Discovering Research Data Resources at IU

IU Research Data Commons
MEETING WILL START SHORTLY AFTER 4PM



Ann McCranie, Emily Meanwell & Logan Schuerman February 11, 2025

The Research Data Commons



This presentation can be downloaded at:

https://go.iu.edu/8rxo



The IU Research Data Commons

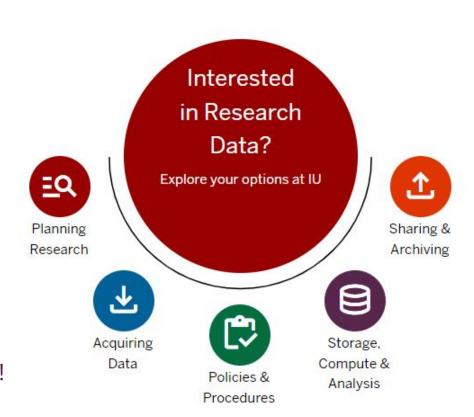
Your front door to research data resources at IU

- New initiative of the Vice
 President of Research, in collaboration with the IU Libraries, UITS, and others
- Recently launched a new website at <u>researchdata.iu.edu</u> with FAQs, resource catalog, featured data resources, event listings, and more.
- A growing collection and you can help

Frequently Asked Questions

RDC FAQs

- Over 40 answers to commonly asked research data questions
- Each question guides you to additional information on the topic and the relevant university office or person
- Have a question that you would like to see answered? Please let us know!



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Resource Catalog

Resource Catalog

- Features over 160 resources across IU campuses as well as publicly available resources
- Covers areas such as resource guides, policies & compliance, storage & compute, software, and more
- We are continuing to build this catalog.
 If you are aware of a resource that isn't listed, please let us know! Email: iurdc@iu.edu

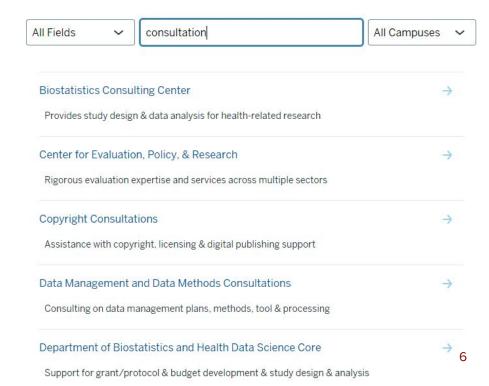






Resource Catalog

Explore all the resources available to you for working with your data @ IU



Featured Data Program

Locally created resources for the IU community to learn about data available for reuse.

Currently, five published self-paced Canvas tutorials.

- A Guide to Using CoreLogic at IU
- A Guide to Using INPC (Indiana Network for Patient Care) and Electronic Health Records (EHR) For Research at IU
- A Guide to Using HCUP (Healthcare Cost & Utilization Project) Data at IU
- A Guide to Using Climate Data for Research
- A Guide to Using AllofUs at IU

More in development!

















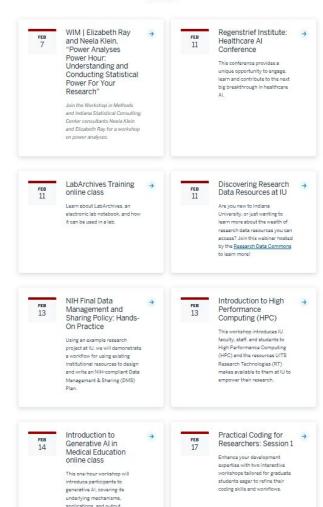
Events

Events around IU campuses

IU RDC maintains <u>an events</u>
<u>listing</u> for all shareable events
related to research data - across
units and campuses.

You can also browse:

https://events.iu.edu/iurdc/all



Monthly RDC newsletter

- New **events** around IU's campuses
- New featured data resources available for reuse
- Funding opportunities internal and external
- New resources at IU related to research data from UITS, libraries, and the RDC
- Policy and procedure updates
- Opportunities to get involved in the RDC through workgroups, committees, etc.
- Sign up on our <u>Contact page</u>



In this issue:

- Letter from the director
- New Data FAQ Portal and Resource Database
- · Self-paced learning courses on resources at IU
- IU joins HELIOS Open
- · Register for webinar series on data resources
- · Events around IU campuses

Letter from the director

Welcome back! As we transition to the academic year, many in our community may have questions about research data resources at IU? We have answers! I encourage you to explore our updated website at researchdata.iu.edu, where you'll find valuable information FAQs, a resource catalog, and event listings.

Read more ->

Questions?

And a quick poll...

Library Resources



IU Libraries

IU Libraries are specific to campuses, but have some cross cutting resources.

Subject librarians are major resources!

Major resources for those in Bloomington and Indianapolis are research data librarians:

- <u>Corey Barber</u>, IUI University
 Library Data Services Librarian
- Heather Coates, IUI University
 Library Digital Scholarship and
 Data Management Librarian,
 (also Research Data Steward for all of IU)
- <u>Levi Dolan</u>, Ruth Lilly Medical Data Services Librarian
- <u>Ethan Fridmanksi</u>, IUB Data Services Librarian

The role of the IU Research Data Steward



Heather Coates, IUI University Library

- 1. Collaborates with the Research Integrity Office, HIPAA Privacy Officer, Human Subjects Office, and other administrative units to develop comprehensive guidance for research data management at IU.
- 2. Supports researchers in complying with funder and publisher data policies,
- 3. Manages the IU Indianapolis DataWorks data repository
- 4. Provides training to faculty, staff, and students on good data practices
- 5. Works with the IU RDC in leadership capacity

If you have a question about data classification and policy, <u>you should</u> <u>contact her</u>.

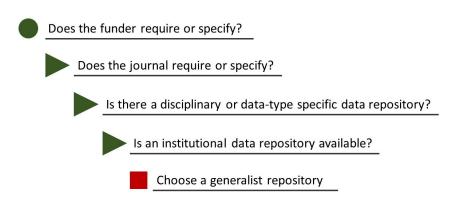
TOOLS YOU CAN USE

The <u>Data Storage &</u>
<u>Handling Tool</u> (DSH) helps researchers understand how their data is classified (more on this later) and what kind of storage and handling services they may use.

Platforms for Sharing & Archiving Data



Which data repository?



You have options at IU, but there are <u>many considerations for</u> <u>how to share your data</u> and <u>guidance for sharing for reuse</u>.



Sharing & Archiving

Major Library data resources



GUIDES

- Managing and Sharing Research
 Data
- Ruth Lilly Medica Library Research Data Services
- IUI Library Guide Finding Statistics and Data
- New Electronic Resources List
- Open Scholarship at IUB Libraries

CONSULTATION SERVICES

- Ask a Librarian
- Data Management Plan Consultations from <u>IUB</u>, <u>IUI</u>, and <u>Ruth</u> <u>Lilly Medical Library</u>

TRAINING & EVENTS

- Exploring Citation
 Metrics and Altmetrics
 in Digital Science
 Tools
- Plan to Share Your Research Data

SERVICES & TOOLS

- <u>Data Management</u> <u>Plan Tool</u>
- IUB ScholarWorks
- IUI Scholarworks
- <u>IUI DataWorks</u>

In development: Data
Catalog, DataCore

Information Technology Resources



UITS Research Technologies

Offers access, training, and support for <u>a wide variety of</u> research needs

176 departments and over 331 disciplines use IU's advanced research cyberinfrastructure provided and supported by RT.

Over 1,800 IU researchers who use IU supercomputers or other HPC tools received nearly \$430 million in grant awards in FY22.

Major Information Technology data resources



GUIDES

- Tech Guides
 - o <u>Faculty</u>
 - o <u>Students</u>
 - o <u>Staff</u>
 - o <u>Collaborators</u>
- <u>ServiceNow Knowledge</u>
 (formerly Knowledge Base)

CONSULTATION SERVICES

ResearchTechnologies

Services & Tools

- IT Training
- <u>High-Performance</u> <u>Computing</u>
- <u>IUware (downloadable</u> <u>software)</u>



UITS Research Technologies

See <u>impact stories/use cases</u> to learn how UITS RT enables research and discovery at IU and beyond.

IU has substantial resources to help researcher, for example:

- Software for research
- Fast computers optimized for Al
- Fast storage
- Archival resources
- Visualization resources and workflows
- Cloud computer
- Expert humans





Resources

- Compute Resources
 - Big Red 200
 - Quartz
 - Jetstream2
 - Research Desktop (RED)
- Storage Resources
 - Geode home directory
 - Geode-Project
 - Scholarly Data Archive
 - Slate
 - Slate-Project
 - Slate-Scratch

- Visualization
 - Advanced Visualization Lab
 - o IU3D
- Expert Consulting
- IU REDCap

Research Data Services

- GIS Data and GIS Software
- Restricted Access Data Remote Server (RADaRS)
- Research Database Complex (RDC)
- Scholarly Data Share (<u>SDS</u>)

Pervasive Technology Institute





- Center for Applied Cybersecurity Research
- Data to Insight Center (D2I)
- Cyberinfrastructure Integration Research Center
- UITS Research Technologies
- HathiTrust Research Center
- Crisis Technologies Innovation Lab
- eLearning Research and Practice Lab



IU Research



IU Research

Supports research and creative activity throughout the university

- Office for Research
 Administration
- Office for Research Compliance
- Office for Research
 Development
- Corporate & Foundation
 Relations
- Innovation & Commercialization
- National Security R&D Relations
- Centers, Institutes, & Museums

Major IU Research resources



GUIDES

- Research compliance and policies
- Quick Guides

CONSULTATION SERVICES

- <u>Proposal Development</u>Services
- Research

 Development

 Services

TRAINING & EVENTS

- Strategies for finding funding;
 see events calendar
- Event recording archive

SERVICES & TOOLS

- <u>Internal seed</u> <u>funding programs</u>
- Pivot (external funding database)
- Research &
 Evaluation
 Design Support
 (REDS) for Grant
 Proposals

Policies and rules





In general, research data is considered institutional data when IU has legal and/or ethical obligations with regards to the associated award, project, or the data itself.

If external (public domain, open, or licensed) data are reused in the conduct of research at IU, the external data must be handled according to the same quidance used for institutional data to ensure the integrity of the data and research, but IU does not assert ownership.



Procedures



If you are utilizing data in an official capacity as a faculty member or graduate student at IU, and using IU resources, facilities, and/or equipment, then IU has a stake in those terms.

It is best for the <u>Office for Research Administration</u> to review all agreements (even ones related to publicly accessible data) to ensure the correct person signs it.

To submit an agreement to be reviewed by ORA, fill out the <u>ORA Contract Request Form</u>.





Procedures





Where to find information regarding research data policies:

- The Rules & Policies of Data
 Management (University Data
 Management Council)
- IU RDC FAQ Policies & Procedures
- University Information Policy Office & University Information Security Office
- Data Policy Groups
- <u>University-wide IT Policies</u>



Policies & Procedures

Planning research





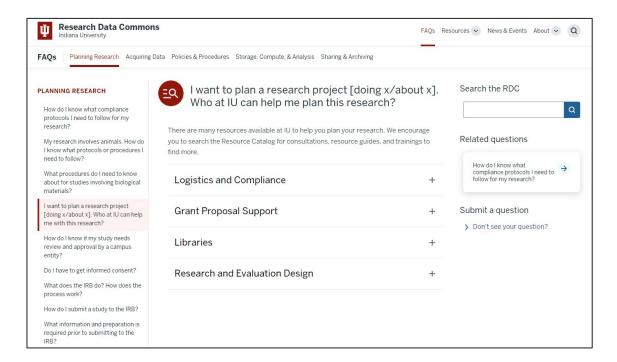
Finding resources for planning research:

- <u>IU RDC FAQs: Planning Research</u>
- Search for resources in the <u>Resource Catalog</u>, e.g. search "consult" to see groups that provide consultations.
- Look at the <u>Data Catalog</u> (still in development) and <u>look</u> <u>through repositories</u> to find datasets already available to you through IU.



Planning Research

Planning Research







Planning Research

"I want to plan a research project...Who at IU can help me plan this research?" (FAQs)





Sample resources for **compliance**:

Research Guidelines and Procedures (IU Research)

Sample resources for grant proposals:

- General support: <u>Proposal Development Services</u>, <u>Research Development Services</u> (for faculty) & <u>GradGrants Center</u> (for graduate students)
- More specific support via several service centers and research cores, e.g. power analyses and evaluation plans (listed in FAQs, or search the resource catalog)



Planning Research

Planning Research

Sample resources for **data management**:

- Research data management guidance
- <u>DMPTool</u> (via IU Libraries)





Planning Research

Acquiring Data

Acquiring or Purchasing Data

Planning
Research
Data?
Explore your options at IU

Sharing & Acquiring
Data

Compute &

- How do I get data? (FAQ)
- <u>Data catalog</u>: Finding data already available to you for reuse (in development)
- Internal funding through the <u>IU Research Equipment</u>
 <u>Fund</u> (to support purchase of shared data resources)



Acquiring Data



Interested in Research Data?

Explore your options at IU

Shark Arch

Acquiring

Storage.

- Expected to open in 2025 in Morrison Hall
- Provides access to restricted-use microdata from Federal agencies, including the Census Bureau, National Center for Health Statistics (NCHS), National Center for Education Statistics (NCES), IRS, and more.
- Requires an application process, project approval, and security clearance
- Browse (some of the) available data at researchdatagov.org.



Storage & Compute

Storage, Compute, & Analysis



Finding resources for storage, compute, & analysis

- IU RDC FAQs: Storage, Compute, & Analysis
- Search for resources in the <u>Resource Catalog</u>, e.g. search "storage" for different options and sources of guidance
- Look at our <u>events calendar</u> for upcoming trainings related to high-performance computing and data analysis techniques.



Storage, Compute & Analysis

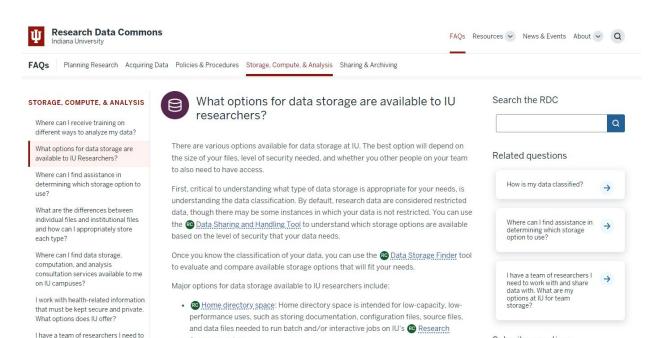
Storage, Compute, & Analysis

work with and share data with. What

are my options at IU for team

storage?







Storage, Compute & Analysis

"What options for data storage are available to IU researchers?" (FAQ)

Slate: Slate is a centralized, high performance Lustre file system designed for the

persistent storage of scholarly data to meet the needs of data-intensive workflows

Submit a question

> Don't see your question?

Storage, Compute, & Analysis



Data storage options at IU

- Data Sharing and Handling Tool (guidance on where to store different types of data based on their domain and sensitivity classification)
- <u>Data Storage Finder</u> (tool to filter and compare different storage options)
- <u>SecureMyResearch</u> (resources and consultations to help you store and protect your data)



Storage, Compute & Analysis

SecureMyResearch



Grants, Contract, DUAs

- Interpret cybersecurity terms & conditions into your specific research context
- Work with ORA to negotiate reasonable terms
- Identify IU solutions that meet terms and conditions
- Provide security boilerplates to include in proposals

<u>SecureMyResearch</u> provides you with consulting and resources to help you protect research data and comply with cybersecurity requirements in grants, contracts, and data use agreements.

securemyresearch@iu.edu

Regulatory Compliance

- Help make sense of complex regulations
- Recommend compliant solutions
- Build complaint workflows

Research Projects

- Recommend/build secure/compliant solutions
- Design secure workflows
- Help with compliance/security documentation
- Security Review

SecureMyResearch Cookbook

SecureMyResearch Cookbook

Enter keywords related to what you want to do or learn, then wait a second for a drop-down with matches.

Q Search for a recipe

Welcome! The SecureMyResearch Cookbook offers information and recipes (step-by-step directions) to help you get your work done while ensuring that your research is trustworthy. The recipes do this by leveraging ingredients that have security already baked in by IU technology and cybersecurity/compliance experts. Many of the recipes are also pre-approved for certain types of critical data, for instance HIPAA protected health information (PHI). Simply follow the recipes, and you will find security and compliance seamlessly woven into your research workflows.

- Search for a recipe or information: Enter keywords in the search bar above titled "Search for a recipe" about what you want to do, for example, "share". Wait a second for a drop-down showing matches which you can click on.
- Seek consulting: If the cookbook doesn't provide what you are looking for, please email securemyresearch@iu.edu for help. We will take it from there.

Recipes by research area: Recipes by topic: Recipes by regulation:

• Applied sciences

• Data storage

• HIPAA

https://uisapp2.iu.edu/confluence-prd/display/SMR/SecureMyResearch+Cookbook



Training opportunities

Training Opportunities



RDC Spring Webinar Series

- 2/18: Meet the IU Research Data Librarians
- 2/25: <u>Finding IT Support for your Research</u>
 <u>Data Needs</u>
- 2/26: Your Data & The IRB
- 3/27: <u>How SecureMyResearch Can Help</u> You
- 4/4: <u>The What & Why of Project</u> <u>Management for Researchers*</u>
- 4/18: What Can the IFSRDC Do for Your Research?*
- 4/21: <u>Federal Data Policy Guidance & Publication Access</u>

*In partnership with Workshop in Methods

Ongoing Training Opportunities & Where to Find Them:

- IU RDC Events page
- <u>UITS IT Training</u> (UITS)
- Search "Training" in the <u>Resource</u>
 <u>Catalog</u>
- Research Workflow Canvas Course
- Scholars Commons Programming (IUB Libraries)
- Workshop in Methods (Social Science Research Commons)

Questions?

Thank you for coming! Slides will be emailed shortly after we end.