

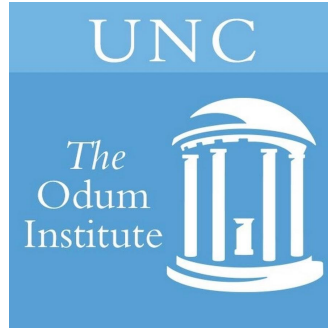
# Library Data Archive

Providing archive and data services since 1961

November 20, 2017

# What is a Data Archive?

**ICPSR**  
A PARTNER IN SOCIAL  
SCIENCE RESEARCH



**CISER**

**SSDA**

**Yale**   
**ISPS**

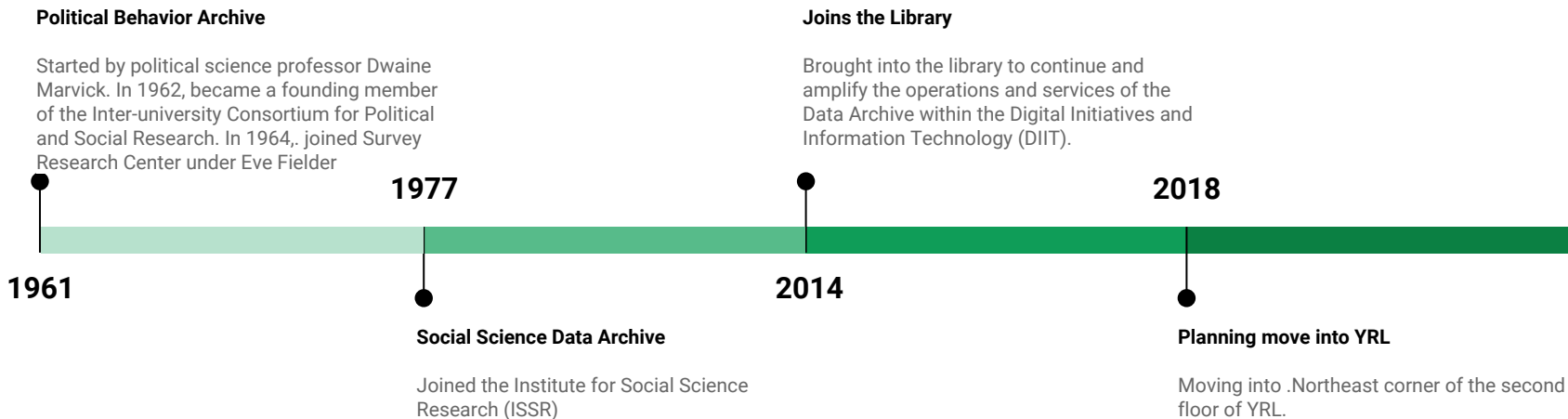


# What do data archives typically do?

- Data collection, management and preservation
- Research support through the data lifecycle
- Data and computing support
- Instruction on, tools, methods, data management and analysis
- Reflects empirical nature of social science research and the advent of centralized computing and statistical computing

SSDA

# Social Science Data Archive



**Table 1.1** *The earliest social science data libraries, centres and archives*

Source: <http://goo.gl/gQJrK8>, reprinted with permission of Luis Martinez.

Several social science data archives, centres and libraries were in place by the 1970s, and many more were established by the end of the 20th century.

<b>Institution</b>	<b>Year</b>	<b>Type</b>	<b>Country</b>	<b>Other names</b>
Roper Center	1957	Data centre	USA	
Berkeley	1958	Data library/ service	USA	
GESIS – Leibniz Institute for the Social Sciences	1960	Data centre	Germany	Central Archive for Empirical Social Research
UCLA Data Services	1961	Data library/ service	USA	
ICPSR	1962	Data centre	USA	
Data Archiving and Networked Services (DANS)	1964	Data centre	Netherlands	Steinmetz Archive
Social Science Data Archives, Department of Sociology and Anthropology, Carleton University	1965	Data library/ service	Canada	
Princeton Data Service	1965	Data library/ service	USA	
Data & Program Library Service, University of Wisconsin-Madison	1966	Data library/ service	USA	Data & Information Services Center (DISC)
The Institute for Policy and Social Research	1966	Data centre	USA	
UK Data Archive	1967	Data centre	UK	UK Data Service
Data Library/Service RAND Corporation	1968	Data library/ service	USA	
Electronic Records Division, US National Archives	1968	Data centre	USA	NARA Data Archives Program
Odum Archive, University of North Carolina	1969	Data centre	USA	The Odum Institute

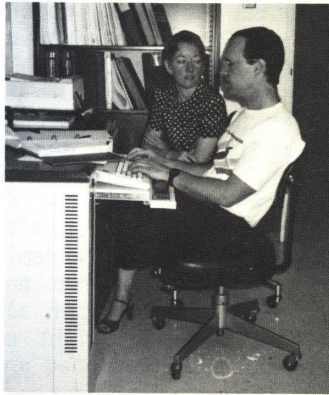
# Role of the Data Archive in Soc. Sci. Div.

- Supported social science research through all stages of a project, including:
  - hypothesis or area of study development
  - grant and funding activities
  - data collection, analysis, management, and communication
  - long term preservation of research data/results/artifacts

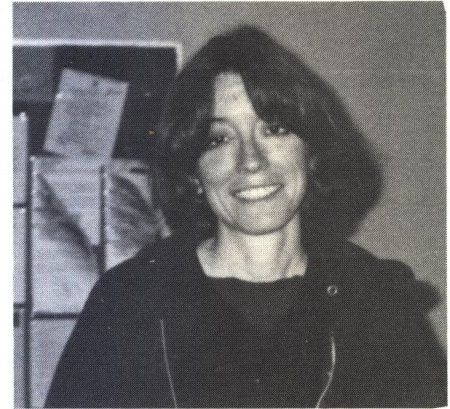
# The Social Science Data Archive: Access to Machine-Readable Data



*"It must be here somewhere."  
Elizabeth Stephenson, Data  
Archivist, looks through the  
Archive's data tape collec-  
tion.*

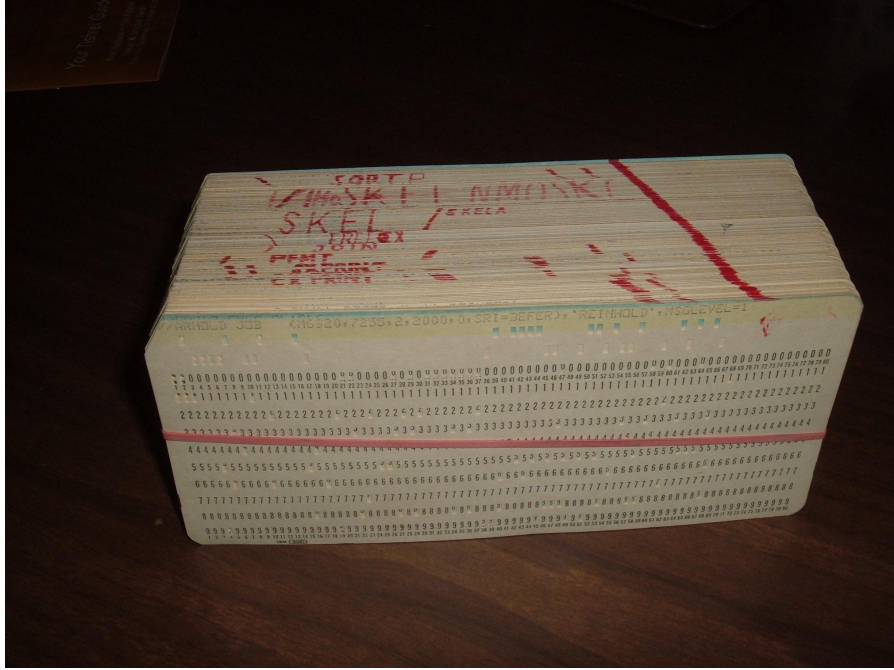


*Martin Pawlocki, Programmer,  
maintains and develops the  
administrative software for  
the Institute and provides  
assistance to staff and  
Archive users.*



*Gina Jamison, Technical  
Assistant in the Archive,  
will be receiving her  
Master of Fine Arts and  
leaving ISSR in June.*





## DATA ARCHIVES LIBRARY

The Data Archives Library has relocated from Franz Hall to ISSR's new facility in the Gayley Center Building. ISSR welcomes a new Programmer/Technical Consultant, Shirley Lane. Ms. Lane has been the consultant for the machine-readable version of the 1970 Census at UCLA's Research Library. She joins the staff as part of a cooperative effort between the Research Library and the Data Library to provide information and reference services utilizing the machine-readable data files. When the 1980 Census begins receiving will be available on both the 3090 and the 4381.

### Technical Consulting

The Archive will assist users to mount tapes or cartridges, access on-line files, or solve simple technical problems on whatever machines or operating systems preferred. Information on how to access tapes or on-line files will be provided in

## DATA ARCHIVE SEMINAR

by Charlie Recksieck

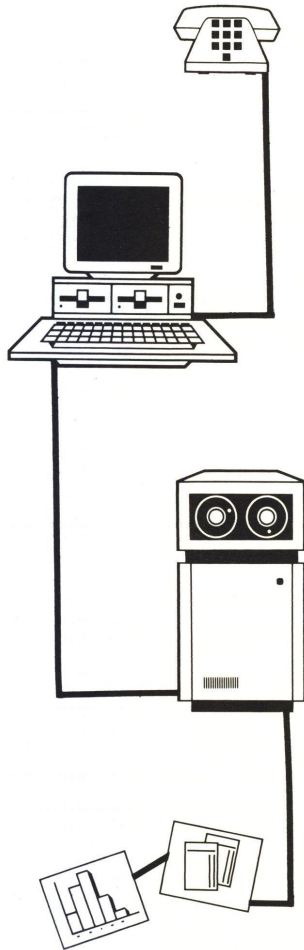
The Social Science Data Archive (SSDA) will be holding a user seminar on the use of information files in gender research. The seminar, entitled "The Use of Data Files for the Study of Women," is scheduled for February 9th from 10:00 to 11:30 a.m. in 9383 Bunche.

### On-Line Data Files

The Archive presently maintains a selection of heavily used files on the SSC 4381 (DataLib). Because of the limited space available on the 4381 for such storage, and the need to rotate what is stored, most of these files will be moved to the OAC 3090 and the Archive will release most of this space to users of the 4381. Because of their frequent use in classes, modules for accessing CITIBASE and data from the IMF will be available on both the 3090 and the 4381.

### SPIN

Often, just finding information concerning grant opportunities can be the biggest barrier to conducting funded research. This year the ISSR Data Archive and the Center for the Study of Evolution and Origin of Life (CSEOL) will begin to assist researchers in discovering sources of funding for research, fellowships, travel, training and atten-



# Collections

- Approx. [600 datasets](#) (some unpublished, ask us)
- Mostly from surveys, public opinion polls, and de-identified administrative records.
- Include studies on:
  - Political, social & economic attitudes and behavior
  - Studies of health status and health outcomes
  - International surveys of occupational and social mobility
  - Los Angeles County Social Surveys & California Polls

# SSDA in the Library

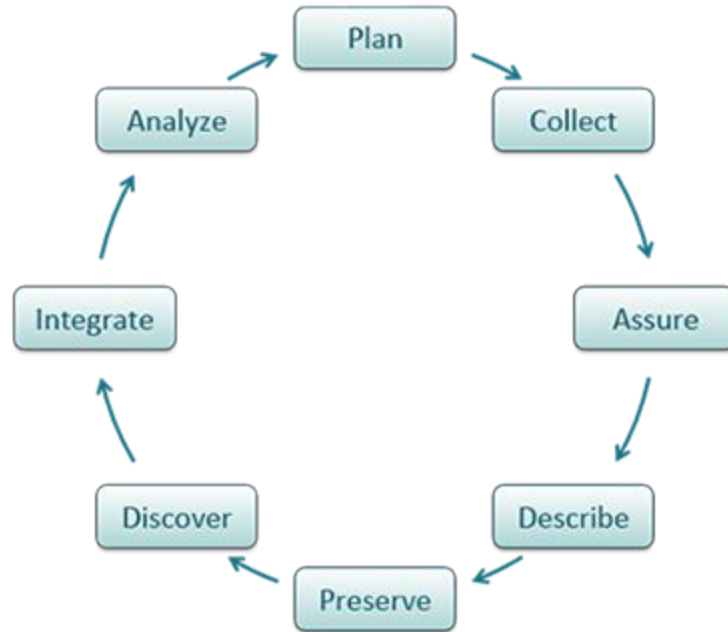
Data is the central currency of science, but the nature of scientific data has changed dramatically with the rapid pace of technology. – Ted Hart (@emhart), et. al., Ten Simple Rules for Digital Data Storage. [doi:10.1371/journal.pcbi.1005097](https://doi.org/10.1371/journal.pcbi.1005097)

Access to the computational steps taken to process data and generate findings is as important as access to data themselves. – Victoria Stodden, Enhancing reproducibility for computational methods. Science 09 Dec 2016 : 1240-1241. [10.1126/science.aah6168](https://doi.org/10.1126/science.aah6168)

The Data Archive will (continue to) provide research data services in three interrelated areas:

1. Consulting and data support;
2. Archive and repository services; &
3. Educational program.

The Data Archive will continue to support all phases of the data lifecycle:



# Also support research innovation

- Machine learning
- Network analysis
- Text analysis
- Cloud computing and storage
- Web data and APIs
- Data visualization
- Programming service and code review



# Archive and Repository Services

## Continue archival services

- Data curation support
- Data management best practices support and training
- Data stewardship

## Add data publishing & sharing

- Data Den and Dataverse repositories
- Curating for reproducibility
- Working with data at scale
- Be responsive to interoperability needs (ORCID, APIs, Preregistration)

In a 2016 survey of 704 NSF Biological Sciences Directorate principle investigators... **nearly 90% indicated they are currently or will soon be analyzing large data sets.** .... **the most pressing unmet needs are training in data integration, data management,** and scaling analyses for HPC ... This portends a **growing data knowledge gap** in biology and challenges institutions and funding agencies to **redouble their support for computational training** in biology.

Unmet Needs for Analyzing Biological Big Data: A Survey of 704 NSF Principal Investigators <https://doi.org/10.1101/108555>

**New knowledge and skills will be needed** to make effective use of new system architectures and software. “Hybrid” disciplines such as **computational science** and **data science** and interdisciplinary teams may come to **play an increasingly important role**. Keeping abreast of a **rapidly evolving suite of relevant technologies** is challenging for many computer science programs ...

Future Directions for NSF Advanced Computing Infrastructure to Support U.S. Science and Engineering in 2017-2020: Interim Report



# Other topics for instruction

- Concepts of reproducible research
  - Application of concepts in a tool (R, Stata, Python or Open Science)
- Data publishing
- Data cleaning topics in OpenRefine and R
- Text mining in R
- Data visualization
- Research project management, package/dependency management and capturing compute environments
- HPC and cloud computing

# Fall Quarter Offerings

2017

<u>R Workshop - Master of Social Science</u>	2017/11/28
<u>Python Workshop - Master of Social Science</u>	2017/11/16
<u>SQL Workshop - Master of Social Science</u>	2017/11/02
<u>Hands-on Introduction to Literate Programming</u>	2017/10/27
<u>Open Science Framework for Research Workflows</u>	2017/10/18
<u>Data Archive Class Presentation for Masters of Social Science</u>	2017/10/17
<u>Software Carpentry - UCLA</u>	2017/10/16
<u>Data Archive Class Presentation Psych M144/Stats M154</u>	2017/10/05
<u>Library Carpentry Workshop</u>	2017/09/30
<u>Library Carpentry South Africa</u>	2017/09/30
<u>Open Refine Part 2 and BYOD</u>	2017/09/22









# Thank You

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