

# Discovering Research Data Resources at IU

IU Research Data Commons

**MEETING WILL START SHORTLY AFTER 2PM**

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# 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 [researchdata.iu.edu](https://researchdata.iu.edu) 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!](#)

*Yes! You will get a copy of all of these slides as soon as the meeting is over and we will post this recording to our website within a few days.*



# Frequently Asked Questions

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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](mailto:iurdc@iu.edu)

## Resource Catalog

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

All Fields

consultation

All Campuses

### Biostatistics Consulting Center



Provides study design & data analysis for health-related research

### Center for Evaluation, Policy, & Research



Rigorous evaluation expertise and services across multiple sectors

### Copyright Consultations



Assistance with copyright, licensing & digital publishing support

### Data Management and Data Methods Consultations



Consulting on data management plans, methods, tool & processing

### Department of Biostatistics and Health Data Science Core



Support for grant/protocol & budget development & study design & analysis

# 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 around IU campuses

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

You can also browse:

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

## Events

<b>NOV 14</b>	<b>5-Day research impact challenge: Research Impact Tools &amp; Metrics. Online asynchronous workshop</b>	→
Gather and track citation-based data and altmetrics on your own work and use the data to write a narrative for your P&T dossier. (IU School of Medicine)		
<b>NOV 15</b>	<b>5-Day research impact challenge: Research Impact Tools &amp; Metrics. Online asynchronous workshop</b>	→
Gather and track citation-based data and altmetrics on your own work and use the data to write a narrative for your P&T dossier. (IU School of Medicine)		
<b>NOV 15</b>	<b>Data Storage and Management Workshop</b>	→
<b>NOV 15</b>	<b>Discovering Research Data Resources at IU</b>	→
Are you new to Indiana University, or just wanting to learn more about the wealth of research data resources you can access? Join this workshop hosted by the <a href="#">Research Data Commons</a> to learn more!		
<b>NOV 18</b>	<b>Fall 2024 Sonneborn Awardee and Lecturer: David Crandall</b>	→
Join us for Machines that See: <i>The Past, Present, and Future of Computer Vision</i> , from the 2024 <a href="#">Sonneborn Awardee</a> , David Crandall, Director of the Luddy Artificial Intelligence Center and the Center for Machine Learning.		
<b>NOV 19</b>	<b>Introduction to Systematic Reviews</b>	→
Learn all the steps involved when conducting a systematic review.		
<b>NOV 22</b>	<b>The Transformative Power of AI in Medicine</b>	→
Navenka Dimitrova, PhD, Distinguished Biomedical Data Science & Technology Executive Memorial Sloan Kettering Cancer Center (MSKCC).		
<b>DEC 2</b>	<b>Federal Grants for Centers Information Session</b>	→
This program will provide valuable insights for faculty interested in applying for federal funding for a research center.		



# 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 [Contact page](#)



Research

**Research Data Commons**

## 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](https://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!

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

- [Heather Coates](#), IUI University Library Digital Scholarship and Data Management Librarian, also Research Data Steward for all of IU)
- [Levi Dolan](#), Ruth Lilly Medical Data Services Librarian
- [Ethan Fridmanksi](#), IUB Data Services Librarian



# The role of the IU Research Data Steward

Heather Coates, IU 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, [you should contact her.](#)

## TOOLS YOU CAN USE

The [Data Storage & Handling Tool](#) (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?

- Does the funder require or specify?
  - ▶ Does the journal require or specify?
  - ▶ Is there a disciplinary or data-type specific data repository?
  - ▶ Is an institutional data repository available?
  - Choose a generalist repository

You have options at IU, but there are many considerations for how to share your data.



## Sharing & Archiving



# Major Library data resources

## GUIDES

- [Managing and Sharing Research Data](#)
- [Ruth Lilly Medical 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 IUB, IUI, and Ruth Lilly

## TRAINING & EVENTS

- [Scholars Commons Workshops](#)
- [Ruth Lilly options in Lab Notebooks, NIH Data Management & Sharing, Systematic Reviews, Citation Management](#)

## SERVICES & TOOLS

- [Data Management Plan Tool](#)
- [IUB ScholarWorks](#)
- [IUI Scholarworks](#)
- [IUI DataWorks](#)

*In development: Data Catalog, DataCore*

# Information Technology Resources





# UITS Research Technologies

Offers access, training, and support for a wide variety of 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**
  - Faculty
  - Students
  - Staff
  - Collaborators
- ServiceNow Knowledge  
(formerly Knowledge Base)

## CONSULTATION SERVICES

- Research Technologies

## Services & Tools

- High-Performance Computing
- IUware  
(downloadable software)



# UITS Research Technologies

See [impact stories/use cases](#) 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 AI
- Fast storage
- Archival resources
- Visualization resources and workflows
- Cloud computer
- Expert humans

# UITS Research Technologies



## 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
- 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 (SDS)

# Pervasive Technology Institute



## Centers of PTI

- 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

- [Proposal Development Services](#)

## TRAINING & EVENTS

- Grantwriting workshops; see [events calendar](#)
- [Event recording archive](#)

## SERVICES & TOOLS

- [Internal seed funding programs](#)
- [Pivot \(external funding database\)](#)



Policies and rules



# Research Data is “Institutional Data” at IU, and this has consequences for you!

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 guidance used for institutional data to ensure the integrity of the data and research, but IU does not assert ownership.



## Policies & Procedures



# *“Why Can’t I Sign That?”* Submitting Contracts & Agreements to ORA

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 Office for Research Administration 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 [ORA Contract Request Form](#).



## Policies & Procedures



# Key policies and procedures for research data

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](#)
- [University Wide IT Policies](#)



## Policies & Procedures

Planning research

# Planning Research



## Finding resources for planning research:

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



# Planning Research

# Planning Research



**Research Data Commons**  
Indiana University

FAQs Resources News & Events About

FAQs Planning Research Acquiring Data Policies & Procedures Storage, Compute, & Analysis Sharing & Archiving

### PLANNING RESEARCH

How do I know what compliance protocols I need to follow for my research?

My research involves animals. How do I know what protocols or procedures I need to follow?

What procedures do I need to know about for studies involving biological materials?

**I want to plan a research project [doing x/about x]. Who at IU can help me plan this research?**

How do I know if my study needs review and approval by a campus entity?

Do I have to get informed consent?

What does the IRB do? How does the process work?

How do I submit a study to the IRB?

What information and preparation is required prior to submitting to the IRB?

**I want to plan a research project [doing x/about x]. Who at IU can help me plan this research?**

There are many resources available at IU to help you plan your research. We encourage you to search the Resource Catalog for consultations, resource guides, and trainings to find more.

Logistics and Compliance	+
Grant Proposal Support	+
Libraries	+
Research and Evaluation Design	+

Search the RDC

Related questions

How do I know what compliance protocols I need to follow for my research?

Submit a question

> Don't see your question?



## Planning Research

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

# Planning Research



Sample resources for **compliance**:

- [Research Guidelines and Procedures](#) (IU Research)

Sample resources for **grant proposals**:

- General support: [Proposal Development Services](#) (for faculty) & [GradGrants Center](#) (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)



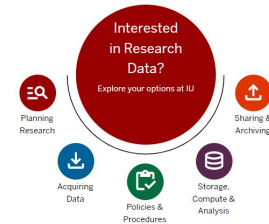
## Planning Research



# Planning Research

Sample resources for **data management**:

- [Research data management guidance](#)
- [DMPTool](#) (via IU Libraries)



## Planning Research

# Acquiring Data



# Acquiring or Purchasing Data

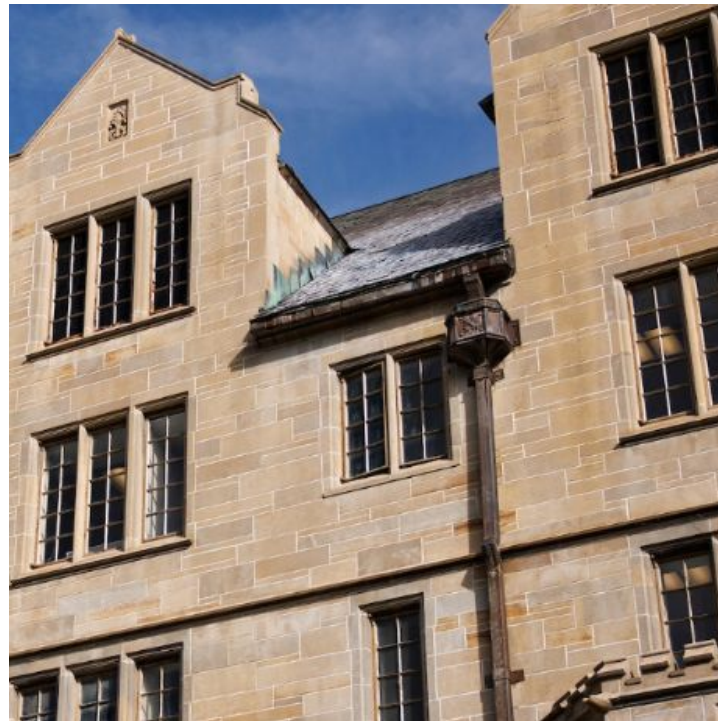
- [How do I get data?](#) (FAQ)
- [Data catalog](#): Finding data already available to you for reuse (in development)
- Internal funding through the [IU Research Equipment Fund](#) (to support purchase of shared data resources)



## Acquiring Data

# Indiana Federal Statistical Research Data Center

- Expected to open in early 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](https://researchdatagov.org).



Storage & Compute

# Storage, Compute, & Analysis



## Finding resources for storage, compute, & analysis

- [IU RDC FAQs: Storage, Compute, & Analysis](#)
- Search for resources in the [Resource Catalog](#), e.g. search “storage” for different options and sources of guidance
- Look at our [events calendar](#) for upcoming trainings related to high-performance computing and data analysis techniques.



Storage,  
Compute &  
Analysis

# Storage, Compute, & Analysis

## STORAGE, COMPUTE, & ANALYSIS

Where can I receive training on different ways to analyze my data?

What options for data storage are available to IU Researchers?

Where can I find assistance in determining which storage option to use?

What are the differences between individual files and institutional files and how can I appropriately store each type?

Where can I find data storage, computation, and analysis consultation services available to me on IU campuses?

I work with health-related information that must be kept secure and private. What options does IU offer?

I have a team of researchers I need to work with and share data with. What are my options at IU for team storage?



## What options for data storage are available to IU researchers?

There are various options available for data storage at IU. The best option will depend on the size of your files, level of security needed, and whether you or other people on your team also need to have access.

First, critical to understanding what type of data storage is appropriate for your needs, is understanding the data classification. By default, research data are considered restricted data, though there may be some instances in which your data is not restricted. You can use the [Data Sharing and Handling Tool](#) to understand which storage options are available based on the level of security that your data needs.

Once you know the classification of your data, you can use the [Data Storage Finder](#) tool to evaluate and compare available storage options that will fit your needs.

Major options for data storage available to IU researchers include:

- [Home directory space](#): Home directory space is intended for low-capacity, low-performance uses, such as storing documentation, configuration files, source files, and data files needed to run batch and/or interactive jobs on IU's [Research Supercomputers](#).
- [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

Search the RDC

## Related questions

How is my data classified?



Where can I find assistance in determining which storage option to use?



I have a team of researchers I need to work with and share data with. What are my options at IU for team storage?



Submit a question

[Don't see your question?](#)



# Storage, Compute & Analysis

["What options for data storage are available to IU researchers?" \(FAQ\)](#)

# 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)
- [Data Storage Finder](#) (tool to filter and compare different storage options)
- [SecureMyResearch](#) (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

[SecureMyResearch](#) 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](mailto: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.

 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](mailto:securemyresearch@iu.edu) for help. We will take it from there.

### Recipes by research area:

- Applied sciences

### Recipes by topic:

- Data storage

### Recipes by regulation:

- HIPAA

<https://uisapp2.iu.edu/confluence-prd/x/LARTHw>



Training opportunities

# Training Opportunities



## Upcoming Events:

- November 19th: [Introduction to Systematic Reviews](#)
- December 2nd: [Federal Grants for Centers Information Session](#)
- February 3rd: [Copyright for Dissertations and Theses](#)

## Ongoing Training Opportunities & Where to Find Them:

- [IU RDC Events page](#)
- [UITS IT Training](#) (UITS)
- Search “Training” in the [Resource Catalog](#)
- [Accelerator Crash Courses](#) (CEW&T)
- [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.