dmp

"Plans for data management and sharing of the products of research. Proposals must include a document of no more than **two pages** uploaded under "Data Management Plan" in the supplementary documentation section of FastLane or Research.gov. This supplementary document should describe how the proposal will conform to NSF policy on the dissemination and sharing of research results (see <u>Chapter XI.D.4</u>), and may include:

- 1. <u>the types of data</u>, samples, physical collections, software, curriculum materials, and other materials to be produced in the course of the project;
- 2. the <u>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);</u>
- 3. policies <u>for access and sharing</u> including provisions for appropriate protection of privacy, confidentiality, security, intellectual property, or other rights or requirements;
- 4. policies and provisions for re-use, re-distribution, and the production of derivatives; and
- 5. plans for <u>archiving data</u>, samples, and other research products, and for <u>preservation of access</u> to them.

Data management requirements and plans specific to the Directorate, Office, Division, Program, or other NSF unit, relevant to a proposal are available at: <u>http://www.nsf.gov/bfa/dias/policy/dmp.jsp</u>. If guidance specific to the program is not available, then the requirements established in this section apply.

Simultaneously submitted collaborative proposals and proposals that include subawards are a single unified project and should include only one supplemental combined Data Management Plan, regardless of the number of non-lead collaborative proposals or subawards included. In such collaborative proposals, the data management plan should discuss the relevant data issues in the context of the collaboration. A valid Data Management Plan may include only the statement that no detailed plan is needed, as long as the statement is accompanied by a clear justification. Proposers who feel that the plan cannot fit within the limit of two pages may use part of the 15-page Project Description for additional data management information. Proposers are advised that the Data Management Plan must not be used to circumvent the 15-page Project Description limitation. The Data Management Plan will be reviewed as an integral part of the proposal, considered under Intellectual Merit or Broader Impacts or both, as appropriate for the scientific community of relevance."



NSF Directorate for Engineering Data Management Plan Guidance https://nsf.gov/eng/general/ENG_DMP_Policy.pdf

- Products of Research
- Data Formats and Samples
- Dissemination, Access, and Sharing of Data
- Re-Use, Re-Distribution, and Production of Derivatives
- Archiving of Data



Your NSF Project Data Matters: Publish on NHERI DesignSafe!

DesignSafe – Your Community's Resource!

- Your project is an investment by NSF to advance knowledge for the natural hazards engineering field
- Your proposal (award) includes a Data Management Plan for sharing and archiving your project data (DesignSafe for natural hazards)
- NSF award should include costs for processing, curating, and publishing project data
- Benefits of your published data on DesignSafe
 - Discovery of your data for future research by others, e.g., machine learning, design of new experiments or simulations
 - Citation format for others to properly reference your data

Don't Wait to Publish Your Data!

- Start early and often during NSF project
- Use DesignSafe tutorials, office hours,...
- Publish data soon after experiments/simulations completed and students available
- Publish data before NSF Final Report and Project Outcomes Report submitted/due (compliance with Data Management Plan)