FEDERAL DEMONSTRATION PARTNERSHIP
Redefining the Government & University Research Partnership

Data Stewardship

May 2017

Agenda

- Dina Paltoo (NIH): NIH Activities to Increase Access to Digital Scientific Data
- Jeff Broadbent: Utah State approach
- Amanda Hamaker: Purdue approach
- Jim Luther: Brief update on AAU & APLU Public Access Working Group
- Discussion

NIH Activities to Increase Access to Digital Scientific Data

Federal Demonstration Partnership Meeting
May 11, 2017

Dina N. Paltoo, Ph.D., M.P.H.
Director, Division of Scientific Data Sharing Policy
Office of Science Policy, Office of the Director, NIH

NIH National Institutes of Health
Office of Science Policy
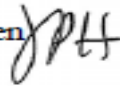
OSTP "Holdren" Memorandum

EXECUTIVE OFFICE OF THE PRESIDENT
OFFICE OF SCIENCE AND TECHNOLOGY POLICY
WASHINGTON, D.C. 20502

February 22, 2013

MEMORANDUM FOR THE HEADS OF EXECUTIVE DEPARTMENTS AND AGENCIES

FROM: John P. Holdren
           Director

SUBJECT: Increasing Access to the Results of Federally Funded Scientific Research

1.   **Policy Principles**

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.

Scientific research supported by the Federal Government catalyzes innovative breakthroughs that drive our economy. The results of that research become the grist for new insights and are assets for progress in areas such as health, energy, the environment, agriculture, and national security.

Access to digital data sets resulting from federally funded research allows companies to focus resources and efforts on understanding and exploiting discoveries. For example, open weather

Objectives of the Holdren Memo

Digital Data

- **Maximize free access while**
- **Protecting privacy and confidentiality, national security**
- **Recognizing intellectual property rights**
- **Balancing costs & benefits of long-term preservation**
- **Require data management plans (DMPs)**
- **Allow inclusion of costs in applications for funding**
- **Ensure appropriate evaluation of DMPs**
- **Monitor compliance by investigators**
- **Encourage deposit of data in public repositories, where possible**
- **Cooperate with the private sector**
- **Develop approaches for data citation & attribution**
- **Support training, education and workforce development**
- **Assess long-term needs for preservation and options for repositories**

Scholarly Publications

- **Public can read, download, analyze in digital form**
- **12-month post-publication embargo as guideline, with stakeholder petitions to change**
- **Easy public search, analysis of, and access to publications**
- **Full public access to metadata without charge upon first publication**
- **Public-private collaboration**
- **Attribution to authors, journals, and original publishers**
- **Archival solutions that provide long-term preservation & access without charge**
  - Uses widely available, nonproprietary standards/formats
  - Provides access for persons with disabilities (consistent with Section 508 of Rehabilitation Act)
  - Enables integration and interoperability with other Federal archival solutions and other appropriate archives

Federal Agency Public Access Plans

Department of Agriculture (Nov 2014)
http://www.usda.gov/documents/USDA-Public-Access-Implementation-Plan.pdf

Department of Defense (Feb 2015)
http://www.dtic.mil/dtic/pdf/dod_public_access_plan_feb2015.pdf

Department of Education (Oct 2016)
https://ies.ed.gov/funding/pdf/EDPlanPolicyDevelopmentGuidanceforPublicAccess.pdf

Department of Energy (Jul 2014)
http://energy.gov/sites/prod/files/2014/08/f18/DOE_Public_Access%20Plan_FINAL.pdf

Department of Health & Human Services
http://www.hhs.gov/open/public-access-guiding-principles/index.html

- **Administration for Community Living** [*Publications*] (Feb 2016)
http://www.acl.gov/Programs/NIDILRR/docs/ACL-PublicAcccessPlan-Jan2016.pdf

- **Agency for Health Research & Quality** (Feb 2015)
http://www.ahrq.gov/funding/policies/publicaccess/index.html

- **Assistant Secretary for Preparedness & Response** (Feb 2015)
http://www.phe.gov/Preparedness/planning/science/Pages/AccessPlan.aspx

- **Centers for Disease Control** (Jan 2015)
http://www.cdc.gov/od/science/docs/Final-CDC-Public-Access-Plan-Jan-2015_508-Compliant.pdf

- **Food & Drug Administration** (Feb 2015)
http://www.fda.gov/downloads/ScienceResearch/AboutScienceResearchatFDA/UCM435418.pdf

- **National Institutes of Health** (Feb 2015)
http://grants.nih.gov/grants/NIH-Public-Access-Plan.pdf

Department of Homeland Security (Dec 2016)
https://www.dhs.gov/publication/plan-support-increased-public-access-results-research-funded-federal-government

Department of Transportation (Nov 2015)
https://www.transportation.gov/open/official-dot-public-access-plan

Department of Veterans Affairs (Mar 2015)
http://www.va.gov/ORO/Docs/Guidance/Plan_for_Access_to_Results_of_VA_Funded_Rsch_02_14_2014.pdf

Agency for International Development (Nov 2016)
https://www.usaid.gov/sites/default/files/documents/15396/USAIDPublicAccessPlan.pdf

Environmental Protection Agency (Dec 2016)
https://www.epa.gov/sites/production/files/2016-12/documents/epascientificresearchtransperancyplan.pdf

National Institute of Standards & Technology (Apr 2015)
http://www.nist.gov/open/upload/NIST-Plan-for-Public-Access.pdf

National Aeronautics and Space Administration (Nov 2014)
http://science.nasa.gov/media/medialibrary/2014/12/05/NASA_Plan_for_increasing_access_to_results_of_federally_funded_research.pdf

National Oceanic and Atmospheric Administration (Feb 2015)
http://docs.lib.noaa.gov/noaa_documents/NOAA_Research_Council/NOAA_PARR_Plan_v5.04.pdf

National Science Foundation (Mar 2015)
http://www.nsf.gov/pubs/2015/nsf15052/nsf15052.pdf

Office of the Director of National Intelligence (Sep 2016)
https://www.iarpa.gov/images/files/Documents/ODNI%20Public%20Access%20Plan_Sept%202016.pdf

Smithsonian Institution (Aug 2015)
http://public.media.smithsonianmag.com//file_upload_plugin/1f143b54-a9f9-4746-bef5-1c76151e3c7a.pdf

U.S. Geological Survey (Feb 2016)
http://www.usgs.gov/quality_integrity/open_access/default.asp

NOTE: Institute for Museum & Library Services and Patient-Centered Outcomes Research Institute also have policies for publications access.

Information on approved agency plans: www.cendi.gov

Interagency Working Group on Open Science

CHARTER
of the
INTERAGENCY WORKING GROUP ON OPEN SCIENCE
COMMITTEE ON SCIENCE
NATIONAL SCIENCE AND TECHNOLOGY COUNCIL

A. Official Designation

The Interagency Working Group on Open Science (IWGOS) is hereby established by action of the National Science and Technology Council (NSTC), Committee on Science (CoS).

B. Purpose and Scope

The purpose of the IWGOS is to advance Federal efforts to support open science by making the results of Federally funded scientific research more accessible and useful to the public, industry, and the scientific community. Such results shall include scholarly publications and digital data. The IWGOS will aim to build upon and extend the progress that departments and agencies have made to date in implementing plans to meet the objectives of the February 22, 2013 Memorandum from the Director of the Office of Science and Technology Policy (OSTP) on Increasing Access to the Results of Federally Funded Scientific Research (Public Access Memo).[1] The IWGOS will also identify additional steps to improve the preservation, discoverability, accessibility, and usability of the outputs of, and data supporting, Federally funded scientific research, with the aims of bolstering the reliability of research, accelerating scientific discovery, stimulating innovation, promoting entrepreneurship, and enhancing economic growth and job creation, consistent with agency missions and capabilities.

C. Functions

The functions of the IWGOS are to:

1. Promote the exchange of information about agency policies and practices for increasing access to scholarly publications and digital data consistent with the objectives of the Public Access Memo,
2. Facilitate interagency coordination and cooperation on topics of common interest related to open science.

[1] See https://www.whitehouse.gov/sites/default/files/microsites/ostp/ostp_public_access_memo_2013.pdf

Functions

- **Co-Chaired by NIH and NSF**
- **Exchange information on implementation of public access policies and practices**
- **Facilitate interagency coordination and cooperation on open science**
- **Recommend additional objectives for Federal open science policies**
- **Outline effective strategies for improving preservation, discoverability, and accessibility of scientific data**
- **Identify effective approaches for data preservation & access; assess requirements for scaling up; and identify gaps**
- **Facilitate coordination of training, education, and workforce development**
- **Liaise with other NSTC groups**
- **Identify opportunities for international communication and collaboration**

Interagency Working Group on Open Science: Topics of Interest

- **Common elements for data management plans (DMPs) and tools for DMPs**

- **Criteria for acceptable repositories for data generated by federally funded research**

- **Sustainability and long-term preservation needs**

- **Data citation of attribution**

- **Privacy, confidentiality, re-identification**

- **Compliance and enforcement**

- **Resource implications**

- **Opportunities for international communication and collaboration to advance open science**
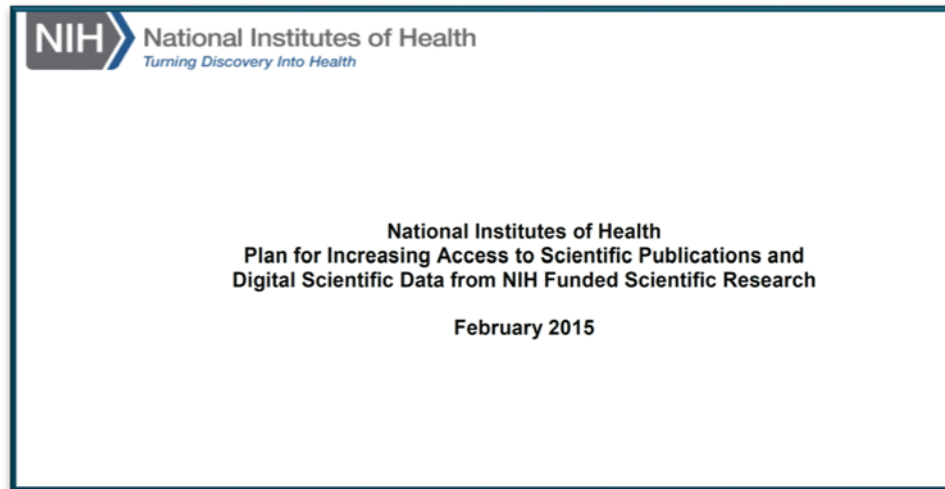
Global Engagement on Open Science

- **OECD Science and Technology Ministerial Declaration, Daejeon Korea (October 2015)**

- **G7 Science and Technology Ministers Communique, Tsukuba, Japan (May 2016)**

- **G20 Leaders' Communique, Hangzhou Summit, China (September 2016)**

- **Principles for Promoting Access to Federal Government-Supported Scientific Data and Research Findings Through International Scientific Cooperation (December 2016) – Interagency Working Group on Open Data Policy**

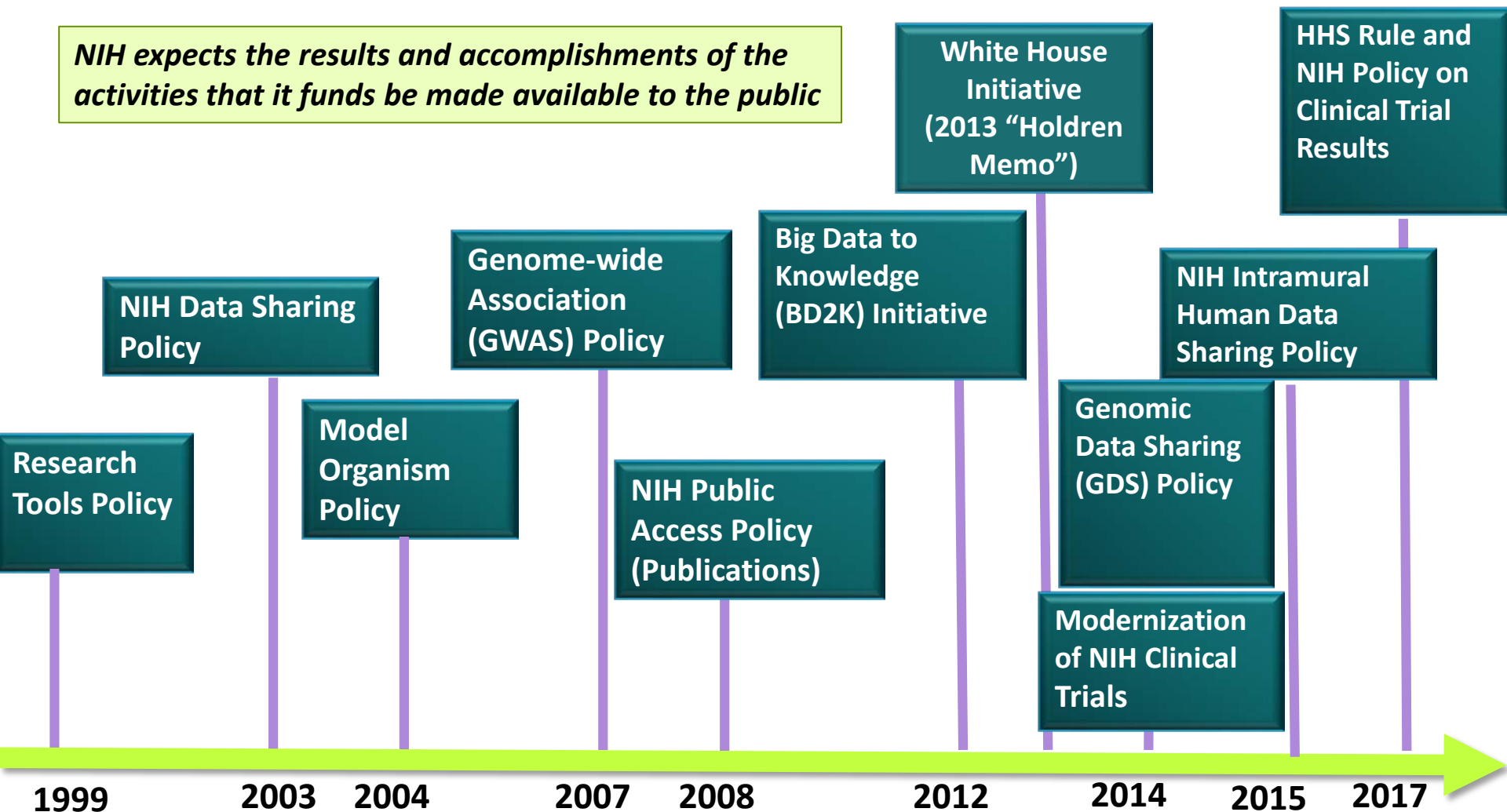# Increasing Access to Publications and Digital Scientific Data

February 2015: "NIH Plan" released
- **Publications: NIH Public Access Policy**
- **Digital Scientific Data: Plan for Public Access to Digital Scientific Data**

National Institutes of Health
Plan for Increasing Access to Scientific Publications and
Digital Scientific Data from NIH Funded Scientific Research

February 2015

NIH Culture of Data Sharing

NIH expects the results and accomplishments of the activities that it funds be made available to the public

- Research Tools Policy
- NIH Data Sharing Policy
- Model Organism Policy
- Genome-wide Association (GWAS) Policy
- NIH Public Access Policy (Publications)
- Big Data to Knowledge (BD2K) Initiative
- White House Initiative (2013 "Holdren Memo")
- Modernization of NIH Clinical Trials
- Genomic Data Sharing (GDS) Policy
- NIH Intramural Human Data Sharing Policy
- HHS Rule and NIH Policy on Clinical Trial Results

1999   2003   2004   2007   2008   2012   2014   2015   2017

NIH Plan: Digital Scientific Data

- Describes current policies and procedures and future considerations

- Maximize access by the general public, without charge, to digital scientific data

- Protect privacy, proprietary interests, and preserve the balance between the benefits of access/preservation and the costs

- Explore steps to require data sharing

- Ensure that all NIH-funded researchers prepare data management and sharing plans

- Ensure that plans are reviewed during peer review

- Develop additional policies to increase public access to designated data types

- Encourage use of established repositories and community-based standards

- Develop approaches to ensure discoverability of data

- Promote interoperability and openness (NIH "Administrative" Data)

- Explore the development of a data commons

Plan ≠ Policy; NIH to establish priorities for data sharing

Establishing Priorities for Data Sharing

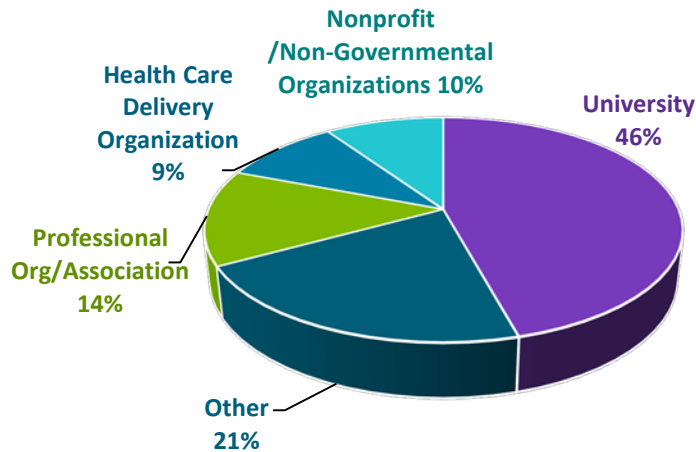## RFI on Strategies for NIH Data Management, Sharing, and Citation (NOT-OD-17-015)

- **Section I: Data Sharing Strategy Development**
  - **What, when, and how data should be managed and shared**
  - **Value in sharing different types of data**
  - **Barriers and how to overcome them**

- **Section 2: Inclusion of Data and Software Citation in NIH Research Performance Progress Reports (RPPR) and Grant Applications**
  - **Impact of citations on reporting and the need for technical guidance**
  - **Strengthen and incentivize data and software sharing**

- **General feedback on relevant topics**

- **Released November 14, 2016, comment period closed on January 19, 2017**
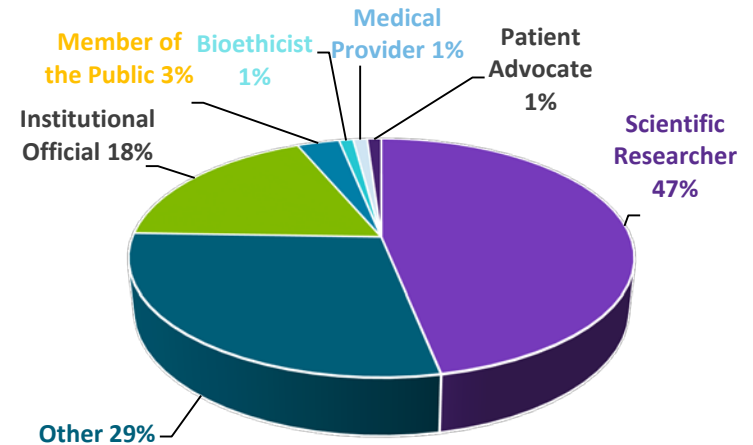
Analysis of Public Comments
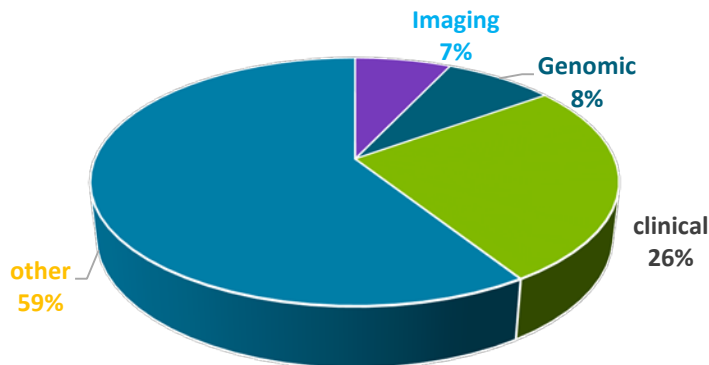
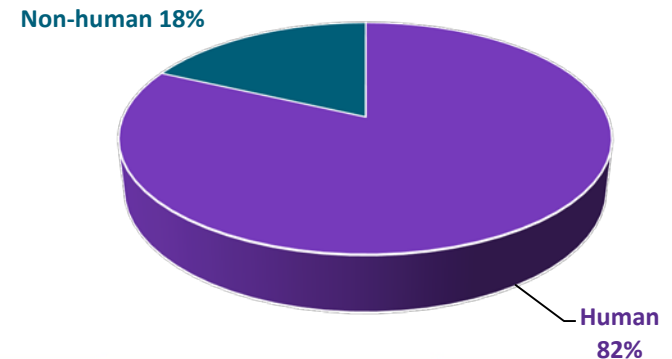## Self-Reported Respondent Demographics

Role of Respondents

- University 46%
- Nonprofit /Non-Governmental Organizations 10%
- Health Care Delivery Organization 9%
- Professional Org/Association 14%
- Other 21%

Organization of Respondents

- Scientific Researcher 47%
- Institutional Official 18%
- Member of the Public 3%
- Bioethicist 1%
- Medical Provider 1%
- Patient Advocate 1%
- Other 29%

Data Types Used by Respondents

- Imaging 7%
- Genomic 8%
- clinical 26%
- other 59%

Data Types Used by Respondents, Human Versus Non-human Data

- Non-human 18%
- Human 82%

95 submissions received from both national and international stakeholders
http://osp.od.nih.gov/sites/default/files/resources/Public_Comments_Data_Managment_Sharing_Citation.pdf

Respondent's Organizations

- Association of American Publishers Professional and Scholarly Publishing Division & International Association of STM Publishers
- American Associations of Universities, Association of Public & Land-Grant Universities, Council on Government Relations
- Aarhus University (Denmark)
- Academia Mexicana de Medicina del Dormir
- Alpert Medical School of Brown University
- American Medical Informatics Association
- American Society for Clinical Oncology
- Association for Psychological Science
- Association of American Medical Colleges
- Association of College and Research Libraries
- Awarables
- Baylor
- Beth Israel Deaconess Medical Center
- Brigham and Women's Hospital
- Clarivate Analytics, formerly the IP & Science business of Thomson Reuters
- CENTERS
- Center for Open Science
- Cornell University Research Data Management Service Group
- Countervaillance, LLC
- Duke University, Duke University Library
- Engineering Custom Solutions, inc.
- ElIXIR
- Elsevier
- EMBL, European Bioinformatics Institute

- Federation of American Societies for Experimental Biology
- Figshare
- Global Director R&D Strategy and Solution
- Harvard University
- IBM
- Indian Institute of Science Education and Research Thiruvananthapuram Mass General Hospital
- Inter-university Consortium for Political and Social research
- Ishpi Information Technologies, inc.
- John Hopkins University, Sheridan Libraries
- Massachusetts General Hospital and Harvard Medical School
- Medical Library Association of Academic health Sciences Libraries
- MIT Library
- Monarch Initiative
- National Bureau of Economic Research
- National Technical University of Ukraine "Kyiv Polytechnic Institute"
- NIH Health Care Systems Research Collaboratory
- NYU Health Sciences Library
- Oregon Health & Science University
- Partners Healthcare
- Pistoia Alliance
- PLOS
- Population Association of America
- Public
- RTI International
- Radiological Society of North America
- Stanford
- Stanford Burnham Prebys

- Sleep Disorders Centre, Princess Alexandra Hospital, Queensland Stanford
- Software Sustainability Institute
- Springer nature
- University of California, Davis Library
- University of California, Los Angeles, Library
- UCSD
- University of California San Diego
- University Hospitals Cleveland Medical Center
- University Hospital of Child and Adolescent psychiatry and psychotherapy
- University of Illinois Urbana-Champaign
- University of Illinois at Chicago
- University of Kentucky
- University of Louisville
- University of Massachusetts Medical School
- University of Michigan, Institute for Social Research
- University of Minnesota
- University of North Carolina at Chapel Hill
- University of Pittsburg
- University of Southern California
- University of Utah, and University of Utah Libraries
- University of Virginia
- University of Washington
- University of Wisconsin-Madison
- Virginia Polytechnic Institute and State University
- Wellcome Trust
- Yale University

Summary of Public Comments
Section I: Data Sharing Strategy Development

- **Majority of respondents felt:**
  - **Data underlying or supporting a publication, dissertation, or supplemental materials, including negative data[*], pre-registration/preliminary data, metadata and any data needed to replicate a study, would be the most valuable to share**
  - **Supportive of the *NIH Policy on the Dissemination of NIH-Funded Clinical Trial Information***
    - **Share individual-level participant data from registered clinical trials**
  - **Data sharing would support scientific rigor and reproducibility**
  - **Data made available for secondary research purposes for a minimum of 10 years**

* **Negative Data:** data that do not enable the rejection of a null hypothesis.

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Summary of Public Comments
Section I: Data Sharing Strategy Development (cont'd)

- **Respondents cited the greatest barriers to data stewardship being:**
  - **Establishing a culture of sharing that would appropriately incentivize and encourage data sharing,**
  - **The need for community-based standards for long-term preservation or sustainability of data, data preparation and submission, and**
  - **The costs and resources associated with data management and sharing, e.g., data curation, personnel, infrastructure.**

- **General Comments**
  - **NIH should discourage the use of proprietary software for uploaded/shared data**
  - **NIH should consider the inclusion of individuals with appropriate expertise in data management and sharing (e.g., bioinformaticians) in the peer review process**

Summary of Public Comments
Section 2: Inclusion of Data and Software Citation in NIH Research Performance Progress Reports (RPPR) and Grant Applications

- **Majority of respondents were in support of:**
  - **Increased reporting of data and software through citations in progress reports and grant applications, as long as it was conducted as a means to incentivize researchers to share data, thus enabling them to get appropriate credit or attribution for their work**
  - **The use of a global unique persistent identifier (e.g., Digital Object Identifier) in such citations**
  - **Promoting the importance of versioning datasets and software when generating citations**

Considerations for NIH Policy Development

- **Require data sharing**

- **Data Management and Sharing Plans**
  - **Require**
  - **Evaluated during peer review**
  - **Machine-readable and updateable**
  - **Made publicly available (e.g., RePORTER)**

- **Allow for budget request in applications to support data management and sharing plans**

- **Encourage use of publicly accessible data repositories for archiving and preserving scientific data**

- **Enable appropriate citation of data**

Additional Considerations

- **Scope and applicability (e.g., funding mechanisms)**

- **Elements of data management and sharing plan**

- **Guidance on repositories that meet minimum standards for data sharing**

- **Mechanisms for compliance and enforcement**

- **Enabling appropriate citation of data**

- **Data archiving and long-term preservation**

Next Steps for NIH

- **Continue to confer with NIH groups and other Federal agencies**

- **Draft a policy and release it for public comment**
  - **Outreach and communication**

- **Analyze comments and finalize policy**

- **Issue final policy and guidance, along with education, training, tools**
  - **Implement any changes to systems, forms, procedures**

NIH Digital Scientific Data Policy and Implementation Working Group

Co-Chairs

- **JP Kim**, Office of Extramural Research
- **Dina Paltoo**, Office of Science Policy

Representation from

- Office of Acquisition Management and Policy
- Office of Extramural Research
- Office of General Council
- Office of Intramural Research
- Office of Science Policy
- Office of the Chief Information Officer
- Center for Scientific Review
- National Human Genome Research Institute
- National Institute on Diabetes and Digestive and Kidney Diseases
- National Library of Medicine

Additional Resources

- **For General Inquiries:**

  ScterncePolicy@od.nih.gov (OSP)

  Dina.Paltoo@nih.gov (OSP)

- **Subscribe to the OSP LISTSERV**

  Send and email to: LISTSERV@list.nih.gov

  with the message: Subscribe OSP_News
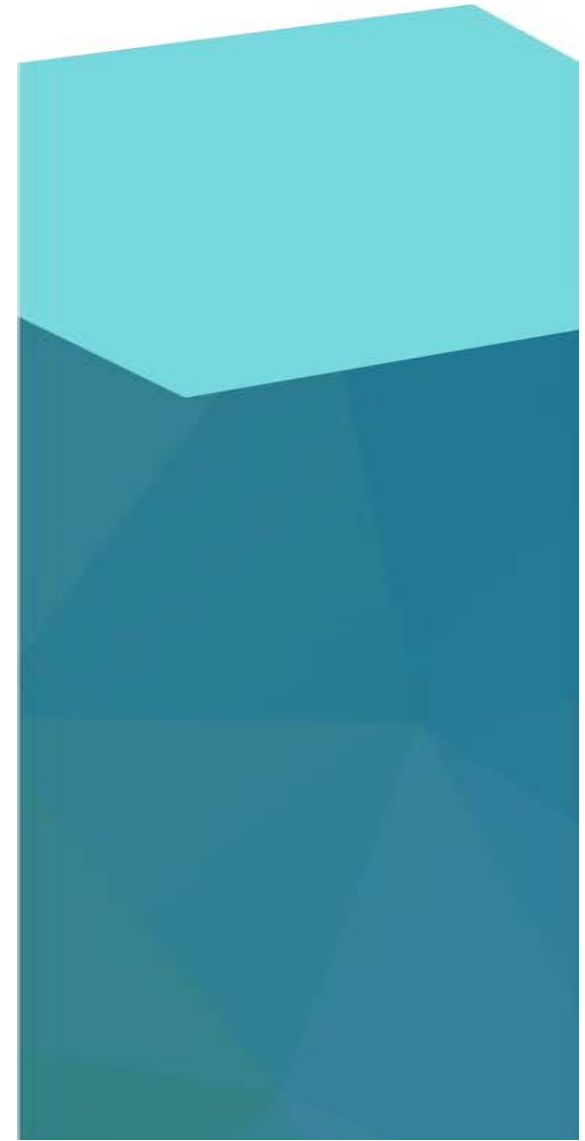
Bringing Science Policy Into Focus

Learn more about the Office of Science Policy from our blog "Under the Poliscope"

http://osp.od.nih.gov/under-the-poliscope

Open Access to Data and Publications
at **UtahState**University

Dr. Jeff R. Broadbent
Associate VP Research &
Associate Dean of Graduate Studies

Utah State University by the numbers

NSF research expenditures (FY16)	**$180.5 million**
Faculty with active contracts (YTD)	**472**
Funding from federal sponsors (YTD)	**57%**
Federal awards in USU's data sharing system	**16**
Datasets archived in Digital Commons	**17**
Dataset downloads from Digital Commons (Past 12 months)	**1,098**

Challenges to data sharing requirements

Must provide free access

Non-expiring access

Unfunded mandate

Subject to audit

Cosequences for non-compliance

USU Data Management Strategy

USU task force assembled to craft response

MERRILL·CAZIER LIBRARY

- Data services coordinator
- Metadata specialist

RESEARCH and GRADUATE STUDIES — Utah State University

- Associate VPR
- Research Development director
- Sponsored Programs director
- Programmer

USU data access partnership
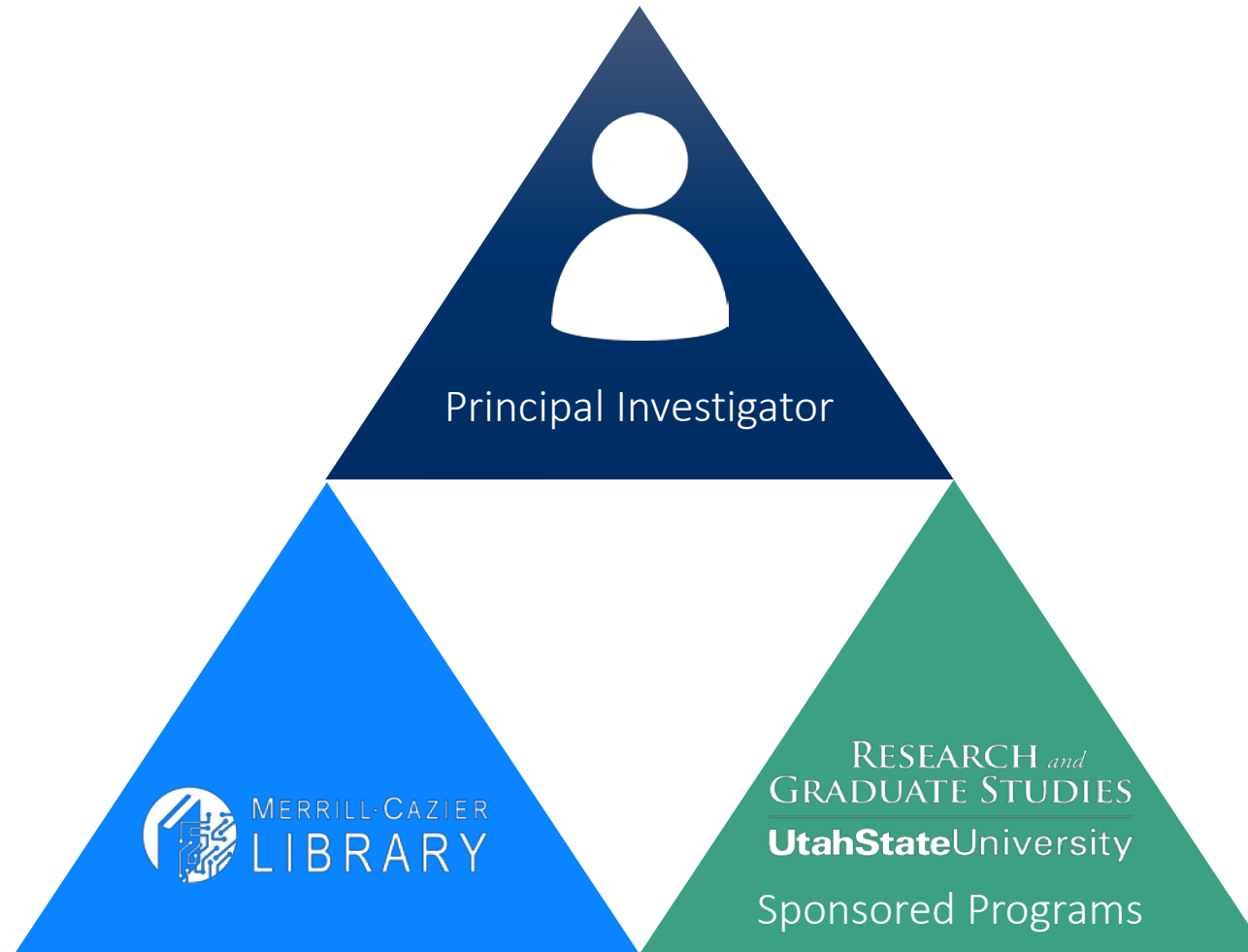
Computing Resources

Data sharing leverages core USU resources

KualiCo

DIGITAL COMMONS® powered by bepress

Sierra v 2.0.0

| Electronic award management system | Institutional repository | Integrated library system |

Data Management Plan

Types of data produced	Data and metadata standards	Policies for access
Policies for reuse	Plans for archiving	Roles and responsibilities

Primary Metadata Document (PMD)

Form part	Completed by	What's included
Award information	Sponsored Programs	Data from Kuali
Publications	Principal investigator (verified by Library)	Full citation, including doi
Data	Principal investigator (verified by Library)	Links to exterior public repositories or Digital Commons

Proposal creation and submission

PROPOSAL SUBMITTED BY PI

MASTER RECORD CREATED KualiCo

Award setup

1. **2.** **3.** **4.**

DATA MANAGEMENT PLAN IS TRIGGER — KualiCo

↓

SPONSORED PROGRAMS EMAILS PI TO REQUEST DMP (PREFERRED) OR PMD — RESEARCH and GRADUATE STUDIES, UtahState University

↓

DMP/PMD ATTACHED TO AWARD RECORD — KualiCo

1. **2.** **3.** **4.**

Award setup

DMP/PMD SENT TO LIBRARY

MERRILL·CAZIER LIBRARY

LIBRARY CREATES PUBLICLY ACCESSIBLE RECORDS

DIGITAL**COMMONS**®
powered by bepress

Sierra v 2.0.0

1.   2.   3.   4.

Award closeout

CLOSEOUT REMINDER TO PI TO UPDATE PMD

SPONSORED PROGRAMS RECEIVES UPDATE

PMD UPDATED; REMINDERS FOR 2 YEARS AS NEEDED

1. **2.** **3.** **4.**

Award closeout

UPDATES SENT TO LIBRARY AS NEEDED

MERRILL·CAZIER LIBRARY

LIBRARY VERIFIES AND UPDATES AS NEEDED

DIGITALCOMMONS®
powered by bepress

Sierra v 2.0.0

Staffing Resources

Staffing Resources

MERRILL·CAZIER
LIBRARY

1 supervised
student assistant

- Managing Digital Commons master record
- Verifying links and creating dataset record
- Creating, updating and verifying publication records
- Creating ILS records for datasets

Staffing Resources

RESEARCH *and*
GRADUATE STUDIES

UtahStateUniversity™

Sponsored Programs

0.1-0.2% FTE
(growth expected)

- Screen new federal award notice for DMP
- Send notices to PI and Library
- Include data sharing in award closeout reminder
- Follow up with PI after closeout

Summary and benefits

Benefits of USU system

OSTP and general public

- Increased discoverability of data
- Creates permanent records for data
- Verifiable compliance

Principal Investigator

- Captures location of data at convenient time.
- Opportunity to "rescue" insecurely stored data

Utah State University

- Leverages existing infrastructure to minimize costs
- Shared DMPs are examples for better future DMPs

Jeff Broadbent

jeff.broadbent@usu.edu

Purdue University Research Repository (PURR)

Amanda Hamaker, Director Pre-Award

https://purr.purdue.edu/

PURR

PURDUE UNIVERSITY RESEARCH REPOSITORY

FACT:

MANY FUNDING AGENCIES REQUIRE DATA MANAGEMENT PLANS WITH GRANT PROPOSALS.

purr.purdue.edu

PURDUE UNIVERSITY

PURR IS YOUR SOLUTION FOR:

DATA MANAGEMENT PLANS

READY-MADE BOILERPLATE TEXT TO PUT IN YOUR PROPOSALS, TUTORIALS AND BEST PRACTICES, SUPPORT FOR DEVELOPING A GOOD DATA MANAGEMENT PLAN

COLLABORATION

PURR PROVIDES A FREE HUBZERO™ PROJECT SPACE FOR PURDUE RESEARCHERS AND THEIR COLLABORATORS TO WORK TOGETHER ON RESEARCH AND SHARE DATA AND TOOLS ONLINE

PUBLISHING YOUR DATA

PUBLISH YOUR RESEARCH DATA WITH DIGITAL OBJECT IDENTIFIERS THAT OTHER SCHOLARS CAN USE TO EASILY FIND AND CITE YOUR DATASETS

ARCHIVING YOUR DATA

YOUR DATA WILL BE PRESERVED AND MADE ACCESSIBLE FOR LONG-TERM ACCESS IN A SECURE, TRUSTWORTHY DIGITAL REPOSITORY

OVER 500 GRANT PROPOSALS FROM PURDUE HAVE INCLUDED PURR IN THEIR DATA MANAGEMENT PLANS SINCE 2011

PURR IS A PURDUE RESEARCH CORE FACILITY DEVELOPED BY THE OFFICE OF THE VICE PRESIDENT FOR RESEARCH, PURDUE LIBRARIES, AND INFORMATION TECHNOLOGY AT PURDUE

To learn more, visit
PURR at purr.purdue.edu
or contact Courtney Earl Matthews
purr@purdue.edu
765-496-2770

Purdue University Research Repository (PURR)

Purdue University Research Repository (PURR)

The PURR service is a collaborative effort of the *Purdue University Libraries*, *Executive Vice President for Research and Partnerships*, and *Information Technology at Purdue*. PURR is a designated university core research facility.

Designated community:

Purdue University faculty, staff, and graduate student researchers; their collaborators; and the current and future consumers of their research data.

Based on the [HUBzero Platform for Scientific Collaboration](#) software

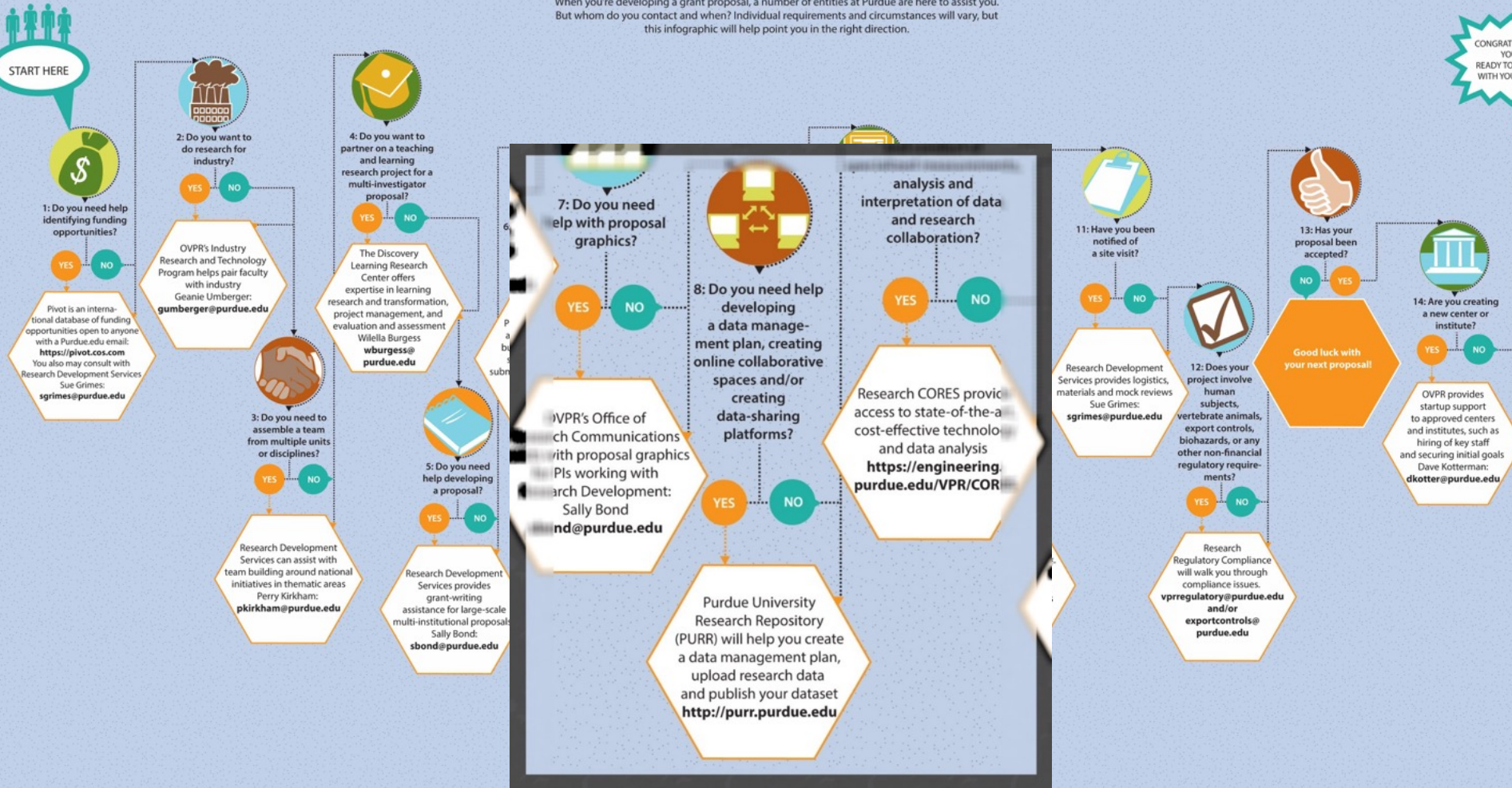# Purdue University Research Repository (PURR)

Motivations for PURR:

- Research office = more competitive proposals and compliance with funder requirements

- Information technology = research computing expertise, e.g., storage engineering, HPC

- Libraries = long-term stewardship and access to data as a part of the scholarly record, library and information science expertise

THE PROPOSAL PROCESS AT PURDUE

When you're developing a grant proposal, a number of entities at Purdue are here to assist you. But whom do you contact and when? Individual requirements and circumstances will vary, but this infographic will help point you in the right direction.

START HERE

CONGRAT
YO
READY TO
WITH YO

1: Do you need help identifying funding opportunities?
YES / NO

Pivot is an international database of funding opportunities open to anyone with a Purdue.edu email: **https://pivot.cos.com** You also may consult with Research Development Services Sue Grimes: **sgrimes@purdue.edu**

2: Do you want to do research for industry?
YES / NO

OVPR's Industry Research and Technology Program helps pair faculty with industry Geanie Umberger: **gumberger@purdue.edu**

3: Do you need to assemble a team from multiple units or disciplines?
YES / NO

Research Development Services can assist with team building around national initiatives in thematic areas Perry Kirkham: **pkirkham@purdue.edu**

4: Do you want to partner on a teaching and learning research project for a multi-investigator proposal?
YES / NO

The Discovery Learning Research Center offers expertise in learning research and transformation, project management, and evaluation and assessment Wilella Burgess **wburgess@purdue.edu**

5: Do you need help developing a proposal?
YES / NO

Research Development Services provides grant-writing assistance for large-scale multi-institutional proposals Sally Bond: **sbond@purdue.edu**

7: Do you need help with proposal graphics?
YES / NO

OVPR's Office of [Resear]ch Communications [helps w]ith proposal graphics [for] PIs working with [Resea]rch Development: Sally Bond [sbo]nd@purdue.edu

8: Do you need help developing a data management plan, creating online collaborative spaces and/or creating data-sharing platforms?
YES / NO

Purdue University Research Repository (PURR) will help you create a data management plan, upload research data and publish your dataset **http://purr.purdue.edu**

analysis and interpretation of data and research collaboration?
YES / NO

Research CORES provid[es] access to state-of-the-a[rt] cost-effective technolo[gy] and data analysis **https://engineering. purdue.edu/VPR/COR[ES]**

11: Have you been notified of a site visit?
YES

Research Development Services provides logistics, materials and mock reviews Sue Grimes: **sgrimes@purdue.edu**

12: Does your project involve human subjects, vertebrate animals, export controls, biohazards, or any other non-financial regulatory requirements?
YES / NO

Research Regulatory Compliance will walk you through compliance issues. **vprregulatory@purdue.edu and/or exportcontrols@ purdue.edu**

13: Has your proposal been accepted?
NO / YES

Good luck with your next proposal!

14: Are you creating a new center or institute?
YES / NO

OVPR provides startup support to approved centers and institutes, such as hiring of key staff and securing initial goals Dave Kotterman: **dkotter@purdue.edu**

Purdue University Research Repository (PURR)

- Boilerplate text
- Example DMPs
- Up-to-date funder requirements
- DMPTool
- Workshops
- Tutorials
- Reference and consultation with subject-specialist librarian and/or data services specialist

Purdue University Research Repository (PURR)

Data Allocations and Cost

Storage space for PURR projects currently covered by central resources

Option:	For what:	Space Available:	For how long:	For who:
Default/trial projects	Just trying things out, or don't need much space	10 GB	3 years	Any Purdue faculty, staff, and graduate student
Default data publications	Great for small publications	1 GB	minimum of 10 years +	Any Purdue faculty, staff, and graduate student
Supported projects	Funded projects with PIs from Purdue	100 GB	10 years or life of grant	Purdue faculty with a verifiable grant or account number*
Supported data publications	Publishing work done on a funded project	10 GB	minimum of 10 years +	Purdue faculty with a verifiable grant or account number*

Estimated cost of additional space

Option:	Space Available:	For how long:	For who:	Cost:
Extra project space	As needed	Per year	Any Purdue faculty, staff, and graduate student	$1.08 per GB per year **
Extra publication space	As needed	minimum of 10 years +	Any Purdue faculty, staff, and graduate student	$9.90 per GB**

Charge

- ## Map the space
  - Who is doing what: fed. govt., universities, for-profit publishers, scientific societies, non-profits. Existing repositories, tools, and guidelines. What are the current position of other org. and the fed. agencies.

- ## Frame the issues
  - Identify opportunities and challenges to AAU/APLU institutions.

- ## Develop principles and guidance
  - ID best practices; develop minimum standards/requirements; help build consensus; for both universities and government.

- ## Provide ongoing advice, direction & leadership
  - Help guide AAU/APLU policy and legislative positions; engage federal agencies and policy-makers; engage institutional leaders.

* Content courtesy of Tobin Smith (AAU)

AAU & APLU PAWG
Members

Provosts:

- Lisa Lynch, *Brandeis (co-chair)*
- Farnam Jahanian, Carnegie Mellon
- Susan R. Wente, Vanderbilt
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- Dave Lifka, Cornell University

Library Representatives:

- James Hilton, University of Michigan
- Tyler Walters, Virginia Tech

Compliance Officers:

- Jeff Chasen, University of Kansas
- James Luther, Duke

STAFF

- Tobin Smith & Jessica Sebeok, AAU
- Kacy Redd, APLU
- Jackie Bendall, COGR Liaison

DRAFT

Broad goals

- Providing public access to research data in the most useful ways to society
- Minimizing the administrative burden
- Allowing exceptions for privacy, security, and intellectual property concerns
- Prioritizing data quality and its rigorous evaluation as a foundation in preparing, documenting and releasing data
- Balancing the substantial costs of data access against the benefits of access
- Ensure retention and access requirements are clear at proposal/award
- Recognizing that data types and accessibility needs vary across disciplines, requiring a flexible approach
- Considering the community of interest and duration of usefulness for the data in question and making retention and access requirements clear

- Recommended Principles
  - Harmonize implementations
  - Ensure universities should retain "ownership of data"
  - Utilize existing mechanisms to monitor compliance (e.g. progress reports)
  - Ensure protection of data (human subject, CUI, proprietary)
  - Costs must be allowable as a direct charge in research program budgets
  - Be selective of what data should be subject to these requirements
  - Emphasize adherence to the broadly accepted FAIR principles (data should be findable, accessible, interoperable, and re-usable).

ASSOCIATION OF PUBLIC & LAND-GRANT UNIVERSITIES

Association of American Universities

Discussion Topics

- What kind of resources does your institution currently provide? Data Storage? Assistance developing Data Management Plans? A repository or other resource to catalogue metadata associated with the data sets? Others?

- Does your institution require use of institutionally provided resources? (For example, do you require researchers to use institutional data storage or would you allow them to purchase their own server or cloud space?)

Discussion Topics (cont.)

- Has your institution developed an allocation methodology? If so, are you developing a method to charge all users? Just "heavy hitters" who use a storage amount over a certain cap? Other methodologies?

- Where do these costs live? IT? Library? Other?

- Do you have a plan to charge secondary users of the data? If so, how will you determine the fee schedule? Where would those reimbursements be deposited?

Discussion Topics (cont.)

- Much of the cost of data storage may come after the award has ended. Could we recover these costs by building the longer-term storage into a service center fee charged during the life of the award? Other solutions?

- What guidance would be most useful from federal agencies on the cost component? What questions should we pose to them?