Data Management Plans

Office of Sponsored Programs

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Data Management Plan Basics

- ## What is it?

- ## Why do we need it?
  - Data sharing allows for reproducibility, transparency, and data reuse in research.
  - Sharing is easier if data are managed well from the start of a project.
  - Because agencies require it

a written document that describes the data you expect to acquire or generate during the course of a research project, how you will manage, describe, analyze, and store those data, and what mechanisms you will use at the end of your project to share and preserve your data

a document which defines how data will be handled throughout the lifecycle of a project—that is, from its acquisition to archival

a formal document that outlines what you will do with your data during and after a research project

a document that provides a detailed description of the data and its intended use. It also outlines the strategy for managing the data and for preserving it, where applicable

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Agency Requirements

- USDA NIFA - https://www.nifa.usda.gov/data-management-plan-nifa-funded-research-education-extension-projects
  - 2 pages
    - Expected Data Type
    - Data Format
    - Data Storage and Preservation
    - Data Sharing, Protection, and Public Access
    - Roles, Responsibilities and Reporting
  - required for all competitive grants
    - If no data collection included, document still required ("No data will be produced")

Agency Requirements

- NSF – https://www.nsf.gov/bfa/dias/policy/dmp.jsp
  - 2 pages
    - Type of data
    - Data standards
    - Access and sharing
    - Re-use, re-distribution, and production of derivatives
    - Archiving and preservation
  - required on all proposals
    - 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
  - Some directorates or solicitations may have more detailed requirements

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Agency Requirements

- ## NIH – new policy at:
  https://sharing.nih.gov/data-management-and-sharing-policy
  - Plan and budget for the managing and sharing of data
  - Submit a DMS plan for review when applying for funding
  - Comply with the approved DMS plan

Agency Requirements

- NIH
  - 2 pages
    - Data Type
    - Related Tools, Software, and/or Code
    - Standards
    - Data Preservation, Access, and Associated Timelines
    - Access, Distribution, or Reuse Considerations
    - Oversight of Data Management and Sharing -- OSP provided/suggested text:
      "The University of Tennessee Institute of Agriculture will be administering this award. The University has created a data management and sharing plan compliance system as part of the process for submitting the annual NIH progress report. It is comprised of responsible parties from the University Libraries, the Office of Information Technology, and the Division of Research Integrity and Assurance. The data management and sharing compliance group will collect information related to data that is deposited each reporting year. "

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Agency Requirements

- ## NIH
  - Applies to all research that generates scientific data
  - Genomic Data Sharing plans, if applicable, should be included as part of the DMSP.
  - Resource Sharing Plans, if applicable, should be included as a separate document.

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Agency Requirements

- ## NIH
  - ### Budgeting for DMSP
    - PIs are not only allowed but encouraged to request funds toward DMSPs in the budget and budget justification sections
    - These costs need to be delineated separately to OSP, to be sure they are placed in the appropriate section of the budget and justification (including DMSP costs requested by subs)
  - ### Peer Review
    - Peer reviewers will not see the DMSP document, but will see the associated costs in the budget and may provide comments on the reasonableness of those proposed costs

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Agency Requirements

- NIH
  - Implementation
    - Plans must be approved by NIH prior to issuance of award
    - Awardees are expected to carry out data management and sharing as outlined in approved plans and as a term and condition of award.

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Agency Requirements

- US Geological Survey
- US Department of Energy
- US Department of Defense
- US Department of Transportation
- NASA
- IMLS
- Others - https://dmptool.org/public_templates

Roles & Responsibilities

- PI
  - Pre-award
    - Write plan
    - Work with subawardees or other collaborators as needed in developing the plan
    - Provide to OSP as part of proposal documents
  - Post-Award
    - Monitor, implement, and revise plan as needed
- OSP
  - Provide agency resources and guidance as needed
  - Review plan for administrative compliance
  - Attach and upload as part of final proposal

Data Management Plan Resources

UTK Libraries

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DMPTool - https://dmptool.org/

The DMPTool guides you through the process of creating a data management plan to meet funder requirements.

- Free tool

- Provides a template for DMPs for different funders

- Provides links to funder information, suggested answers, and data management resources specific to UT researchers

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Tools & Resources

- UTK Libraries' Data Services - https://www.lib.utk.edu/scholar/services/data/

- We have a team of data librarians who can assist with a variety of needs - dataservices@utk.edu

Data Security

UTIA Information Technology Services

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Data Security

- Security concerns when developing DMPs and DUAs
  1. Data Classification
     - Low, Moderate, or High
  2. System location
     - Physical security
     - Who has access?
  3. Data storage location
     - System (therefore data) security
     - Who has access?

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Data Use Agreements

- What do faculty need to know?
  1. Data Classification
  2. UTIA IT Security Policies and Procedures
     - Currently based on NIST 800-53 IT security framework
     - https://utia.tennessee.edu/utia-policies-and-procedures/
- Review and negotiation process
  1. PI sends DUA to OSP
  2. OSP sends to CISO for review and comments
  3. CISO sends back to OSP, who does negotiation
  4. CISO is always available for questions, comments, etc.

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Questions?

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