

2015

NIH Data Sharing Requirements 101

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Recommended Citation

Data Management Services, Zach S. Henderson Library, "NIH Data Sharing Requirements 101" (2015). *Data Management Services Instructional Materials*. 4.

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NIH Data Sharing Requirements 101





National Institutes of Health (NIH)

- National medical research agency, part of the U.S. Department of Health and Human Services
- >\$30 billion annual budget for medical research.
- Funds ~50,000 competitive grants to >300,000 researchers at >2,500 universities, medical schools, and research institutions around the world.
- ~10% of budget supports projects conducted by ~6,000 scientists in NIH laboratories.
- Success rates appear to vary greatly (https://report.nih.gov/success_rates/index.aspx)



National Institutes of Health (NIH)

- Composed of 27 different components called Institutes and Centers (<https://www.nih.gov/institutes-nih/list-nih-institutes-centers-offices>)
- Offers funding for many types of research and training:
 - Grants
 - Research Training and Career Development Programs
 - Contracts
 - Loan Repayment Programs
- Two-level peer-review process (however evaluation of data management plans may differ by funding type or program) (http://grants.nih.gov/grants/peer_review_process.htm#Overview)



Office of Science & Technology Policy (OSTP)

Memorandum, February 22, 2013

“The Administration is committed to ensuring that, **to the greatest extent and with the fewest constraints possible** and consistent with law and the objectives set out below, **the direct results of federally funded scientific research are made available** to and useful for the public, industry, and the scientific community. **Such results include peer-reviewed publications and digital data.**”

“The ... (OSTP) hereby directs **each Federal agency with over \$100 million in annual conduct of research and development expenditures** to develop a plan to support **increased public access** to the results of research funded by the Federal Government.”



NIH Sharing Policies

“It is NIH policy that **the results and accomplishments of the activities that it funds should be made available to the public.** PIs and funding recipient institutions are expected to make the results and accomplishments of their activities available to the research community and to the public at large.”

Core documents:

- NIH Data Sharing Policy (Oct. 2003)
- Plan for Increasing Access to Scientific Publications and Digital Scientific Data from NIH Funded Scientific Research (Feb. 2015; responds to 2013 OSTP memorandum...)



NIH's 2015 Public Access Plan:

Plan for Increasing Access to Scientific Publications and Digital Scientific Data from NIH Funded Scientific Research (Feb. 2015)

- Articulates NIH's response to the OSTP's requirements, including:
 - Scope and definition of scholarly products covered
 - Requirements for sharing scientific publications (PMC)
 - Requirements for sharing digital scientific data
- Largely refers to the 2003 Data Sharing Policy, with promises to extend existing policies where needed.
- Follow the guidelines that appear with the solicitation!



NIH's 2015 Public Access Plan

Responds to the specific policy concerns of the OSTP memo:

“Maximize access, by the general public and without charge, to digitally formatted scientific data created with Federal funds, while:

- i) protecting confidentiality and personal privacy,
- ii) recognizing proprietary interests, business confidential information, and intellectual property rights and avoiding significant negative impact on intellectual property rights, innovation, and U.S. competitiveness, and
- iii) preserving the balance between the relative value of long-term preservation and access and the associated cost and administrative burden.” (OSTP memo, §4a.i-iii)

*Preserves existing policy by assimilating the **spirit** of the memo (30-33).*



Digital Scientific Data Defined

“Consistent with the OSTP memorandum and OMB Circular A-110, digital scientific data are defined... as “the **digital recorded factual material** commonly accepted in the scientific community as **necessary to validate research findings including data sets used to support scholarly publications**, but does not include laboratory notebooks, preliminary analyses, drafts of scientific papers, plans for future research, peer reviews, communications with colleagues, or physical objects, such as laboratory specimens.” (24)

- Does not include draft or preliminary data sets.
- Does not include software *per se*.



General Requirements

The 2003 Data Sharing Policy:

- Encourages NIH-funded researchers to share their final research data for use by other researchers in a timely way (i.e., no later than the acceptance for publication of the main findings from the final data set).
- Expects applicants requesting \$500,000 or more in direct costs in funding from NIH for research for any one year to include a Data Sharing Plan or state why data sharing is not possible.
- Supplemental guidance materials suggest that plans should describe:



General Requirements

1. Whether and how data will be made available to others, including provisions for protection of privacy, confidentiality, security, intellectual property, or other rights as appropriate;
2. Items such as the data to be shared (e.g., genomic, clinical, or images), the expected timeline for when the data will be available, data formats, the format of the final data set, any query and/or analytic tools that will be provided, and the mode of data sharing (e.g., through a data archive or enclave or under the researcher's own auspices by mailing a disk or posting data on an institutional or personal website);
3. Procedures to request the data and any required data sharing agreements including the criteria for accessing data and any limitations placed on the use of data.



Data Sharing Plan: Key Elements

WHAT data will be shared?

To optimize the benefits of data sharing, final research data along with metadata and descriptors should be shared to make sharing meaningful and usable by other researchers.

WHO will have access to the data?

To maximize the benefits of data sharing, data should be shared as broadly as possible to the extent consistent with applicable laws, regulations, rules, and policies.



Data Sharing Plan: Key Elements

WHERE will the data to be shared be located?

To minimize additional administrative workloads for sharing of data, data repositories with common standards and an established infrastructure dedicated to the appropriate distribution of data would generally be ideal for data sharing.

WHEN will the data be shared?

To optimize the timely and broadest usage of data, data should be made available as soon as possible and for as long as possible.



Data Sharing Plan: Key Elements

HOW will researchers locate and access the data?

To optimize usage of the data, researchers need to be able to easily identify locations of relevant data and to be able to easily access the data.

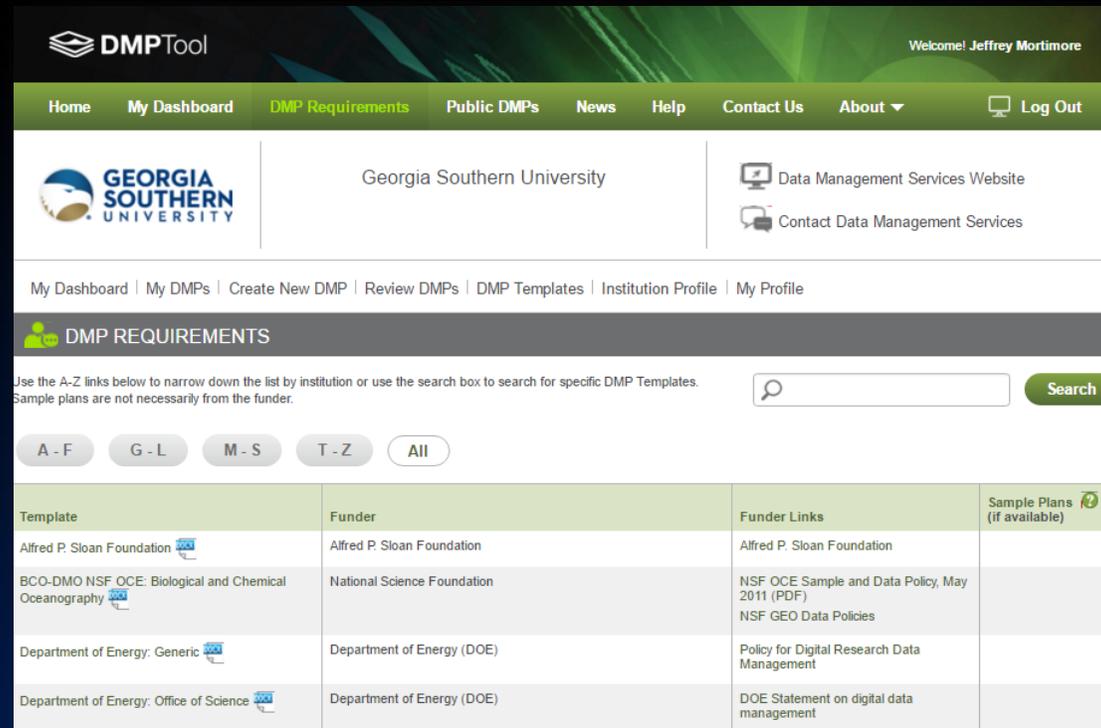


NIH Resources

- NIH data sharing guidance and resources
<http://grants.nih.gov/grants/sharing.htm>
- NIH data sharing policy and implementation
http://grants.nih.gov/grants/policy/data_sharing/data_sharing_guidance.htm
- NIH Key Elements in Preparing a Data Sharing Plan (.pdf)
http://grants.nih.gov/grants/sharing_key_elements_data_sharing_plan.pdf
- NIH Data Standards and Common Data Elements Resource Guide (.doc)
http://grants.nih.gov/grants/sharing_data_standards_guide.doc
- NIH Data Sharing Repositories
http://www.nlm.nih.gov/NIHbmic/nih_data_sharing_repositories.html
- NIH sharing policy statement
http://grants.nih.gov/grants/policy/nihgps_2013/nihgps_ch8.htm#Toc271264947
- NIH Policy on Rigor and Reproducibility
<http://grants.nih.gov/reproducibility/index.htm>

Directorate-Level Requirements

Search DMPTool's DMP Requirements Library:



The screenshot shows the DMPTool website interface. At the top, there is a navigation bar with links for Home, My Dashboard, DMP Requirements (highlighted), Public DMPs, News, Help, Contact Us, About, and Log Out. Below the navigation bar, the user is logged in as Jeffrey Mortimore. The main content area displays the Georgia Southern University logo and name, along with links to the Data Management Services Website and Contact Data Management Services. A secondary navigation bar includes links for My Dashboard, My DMPs, Create New DMP, Review DMPs, DMP Templates, Institution Profile, and My Profile. The main heading is "DMP REQUIREMENTS". Below this, there is a search instruction: "Use the A-Z links below to narrow down the list by institution or use the search box to search for specific DMP Templates. Sample plans are not necessarily from the funder." A search box and a "Search" button are provided. Below the search box are filters for A - F, G - L, M - S, T - Z, and All. The main content is a table with four columns: Template, Funder, Funder Links, and Sample Plans (if available). The table lists several DMP templates from various funders.

Template	Funder	Funder Links	Sample Plans (if available)
Alfred P. Sloan Foundation	Alfred P. Sloan Foundation	Alfred P. Sloan Foundation	
BCO-DMO NSF OCE: Biological and Chemical Oceanography	National Science Foundation	NSF OCE Sample and Data Policy, May 2011 (PDF) NSF GEO Data Policies	
Department of Energy: Generic	Department of Energy (DOE)	Policy for Digital Research Data Management	
Department of Energy: Office of Science	Department of Energy (DOE)	DOE Statement on digital data management	

<https://dmptool.org/guidance>



DMPTool & Example DMPs

For DMPTool or to use the library's generic DMP template, visit the Data Management Services Guide at:

<http://georgiasouthern.libguides.com/data/DMPTool>

For Sample DMPs, see our collection at:

<http://georgiasouthern.libguides.com/data/exampleDMPs>

Data Management Services @ Henderson Library

The screenshot shows the website for the Zach S. Henderson Library at Georgia Southern University. The page is titled "Data Management Services: Overview" and features a navigation menu with options: Overview, Data Management Planning, Collecting and Working with Data, Curating and Sharing Your Data, and Links, Workshops, Training and Tools. The main content area is divided into three sections: "Get Help Now!" (contacting Jeffrey Mortimore), "Publish Your Data" (discussing digital commons and OpenICPSR), and "Data Resources & Services throughout the Research Lifecycle". The lifecycle is depicted as a circular flow with three stages: "Plan & Propose", "Create & Collect", and "Analyze & Assure".

GEORGIA SOUTHERN UNIVERSITY **ZACH S. HENDERSON LIBRARY**

Zach S. Henderson Library / LibGuides / Data Management Services / Overview

Data Management Services: Overview

Enter Search Words Search

Overview Data Management Planning Collecting and Working with Data Curating and Sharing Your Data Links, Workshops, Training and Tools

Get Help Now!
Contact Jeffrey Mortimore, Discovery Services and Data Curation Librarian.

Publish Your Data
Studies show that sharing your research data increases your impact. Partner with the library to take your data public, through Digital Commons @ Georgia Southern, OpenICPSR, or whatever data repository best fits your data.

open ICPSR

Upcoming Workshops
See our current schedule of spring

Data Resources & Services throughout the Research Lifecycle

Plan & Propose
To get the most out of your data, plan early how you will collect, use, and share it. Many funders now require data management plans (DMPs), and many publishers require that data be made publicly available.

- See our guide to data management planning
- See funder and publisher data requirements
- Use DMPTool, an online tool for creating DMPs
- Download our generic DMP template and outline
- See example DMPs
- Read our DMP FAQs

Create & Collect / Analyze & Assure
Ensure that you are following best practices while actively collecting, caring for, and analyzing your data. Host, secure, and share your "working" data in Digital Commons @ Georgia Southern during the active phase of

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graph TD; A[Plan & Propose] --> B[Create & Collect]; B --> C[Analyze & Assure]; C --> A;
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<http://georgiasouthern.libguides.com/data>