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LAUC-B and Library Staff Research

Title

Ready 4 Research: A Pilot Workshop

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NOTES FOR USING THIS RESOURCE:

Ready 4 Research is a 3-hour workshop to support students in learning about and getting ready to participate in research, as research assistants and researchers themselves. It is aimed at UC Berkeley undergraduate social sciences students, at the sophomore level and above, but there is content that can be used by students in other majors, other colleges/universities, and other educational levels.

This document includes the slides from the pilot version, offered twice in July and August 2021. It was conceptualized, created and presented by Ann Glusker, with substantial administrative support from Dean Tanioka and Nina Narahari of the [NavCal program](#). In response to student evaluations, future versions of the workshop will incorporate more interactive/hands-on activities, and demonstrations.

Feel free to contact Ann Glusker, glusker@berkeley.edu, for more information!

READY 4 RESEARCH: A PILOT WORKSHOP



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Credit: [Alex Proimos](#)

READY 4 RESEARCH

DAY 1

COURSE INTRO, AND OVERVIEW OF SOC SCI RESEARCH

Preparing to get and make the most of your research assistantship

READY 4 RESEARCH:

What's with the pictures? Data in Real Life! 😊

- ❖ A 3-hour workshop, full of information to give you a head start on rocking a research assistant job
 - ❖ Day 1: Intro, Social Science Research overview
 - ❖ Day 2: Data!
 - ❖ Day 3: Getting the job, improving your skills, and tips for success
- ❖ Ask lots of questions!
- ❖ Don't worry if the content seems daunting at first— it is! But there is a lot of support out there!



Credit: [..Russ..](#)

TODAY'S SESSION

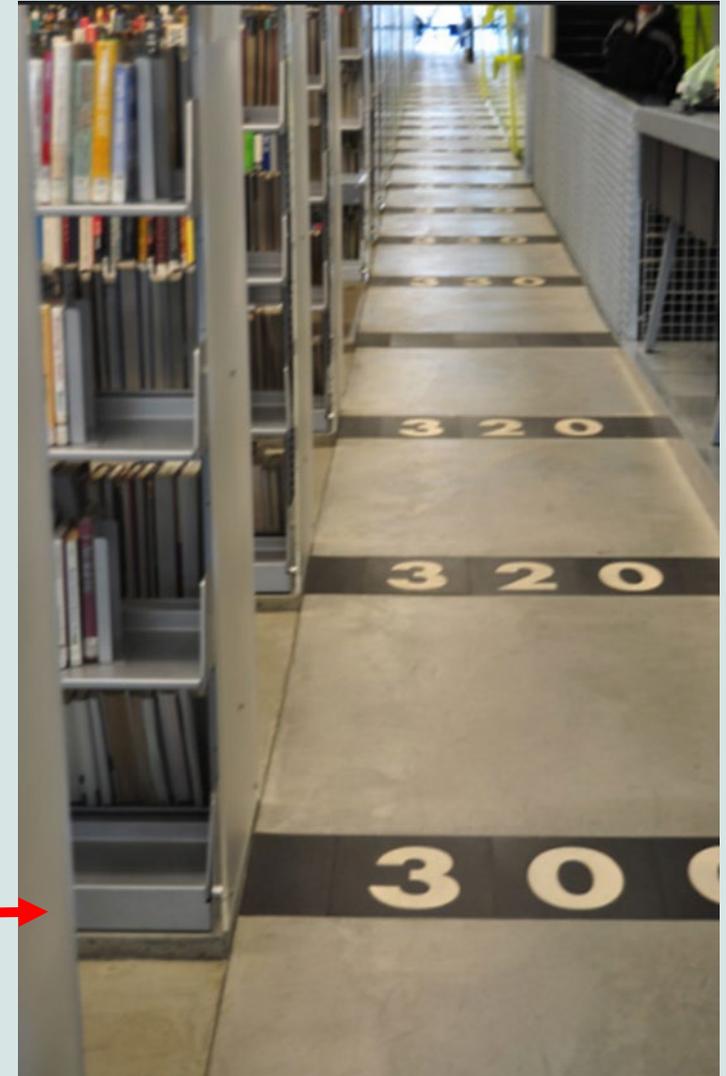
- ❖ Introducing myself
- ❖ Definition of social sciences
- ❖ Social sciences disciplines
- ❖ SS research methods
- ❖ SS data types and formats
- ❖ Example of an SS research project
- ❖ The SS research process
- ❖ What does an RA do? Four job listings
- ❖ Exploring ICPSR



Credit: [namtaf](#)

ABOUT ME

- ❖ I'm the UC Berkeley Library's liaison to sociology demography, and public policy, and also contribute to campus quantitative research activities
- ❖ I've also worked as:
 - ❖ a **public health epidemiologist**
 - ❖ the **medical librarian** for Kaiser Permanente – Washington
 - ❖ a **public library librarian** at The Seattle Public Library →
 - ❖ a **research and data outreach librarian** for the Network of the National Library of Medicine



Credit: [Susan Smith](#)

SOCIAL SCIENCES DEFINED

Credit: [Zilupe](#)



- ❖ “The **Social Sciences** are as varied as the interests of humankind, but they share a fascination with **human behavior and organizations**. From the beginning of recorded history, humans have organized their societies using myriad systems—political, religious, economic, and social. Those organizational systems, and our understanding of human behavior, evolve as we learn from the past and study the present.”
- ❖ “In all of these fields **we question the world we are given**: How do we live? How do we organize? What do we believe? What is just and right? And who gets to decide?”
- ❖ “And we ask ourselves, ‘**How might we make the world better, kinder, and more just?**’”

SOCIAL SCIENCES DISCIPLINES

Anthropology

Economics

Education

History

Law

Political Science

Psychology

Sociology

And at Berkeley:

Business

Demography

Environmental Design

Ethnic Studies

Gender/Women's Studies

Government studies

Public Policy

Social Work

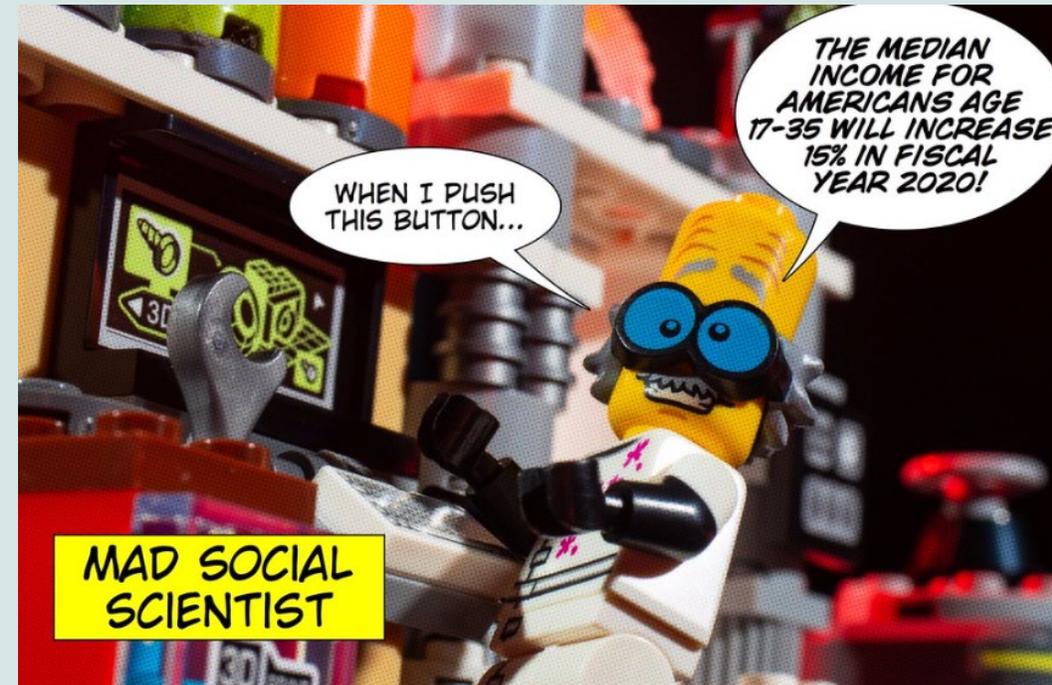


Credit: [Julie Rybarczyk](#)

METHODS IN SS RESEARCH

Some examples include:

- ❖ **Quantitative analysis:** Using numerical data collected or coded from counts, surveys, administrative data, digital data, etc.
- ❖ **Experimental:** one group of subjects who receive the intervention (the *treatment group*) is compared with another group of subjects (the *control group*) who do not
- ❖ **Observational studies:** Non-experimental research studies in which subjects or outcomes are observed and measured.
- ❖ **Evaluation:** Policy implementation beyond the confines of an original study population requires careful monitoring
- ❖ **Meta-analysis:** Meta-analysis is an application of quantitative methods to combine the results of different studies
- ❖ **Qualitative analysis:** The term covers many different types of studies, including ethnographic, historical, and other case studies; focus group interviews; content analysis of documents; interpretive sociology; and comparative and cross-national studies. The research may be derived from documentary sources, field observations, interviews with individuals or groups, and discourse between participants and researchers.



Credit: [Chris Blakeley](#)

DATA IN SS RESEARCH

❖ *Examples of social science data include:*

- ❖ Survey data (opinion polls, voting records)
- ❖ Administrative data (census, health data)
- ❖ Non-survey data (images, maps, sound, video, multimedia)
- ❖ Raw measurements, numeric tables, government statistics, and indices
- ❖ Text (field notes, transcripts, blogs, e-mails)
- ❖ Spatial (zonal, event, spatial referent)
- ❖ Social media posts

Credit: [Maria Janjowska](#), UCLA Library



Credit: [Marc Biarnès](#)

❖ *Common file formats*

- ❖ Text - ASCII, Word, PDF
- ❖ Numerical - ASCII, Excel, Access, SPSS, STATA, R
- ❖ Multimedia - jpeg, tiff, dicom, mpeg, quicktime
- ❖ Spatial - geotiff, KLM, KMZ
- ❖ Models - 3D, statistical

EXAMPLE OF A PROJECT: ABSTRACT

Student research assistant! 😊

Sociological Focus >
Volume 32, 1999 - Issue 1: Community, Inequality and Crime

Submit an article | Journal homepage

47 Views
29 CrossRef citations to date
0 Altmetric

Original Articles
A Tale of Three Cities: Labor Markets and Homicide
Robert D. Crutchfield, Ann Glusker & George S. Bridges
Pages 65-83 | Published online 19 Nov 2012
Download citation | <https://doi.org/10.1080/00380237.1999.10571124>

References | Citations | Metrics | Reprints & Permissions | Get access

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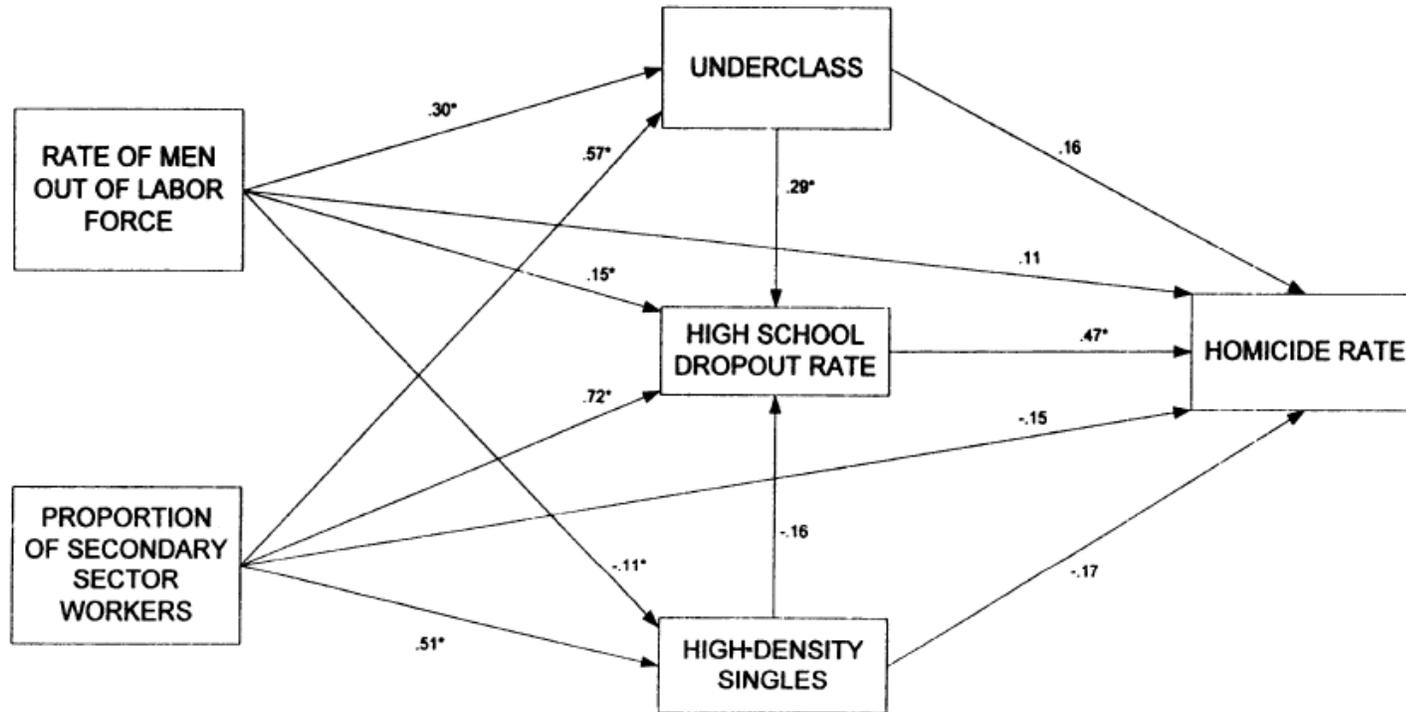
EDITINGSERVICES
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Corrección de manuscritos en Inglés.
¡Aprenda más ahora

Abstract
This paper investigates the relationship between labor stratification and crime. Using data from the census tracts of Cleveland, Washington, DC, and Seattle, the analysis compares homicide rates and labor market conditions. The analyses show that in all three cities labor market participation has significant influence on levels of homicide. However, the structure of work in each city also appears to have an important effect on the rate at which people do not finish high school. The pattern of these effects differs across cities. In Seattle, the city with what might be called "a twenty-first century industrial structure," work operates primarily through education to affect murder rates. In Cleveland and Washington there is more of an underclass effect. Homicide rates in Cleveland reflect the presence of underclass communities and an important direct influence of education on crime. Washington's homicide rate is driven in a more substantial way simply by a pervasive underclass.

EXAMPLE OF A PROJECT: HYPOTHESIS

FIGURE 1

ESTIMATED PATH MODEL OF HOMICIDE RATES (SEATTLE, 1989-1991)



EXAMPLE OF A PROJECT: DATA

In this analysis we examine the distribution of labor in three cities. Seattle, Washington, DC and Cleveland are selected for several reasons. First, we want to replicate Crutchfield's analysis of Seattle data using more recent census and crime data (Crutchfield 1989). Second, we seek to examine differences across cities in labor market variations. And third, crime data coded by census tracts are readily accessible from the police departments in these cities.

In the following analysis the dependent variable, homicide rate, is calculated from data provided by the police departments of Seattle, Cleveland and Washington, DC, for the census tracts within each city. Here the homicide rate is the number of homicides per 1,000 people in the tract. The rates for the three years, 1989, 1990, and 1991 are averaged to provide more stable measures for these small units.

The labor force measures for census tracts are: a joblessness rate—the rate of adult males who out of the labor force (computed as the number of adult males who were out of the labor force per 1,000 people in the tract population); and a secondary sector jobs measure—the proportion of employed persons working in secondary sector jobs. The adult males out of the labor force measure is an alternative to the more

Two measures of census tract education levels were selected for this analysis: the high school graduate rate is the number of persons over 25 years of age who are high school graduates per 1,000 people in the census tract population, and the school dropout rate is the number of persons aged sixteen and older who are not currently in school and who did not complete high school per 1,000 population.

We collected a number of additional variables for use in the analysis as control factors; these have all been used as statistical controls in aggregate criminological analyses. During the course of the analysis, some of these variables are used to create

EXAMPLE OF A PROJECT: RESULTS



TABLE 3

PATH ANALYSIS OF HOMICIDE IN THREE CITIES (CONTROL VARIABLES ARE INCLUDED BUT NOT DISPLAYED)

	<i>Seattle</i>			<i>Cleveland</i>			<i>Washington, DC</i>		
	B	Beta	(S.E.)	B	Beta	(S.E.)	B	Beta	(S.E.)
<i>Predicting Homicide</i>									
Dropout Rate	.001	.472*	(.000)	-.001	-.248*	(.000)	.001	.112	(.001)
Underclass	.078	.161	(.063)	.179	.394*	(.033)	.951	.466*	(.189)
High-Density	-.042	-.168	(.041)	.299	.369*	(.058)	.202	.172*	(.098)
Out of Lab. Frc.	.000	.109	(.000)	.000	.008	(.001)	.002	.153*	(.001)
Sec. Sector Wk.	-.441	-.149	(.489)	-.537	-.116	(.306)	-1.44	-.161	(1.03)
<i>Predicting Dropout Rate</i>									
Underclass	45.9	.290*	(11.7)	25.7	.316*	(5.10)	65.9	.333*	(9.83)
High-Density	-13.8	-.164	(7.97)	-31.7	-.218*	(9.22)	17.5	.155*	(5.57)
Out of Lab. Frc.	.166	.149*	(.063)	.558	.418*	(.081)	.245	.194*	(.052)
Sec. Sector Wk.	670	.715*	(71.3)	225	.271*	(47.4)	409	.471*	(51.5)
<i>Predicting Underclass</i>									
Out of Lab. Frc.	.002	.304*	(.000)	.003	.153*	(.001)	-.001	-.080	(.000)
Sec. Sector Wk.	3.47	.569*	(.373)	4.45	.435*	(.627)	2.79	.636*	(.269)
	.02	-.107*	(.001)	.003	.283*	(.001)	-.002	-.148*	(.001)

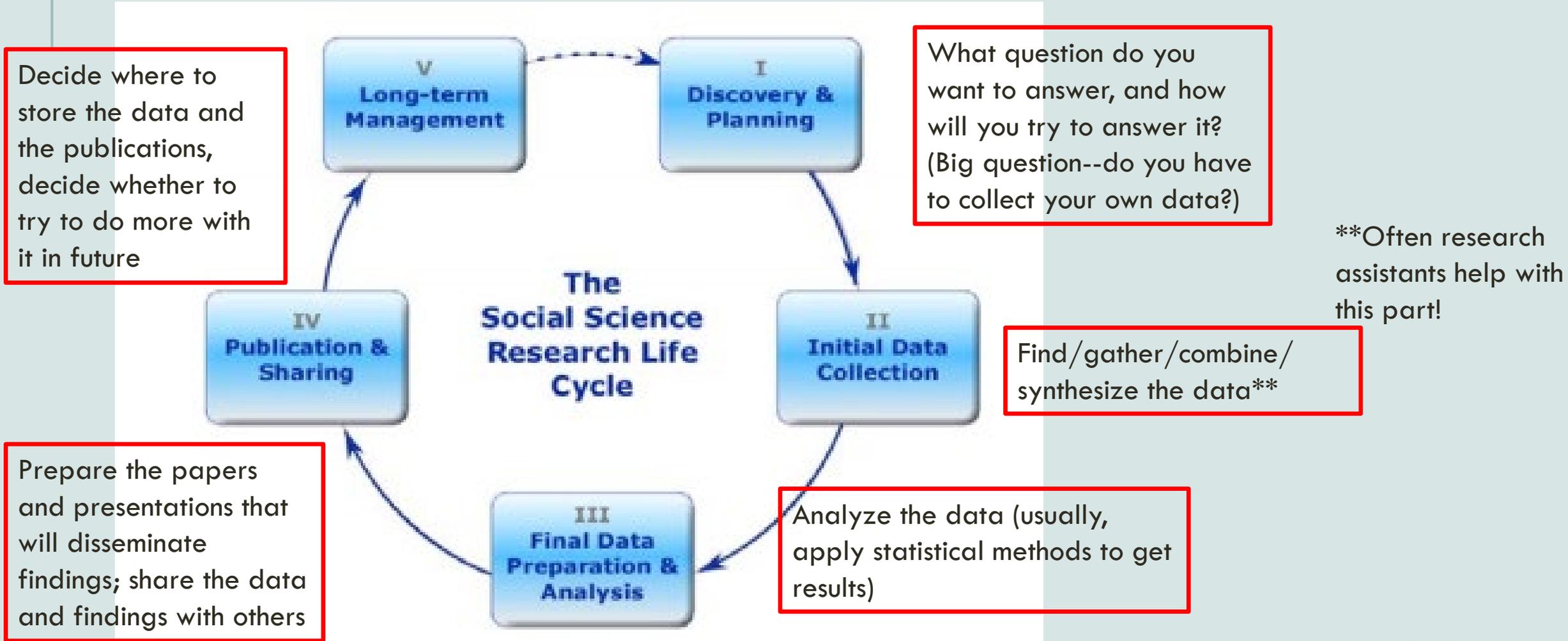
A tale of three cities: Labor markets and homicide

RD Crutchfield, A Glusker, GS Bridges - Sociological Focus, 1999 - Taylor & Francis

This paper investigates the relationship between labor stratification and crime. Using data from the census tracts of Cleveland, Washington, DC, and Seattle, the analysis compares homicide rates and labor market conditions. The analyses show that in all three cities labor ...

☆ 97 Cited by 61 Related articles All 5 versions

THE SOCIAL SCIENCE RESEARCH PROCESS



Credit: [Green and Gutmann, 2006](#)

SAMPLE RA JOB LISTING

Responsibilities: The research assistant will assist with the following activities:

- (1) map and compile results as table and figures;
- (2) clean and analyze demographic and local housing data;
- (3) assist in developing policy reports and academic publications; and
- (4) gather background information on specific policies, developments, and cities.

Proficiency in R preferred, and experience with data visualization is a plus.



Credit: [Harry McGregor](#)

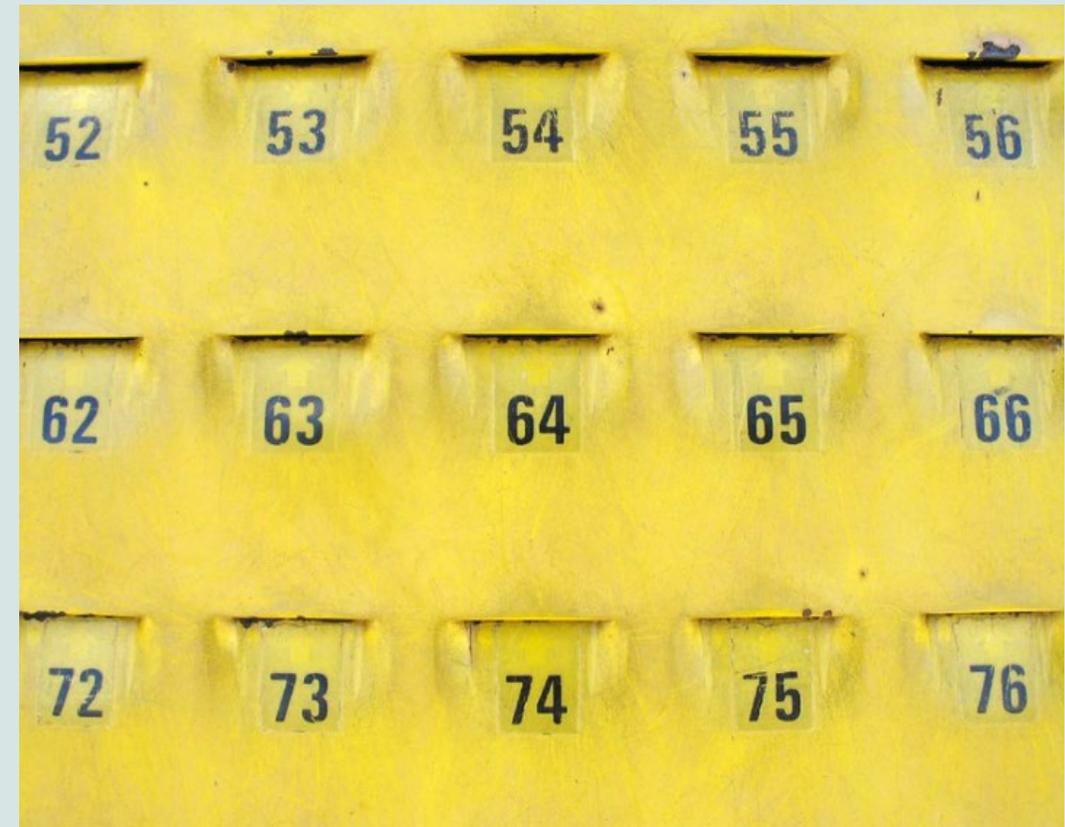
SAMPLE RA JOB LISTING

Responsibilities:

Students will download and prepare city-level data from the CCC archive.

Students will also locate and merge data on 170 population cities, including information on poverty, residential segregation, and violent crime.

We will then use data on urban homicides from FBI's Uniform Crime Reports (UCR) and merge this information with city-level counts of officer-involved deaths, published beginning in 2015, by *The Guardian* ("[The Counted](#)") and *The Washington Post* ("[Fatal Force](#)"), that each organization has verified.



Credit: [Matt Karp](#)

SAMPLE RA JOB LISTING

Responsibilities:

Students will collect event data (using Crowd Counting Consortium and Count Love websites) on both gun control and gun rights protests.

Students will learn how to document size, tactics, and organizational involvement in protest.

Students will also help analyzing survey poll data available from 2018 and 2019 (Roper Center, iPoll), to explore whether there has been a shift in attitudes among segments of the population.



Credit: [Eye/See](#)

EXPLORING ICPSR

ICPSR
Sharing data to advance science

My Dashboard Giving

Studies, publications, variables, webpages

Home Find Data Share Data Membership Summer Program Teaching & Learning Data Management About

OLYMPICS DATA AT ICPSR
THROUGH THE YEARS

Events

- July 25, 2021 Hiring: Solutions Software Architect (applications due 7/25/21)
- July 25, 2021 Hiring: Lead DevOps Engineer (applications due 7/25/21)
- July 25 Hiring: Senior Full-Stack Software

News

More Headlines

- Jul 21, 2021 ICPSR explores Olympics data through the years
- Jul 12, 2021 The 2nd European Conference on Aging & Gerontology (EGen2021) - Call for Papers
- Jul 9, 2021

- ❖ Stands for Interuniversity Consortium for Political and Social Research
- ❖ Has 16,000+ data sets, which you can download, or even analyze within their site
- ❖ You can look at how other studies asked their questions
- ❖ You can deposit data there for others to use
- ❖ Berkeley is a member!

EXPLORING ICPSR

icpsr.umich.edu

Delayed a year by the pandemic, the 2021 Olympics season is here. We explored our archives to see what the data tell us about the Olympics through the years. There are at least 278 Studies, 291 Variables, 39 Series, and 1 Data-related Publication tied to the ICPSR website search term ["olympics."](#)

You can look at historical data, data on a topic of interest (the Olympics), longitudinal data (that follows the same people over time), and more



They have A LOT of datasets, so it's worth looking to see if you can find something on your topic of interest!

[The CBS News/New York Times Election Surveys, 1980](#) asked, "IF THE SOVIET UNION DOES NOT WITHDRAW ITS TROOPS FROM AFGHANISTAN, DO YOU THINK THE UNITED STATES SHOULD OR SHOULD NOT TAKE PART IN THE SUMMER OLYMPIC GAMES IN MOSCOW?"

EXPLORING ICPSR

A view of the “Teaching & Learning” tab— start here to work through some modules that will help you get your hands on some data and will teach you to analyze it for results

Studies, publications, variables, webpages

Home Find Data Share Data Membership Summer Program Teaching & Learning Data Management About

These resources were created especially for undergraduate faculty and students. While any of ICPSR's data and tools can be used in the classroom, the ones provided here make it easy for instructors to set up data-driven learning experiences. The materials can be used as the basis for assignments, as an in-class or study exercise, for lecture content, or any other way you see fit. All resources are provided under a Creative Commons (attribution) License.

If there is an additional type of resource you would find useful, we would love to hear from you!

Data-Driven Learning Guides

Stand-alone exercises that use online data analysis to teach social science concepts

These standardized exercises introduce (or reinforce) key concepts in the social sciences by guiding students through a series of questions and related data analyses. Analyses are preset so students can focus on content rather than mechanics of data analysis. To assist instructors with selection, guides are also categorized by the most sophisticated statistical test presented in the exercise.

[View All](#) (You can filter by analysis method on the results screen.)

Exercise Modules

These resources are made up of sequenced activities. While assignments may be created using a few of the exercises in a set, the full package must be used to meet the stated learning objectives for each. Exercise Sets are often appropriate for Research Methods courses and more substantively focused courses.

- [Exploring Data Through Research Literature](#)
- [Investigating Community and Social Capital](#)
- [Voting Behavior: The 2016 Election \(SETUPS\)](#)
- [Exercises at the Social Science Research & Instructional Center, using the 2014 General Social Survey](#)

EXPLORING ICPSR

An example of an exercise you can work through

The screenshot shows the ICPSR website interface. At the top left is the ICPSR logo with the tagline 'Sharing data to advance science'. On the top right are buttons for 'My Dashboard' and 'Giving'. Below the logo is a search bar containing the text 'Studies, publications, variables, webpages' and a magnifying glass icon. A navigation menu below the search bar includes links for 'Home', 'Find Data', 'Share Data', 'Membership', 'Summer Program', 'Teaching & Learning' (which is highlighted), 'Data Management', and 'About'. The main content area is titled 'Demographics and Non-Traditional Civic Participation' and includes links for 'Collapse open tabs' and 'Printer Friendly version'. A sidebar on the left of the content area has three expandable sections: 'Goal & Concept', 'Dataset', and 'Application', each with a checkmark icon. The 'Application' section is expanded, showing the following text:

In this exercise, you will examine the relationship between non-traditional civic participation and demographic characteristics. Crosstabulation will be used.

In this dataset, respondent's age can be measured by subtracting the respondent's year of birth from 1990 (the year the survey was administered). Next, we recoded the age variable into six age groups to make the crosstab analysis more readable. Missing data were excluded as was the individual born in 1978 since all respondents were supposed to be at least 18 years of age in order to be included in the survey. We called the new variable "AGE.CATS." Look at the frequency table for [AGE.CATS](#). Which age group has the most respondents?

Family income was also measured with a large number of categories. We recoded this variable into five income groups (under \$25,000; 25,000-49,999; 50,000-74,999; 75,000-99,999; and 100,000+) and named the new variable "FAMINC.CATS." Missing data were excluded from the recode. Look at the frequency table for [the new income variable](#). Which income group has the most respondents? Which income group has the least number of respondents?

Age and Campaign Volunteerism

Now, consider the relationship between age and campaign volunteerism (CW88). Respondents who volunteered for the 1988 presidential campaign were coded as "2." Respondents who did not volunteer for campaign were coded as "1." Examine the crosstab of [volunteerism by age](#). Which age groups are most likely to volunteer?

Gender and Campaign Volunteerism

Now consider the crosstab of [campaign volunteerism by gender](#). What percentage of men in this dataset volunteered to help a campaign effort in 1988? What percentage of women volunteered?

Income and Campaign Volunteerism

Next consider if [volunteering for a campaign is related to family income](#). Are people with higher family incomes more likely to volunteer for a campaign? What percentage of those respondents making less than \$25,000 volunteered for the campaign?

Monetary Contributions

It is also interesting to know if contributing money to a campaign varies by age, gender, or income. First, consider the crosstab of [1988 campaign contribution by age group](#). Which age groups were more

EXPLORING ICPSR



Resources for Students

Learning Support

- [How to Read a Journal Article](#) - Tips and tricks to make reading and understanding social science journal articles easier.
- [A Guide to Interpreting SPSS Output](#) - How to interpret frequency distributions, crosstabulations, comparison of means tests, correlations, and other statistics. This is an Introduction to Statistics course.
- [Citing Data](#) - Citing data is as important as citing literature used in a paper. This is a discussion of why it is important and how to properly cite data.
- [Data Management Plans](#) - Guidelines for effective data management, most useful for graduate students and faculty beginning research projects funded by federal funding agencies such as the National Institutes of Health and National Science Foundation.

Research Paper Competition

The [ICPSR Research Paper Competition](#) is an annual event open to undergraduate and graduate students and recent graduates. The competition seeks quantitative analysis of ICPSR data. Each of the four competition categories addresses a particular research topic and has specific eligibility requirements. The competition winners are announced in the ICPSR Bulletin for first-place winners and on the ICPSR website for all winners.

Summer Program in Quantitative Methods of Social Research

The [Summer Program](#) provides a comprehensive, integrated program of studies, statistics, data analysis, and social science methodology. Its instruction is focused on quantitative analysis within a broader context of substantive social research. The Summer Program takes place from early June to late August and most classes are held on the UC Berkeley campus.

Webinars and Tutorials

The [ICPSR YouTube Channel](#) presents Webinars and tutorials on accessing and using ICPSR resources. The Webinars cover a variety of topics, including online, creating setup files for SPSS, debugging SAS, SPSS, and Stata code, etc.

❖ And more resources for students...

❖ NOTE: be sure to set up an account! Just choose Berkeley as your institution

❖ Also, check out their [YouTube videos!](#)

QUESTIONS?

This is a box full of 3.5 inch floppy disks; →
the census data for my research assistant
job took about 40 disks!



Credit: [Ivan Radic](#)



Credit: [Janet McKnight](#)



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Credit: [Karen](#)

READY 4 RESEARCH

DAY 2

WORKING WITH SOCIAL SCIENCES DATA

Preparing to get and make the most of your research assistantship

TODAY'S SESSION: DATA!

- ❖ Data Literacy
- ❖ Data vs. statistics
- ❖ How are data created?
- ❖ Data challenges
- ❖ Data creation and maintenance
- ❖ Quantitative vs qualitative, primary vs secondary
- ❖ Population data vs survey data
- ❖ Data visualization
- ❖ Data pitfalls
- ❖ Finding data
- ❖ Some best practices
- ❖ Resources!!



Credit: [dcJohn](#)

DATA LITERACY

“We adopt a multifaceted definition of data literacy. For our purposes, data literacy includes the ability to read, work with, analyze and argue with data.



- ❖ **Reading data** involves understanding what data is, and what aspects of the world it represents.
- ❖ **Working with data** involves creating, acquiring, cleaning, and managing it.
- ❖ **Analyzing data** involves filtering, sorting, aggregating, comparing, and performing other such analytic operations on it.
- ❖ **Arguing with data** involves using data to support a larger narrative intended to communicate some message to a particular audience.”

--Catherine d'Ignazio and Rahul Bhargava, “[Designing Tools and Activities for Data Literacy Learners](#)”

DATA VS. STATISTICS



Credit: [Bill Smith](#)

- ❖ Data is the raw information (such as, an Excel file with the information from all the birth certificates).
- ❖ Statistics are what comes out when an analysis/data interpretation has been done (such as, a report on birth weights by county, perhaps in a visualization such as a bar chart)
- ❖ Consider whether you really need to mess around with the data, or, can you find reports or tables online that are ready-made?
- ❖ This relates to the question of primary and secondary data—it's just like primary and secondary sources! Do you really have to collect data yourself, or has someone done it already?

HOW ARE DATA CREATED? CASE STUDY: BIRTH CERTIFICATE

Washington State Birth Filing Form

Child's Information			
*1. Child's Name First		*2. Date of Birth (MM/DD/YYYY)	
Middle		*3. Time of Birth (24 Hrs)	
LAST		Suffix (Sr., Jr., II, III, etc.)	
4a. Type of Birthplace (Specify Type)		4b. Planned Birth Place, If different	5. Sex
1 <input type="checkbox"/> Hospital 2 <input type="checkbox"/> Enroute 3 <input type="checkbox"/> Freestanding Birth Center		Specify:	
*6. Name of Facility (If not a facility)			
Mother's Statistical Information			
34. Mother's Medical Record Number	35. Mother's Prepregnancy Weight (Pounds)	36. Mother's Weight at Delivery (Pounds)	
37. Mother's height Feet: Inches:	38. Did Mother get WIC food for herself during pregnancy? <input type="checkbox"/> Yes <input type="checkbox"/> No	39. Cigarette Smoking Before and During Pregnancy If none enter "0" Average number of cigarettes or packs per day:	
40a. Number of Previous Live Births (Do not include this child)	41a. Number of Other Pregnancy Outcomes (Spontaneous or induced losses or ectopic pregnancies)	# of cigarettes # of packs	
Number Now Living _____ <input type="checkbox"/> None	Number of Other Outcomes _____ <input type="checkbox"/> None	Three months before pregnancy _____ OR _____	
Number Now Dead _____ <input type="checkbox"/> None	41b. Date of Last Other Pregnancy Outcome (MM/YYYY)	First three months of pregnancy _____ OR _____	
40b. Date of Last Live Birth (MM/YYYY) (Do not include this child)	42a. Date of First Prenatal Care Visit (MM/DD/YYYY)	Second three months of pregnancy _____ OR _____	
13. Mother's Current Legal Last Name	42b. Date of Last Prenatal Care Visit (MM/DD/YYYY)	Last three months of pregnancy _____ OR _____	
15. Is Mother Married to the Father?	43. Total Number of Prenatal Visits for this Pregnancy (if none, enter '0')	44. Date Last Normal Menses Began (MM/DD/YYYY)	
16a. Residence: Number and Street	45. Was mother transferred to higher level care for maternal medical or other indications for delivery? <input type="checkbox"/> Yes <input type="checkbox"/> No If yes, name of facility mother was transferred from:	46. Principal Source of Payment for this Delivery	
16c. County	46. Principal Source of Payment for this Delivery	<input type="checkbox"/> Medicaid <input type="checkbox"/> Self Pay <input type="checkbox"/> Private Insurance	
17. Telephone Number	47. Newborn Medical Record Number	<input type="checkbox"/> Indian Health <input type="checkbox"/> CHAMPUS <input type="checkbox"/> Other Gov't	
19. Mother's Mailing Address, including City or Town	48. Birth Weight lbs: ozs: or grams:	<input type="checkbox"/> Other (Specify)	
20. Mother's Education (Check the highest degree or level of schooling at delivery.)	49. Infant Head Circumference (cm)	50. Obstetric Estimate of Gestation (Completed weeks)	
1 <input type="checkbox"/> 8 th grade or less (Specify)	51. Apgar score at 5 minutes If score is less than 6, score at 10 minutes	52. Plurality - Single, Twin, Triplet, etc. (Specify)	53. If not single birth - Born 1 st , 2 nd , 3 rd , etc. (Specify)
2 <input type="checkbox"/> 9 th - 12 th grade; no diploma	54. Was infant transferred within 24 hours of delivery? If yes, name of facility infant was transferred to:	<input type="checkbox"/> Yes <input type="checkbox"/> No	55. Is infant living at the time of report? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Transferred, Status Unknown
3 <input type="checkbox"/> High school graduate or GED	56. Is infant being breastfed? <input type="checkbox"/> Yes <input type="checkbox"/> No		
4 <input type="checkbox"/> Some college credit, but no degree			
5 <input type="checkbox"/> Associate degree (e.g., AA)			
6 <input type="checkbox"/> Bachelor's degree (e.g., BA)			
7 <input type="checkbox"/> Master's degree (e.g., MA, MEd)			
8 <input type="checkbox"/> Doctorate (e.g., PhD, EdD) or other degree (e.g., MD, DDS, DVM)			
23. Occupation (Indicate type of work)			
Newborn's Statistical Information			
47. Newborn Medical Record Number	48. Birth Weight	49. Infant Head Circumference	50. Obstetric Estimate of Gestation
51. Apgar score at 5 minutes	52. Plurality - Single, Twin, Triplet, etc. (Specify)	53. If not single birth - Born 1 st , 2 nd , 3 rd , etc. (Specify)	
54. Was infant transferred within 24 hours of delivery?	55. Is infant living at the time of report?	56. Is infant being breastfed?	
If yes, name of facility infant was transferred to:	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Transferred, Status Unknown	<input type="checkbox"/> Yes <input type="checkbox"/> No
Medical and Health Information			
57. Risk Factors in this Pregnancy (Check all that apply)	58. Method of Delivery	59. Infections Present and/or Treated During this Pregnancy	

In Washington State, almost every birth has a certificate filled out. So, this can be considered a data source that covers an entire population (newborns). However, the data aren't always the best quality... what can go wrong?

<http://www.doh.wa.gov/Portals/1/Documents/Pubs/422-078-AnnSum2006.pdf>

TRAINING CONTENT:

POTENTIAL DATA ISSUES WITH DATA ON PRENATAL CARE

WHO FILLS OUT THE FORM?

- Nurse at mom's bedside?
- Hospital registrar using mom's medical record?
- Midwife after home birth?
- Mom herself?
- Dad or relative?

AND...

- Can any of them remember the exact dates of things like prenatal visits?
- Does the hospital insist on completion of that field/other fields?

NOT SURPRISINGLY PEOPLE ARE...

- Misremembering dates
- Not wanting to look like they started too late, so, fudging dates
- Filling out dates incompletely
- Skipping the question even if they remember month and year, since they can't remember the day
- Prone to human error if using medical record
- Living within cultural differences (European dates reported differently)
- Wanting to be positive! No one wants to fill out the "No" box
- Also, if the hospital doesn't insist on good quality data for that item, hospital staff may ignore it

AND THEN WHAT?

- Data has to be entered into a machine readable format—data entry errors?
- Data are vulnerable to technical glitches and file corruption
- Data must be "cleaned"—what to do with a record where mom's age is 199?
- Coding errors must be fixed—human race is not the same as other race
- Certificates have to be traded across state borders
- ALL THESE THINGS TAKE TIME

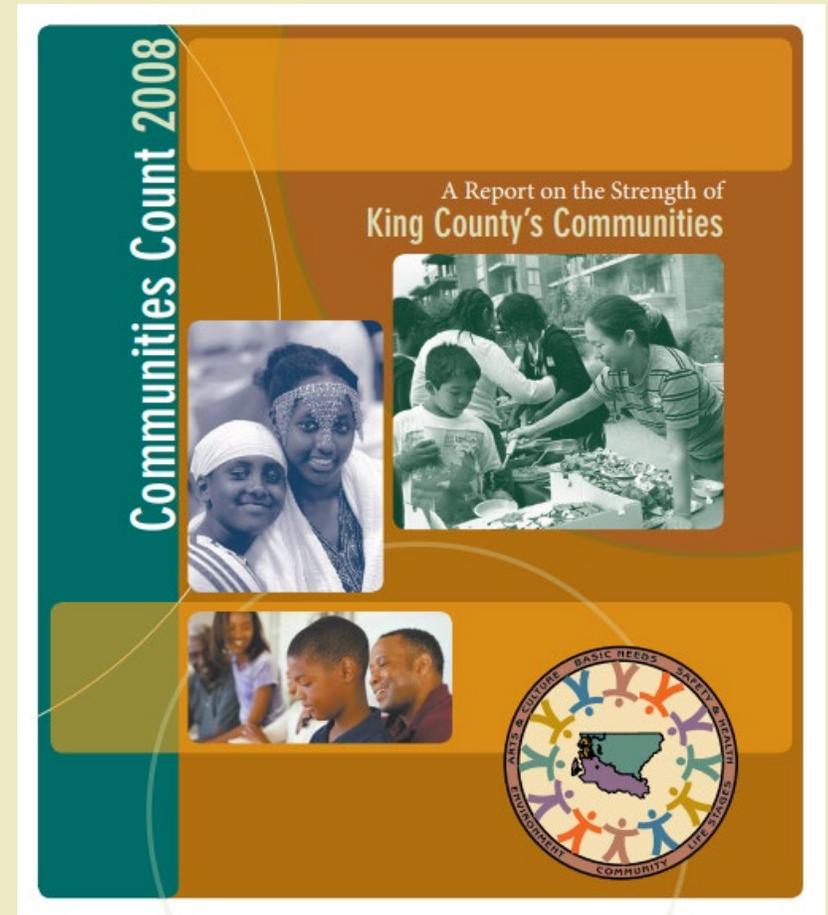
DATA CREATION AND MAINTENANCE

- ❖ Data don't come out of nowhere—they represent a phenomenon, and have to be collected! (either by humans or machines, and machines aren't perfect)
- ❖ There are many points at which the data can be “compromised”—there's no perfect source, you just have to know the caveats!
- ❖ This is why documentation is so important! Also, user forums, and hands-on experience
- ❖ Maintenance is a big deal too—most users want data at regular intervals, in consistent formats, and with consistent fields (questions). This takes time and money and the will to continue!
- ❖ Often older data sets are not offered online, but usually the owner can supply them (at least in government)

QUANTITATIVE VS. QUALITATIVE

- ❖ The two work together- qualitative (often from interviews) can inform quantitative (numerical)
- ❖ Qualitative data is stronger than anecdote, and can help you persuade someone that an anecdote is true
- ❖ Can be directed at specific groups and questions
- ❖ Can get at issues that quantitative data doesn't
- ❖ Can incorporate cultural difference
- ❖ Combining stories with quantitative data gives a human face to the issue
- ❖ Qualitative data analysis methods are very sophisticated!

Check out [this public health](#) report that uses quant and qual together!



PRIMARY VS. SECONDARY

- ❖ A research project using primary data is one where the team members are collecting the data themselves
- ❖ A research project using secondary data is one where the data has already been collected (sometimes more than one data source is combined)
- ❖ The two methods can be combined in one project!

BASIS FOR COMPARISON	PRIMARY DATA	SECONDARY DATA
Meaning	Primary data refers to the first hand data gathered by the researcher himself.	Secondary data means data collected by someone else earlier.
Data	Real time data	Past data
Process	Very involved	Quick and easy
Source	Surveys, observations, experiments, questionnaire, personal interview, etc.	Government publications, websites, books, journal articles, internal records etc.
Cost effectiveness	Expensive	Economical
Collection time	Long	Short
Specific	Always specific to the researcher's needs.	May or may not be specific to the researcher's need.
Available in	Crude form	Refined form
Accuracy and Reliability	More	Relatively less

Credit:
[Benedictine University](#)

POPULATION DATA ARE IDEAL, BUT WHAT ABOUT SURVEYS?

- ❖ Surveys let us use a sample of the population to represent the whole---
- ❖ This saves money!
- ❖ Data can be collected more quickly!
- ❖ Since time and money are saved, can ask more detailed questions
- ❖ Often can be more customized (languages, geographic areas covered, etc.)
- ❖ Data can be collected about questions of immediate interest, trends
- ❖ BUT—Survey data analysis is REALLY complex; you can't just throw it in Google Sheets/Excel! For large data sets, you pretty much need training and data savvy to use it in its raw form

DATA VISUALIZATION:

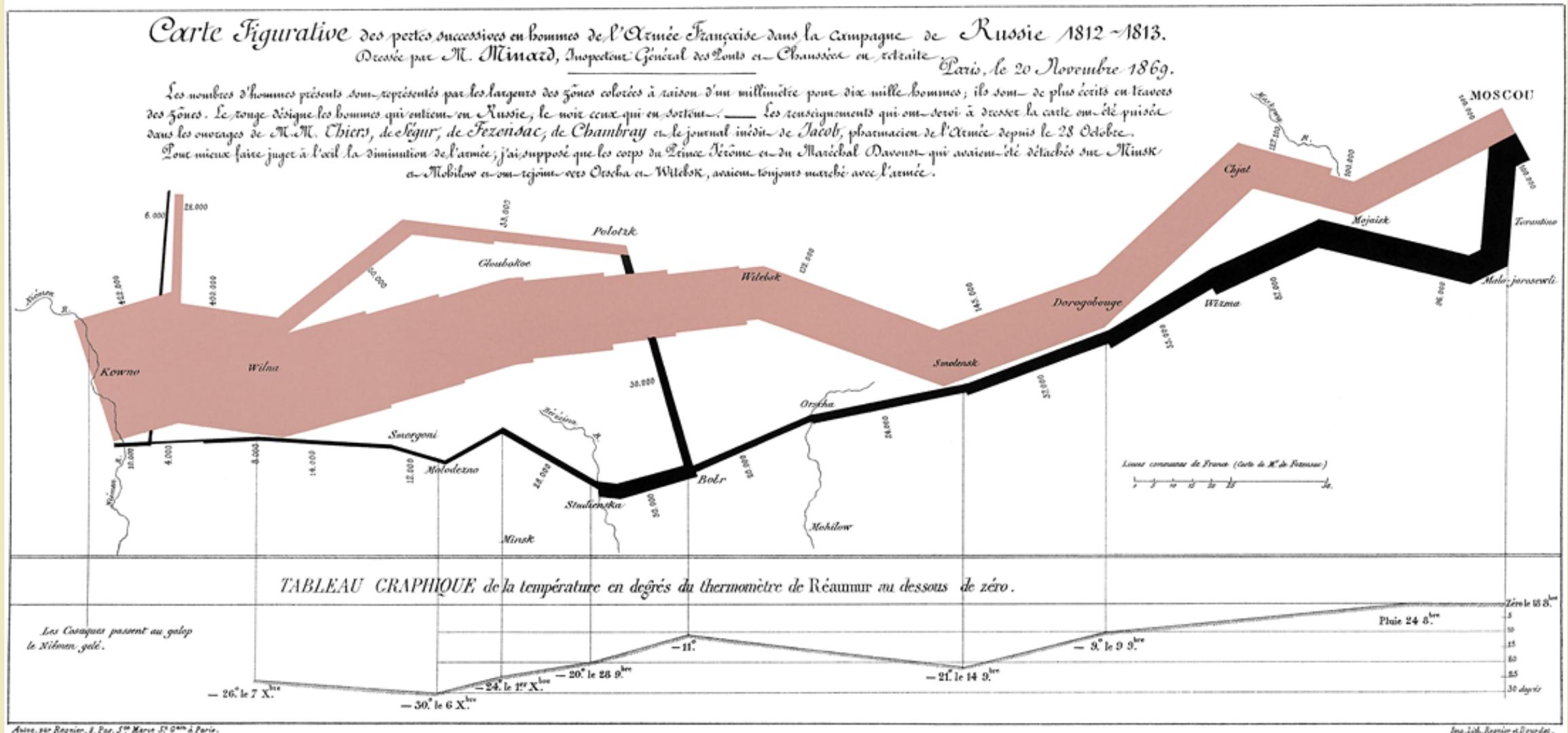
- ❖ Check out this site: <https://eazybi.com/blog/data-visualization-and-chart-types/>
- ❖ Check out the work of Edward Tufte and Stephanie Evergreen, if you haven't already
- ❖ Check out some of the sites that let you make infographics, like Piktochart—you can combine different visualizations to make a story
- ❖ Pay attention to visualizations in publications that are great at them—*The New York Times*, *The Wall Street Journal*, and others
- ❖ Listen to Sally Gore! <http://tinyurl.com/sallygoredataviz>



Image from: <https://librarianhats.net>

FROM TUFTE:

“Probably the best statistical graphic ever drawn, this map by Charles Joseph Minard portrays the losses suffered by Napoleon's army in the Russian campaign of 1812. Beginning at the Polish-Russian border, the thick band shows the size of the army at each position. The path of Napoleon's retreat from Moscow in the bitterly cold winter is depicted by the dark lower band, which is tied to temperature and time scales.”



Avant par Regnier, 2. Par. 5^{me} Mars 5^{me} 1869 à Paris.

Imp. Lith. Regnier et Drouot.

DATA PITFALLS, OR, HOW TO BE AN INFORMED DATA CONSUMER

- ❖ Look for limitations; for example, there may be bias if not everyone is represented and the lack of representation might be systematic:
 - ❖ People of color
 - ❖ People whose first language is not English
 - ❖ Low income people
 - ❖ Homeless people
 - ❖ People without landlines (at least in the olden days)
- ❖ It can be hard to get enough respondents to look at small geographic areas (the “small numbers” issue; some statistical methods can help, but not totally!)
- ❖ Geographies can be tricky (zip codes don’t match census tracts, and more!)

MORE PITFALLS TO AVOID!

Look at the survey instrument

- ❖ Wording of questions makes a big difference
- ❖ Order of questions makes a big difference
- ❖ Certain types of questions are problematic (example—"recall bias")
- ❖ Also survey administration—land line calling is a no-go these days!

Remember the birth certificate example about how people answer questions

- ❖ They want to please the interviewer
- ❖ They don't like sharing sensitive information
- ❖ Women and older people are more likely to say yes/be positive even among randomly chosen people
- ❖ Many people are not comfortable answering questions online

FINDING THE PERFECT DATA SET (OR NOT?)

- ❖ Look for published statistics and/or secondary data
- ❖ Ask “who cares?” What organization might have already collected data?
- ❖ Have a sense of which data are open and which are proprietary
- ❖ Look in the literature for similar instances of dealing with the topic; what data sets did they use?
- ❖ Check out library research guides, user forums, listservs, and other places data might be discussed
- ❖ Consider data archives and repositories *like ICPSR* (if you are game to analyze data once you get it)
- ❖ **ASK A LIBRARIAN!!!**

WHAT IF YOU AREN'T FINDING DATA ON YOUR TOPIC?

- ❖ Give data for the larger area, then show proportions that apply to your neighborhood/city/smaller area
- ❖ Use data for a larger group, and then compare your group to the larger group
- ❖ Use substitutions (such as, teen births if teen pregnancies aren't available)
- ❖ Internet (start with Google, but don't stop there!)
- ❖ Advocate for better collection of data sources of interest
- ❖ Consider gathering qualitative data (using rigorous methodology)
- ❖ Consult experts (in fact, they may do a special data run for you!)

BEST PRACTICES AS YOU USE DATA

- ❖ ALWAYS look at the documentation!
- ❖ Compare what you find to published sources where possible
- ❖ Consult with others who have used the source, or the software
- ❖ Consult an expert (data requests!)
- ❖ Prioritizing— try to focus on 2 or 3 crucial facts to make an argument
- ❖ Comparing—consistent units, correct frame of reference, eliminate bias
- ❖ Use maps and graphics AS APPROPRIATE (it isn't always!)
- ❖ Build a case with several data points—tell a story (infographics can be good here)
- ❖ Watch out for technical aspects such as size of files (open data files can get BIG)

RESOURCE: CIVIC DATA IS A GREAT PLACE TO START

Help the [City of Cambridge, MA](#) by hacking their data!

Table Preview

[View Data](#)[Create Visualization](#)

Dataset Name	Problem Statements Rel...	Keywords	URL	api_endpoint
Appliance Large Items Permits	How are appliance large items ...	appliance large items,permits	https://data.cambridgema.gov...	https://data.cambridgema.gov...
Dewatering Permits	How are dewatering permits a...	dewatering,permits,dpw,public...	https://data.cambridgema.gov...	https://data.cambridgema.gov...
Excavation Permits	How are excavation permits sh...	permit,excavation,dig,dpw,pub...	https://data.cambridgema.gov...	https://data.cambridgema.gov...
Temporary Food Service Permits	How are business outside of C...	temporary,food,s		
Catering Permits	How are businesses outside of ...	temporary,food,s		
Swimming Pool Permits	How are swimming pools in th...	swimming,pool,tu		
Food Establishment Permits	Are food establishments active...	food,eating,estab		
Tobacco Licenses without Food...	How are tobacco shops geogra...	tobacco,cigarette		
Mobile Food Truck Permits	How are food trucks geographi...	food,truck,eating,		
Farmer's Market Permits	How are farmer's markets distr...	food,eating,farme		
Demolition Permits	What kinds of buildings are bei...	demolition,demo		
Sheet Metal Permits	What can the kind of sheet met...	sheet,metal,perm		
Solar Installation Permits	What can the dataset suggest a...	solar,panel,const		
Building Permits: New Constru...	Where is most of the new build...	new,construction		



Civic Innovation Challenge Inventory

General Government

Use Cambridge's open data to help our city come up with innovative solutions to its biggest challenges. This dataset lists city issues that you can help us solve by analyzing or hacking on our open data. It's certainly not an exhaustive list, but we hope it will at least point you in the right direction. Feel free to reach out at OpenData@cambridgema.gov with questions or ideas. Thanks for your help. We're glad you're on our team!

< Previous Next >

RESOURCE: PICK WHAT SOUNDS FUN TO YOU!

Maybe the most fun data thing I have ever done:

<https://is.gd/CloughHouseData>

Civic Data Guide - Clough House Catalog

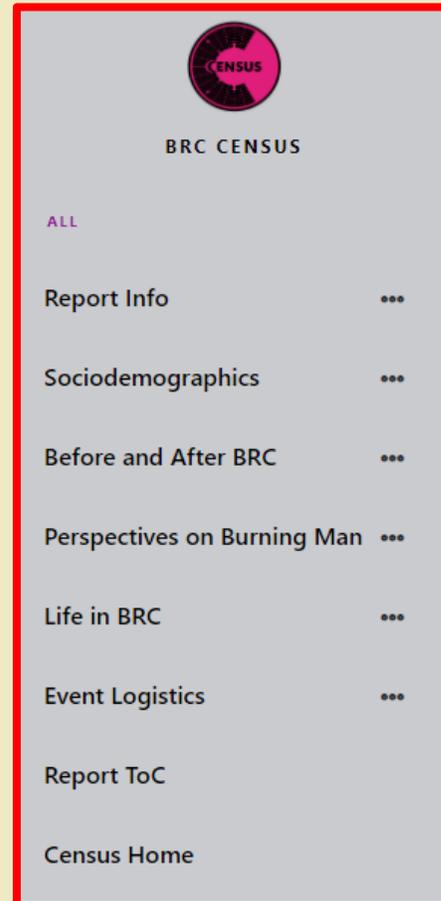
Original purpose and application

These data were collected as part of an archaeological dig behind the Clough House, next to Old North Church. The dig site is important since it has never been built on, so it has been unaffected by development. During the dig, tens of thousands of items were retrieved, which are expected to shed light on the way of life in urban Boston back to the 1700s.

As described on the dataset page in Analyze Boston: "Catalog of archaeological artifacts excavated in 2013 from the rear of the Clough House, 21 Unity St., North End, Boston. Data set created to complete analysis and report of the archaeological survey. Collection spans 1715-1950 and includes colonial artifacts and artifacts from English, Irish, Italian, and other immigrant peoples living in the house after 1800."

Original data set: <https://data.boston.gov/dataset/clough-house-archaeology>

Boston's City Archaeology Program (organization collecting the data):
<https://www.boston.gov/departments/archaeology>



Major League Baseball Stats

<https://www.mlb.com/stats/>

Burning Man Census

<http://blackrockcitycensus.org/index.html>

Credit: [Wsquared Photography](#)

RESOURCE: DATABASIC



DataBasic is a suite of easy-to-use web tools for beginners that introduce concepts of working with data. These simple tools make it easy to work with data in fun ways, so you can learn how to find great stories to tell.



RESOURCE: RAWGRAPHS

RAWGraphs

The missing link between spreadsheets and data visualization.

USE IT NOW!

FORK IT ON GITHUB!

RESOURCE: DATA JUSTICE LAB

•••• Data
•—• Justice
•••• Lab

Critical data literacy tools for advancing data justice:
A guidebook

Jess Brand and Ina Sander

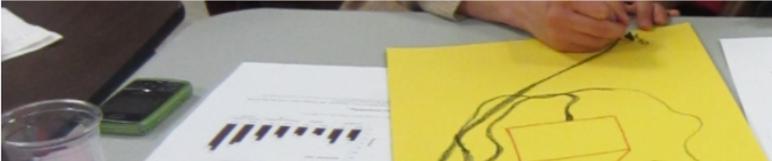


<https://datajustice.files.wordpress.com/2020/06/djl-data-literacy-guidebook.pdf>

RESOURCE: COOL ACTIVITIES FROM DATA THERAPY (WHICH IS PART OF THE DATA CULTURE GROUP)

<https://datatherapy.org/activities/>

Data Therapy



Activities

Here is a list describing many of the activities we run at our workshops. Each links to a page with instructions about how you can use the activity yourself! We tend to pick and choose from this list to fit the goals of each activity.

Part of the Data Culture Project

- [Write a Data Storybook](#) (new!)
- [Build a "Paper Spreadsheet"](#) (new!)
- [Remix an Infographic](#) (new!)
- [Build Data Sculptures](#)
- [Deconstruct a DataViz](#)
- [Convince Diverse Audiences](#)

<https://dataculturegroup.org/>

DATA CULTURE GROUP



- home
- projects
- about
- code

The **Data Culture Group** builds collaborative projects to **interrogate our datified society** with a focus on **rethinking participation and power** in data processes. Led by Professor Rahul Bhargava, we are a part of the [College of Arts, Media and Design](#) at Northeastern University.

Recent Blog Posts

We think out loud, sharing our process and research via blog posts. Consider our blog as our open notebook, full of sketches and under-construction ideas.

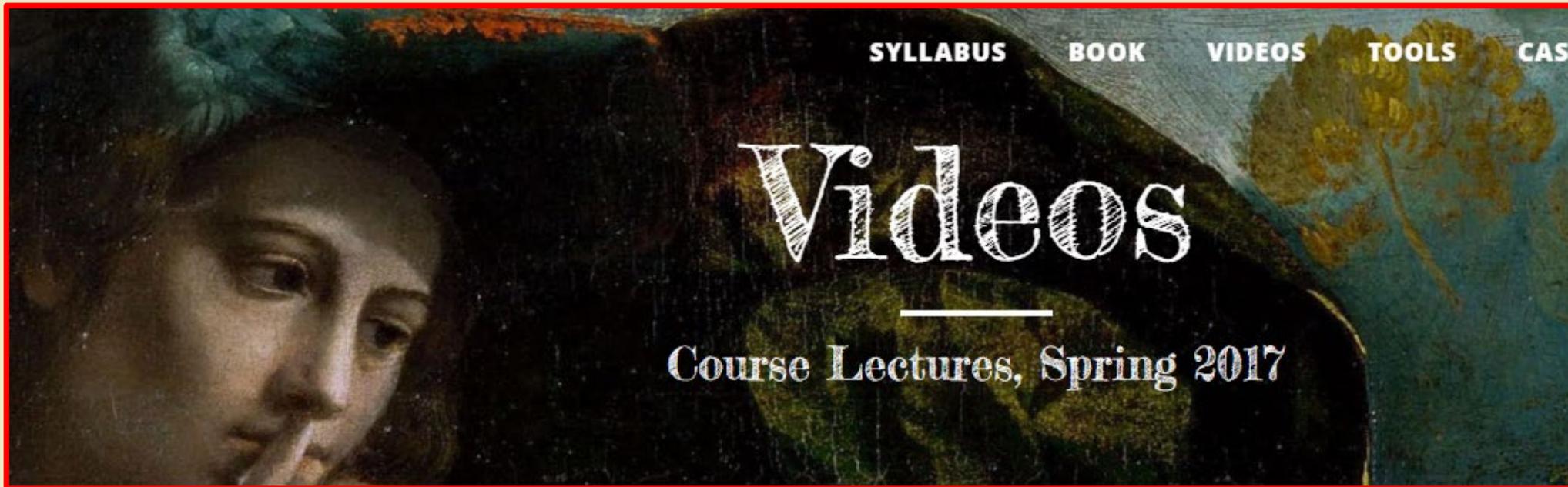


[2020 - Year of the Data Sculpture?](#)

by Rahul Bhargava on May 27, 2021

The hype around data continues unabated, with the processes of quantitative analysis seeping into more and more of our lives. From government policies, to business decision making, quantitative data have become central to a growing part of people's lives. We are presented daily with ch...

RESOURCE: CALLING BULL



<https://www.callingbull.org/videos.html>

QUESTIONS?



Credit: [Todd Huffman](#)



Ready 4 Research by Ann Glusker is licensed under a [Creative Commons Attribution-NonCommercial-ShareAlike 4.0 International License](https://creativecommons.org/licenses/by-nc-sa/4.0/)

Credit: [Berkeley Public Library](https://www.berkeleypubliclibrary.org/)

READY 4 RESEARCH DAY 3

GETTING THE JOB, GAINING SKILLS, TIPS FOR SUCCESS

Preparing to get and make the most of your research assistantship

TODAY'S SESSION

- ❖ Self-assessment and interests
- ❖ Skills to gain/improve on
- ❖ Exploring data activities
- ❖ Exploring the academic literature
- ❖ Exploring library resources
- ❖ Exploring research at Berkeley
- ❖ Finding a position
- ❖ Career stuff- resumes and interviewing
- ❖ On the job
- ❖ Some more data training ideas
- ❖ Alumni speak!
- ❖ Evaluation!

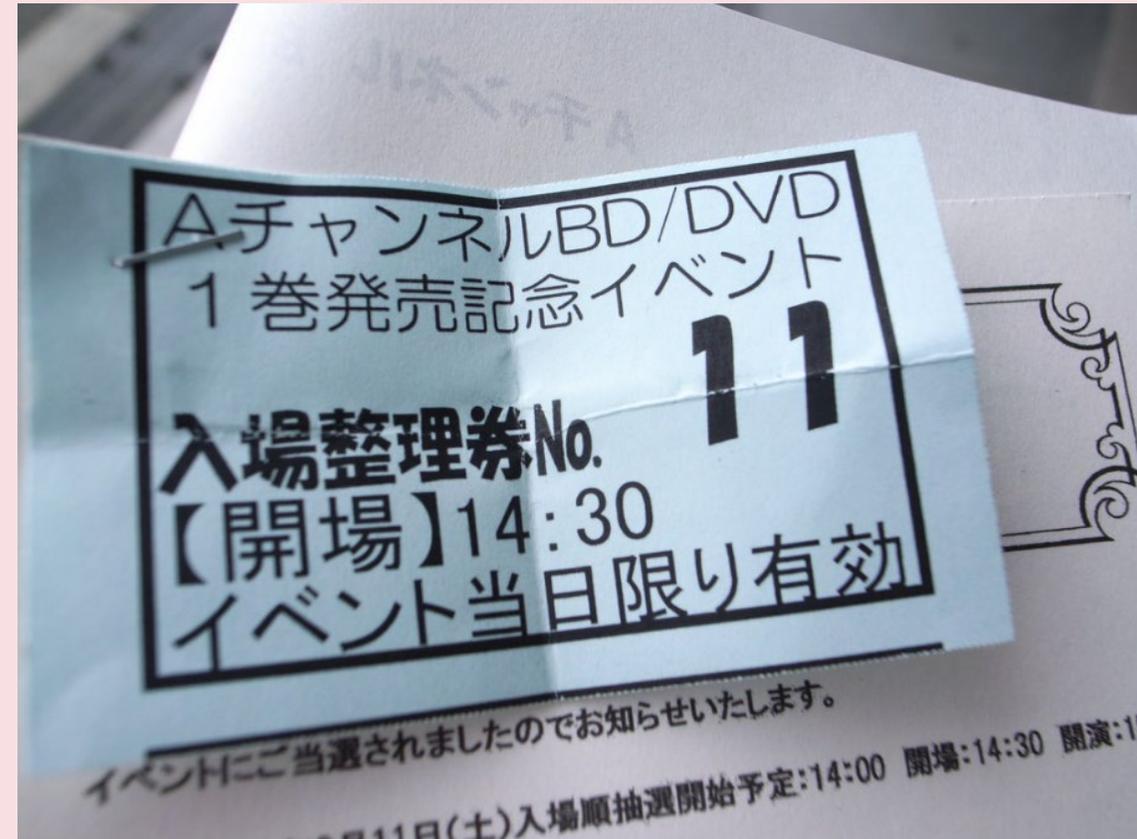


Credit: [Dermot McElduff](#)

START WITH A SELF-ASSESSMENT

Consider the following (No judgment! There are no wrong answers!):

- ❖ Do your goals after Berkeley, if any, include research-type activities? Or, might they help you in the job you want?
- ❖ Do you like to do deep dives into a question? Are you persistent about finding out about things you don't know about?
- ❖ Do you feel up for learning a lot of new skills– and also some chaos and feeling not great at what you're doing?
- ❖ What skills do you feel confident in that you could offer in a research setting?
- ❖ Do you have people who know you well and that you trust who could help you think about this?



Credit: [Toshiyuki Imai](#)

NEXT, THINK ABOUT WHAT INTERESTS YOU

- ❖ You don't have to be interested in the specific topic so much, but it helps to be interested in the discipline in general (like, psychology vs economics— which attracts you?)
- ❖ Are you interested in making big sweeping recommendations for social policy, or are you interested in helping individuals with their lives, or in between?
- ❖ Do you think the process of research and especially working with data are interesting in themselves?
- ❖ Are you interested in using some kinds of information to answer questions, whatever the question? (census data, Twitter, real estate data, etc.)



Credit: [Dennis Sylvester Hurd](#)

NEXT, WHAT SKILLS DO YOU WANT TO/NEED TO GAIN/IMPROVE?

Check out the link for the [sociology research assistant positions](#) from the Day 1 slides, and then consider these questions:

- ❖ If you are thinking about positions where you will be working with data, do you need to get more comfortable with using it?
- ❖ If you are more comfortable using data, are you feeling like you might want to learn R or Python to do analysis?
- ❖ If you think you may be asked to search for articles, are you comfortable using the library resources to do that?
(**LIBRARIANS CAN HELP!!!!**)
- ❖ If you think you may be asked to write a literature review, do you know how to structure that?
- ❖ If you want to manage a bunch of citations, are you comfortable with a tool like Zotero?
- ❖ If you think you may want to present at a conference, do you have a sense of which one, and how to do that?
- ❖ Do you feel OK about your organization and communication skills?



Credit: [Jonas Maaløe](#)

EXPLORE DATA/DATA ANALYSIS

- ❖ We talked a lot about this in the first two days; about exploring ICPSR to look at the data there, and working through some of the exercises; and also about looking at open data and playing around with it
- ❖ You may want to find some research articles on topics you are interested in and see what data they used and how they analyzed it (check out the “Methods” section)
- ❖ DEFINITELY look for publications by any researcher you may be applying to work with! How do they work with their data?
- ❖ Also check out what tools you are seeing— R and Python are common analysis tools for quantitative data, and NVivo and MAXQDA for qualitative data, but Excel is still used heavily, and Tableau is heavily used for data visualization



Credit: [Bill Smith](#)

GAIN SKILLS: DATA ANALYSIS AND METHODS

In addition to the ideas you have already:

- ❖ [D-Lab](#) and the [Library](#) are great sources for workshops related to data
- ❖ Check out offerings in your and other departments; see if there is a research component or an assignment that includes data analysis
- ❖ Here's a [helpful page from UCLA](#) for some tools to seek out
- ❖ For research methods, check out [this page from Syracuse University](#); UC Berkeley Library subscribes to [Sage Research Methods](#)
- ❖ Don't forget [ICPSR](#)! And [LinkedIn Learning](#), also from the Library!
- ❖ Did you know all of Berkeley's [Data 8 is online](#)?
- ❖ See the slides below which have links to data training options
- ❖ Check in with your advisors and mentors about directions of study



Credit: [Eddie~S](#) (Sleep Number mattresses actually have numbers!)

EXPLORE ACADEMIC LITERATURE

- ❖ It will help immensely to have a sense of the academic literature in your field of interest! But how to get up to speed?
- ❖ Starting place— [UC Berkeley Library Research Guides](#)! Check out a range of guides, to see what major journals and databases they suggest you check out
- ❖ Read an overview article, look at an encyclopedia from a discipline, check out the major professional association for that discipline to see if they have a newsletter (for sociology, the [ASA publication Contexts](#) is fantastic), read an introductory textbook (there are a lot that are free online, such as this one on [social sciences research](#))
- ❖ In [Google Scholar](#), find an article that has been cited a lot, and read it to find out what contribution makes it so important... don't know how to do that? ASK A LIBRARIAN! 😊



Credit: [John McLinden](#)

EXPLORE LIBRARY RESOURCES

THIS IS MY FAVORITE SLIDE.

- ❖ There are librarians assigned to every subject at Berkeley! You can email us! We love to help!
- ❖ For a research assistantship, you should basically be familiar with finding books, finding articles, and using library databases. We teach all of these things, and the Research Guides help too.
- ❖ You may want to learn to use a citation manager (Zotero)
- ❖ And you may want to improve your search skills, and learn some Google Scholar tricks— we have ideas for that too!
- ❖ It also helps to see the books- take time to browse the stacks!!!



Credit: Zilupe

GAIN SKILLS: LIBRARY/LITERATURE REVIEW

In addition to the ideas in the slide above, consider:

- ❖ [UC Berkeley Library FAQs](#)— includes widget for 24/7 chat with a librarian, and link for making an appointment
- ❖ This UC Berkeley Library page with [free resources for the social sciences](#)
- ❖ This helpful page with [definitions of “library language”](#)
- ❖ This [UC Berkeley Library guide to fake news](#), including links to fact checkers
- ❖ These resources on writing a literature review:
 - ❖ [Writing for Sociology](#), from the UC Berkeley sociology department
 - ❖ [Writing a social sciences lit review](#), from USC
 - ❖ Blog post: [How and Why to Write a Literature Review](#)



Credit: [Abi Skipp](#)

EXPLORE THE WORLD OF RESEARCH AT BERKELEY

Berkeley
UNIVERSITY OF CALIFORNIA

About- Admissions- Academics- Research- Campus Life-

Research overview

At Berkeley, we address the biggest challenges of the day to create a better world. From robotic legs to the origins of the universe, research at Berkeley crosses disciplines and illuminates new ideas.

Research programs
Browse a complete list of research programs available at Berkeley. From academic departments to remote field stations, research is at the heart of life at Berkeley.

[Faculty expertise database](#)

Libraries
Ranked the No. 1 public research university library in North America, the Berkeley library system includes three main libraries, 18 subject-specialty libraries, and 11 affiliated libraries with special collections. The holdings include more than 10 million book volumes.

RESEARCH NEWS

- ▶ Berkeley Journalism delves into whistleblowing, anniversary of Pentagon papers
- ▶ Berkeley startup aims to be a game changer in autoimmune disease therapy
- ▶ \$1.5 million grant will improve wildfire spotting from the air and space

[More news](#)

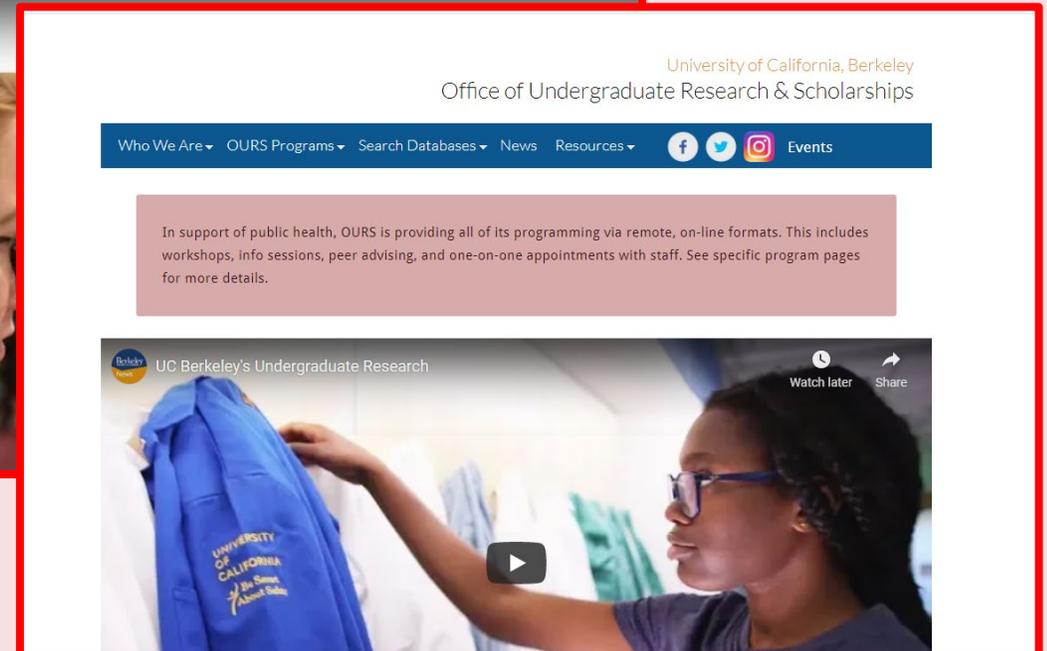
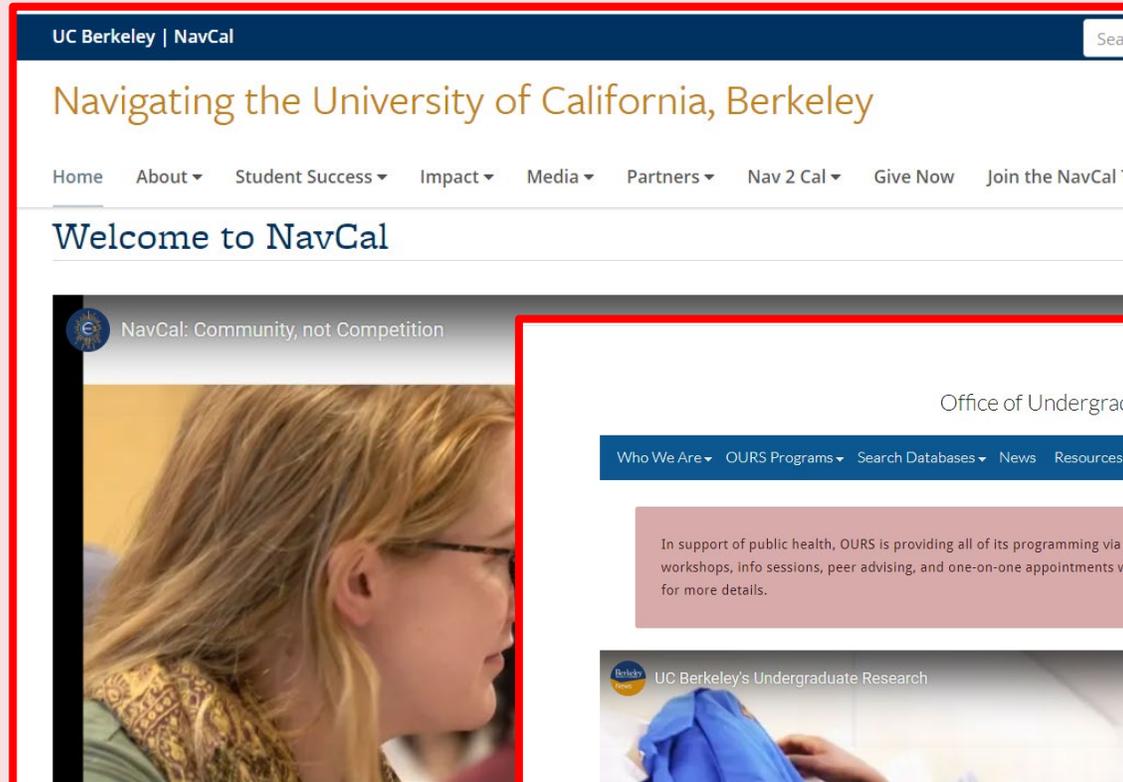
- ❖ The main research overview page is berkeley.edu/research
- ❖ If you click on “Research programs” you can then select “Field of Research”
- ❖ If you see an interesting result, you can click through to the research center’s web page! Take a look at their reports!
- ❖ Also take a look at the Faculty Expertise Database

FINDING A POSITION: START WITH NAVCAL, AND OURS

[NAVCAL is amazing.](#)

And OURS offers peer advising, help finding a faculty mentor, workshops (how to do a research proposal! how to write a professional email!), JOB LISTINGS, and more!

<https://research.berkeley.edu/>



FINDING A POSITION: URAP!

Even if you find something else, the URAP page is still really interesting for learning more about social sciences research at Berkeley!

<https://uraprojects.berkeley.edu/projects/list.php?category=7>

The screenshot shows a web browser window with the URL <https://uraprojects.berkeley.edu/projects/list.php?category=7>. The page features the UC Berkeley Library logo and the URAP (undergraduate research apprentice program) logo. The main heading is "Project Descriptions Fall 2021". A sidebar on the left lists various academic categories. The main content area displays project descriptions for "Social Sciences", "Agricultural and Resource Economics", "Anthropology", and "Architecture".

Category	Project Descriptions
Arts and Humanities	<u>Social Sciences</u> : open to applicants: 42 Faculty/Mentors
Biological and Health Sciences	Agricultural and Resource Economics
Digital Humanities and Data Science	Jeremy Magruder, Professor Agricultural and Resource Economics (1) Meet Your Future: Job Search Effort & Aspirations of Young Jobseekers (Open) (2) The Ugandan Shecession (Open)
Education, Cognition and Psychology	Anthropology
Engineering, Design and Technologies	Christine Hastorf, Professor Anthropology (1) Plant use in early agricultural societies in the Titicaca Basin, Bolivia. (Open) (2) Visualizing the past: 3D visual display of archaeological material related to food from a Formative settlement in the Lake Titicaca Basin (Open) (3) Plant Foods and Firewood from the North American Southwest (Open) (4) Central American Plant Use in the Past: Archaeobotanical Analysis of Resilient Foodways (Full- no new appr needed)
Environmental Issues	Architecture
Mathematical and Physical Sciences	Lindsay Graham, Research Specialist Architecture
Social Sciences	

FINDING A POSITION: MORE IDEAS

- ❖ Check out the offerings from Career Services (more below)
- ❖ Contact a professor/researcher who is doing work you're interested in
- ❖ Look for undergraduate fellowships
- ❖ Find out about the different institutes and research activities happening at Berkeley (more above)
- ❖ Look at departmental websites for the departments you are interested in, and see if there are listings, or talks you could attend (or watch online)
- ❖ Sign up for listservs in disciplines you are interested in (you could even become a member of the professional organization— student memberships are usually inexpensive (relatively))
- ❖ Consider doing an honors thesis
- ❖ Consider independent research for credit



Most of the ideas here come from the Columbia University article, "[Finding an Undergraduate Research Position](#)".

RESUME WRITING, INTERVIEWING

- ❖ Check out the Career Center!
- ❖ Get friends, teachers, strangers to look at your resume and give comments
- ❖ Same with your cover letter... and also...
- ❖ Be sure the cover letter and resume are tailored to the job!
- ❖ And see if you can do a practice interview! Take and watch a video of it (it hurts, but it's helpful)
- ❖ Also, think of who you might ask for a recommendation

UC Berkeley Library

Berkeley UNIVERSITY OF CALIFORNIA | Career Center

Search

MENU

HOME > UNDERGRADS

Welcome to the Career Center!
There are many ways to get started. Find yourself here!

By Class / Population

- [Freshmen & Sophomores](#)
- [Juniors & Seniors](#)
- [International Students](#)
- [Affinity Groups](#)

By Interest - I want to...

Jobs & Internships

- [Find a job or internship](#)
- [Learn about internships and externships](#)
- [Write a resume or cover letter](#)
- [Improve my interviewing skills](#)

Career Planning

- [Develop a career plan](#)
- [Learn about different careers](#)
- [See what I can do with my major](#)
- [Become career ready](#)
- [Go to graduate or professional school](#)

Career Center Services

- [Make an appointment](#)
- [Go to career fairs](#)
- [Go to workshops and events](#)
- [Get email from the Career Center](#)

Handshake

- Access 1000s of jobs/internships
- RSVP for Career Center events
- Schedule a counseling appointment

For Cal students & eligible alumni

LOG IN to Handshake >>

Tweets by @CalCareerCenter

Cal Career Center @CalCareerCenter
Just posted a photo [instagram.com/p/CRjq0zwhCrm/...](#)
Jul 20, 2021

Cal Career Center Retweeted
KQED Forum @KQEDForum
Forum wants to hear from YOU:
Are you recent high school or college graduate starting a job or looking for one?
? What has been your experience searching for your first job?
[forms.gle/MLJS4HbRFKELQz...](#)
Or
Email: forum@kqed.org
Voice memo: 415-553-3300 #career #Jobs #work

Forum First Jobs Survey
KQED's morning call-in ra...
[docs.google.com](#)

YOU GOT THE JOB! NOW WHAT?

Credit: Excerpts from the [University of Connecticut's RA Tips for Success](#)— check it out! Also the wonderful [Research Thesis Handbook](#) from UC Irvine

- ❖ **Learn the culture** – Every research and work environment is different. Take time to observe and ask questions in your first days and weeks to learn the norms.
- ❖ **Seek feedback** – Assessment of your performance and constructive feedback on areas for growth is important. Everyone provides feedback differently. When starting a new position, ask about performance evaluations
- ❖ **Ask questions** – This is how you learn, but keep the number of questions within reason. Limit your questions to those of substance and relevance.
- ❖ **Maintain a positive attitude** – Smile and say hello! This goes a long ways towards improving your likeability, as everyone appreciates a friendly face and positive attitude.
- ❖ **Be responsible and reliable** – Arrive on-time (or even a little early!) to your scheduled shifts and to meetings, and don't miss work. Learning time management skills, such as balancing academic and research commitments, is part of the experience.
- ❖ **Be honest and acknowledge difficulties** – In research, as in life, things will go wrong. Being honest about the difficulties you encounter and the errors you make builds a foundation of trust with your research colleagues and will allow them to help you troubleshoot the situation. Honesty is key to the responsible and ethical conduct of research.
- ❖ **Avoid distractions** – Turn off your phone and stay off social media while at work. Facebook can wait, as can texts from friends. Don't assume that no one will notice that you're checking your phone and sending texts throughout your scheduled shift.
- ❖ **Keep it clean** – Avoid informal language and inappropriate conversations –you want your mentor to take you seriously and view you as a future colleague, not a hard-partying student.

GETTING YOUR WORK OUT THERE

❖ Journal articles

❖ Blog posts

❖ Twitter

❖ Conference presentations

❖ Posters

❖ And more— ask your researcher what is the standard in their field!

Stony Brook University | Undergraduate Research & Creative Activities

HOME ABOUT URECA FOR STUDENTS FOR FACULTY SUMMER PROGRAMS URECA CELEBRATION RESEARCHERS

Home > For Students > Get Published

For Students

- GETTING STARTED
- MENTORS: WHERE TO LOOK
- FAQS ABOUT RESEARCH
- GET FUNDING
- GET CREDIT
- GET PUBLISHED**
- FIND CONFERENCES
- GIVING POSTER PRESENTATIONS & TALKS
- OTHER AWARD OPPORTUNITIES

Get Published

On-campus

Have you thought about joining **Stony Brook Young Investigators Review** ? Check to see if Staff writers/editors are needed.

New opportunity (fall 2020): **SBU Brookologue** - new online undergraduate journal for humanities and social sciences

Beyond the SB campus

Other forums include:

The Journal of Undergraduate Research and Scholarly Excellence

JUR is supported by the Office for Undergraduate Research and Artistry in the Institute for Learning and Teaching at Colorado State University. The journal combines undergraduate and faculty involvement to create a cooperative approach to the peer review process and is registered with the Library of Congress. Since we accept submissions from all disciplines of undergraduate study and from any accredited institution of higher education, JUR is a truly unique journal.

The Journal of Undergraduate Studies

JUS welcomes submissions from undergraduates at any level who are engaged in research in any scientific or science-related discipline. Articles are reviewed by an academic board appropriate to the field of research (e.g., Molecular & Cellular Biology). The Editors will determine the suitability of an article for publication based on the comments and recommendations of the academic board.

The National Journal of Young Investigators

An on-line faculty and student reviewed, peer edited and published, national journal whose staff is composed of undergraduate students from diverse academic institutions across the country.

Discussions - Undergraduate Research Journal of Case Western Reserve University

Credit: [Stony Brook University](https://www.stonybrook.edu)

YET MORE DATA TRAINING IDEAS: FIRST STEPS...

Credit: [Andy Roberts](#)

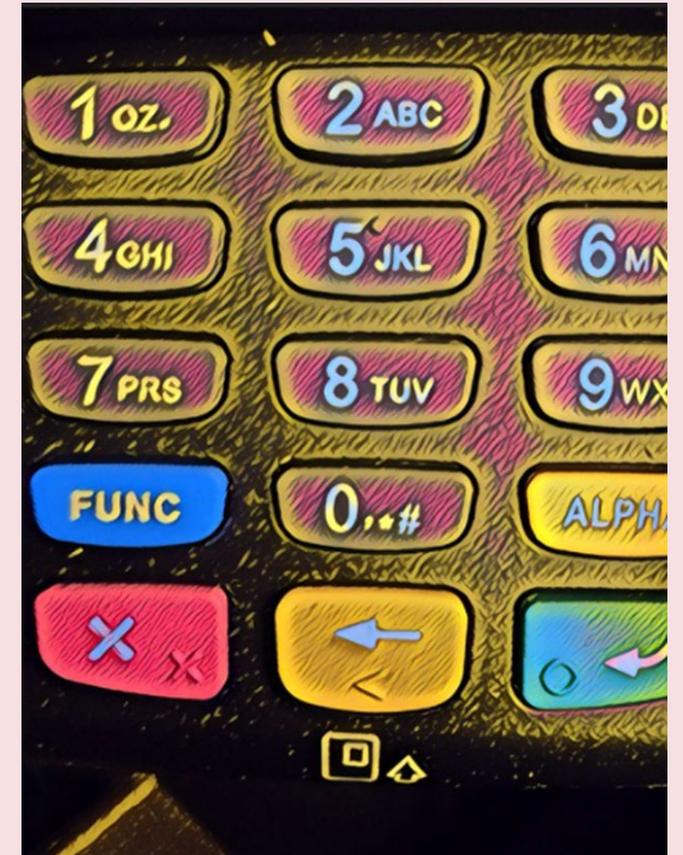
- ❖ Data Equity for Main Street <https://data-equity.org/>
- ❖ Coursera, edX and other MOOCs (the levels may vary!)
- ❖ LinkedIn Learning (available through UC Berkeley Library!)
- ❖ You can also start with basic statistics or even numeracy/math courses rather than starting with data, such as https://onlinecourses.science.psu.edu/statprogram/review_of_basic_statistics or <https://www.ipracticemath.com/learn/basicmath>
- ❖ Or look for resources for specific topic areas, such as Basic Data Analysis for Health Programs <https://www.measureevaluation.org/resources/training/capacity-building-resources/basic-data-analysis-for-health-programs>



YET MORE DATA TRAINING IDEAS: NEXT STEPS...

Credit: [Damian Gadal](#)

- ❖ School of Data <https://schoolofdata.org/>
- ❖ Data Journalism Handbook
<http://datajournalismhandbook.org/1.0/en/index.html>
- ❖ Open Data Institute <https://theodi.org/courses>
- ❖ Open Data Handbook <http://opendatahandbook.org/resources/>
- ❖ Data 101 <https://www.neighborhoodindicators.org/data-tech/course-catalog/data-101-data-visualization-data-literacy-and-storytelling>
- ❖ And, there are many online courses related to research data management—contact me if you want to know more



YET MORE DATA TRAINING IDEAS: AN EXCITING EXAMPLE:

How the NYT did data training with journalists:

<https://open.nytimes.com/how-we-helped-our-reporters-learn-to-love-spreadsheets-adc43a93b919>

A drive with all their files! (link from article)

https://drive.google.com/drive/u/0/folders/1ZS57_40tWuIB7tV4APVMmTZ-5PXDwX9w

“The training is rigorous. Based in Google Sheets, it starts with beginner skills like sorting, searching and filtering; progresses to pivot tables; and ends with advanced data cleaning skills such as if and then statements and vlookup. Along the way, we discuss data-friendly story structures, data ethics and how to bulletproof data stories. We also invite speakers from around The Times, including the CAR team, Graphics and the Interactive News team, to talk about how they report with data.”

Credit: [Dave Herholz](#)



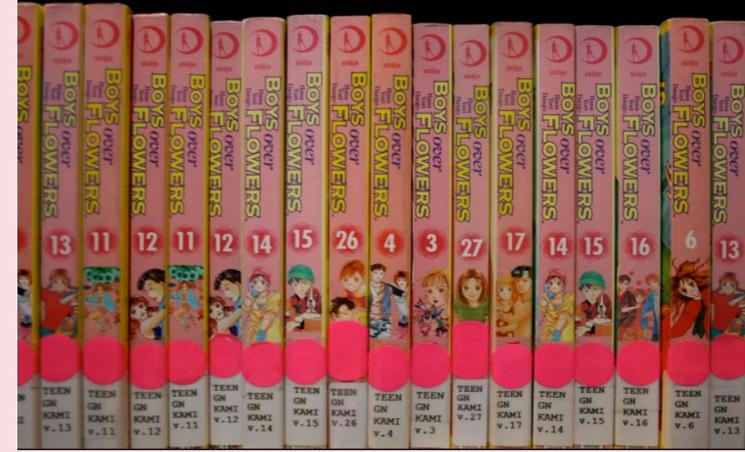
ALUMNI SPEAK: “WHAT I LEARNED FROM BEING AN RA”

- ❖ “I learned how to delegate work & direct a team, while adjusting to my own & my teams needs. I learned how to adjust a research question when the data did not appear as originally expected. I learned how to clean data with R.”
- ❖ “Ask questions, be curious, and teach others what you did.”
- ❖ “I learned that research comes in many different forms. Moreover, I learned what research is like on a daily basis and the work required.”
- ❖ “I realized that I like to be told what to do for a research project rather than being independent and having a lot of time to improvise.”
- ❖ “To be much more self-directed.”
- ❖ “Communication skills.”

Quotes from an informal survey (using a Google Form) of students who had RA jobs at Berkeley



Credit: [Phuong Nguyen](#)



ALUMNI SPEAK: “WHAT I WISH I’D KNOWN”

- ❖ “1. Be flexible; 2. Expect the project not to go as planned; 3. Keep an open line of communication with your team.”
- ❖ “Literally everything; I had no prior experience or knowledge of what a research assistant does, i.e. responsibilities, time commitments.”
- ❖ “1. If things don't go as planned, don't stress but adapt; 2. Ask questions, even if they were already explained; 3. Meet the professors and get to know your fellow researchers.”
- ❖ “What the type of work is like, and what research could look like in different fields, especially social sciences.”
- ❖ “How to use Zotero, how to write a detailed literature review, how to organize all your readings.”
- ❖ “The key thing is do you have a supportive mentor and team? Be sure they are committed to your growth, and how is the communication.”
- ❖ “Preparation, network, and organization.”

ALUMNI SPEAK: “IS THERE ANYTHING YOU WOULD DO DIFFERENTLY?”

- ❖ “No, I don’t think so. I wish I would have been better at delegating work & communicating with my team early on, but I feel like I developed those skills as time went on. I feel like the challenges with the data helped us as a team to learn to navigate the research processes, so although it was difficult, it was definitely worth the experience.”
- ❖ “My opportunity was amazing and the graduate student's project was really interesting.”
- ❖ “I would have spoken to everyone on my research team before accepting the position because if I don't get along with everyone it'll be hard to collaborate or feel comfortable to ask questions.”
- ❖ “Interview the mentor.”
- ❖ “Look for a teamwork project.”



Credit: [Willard](#)

ALUMNI SPEAK: MORE COMMENTS!

- ❖ “I appreciated this experience & would encourage anyone who wants to enter research to be open to the experience, to share your strengths with your team leads, to be willing to try something new, & to be okay with “failing”. Research is about learning together & growing as a team & individual. There’s no wrong solution or wrong hypothesis. Different ideas are encouraged & help with problem solving.”
- ❖ “I would love to know how to find positions that directly correlate with ones own passion in research. How does one go about finding these opportunities?” (Answer—see slides above!) 😊
- ❖ “I think for me the hardest part was finding a research position. I feel so lucky to have been given one through NavCal. However, in previous years I tried becoming an assistant and applied but was never chosen. I think helping students understand what would make them a competitive research assistant would be helpful.”
- ❖ “Being flexible about projects.”



Credit: [Jolyon Russ](#)

QUESTIONS?

Thank you for being the first cohort to take this workshop! We really want to improve it, so pleeeeeeeez fill out this evaluation!

<https://is.gd/Ready4Research> (link no longer live)

Credit: [Vin on the Move](#)

