HBSC 7041: Research Design in Health & Behavioral Sciences[*]
Spring 2023, King Center 201 Tues 3:30pm–6:20pm

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Course Description

Catalog version – This course is designed to provide you with a working knowledge of research design in the health and behavioral sciences. You will develop the skills necessary to conduct research using a variety of research methods and to critically assess research in your field. Throughout the semester, you will use your acquired knowledge to transform your research ideas into research questions and to develop a sound and appropriate research design to answer those questions.

Section proviso – Often, these types of courses focus solely on the "nuts and bolts" of how social scientists conduct research. We'll address that along the way, but we will also spend (approximately equal amounts) of time on two additional elements: (1) In considering the utility of any research method, we also need to consider the logic(s) that underlies them. This will help us be able to critically evaluate their applications, develop strategies to select the most appropriate from existing alternatives, and if necessary, design new approaches that are consistent with our aims. That is, we'll aim to develop an understanding of the *principles* alongside the practices of research design. (2) We will also devote considerable attention to various practicalities of the research process (documentation, reviewing, proposals, etc.). This "meta-knowledge" about research design can be as important to successful research as is knowing why and how to use the items in a social scientist's research toolkit.

Objectives

By the end of the course you should be able to:
1. Develop research interests into questions, and (where appropriate) testable hypotheses;
2. Understand the primary epistemological aims in social science research, and how those relate to research design elements;
3. Demonstrate familiarity with the primary research strategies employed by social scientists, including the ability to evaluate their strengths/weaknesses for addressing specific (types of) research questions;
4. Describe core elements of causality, measurement, and sampling;
5. Assess, design, and manage high quality survey data;
6. Write more clearly than when you started this course.

Course Organization

Readings – ALL readings are listed on the course calendar and are either (a) readily available online (e.g., JSTOR, EBSCO, etc.) or (b) will be posted to Canvas as noted (**C**).

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[*] This syllabus benefited greatly from syllabi/materials for similar courses taught by Sara Yeatman (UCD), Ryan Light (Oregon), Barbara Entwisle (UNC), Jim Moody (Duke), Jenny Trinitapoli (Chicago), and Jocelyn Viterna (Harvard). I would like to acknowledge their influence in developing this course.

Tentative Calendar Overview (subject to change)

Date	Topic	Assignment Due	Discussion Leader
17 Jan	1. Research Epistemologies *		
24 Jan	2. Causality & Experiments		EB
31 Jan	3. Sampling	GRFP Personal	EM
7 Feb	4. Measurement		GM
14 Feb	5. Ethics *	CITI Training	NR
21 Feb	6. Talking as Data	Research Questions	GM
28 Feb	7. Watching as Data		EB
7 Mar	8. Data Management & Visualization *		NR
14 Mar	9. Mixed Methods et al	GRFP Research	EM
21 Mar	NO CLASS – Spring Break		
28 Mar	10. Computational Social Science		GM
4 Apr	11. Grant Proposals & Reviewing *		
11 Apr	12. Workflow & Replication *		EB
18 Apr	Take Home Exam	Exam (dates TBD)	
25 Apr	13. Time		EM
2 May	14. Miscellany, Alt, Adaptive Methods		NR
9 May	Finals Week	Full Proposal	

Course Requirements & Grading

Seminar Structure: First and foremost, this course is organized as a seminar. *This means that you will need to come to each class session having completed assigned readings and prepared to discuss the ideas they represent.* Please note, the course (and its readings) is not meant to complete your methodological training, but to paint with broad brushstrokes the outlines from which you will continue to develop these skills.[1] Frequently, the assigned readings will constitute more than you can reasonably complete in the time allotted. As you continue in your career, you will find this often to be the case. As such, you should develop a strategy for reading carefully until you can extract the key elements from a reading, then skim from there. If helpful, here's a post on what you should be reading for in academic articles to assist in streamlining that process - http://www.jessicacalarco.com/tips-tricks/2018/9/2/beyond-the-abstract-reading-for-meaning-in-academia.

Requirements (& grade contribution)
I – Participation (20%) As mentioned above, this course is designed as a seminar, which requires your active participation to be successful. As such, part of your course grade will reflect your contributions to class sessions. In practice, this will involve 2 primary elements:
   A. Active Engagement (5%): The first is a set of baseline expectations – everyone should: do the reading, be in class (on time and don't leave early), contribute to discussions (i.e., not on your phone/computer), and contribute to group activities. A portion of your grade will therefore reflect your active contributions to class meetings.
   B. Discussion Leader (15%): You will each be responsible for leading a portion of class discussion on 3 occasions. Leading discussion for our purposes will consist of 2 primary elements:

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[1] It may seem like I went completely overboard on recommended additional readings, here. I probably did. But the idea is that this syllabus will be a resource to you in the future when you need to take a deeper dive into any of these topics as you put them to use in your own research.

2

1. extract a "common set" of key principles and practices represented across the day's readings that comprise the research design element that is the focus for the day; and
2. highlight why those are thought to be useful for answering social scientific research questions (NOTE that the readings may provide conflicting points of view).

Your presentations can be as (in-)formal as you like, but should not be a point-by-point recount of the readings. Instead, it should provide a means to facilitate parts of the class discussion. I will often provide some introductory questions to get the ball rolling, so your aim with these should be to find a number of possibilities to keep the conversation (appropriately) going.

NOTE: You have been semi-randomly assigned dates for these presentations (see calendar above), but are welcome to exchange between yourselves (please notify me of any trades at least a week in advance).

II – Proposal (35%): The culmination of this course will require you to develop a research proposal for a project of your own. Various components of this proposal will be due throughout the semester, asking you to: identify a clear and possible research question, write a mini literature review, develop hypotheses (as appropriate), present in-progress elements of your project, and design an appropriate research strategy to address that question. The primary product of this will be a grant proposal structured for submission to an appropriate agency. Some examples:

- AHRQ R36: https://www.ahrq.gov/funding/training-grants/r36.html
- NIH F31: https://researchtraining.nih.gov/programs/fellowships/F31
- NSF DDRIG: https://www.nsf.gov/funding/pgm_summ.jsp?pims_id=505057 (cultural anthropology), general (https://www.nsf.gov/funding/programs.jsp?org=SBE)
- ASA DDRIG: http://bit.ly/3ihORNd (sociology)
- Other formats as pre-approved.

III – Assignments (45%): You will complete a number of in-class and homework exercises across the semester. These will be of varied length & weighting to your course grade. These will include periodic in-class reflections/writing prompts, and:

1. (15%) Elements of an NSF-GRFP proposal, intended as preliminary drafts for portions of your final proposal.
2. (20%) A "near"-term take-home exam.
   NOTE: Depending on collective course performance and familiarity with material, this *may* be replaced with several smaller assignments.
3. (10%) Two article critiques. These are meant as chances for you to reflect on what is and is not appropriate about the components of the research design in empirical articles. In about 2 pages, summarize the research design elements *pertinent to that day's topic*, and assess how those principles are/not demonstrated appropriately in the study's design. In particular, your critique should (primarily):
   a. Describe the justification for the method employed in the article.
   b. Identify any particular strengths/weaknesses of that method for answering the reading's research question(s).
   c. In light of your answers to a & b, assess whether improved/alternative methods are likely to obtain similar results to those from the published version.
   NOTE: Only readings marked with a caret (^) on the course calendar are eligible for this assignment. In the outline, an asterisk (*****) denotes days with *no* eligible articles (i.e., plan ahead!).

Final Grade Computation:
All grades will be recorded as letter grades or equivalents (i.e., A=4, B+=3.3, etc.). Final grades will be computed as a weighted average (as specified) over each of the required components.

Grading Expectations:
Participation, presentation, and paper grades you earn will reflect how thoroughly your work demonstrates the particular assignment requirements *and* overall course aims, which will correspond to the following sets of expectations:

- **F**   Work that **fails to address** an assignment's **minimum requirements** will earn grades in the F range.
- **D**   Work that **incompletely addresses** an assignment's **minimum requirements** will earn grades in the D range.
- **C**   Work that **addresses only** an assignment's **minimum requirements** will earn grades in the C range.
- **B**   Work that, in addition to meeting an assignment's minimum requirements, also *occasionally* reflects **appropriate application** of previous course content in ways that ***meet* course objectives** will earn grades in the B range.
- **A**   Work that, in addition to meeting an assignment's minimum requirements, also *consistently* reflects **appropriate application** of previous course content in ways that ***exceed* course objectives** will earn grades in the A range.

A Note about Grading:
Grades in grad school should not be your focus. If you do well on each of the components described above, you will earn grades in the A/B (passing) range. If your work doesn't meet the requirements described above, you will earn grades of C or below (not passing). If you find yourself struggling, please meet with me sooner rather than later.

Course and College Policies

Course Communication:
- *The Syllabus* has answers to the most common questions pertaining to the course. Be sure check the syllabus first, before asking me about due-dates, assignment requirements, etc. An up-to-date version of the syllabus will be maintained on Canvas.
- *Canvas* will be used to turn in all written assignments for this course. I will also post readings that are not readily available to Canvas (denoted w/ (**C**) on course calendar).
- *E-mail* should be used for quick communications (things that can be responded to in no more than a few sentences); use office hours for anything requiring more depth. You should only use your UCD email account for communication related to this course; I will not read/reply to emails from your personal accounts (e.g., Yahoo!, Gmail, etc). Please consider e-mail as subject to the same standards of communication as you would all other forms written material in this course (i.e., you should use complete sentences, proper punctuation, etc.). I will typically respond to email within 48 hours. **I will *NOT, under any circumstances* discuss grades over email.**
- *Office Hours* are available to add to your experience in this course. Please make use of them. These are meant to supplement required course work and in-class elements. As such, while I am happy to discuss course materials or other aspects of sociology/academia in general with you during this time, they should not be viewed as an opportunity to ask, "What did I miss in class?" (You should find peers in the class with whom you can share notes for that purpose.)

Assignments: Formatting, Due Dates & Late Work Policies:

In this course, *all* assignments are to be submitted as attachments (.doc, .docx, .pdf, .pages) via Canvas. Please use 12 point Times New Roman or 11 point Calibri font, double spaced with 1" margins, and include page numbers. All written material should be properly referenced in a consistent format (APA, ASA, APHA, or AAA are all acceptable). All assignments are due no later than the beginning of the class period noted in the outline above. Many of our assignments will be used for in-class exercises, meaning their timely completion is important for in-class engagement. As such, any late assignments will lose 25% if 0-24h late, 50% if 24-48h late, and will not be accepted after 2 days. Since there are multiple opportunities to complete them throughout the semester, *no* late reading critiques will be accepted.

Electronic Devices:
You are welcome to use laptops/tablets in this course for class purposes only. Any other uses will lead you to lose this privilege. All other devices (phones, etc.) should be silenced for the duration of class.

Academic Dishonesty:
This is a graduate course. As such, standards of academic honesty should be abundantly clear to you by now. Any documented Academic Dishonesty will result in failure for the course. Don't risk it. Cite your sources, etc. Be sure you have read and understand the CLAS policy below. **If you have questions, ask.**

CLAS Academic Dishonesty Policy: Students are required to know, understand, and comply with the CU Denver Academic Dishonesty Policy as detailed in the Catalog and on the CLAS website. A university's reputation is built on a standing tradition of excellence and scholastic integrity. As members of the University of Colorado Denver academic community, faculty and students accept the responsibility to maintain the highest standards of intellectual honesty and ethical conduct. Academic dishonesty consists of plagiarism, cheating, fabrication and falsification, multiple submission of the same work, misuse of academic materials, and complicity in academic dishonesty. If you are not familiar with the definitions of these offenses, go to http://www.ucdenver.edu/academics/colleges/CLAS/faculty-staff/policies/HandlingAcademicDishonesty/Pages/Definition-of-Academic-Dishonesty.aspx .

Disability Services Information:
The University of Colorado Denver is committed to providing reasonable accommodation and access to programs and services to persons with disabilities. Students with disabilities who want academic accommodations must register with Disability Resources and Services (DRS) in Academic Building 1, #2116, Phone: 303-315-3510, Fax: 303-315-3515. Website: http://www.ucdenver.edu/student-services/resources/disability-resources-services/Pages/disability-resources-services.aspx. I will be happy to provide approved accommodations, once you provide me with a copy of DRS's letter.

Detailed **Reading List**

0. Reading Resources

Since we are not using a textbook for this class, here are a few good "overview" sources that may prove useful to have on your shelf (roughly in the order I'd recommend their usefulness). I will mention others in the recommended readings in the calendar where they are especially helpful for particular topics.

- Bernard, H. Russell. 2013. *Social Research Methods: Qualitative and Quantitative Approaches* (2nd Edition). anthropologist, comprehensive, *very* common grad text
- Leong, Frederick T. & James T. Austin. 2005. *The Psychology Research Handbook: A Guide for Graduate Students and Research Assistants*. SAGE. psychologists, comprehensive, handbook, shelf-useful

- Khan, Shamus and Fisher, Dana R. (eds). 2014. *The Practice of Research: How Social Scientists Answer their Questions*. Oxford UP. sociologists, reflective about methods, complementary text
- Hargittai, Eszter (ed). 2009. *Research Confidential: Solutions to Problems Most Social Scientists Pretend They Never Have*. Michigan UP. multi-disciplinary, reflective about methods, complementary text
- Luker, Kristin (ed). 2010. *Salsa Dancing into the Social Sciences: Research in an Age of Info-glut*. Harvard UP. sociologist, critical of "canonical" methods, complementary text
- Singleton, Royce A. Jr., and Bruce C. Straits. 2017. *Approaches to Social Research* (6th Edition). Oxford UP. sociologists, comprehensive, *very* common text
- Carr, Deborah et al. 2018. *The Art and Science of Social Research* W.W. Norton & Co. sociologists, comprehensive, undergrad-oriented text

Tentative Course Schedule
==Please Note, this schedule is subject to change – all changes will be announced in class.== Required readings are generally listed in the order I would recommend approaching them.

1. January 17 – Research Epistemologies & Overview
Assignment Due – Bring "exemplar" methods article with you to class for discussion.

Required Readings –
- **(C)** Bernard, H. Russell. 2013. "About Social Science." Chapter 1 in *Social Research Methods: Qualitative and Quantitative Approaches* (2nd Edition). SAGE.
- **(C)** Booth, Wayne C., Gregory G. Colomb, and Joseph M. Williams. 2008. "From Topics to Questions." Chapter 3 in *The Craft of Research* (3rd Edition). Chicago UP.
- **(C)** Stinchcombe, Arthur L. 1987. "The Logic of Scientific Inference." Chapter 2 in *Constructing Social Theories*. Chicago UP.
- Schwartz, M. "The importance of stupidity in scientific research." 2008. *Journal of Cell Science 121: 1771.*

Recommended Additional Readings –
- Alvesson, Mats and Jörgen Sandberg. 2011. "Generating Research Questions through Problematization." *Academy of Management Review* 36(2): 247-271.
- Becker, Howard S. 2007. *Telling About Society*. Chicago UP.
- Becker, Howard S. 2017. *Evidence*. Chicago UP.
- Bryman, A. 1984. "The Debate about Quantitative and Qualitative Research: A Question of Method or Epistemology?" *The British Journal of Sociology* 35(1): 75–92.
- Bryman, Alan. 2007. "The Research Question in Social Research: What is its Role?" *International Journal of Social Research Methodology* 10(1): 5-20.
- Freese, Jeremy, and David Peterson. 2018. "The Emergence of Statistical Objectivity: Changing Ideas of Epistemic Vice and Virtue in Science." *Sociological Theory* 36(3): 289-313.
- Little, Daniel. 1991. *Varieties of Social Explanation: An Introduction to the Philosophy of Social Science*. Westview Press.
- Martin, John Levi. 2017. *Thinking through Methods*. Chicago UP.
- McIntyre, Alice. 2008. *Participatory Action Research*. #52 in QRMS Series, SAGE.
- Stinchcombe, Arthur L. 2005. *The Logic of Social Research*. Chicago UP.
- Stebbins, Robert A. 2001. *Exploratory Research in the Social Sciences*. #48 in QRMS Series, SAGE.

2. January 24th – Causality
Required Readings –

- Hernán MA, Robins JM. 2020. "A Definition of Causal Effect." Chapter 1 in *Causal Inference: What If.* Chapman & Hall/CRC. Available at - https://www.hsph.harvard.edu/miguel-hernan/causal-inference-book/
- **(C)** Shelley Correll, 2014 "Experimentation: Constraints into Preferences: Gender, Status, and Emerging Career Aspirations." Chapter 1 in Khan & Fisher (eds.) *The Practice of Social Research.* Oxford UP.
- ^ Pager, D. 2003. "The Mark of a Criminal Record." *American Journal of Sociology* 108:937-975.
- Winship, Christopher and Stephen L. Morgan. 1999. "The Estimation of Causal Effects from Observational Data." *Annual Review of Sociology* 25:269-706.
- ^ Colen, Cynthia and David Ramey. 2014. "Is Breast Truly Best? Estimating the Effects of Breastfeeding on Long-term Child Health and Well-being in the United States using Sibling Comparisons." *Social Science and Medicine* 109: 55-65.

Recommended Additional Readings –
- Abbott, Andrew. 1998. "The Causal Devolution." *Sociological Methods & Research.* 27(2): 148-181.
- Abbott, Andrew. 2004. "Explanation." Chapter 1 in *Methods of Discovery: Heuristics for the Social Sciences*. W.W. Norton & Co.
- adams, jimi. 2020. "What are COVID-19 Models Modeling?" https://thesocietypages.org/specials/what-are-covid-19-models-modeling/.
- Baldassarri, Delia & Maria Abscal. 2017. "Field Experiments across the Social Sciences." *Annual Review of Sociology* 43:41-73.
- Baron, Reuben M. and David A. Kenny. 1986. "The moderator-mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations." *Journal of Personality and Social Psychology* 51(6):1173-82.
- Buzbas, Erkan O., Berna Devezer, & Bert Baumgaertner. 2022. "The logical structure of experiments lays the foundation for a theory of reproducibility." bioRxiv 2022.08.10.503444; https://doi.org/10.1101/2022.08.10.503444
- Cunningham, Scott. 2021. *Causal Inference: The Mixtape.* Yale UP. Available from - https://mixtape.scunning.com/.
- **(C)** Freese, Jeremy and J. Alex Kevern. 2013. "Types of Causes." Chapter 3 in Stephen L. Morgan (ed.). *Handbook of Causal Analysis for Social Research.* Springer.
- Geddes Barbara. 1990. "How the cases you choose affect the answers you get: selection bias in comparative politics." *Political Analysis* 2: 131-150.
- Glasgow, R. 2008. "What types of evidence are most needed to enhance behavioral science?" *Annals of Behavioral Medicine* 35:19-25.
- Goldthorpe, John H. 2001. "Causation, Statistics and Sociology." *European Sociological Review* 17(1): 1-20.
- Harris, Kathleen Mullan, Carolyn Tucker Halpern, Andrew Smolen, and Brett C. Haberstick. 2006. "The National Longitudinal Study of Adolescent Health (Add Health) Twin Data." *Twin Research and Human Genetics* 9(6): 988-997.
- Hernán MA, Robins JM. 2020. *Causal Inference: What If.* Chapman & Hall/CRC. Available at - https://www.hsph.harvard.edu/miguel-hernan/causal-inference-book/
- Jackson, Michelle and D.R. Cox. 2013. "The Principles of Experimental Design and their Application in Sociology." *Annual Review of Sociology* 39: 27-49.
- Jeffries, Neal et al., 2019. "Methodological Approaches to Understanding Causes of Health Disparities." *AJPH* 109(S1):S28-S33.
- Leifer, Eric M. 1992. "Denying the Data: Learning from the Accomplished Sciences." *Sociological Forum* 7(2): 283-299.

- Lieberson, Stanley. 1985. *Making it Count: The Improvement of Social Research and Theory*. California UP.
- Lucas, Jeffrey W. 2003. "Theory-Testing, Generalization, and the Problem of External Validity." *Sociological Theory* 21(3): 236-253.
- Morgan, Stephen L. and Christopher Winship. 2007. *Counterfactuals and Causal Inference*: *Methods and Principles for Social Research.* Cambridge UP.
- Pilgrim, C.C, Schulenberg, J.E., O'Malley, P.M., Bachman, J.G., & Johnston, L.D. 2006. "Mediators and moderators of parental involvement on substance use: A national study of adolescents." *Prevention Science* 7: 75-89.
- Rubin, Mark & Chris Donkin. 2022. "Exploratory hypothesis tests can be more compelling than confirmatory hypothesis tests." *Philosophical Psychology*. doi: 10.1080/09515089.2022.2113771
- Smith, Gordon C.S. and Jill P. Pell. 2003. "Parachute Use to Prevent Death and Major Trauma Related to Gravitational Challenge: Systematic Review of Randomized Controlled Trials." *BMJ* 327(7429): 1459–1461.
- Spiegelman D and X Zhou. 2018. "Evaluating public health interventions: Causal inference for time-invariant interventions." *American Journal of Public Health* 108(9):1187-1190.
- West, S.G., et al. 2008. "Alternatives to the randomized controlled trial." *American Journal of Public Health*, 98: 1359-1366.
- Yeh, Robert W. et al. 2018. "Parachute Use to Prevent Death and Major Trauma When Jumping from Aircraft: Randomized Controlled Trial." *BMJ* 363: k5094.
- York, Richard & Ryan Light. 2017. "Directional Asymmetry in Sociological Analyses." *Socius* (3).

3. January 31st – Sampling

Assignment Due – GRFP Personal Statement

Required Readings –
- **(C)** Babbie, Earl R. 2011. "The Logic of Sampling." Excerpts from Chapter 7 in *The Practice of Social Research* 12th edition. Thomson
- Small, Mario Luis. 2009. "How Many Cases do I Need? On Science and the Logic of Case Selection in Field-Based Research." *Ethnography* 10(1): 5-38.
- Pearce, Lisa. 2002. "Integrating Survey and Ethnographic Methods for Systematic Anomalous Case Analysis." *Sociological Methodology* 32(1): 103-132.
- Elwert, Felix and Christopher Winship. 2014. "Endogenous Selection Bias: The Problem of Conditioning on a Collider Variable." *Annual Review of Sociology* 40:31-53. *(focus on section 5, skim rest)*

One of the following:
- ^ Small, Mario L., Robert A. Manduca, and William R. Johnston. 2018. "Ethnography, Neighborhood Effects, and the Rising Heterogeneity of Poor Neighborhoods across Cities." *City & Community* 17(3): 565-589.
- ^ Masters, Ryan K., Daniel A. Powers, and Bruce G. Link. 2013. "Obesity and US Mortality Risk Over the Adult Life Course." *American Journal of Epidemiology* 177(5): 431-442.

Recommended Additional Readings –
- Abbott, Andrew. 1992. "What do Cases Do? Some Notes on Activity in Sociological Analysis." Chapter 2 in Charles Ragin and Howard S. Becker (eds.) *What is a Case? Exploring the Foundations of Social Inquiry*. Cambridge UP.
- adams, jimi, James Moody, Stephen Q. Muth & Martina Morris. 2012. "Quantifying the benefits of link-tracing designs for partnership network studies." *Field Methods* 24(2): 175-193.

- Anglewicz, Philip, jimi adams, Francis Obare, Hans-Peter Kohler and Susan C. Watkins. 2009. "The Malawi Diffusion and Ideational Change Project 2004-06: Data Collection, Data Quality and Analyses of Attrition." *Demographic Research* 20(21):503-40.
- *AJE* – see comments & replies to Masters et al. (2013) in: 2013, 178(2): 320-323; 2014, 179(4): 529-532; 2017, 185(6): 409-413, & https://www.colorado.edu/sociology/sites/default/files/attached-files/full_response.pdf
- Couper, Mick P. 2017. "New Developments in Survey Data Collection." *Annual Review of Sociology* 43: 121-145.
- Frank, Kenneth A., Qinyun Lin, Ran Xu, Spiro Maroulis, & Anna Mueller. 2022. "Quantifying the robustness of causal inferences: Sensitivity analysis for pragmatic social science." *Social Science Research* (in press) https://doi.org/10.1016/j.ssresearch.2022.102815.
- Salganik, Matthew J. and Douglas D. Heckathorn. 2004. "Sampling and Estimation in Hidden Populations using Respondent-Driven Sampling." *Sociological Methodology* 108(5): 937-975.
- Spaeth, Joe L. and Diane P. O'Rourke. 1996. "Design of the National Organizations Study." Chapter 2 in Kalleberg, Knoke, Marsden, and Spaeth *Organizations in America: Analyzing their Structures and Human Resource Practices.* SAGE.

4. February 7th – Measurement

Required Readings –
- **(C)** Dixon, Jeffrey C., Royce A. Singelton Jr., and Bruce C. Straits. 2016. "Measurement." Chapter 5 in *The Process of Social Research*. Oxford UP.
- Podsakoff, Philip M., Scott B. MacKenzie, Jeong-Yeon Lee, and Nathan P. Podsakoff. 2003. "Common Method Biases in Behavioral Research: A Critical Review of the Literature and Recommended Remedies." *Journal of Applied Psychology* 88(5): 879-903. (focus especially on the discussion surrounding Tables 2 & 3)
- ^ Idler, Ellen L., Shawna V. Hudson, and Howard Leventhal. 1999. "The meanings of self-ratings of health: A qualitative and quantitative approach." *Research on Aging* 21(3): 458-476.
- Zhao, Kino. 2022. "Measuring the non-existent: validity before measurement." http://philsci-archive.pitt.edu/21443/

One of the following:
- ^ Nnko, Soori, J. Ties Boerma, Mark Urassa, Gabriel Mwaluko and Basia Zaba. 2004. "Secretive Females or Swaggering Males? An Assessment of the Quality of Sexual Partnership Reporting in Rural Tanzania." *Social Science & Medicine* 59:299-310.
- ^ Brewer, Devon D., John Potterat, J., Sharon B. Garrett, Stephen Q. Muth, John M. Roberts, Danuta Kasprzyk, Daniel E. Montano and William W. Darrow. 2000. "Prostitution and the Sex Discrepancy in Reported Number of Sexual Partners." *Proceedings of the National Academy of Sciences* 97(22):12385-88.

Recommended Additional Readings –
- Abbott, Andrew. 1997. "Seven Types of Ambiguity." *Theory and Society* 26(2/3): 357-591.
- Bearman, Peter and Paolo Parigi. 2004. "Cloning Headless Frogs and Other Important Matters: Conversation Topics and Network Structure." *Social Forces* 83(2):535-57.
- **(C)** Becker, Howard S. 1998. "Concepts." Chapter 4 in *Tricks of the Trade: How to Think about your Research While You're Doing It.* Chicago UP.
- Boerma, J. Ties, Elizabeth Holt and Robert Black. 2001. "Measurement of Biomarkers in Developing Countries: Opportunities and Problems." *Population and Development Review* 27(2):303-14.
- Campbell, Donald T. and Donald W. Fiske. 1959. "Convergent and Discriminant Validation by the Multitrait-Multimethod Matrix." *Psychological Bulletin* 56(2): 81-105.

- Duran Deborah, Yukiko Asada, Joseph Millum, and Misrak Gezmu. 2019. "Harmonizing Health Disparities Measurement." *AJPH* 109(S1): S25-S27.
- Finke, Roger and Christopher D. Bader (eds.). 2017. *Faithful Measures: New Methods in the Measurement of Religion*. New York UP.
- Freedman, Vicki A., Hakan Aykan, and Morton H. Kleban. 2003. "Asking Neutral Versus Leading Questions: Implications for Functional Limitation Measurement." *Journal of Aging and Health* 15(4): 661-687.
- Gelman, A. and H. Stern. 2011. "The difference between 'significant' and 'not significant' is not itself statistically significant." *The American Statistician*. 60(4): 328-331.
- McPherson, Miller, Lynn Smith-Lovin, and Matthew E. Brashears. 2006. "Social Isolation in America: Changes in Core Discussion Networks over Two Decades." *American Sociological Review* 71: 353-375. See also the follow-ups in *ASR:* 2009, 74(4) 657-669, 670–681, & 2013, 78(3): 339-360.
- Monk, Ellis P. 2015. "The Cost of Color: Skin Color, Discrimination, and Health among African-Americans." *American Journal of Sociology* 121(2): 396-444.
- Morse, J.M., Barrett, M., Mayan, M. Olson, K., and Spiers, J. 2002. "Verification Strategies for Establishing Reliability and Validity in Qualitative Research." *International Journal of Qualitative Methods* 1(2): 13-22.
- Plummer, M.L., Ross, D.A., Wight, D., et al. 2004. "'A bit more truthful': The validity of adolescent sexual behavior data collected in rural northern Tanzania using five methods." *Sexually Transmitted Infections* 80(s2): ii49-ii56.
- Panofsky, Aaron and Catherine Bliss. 2017. "Ambiguity and Scientific Authority: Population Classification in Genomic Science." *American Sociological Review* 82(1): 59-87.

5. February 14th – Ethics

Assignment Due – CITI Training

Required Readings –
- Blee, Kathleen M. and Ashley Currier. 2011. "Ethics Beyond the IRB: An Introductory Essay." *Qualitative Sociology* 34:401-413.
- Hoeyer, Klaus, Lisa Dahlager and Niels Lynöe 2005. "Conflicting Notions of Research Ethics: The Mutually Challenging Traditions of Social Scientists and Medical Researchers." *Social Science & Medicine* 61(8): 1741-1749.
- Varmus, Harold and David Satcher. 1997. "Ethical Complexities of Conducting Research in Developing Countries." *New England Journal of Medicine* 337: 1003-1005.
- Goldberg, Daniel. 2017. *Public Health Ethics and the Social Determinants of Health*. Springer Briefs. (available from Auraria Library)
- Pater, Jessica, Casey Fiesler, & Michael Zimmer. 2022. "No Humans Here: Ethical Speculation on Public Data, Unintended Consequences, and the Limits of Institutional Review." *Proceedings of the ACM Human-Computing Interaction*. 6(38).

Recommended Additional Readings –
- **(C)** ASA. 2018. "Code of Ethics." Retrieved online Aug 1, 2018.
- AAA. 2012. "Principles of Professional Responsibility." https://ethics.americananthro.org/category/statement/
- Angotti, Nicole, Kim Yi Dionne and Lauren Gaydosh. 2010. "An Offer You Can't Refuse? Provider-Initiated HIV Testing in Antenatal Clinics in Rural Malawi." *Health Policy and Planning* 26(4):307-15.
- Bader, Michael D. M., Stephen J. Mooney, and Andrew G. Rundle. 2016. "Protecting Personally Identifiable Information when Using Online Geographic Tools for Public Health Research." *American Journal of Public Health* 106(2): 206-207.
- Barth, Fredrik and Colin Turnbull. 1974. "On Responsibility and Humanity: Calling a Colleague to Account." & Reply. *Current Anthropology* 15(1):99-103.

- Bayer, R. 2008. "Stigma and the ethics of public health: Not Can We but Should We." *Social Science & Medicine.* 67: 463-472.
- boyd, danah and Kate Crawford. 2014. "Critical Questions for Big Data: Provocations for a Cultural, Technological, and Scholarly Phenomenon." *Information, Communication & Society* 15(5): 662-679.
- Erikson, Kai T. 1967. "A Comment on Disguised Observation in Sociology." *Social Problems* 14(4): 366-373.
- Graboyes, Melissa. 2015. *The Experiment Must Continue: Medical Research and Ethics in East Africa, 1940-2014.* Ohio UP.
- Jerolmack, Colin and Alexandra Murphy. 2017. "The Ethical Dilemmas and Social Scientific Trade-offs of Masking in Ethnography." *Sociological Methods & Research,* Online first doi - 10.1177/0049124117701483
- Khan, Shamus. 2018. "The Subpoena of Ethnographic Data." *Sociological Forum,* Online first doi - 10.1111/socf.12493
- Neal, Zachary P. & Jennifer Watling Neal. 2017. "'We didn't say that': Challenges in the public dissemination of a research finding with controversial implications." *American Journal of Community Psychology* 60: 424-429.
- Nordling, Linda. 2020. "Who Gets to Study Whom?" *Sapiens* https://www.sapiens.org/culture/anthropology-colonial-history/
- Oh, Jeong Hyun, Yeatman Sara, and Jenny Trinitapoli. 2019. "Data collection as disruption: Insights from a longitudinal study of young adulthood." *American Sociological Review* 84(4), 634–663.
- Resnick, Brian and Julia Belluz. 2018. "A top Cornell food researcher has had 15 studies retracted. That's a lot." *Vox.com.* Retrieved from - https://www.vox.com/science-and-health/2018/9/19/17879102/brian-wansink-cornell-food-brand-lab-retractions-jama on Jan 21, 2019.
- Tripp, Aili Mari. 2018. "Transparency and Integrity in Conducting Field Research on Politics in Challenging Contexts." *Perspectives on Politics* 16(3): 728-738.
- US Government. 2022 (updated). "The Common Rule" & "Human Subjects Research." Accessible from https://www.ecfr.gov/current/title-45/subtitle-A/subchapter-A/part-46.

6. February 21st – Talking as Data

Assignment Due – Research Questions

Required Readings –
- Schaeffer, Nora Cate and Stanley Presser. 2003. "The Science of Asking Questions." *Annual Review of Sociology* 29:65-88.
- Jerolmack, Colin and Shamus Khan. 2014. "Talk is Cheap: Ethnography and the Attitudinal Fallacy." *Sociological Methods & Research* 43(2): 178-209.
- **(C)** Lareau, Annette. 2021. *"*How to Conduct a Good Interview: Dig Deep." Chapter 5 in *Listening to People: A Practical Guide to Interviewing, Participant Observation, Data Analysis, and Writing It All Up.* Chicago UP.
- ^ **(C)** Hargittai, Eszter. 2019. "Survey Research: Digital Na(t)ives? Variation in Internet Skills and Uses among Members of the "Net Generation" Chapter 2 in Khan & Fisher (eds.) *The Practice of Social Research.* Oxford UP.
- ^ Trinitapoli, Jenny and Sara Yeatman. 2011. "Uncertainty and Fertility in a Generalized AIDS Epidemic." *American Sociological Review* 76(6): 935-954.

Recommended Additional Readings –
- *SM&R* 43(2) – See Commentaries on "Talk is Cheap" from Maynard, Cerulo, Vaisey & DiMaggio; rejoinder from Jerolmack & Khan.
- Bernard, H. Russell. 2013. "Interviewing I: Unstructured & Semi-Structured." & "Questionnaires." Chapters 8-9 in *Social Research Methods: Qualitative and Quantitative Approaches* (2nd Edition). SAGE.
- Bignami-Van Assche, Simona. 2003. "Are We Measuring What We Want to Measure? Individual Consistency in Survey Response in Rural Malawi." *Demographic Research* S1(3):77-108.

- Brenner, Philip S. 2017. "Narratives of Response Error from Cognitive Interviews of Survey Questions about Normative Behavior." *Sociological Methods & Research* 46(3): 540-564.
- Frye, Margaret and Jenny Trinitapoli. 2015. "Ideals as Anchors: A Subjective and Sequential Approach to Understanding Romantic Relationships." *American Sociological Review* 80(3): 496-525.
- Gerson, Kathleen & Sarah Damaske. 2020. *The Science and Art of Interviewing.* OUP.
- Grol-Prokopczyk, Hanna, Jeremy Freese, Robert M. Hauser. 2011. "Using Anchoring Vignettes to Assess Group Differences in General Self-Rated Health." *Journal of Health and Social Behavior* 52: 246-261.
- Mensch, Barbara S., Paul C. Hewett, Heidi E. Jones, Carla Gianni Luppi, Sheri A. Lippman, Adriana A. Pinho, Juan Diaz. 2008. "Consistency in Women's Reports of Sensitive Behavior within an Interview Mode Experiment, São Paulo, Brazil." *International Family Planning Perspectives* 34(4): 169-176.
- Miller, Peter V. 2017. "Is There a Future for Surveys?" *Public Opinion Quarterly* 81(S1): 205-212.
- Nyandieka, L.N.; Bowden, A.; Wanjua, J.; and J.A. Fox-Rushby. 2002. "How to do (or not to do). Managing a household survey: a practical example from the KENQOL." *Health Policy and Planning* 17(2): 207-212.
- Parrado, E.A., McQuiston, C., & Flippen, C.A. 2005. "Participatory survey research: Integrating community collaboration and quantitative methods for the study of gender and HIV risks among Hispanic migrants." *Sociological Methods and Research*, *34*, 204-239.
- Payne, Stanley Le Baron. 2014. *The Art of Asking Questions: Studies in Public Opinion*, 3rd Edition. Princeton UP.
- Weiss, Robert S. 2008. *Learning From Strangers: The Art and Method of Qualitative Interview Studies.* Free Press.
- Yabiku, Scott T., Jennifer E. Glick, Elizabeth A. Wentz, Dirgha J. Ghimire, and Qunshan Zhao. 2017. "Comparing Paper and Tablet Modes of Retrospective Activity Space Data Collection." *Survey Research Methods* 11(3): 329-344.

7. February 28th – Watching as Data

Required Readings –
- Goffman, Erving. 1989. "On Fieldwork." *Journal of Contemporary Ethnography* 18(2): 123-132.
- Desmond, Matthew. 2014. "Relational Ethnography." *Theory & Society* 43:547-579.
- ^ Hoang, Kimberly Kay. 2014. "Competing Technologies of Embodiment: Pan-Asian Modernity and Third World Dependency in Vietnam's Contemporary Sex Industry." *Gender & Society.* 28(4): 513-536.
- ^ Gibson, David R. 2003. "Participation Shifts: Order and Differentiation in Group Conversation." *Social Forces* 81(4):1335-1381.
- Duneier, Mitch. 2006. "Ethnography, the Ecological Fallacy, and the 1995 Chicago Heat Wave." *American Sociological Review* 71: 679-688.
- Klinenberg, Eric. 2006. "Blaming the Victims: Hearsay, Labeling, and the Hazards of Quick-Hit Disaster Ethnography." *American Sociological Review* 71: 689-698.

Recommended Additional Readings –
- Bourgois, Phillipe. 1998. "Just another Night in a Shooting Gallery." *Theory, Culture & Society* 15(2):37-66.
- Burawoy, Michael. 1998. "The Extended Case Method." *Sociological Theory* 16(1): 4-33.
- Burawoy, Michael 2003. "Revisits: An Outline of a Theory of Reflexive Ethnography." *American Sociological Review* 68:645-679.
- Corbin, Juliet and Anslem Strauss. 1990. "Grounded Theory Research: Procedures, Canons, and Evaluative Criteria." *Qualitative Sociology* 13(1): 3-18.
- Duneier, Mitchell. 2011. "How not to Lie with Ethnography." *Sociological Methodology* 41(1): 1-11.
- Geertz, Clifford. 1973. "Thick Description: Toward an Interpretive Theory of Culture." Pp. 3-30 in *The Interpretation of Cultures: Selected Essays by Clifford Geertz.* Basic Books.
- Katz, Jack. 1997. "Ethnography's Warrants." *Sociological Methods and Research* 25: 391-421.

- Lofland, John and Lyn H. Lofland. 1984. *Analyzing Social Settings: A Guide to Qualitative Observation and Analysis.* Wadsworth.
- Nippert-Eng, Christena. 2015. *Watching Closely: A Guide to Ethnographic Observation*. Oxford UP.
- Small, Mario & Jessica Calarco. 2022. *Qualitative Literacy: A Guide to Evaluating Ethnographic and Interview Research.* University of California Press.
- Sullivan, Esther. 2017. "Displaced in Place: Manufactured Housing, Mass Eviction, and the Paradox of State Intervention." American Sociological Review 82(2): 243-269.
- Tavory, I. & S. Timmermans. 2014. Abductive Analysis: Theorizing Qualitative Research. Chicago UP.

8. March 7th – Data Management & Visualization

Required Readings –

- Rossman, Gabriel. 2010. "Introduction to Stata Programming." Retrieved from http://gabrielr.bol.ucla.edu/stataprogramming.pdf on Jan 21, 2019.
- Börner, Katy, Andreas Bueckle, and Michael Ginda. 2019. "Data Visualization Literacy: Definitions, Conceptual Frameworks, Exercises, and Assessments." *PNAS* 116(6): 1857-1864.
- Healy, Kieran and James Moody. 2014. "Data Visualization in Sociology." *Annual Review of Sociology* 40: 105-128. (see also - https://kieranhealy.org/blog/archives/2014/08/05/a-visualization-error/)
- Matejka, Justin and George Fitzmaurice. 2017. "The Datasaurus Dozen" or "Same Stats, Different Graphs: Generating Datasets with Varied Appearance and Identical Statistics through Simulated Annealing." *ACM SIGCHI*. Available from - https://www.autodeskresearch.com/publications/samestats

Recommended Additional Readings –

- Börner, Katy, and Ted Polley. 2014. *Visual Insights: A Practical Guide to Making Sense of Data*. MIT Press.
- https://datavizproject.com/
- Dixon, BE et al., 2021. "Leveraging data visualization and a statewide health information exchange to support COVID-19 surveillance and response: Application of public health informatics." *Journal of the American Medical Informatics Association* 28(7): 1363–1373.
- Healy, Kieran. 2019. *Data Visualization: A Practical Introduction.* Princeton UP. https://socviz.co/
- Lynch, Michael. 1991. "Pictures of Nothing? Visual Construals in Social Theory." *Sociological Theory* 9(1): 1-21.
- Tufte, Edward. 2001. *The Visual Display of Quantitative Information,* 2nd Ed. Graphics Press.
- Wickham, Hadley. 2010. "Tidy Data." *Journal of Statistical Software* 59(i10).
- *Socius* – See various "Data Visualization" articles - https://journals.sagepub.com/articles/srd

9. March 14th – Mixed Methods, Secondary Data, & Triangulation

Assignment Due – GRFP Research Statement

Required Readings –

- Small, Mario L. 2011. "How to conduct a mixed methods study: Recent trends in a rapidly growing literature." *Annual Review of Sociology* 37:57-86.
- Leech, Nancy L. and Anthony J. Onwuegbuzie. 2009. "A typology of mixed methods research designs." *Quality & Quantity* 43(2): 265-275.
- ^ Shariff-Marco, Salma et al.,. 2009. "A Mixed-Methods Approach to Developing a Self-Reported Racial/Ethnic Discrimination Measure for Use in Multiethnic Health Surveys." *Ethnicity & Disease* 19:447-53.
- ^ Desmond, Matthew. 2012. "Eviction and the Reproduction of Urban Poverty." *American Journal of Sociology* 118(1): 88-133.

- **(C)** Freese, Jeremy. 2009. "Secondary Analysis of Large Social Surveys." Chapter 12 in Hargittai (ed.) *Research Confidential*. Michigan UP.

Recommended Additional Readings –
- Axinn, William G. and Lisa D. Pearce. 2006. *Mixed Method Data Collection Strategies.* Cambridge UP.
- Bader, Michael D. M., Stephen J. Mooney, Yeonjin Lee, Kathryn M. Neckerman, Andrew G. Rundle, and Julien O. Teitler. 2015. "Development and Deployment of the Computer Assisted Neighborhood Visual Assessment System (CANVAS) to Measure Health-Related Neighborhood Conditions." *Health & Place* 31: 163-172.
- Daniel, Caitlin. 2016. "Economic Constraints on Taste Formation and the True Cost of Healthy Eating." *Social Science & Medicine* 148: 34-41.
- Onwuegbuzie, Anthony J. and Nancy L. Leech. 2005. "On becoming a pragmatic researcher: The importance of combining quantitative and qualitative research methodologies." *International Journal of Social Research Methodology* 8(5): 375-387.
- Stewart M, Makwarimba E, Barnfather A, Letourneau N, Neufeld A. 2008. "Researching reducing health disparities: mixed-methods approaches." *Social Science and Medicine* 66(6):1406-17.
- Tarrant, Anna & Kahryn Hughes. 2019*. Qualitative Secondary Analysis*. SAGE Publications.

March 21st – No Class – Spring Break

10. March 28th – Computational Social Science

Required Readings –
- Lazer, David et al., 2009. "Life in the Network: The Coming Age of Computational Social Science." *Science* 323(5915): 721-723.

Pick any ***three:***
- ^ (Big Data / Data Science) Brayne, Sarah. 2017. "Big Data Surveillance: The Case of Policing." *American Sociological Review* 82(5): 977-1008.
- (Social Networks) Vest Ettekal, Andrea & jimi adams. 2022. "Applications of Social Network Analysis in Developmental Science." Chapter in forthcoming *Handbook of Research Methods in Developmental Science*, Second Edition Douglas M Teti, Hobart Harrington Cleveland, Kelly L Rullison (eds.) Wiley. Available at SSRN: https://ssrn.com/abstract=4231406.
- ^ (Simulation) Schelling, Thomas C. 1969. "Models of Segregation." *American Economic Review* 59(2): 488-493.
- (Systems Dynamics) Homer, Jack B. & Gary B. Hirsch. 2006. "Systems Dynamics Modeling for Public Health: Background and Opportunities." *AJPH* 96(3): 452-458.
- (Text Analysis) Grimmer, Justin, & Brandon Stewart. 2013. "Text as Data: The Promise and Pitfalls of Automatic Content Analysis Methods for Political Texts." *Political Analysis* 21(3), 267-297.

Recommended Additional Readings –
- adams, jimi, David R. Schaefer, and Thomas W. Valente (eds.) 2017. "Networks & Health." Special Issue of *Network Science* 5(3).
- Bruch, Elizabeth and Jon Atwell. 2015. "Agent-Based Models in Empirical Social Research." *Sociological Methods & Research* 44(2): 186-221.
- DiMaggio, Paul. 2015. "Adapting Computational Text Analysis to Social Science (and Vice Versa). *Big Data & Society* 2(2); doi: 10.1177/2053951715602908
- González-Bailón, Sandra, Ning Wang, Alejandro Rivero, Javier Borge-Holthoefer and Yamir Moreno. 2014. "Assessing the Bias in Samples of Large Online Networks." *Social Networks* 38: 16-27.

- Halloran, M. Elizabeth et al. 2008. "Modeling Targeted Layered Containment of an Influenza Pandemic in the United States. *PNAS* 105(112): 4639-4644.
- Hoffer, Lee D., Georgiy Bobashev, and Robert J. Morris. 2009. "Researching a Local [Denver] Heroin Market as a Complex Adaptive System." *American Journal of Community Psychology* 44(3-4): 273-286.
- McFarland, Daniel, Kevin Lewis and Amir Goldberg. 2016. "Sociology in the Era of Big Data: The Ascent of Forensic Social Science." *American Sociologist* 47(1): 12-35.
- Salganik, Matthew J. 2018. *Bit by Bit: Social Research in the Digital Age.* Princeton UP.
- SICSS – Summer Institutes for Computational Social Science. All course materials are online at - https://compsocialscience.github.io/summer-institute/2018/teaching-learning-materials.
- Tracy, Melissa, Magdalena Cerdá, and Katherine M. Keyes. 2018. "Agent-Based Modeling in Public Health: Current Applications and Future Directions." *Annual Review of Public Health* 39: 77-94.
- Valente, Thomas W. and Stephanie R. Pitts. 2017. "An Appraisal of Social Network Theory and Analysis as Applied to Public Health: Challenges and Opportunities." *Annual Review of Public Health* 38:103-118.
- Wagner-Pacifici, Robin, John W. Mohr, and Ronald L. Breiger. 2015. "Ontologies, Methodologies, and New Uses of Big Data in the Social and Cultural Sciences." *Big Data and Society* 2(2); doi: 10.1177/2053951715613810

11. April 4th – Proposals & Reviewing

Required Readings –
- **(C)** Stewart Tolnay. 2008. "A Beginner's Guide to the World of Research Grants for Sociologists" Retrieved from http://faculty.washington.edu/tolnay/proposalguide.pdf, on Jan 16, 2019.
- Lynn White. 2005. "Writes of Passage: Writing an Empirical Journal Article." *Journal of Marriage and Family* 67(4): 791-798.
- **(C)** Trietsch, Carolyn. 2019. "A Beginner's Guide to the Peer Review System." *Inside Higher Education."* Retrieved from - http://www.insidehighered.com/blogs/gradhacker/beginner%E2%80%99s-guide-peer-review-system, on Jan 20, 2019.

Recommended Additional Readings –
- **(C)** NIH Scoring Systems & Guides.
- Aly, Mariam, Eliana Colunga, Molly Crockett, Matthew Goldrick, Pablo Gomez, Franki Y. H. Kung, Paul McKee, et al. 2022. "Changing the Culture of Peer Review for a More Inclusive and Equitable Psychological Science." PsyArXiv. December 15. doi:10.31234/osf.io/435xz.
- Becker, Howard S. 1986. *Writing for Social Scientists: How to Start and Finish your Thesis, Book, or Article.* Chicago UP.
- Cope, Bill and Mary Kalantzis. 2009. "Signs of Epistemic Disruption: Transformations in the Knowledge System of the Academic Journal." *First Monday* 14(4):6.
- Franco, Annie, Neli Malhotra, and Gabor Simonovits. 2014. "Publication Bias in the Social Sciences: Unlocking the File Drawer." *Science* 345(6203): 1502-1505.
- Jones, James Holland. "Grant Advice: DDIG Specific Advice." [NSF Dissertations] - https://web.stanford.edu/~jhj1/teaching/grant.html
- Small, Mario & Jessica Calarco. 2022. "Appendix: A Note on Proposals." In *Qualitative Literacy: A Guide to Evaluating Ethnographic and Interview Research.* University of California Press.
- Sven E. Hug;. 2022. "Towards theorizing peer review." *Quantitative Science Studies* 3(3): 815–831.
- ten Hagen, Sjang. 2022. "How academics review books (and each other)." https://blogs.lse.ac.uk/impactofsocialsciences/2022/12/01/how-academics-review-books-and-each-other/
- Tomkins, Andrew, Min Zhang, and William D. Heavlin. 2017. "Reviewer Bias in Single- versus Double-Blind Peer Review." *PNAS* 114(48): 12708-12713.
- Wessely, S. 1998. "Peer Review of Grant Applications: What do we Know?" *Lancet* 352(9124): 301-305.

12. April 11th – Workflow & Replication

Required Readings –
- Wilson, Greg, Jennifer Bryan, Karen Cranston, Justin Kitzes, Lex Nederbragt, and Tracy K. Teal. 2017. "Good Enough Practices in Scientific Computing." *PLoS Computational Biology* 13(6): e1005510.
- Freese, Jeremy and David Peterson. 2017. "Replication in Social Science." *Annual Review of Sociology* 43: 147-165.
- Miguel, E. et al. 2014. "Promoting Transparency in Social Science Research." *Science* 434:30-31.
- **(C)** Gelman, Andrew. 2017. "Honesty and Transparency Are Not Enough." *Chance* 30(1): 37–39.

Recommended Additional Readings –
- **(C)** Bartlett, Tom. 2018. "I Want to Burn Things to the Ground. *Chronicle of Higher Education*, Sept 11.
- Bryan, Jennifer. 2021. *Happy Git and GitHub for the useR*. Available at - https://happygitwithr.com/.
- Christensen, Garrett, Jeremy Freese, & Edward Miguel. 2019. *Transparent and Reproducible Social Science Research: How to Do Open Science.* University of California Press.
- CISSR. 2018. "Replication and Transparency in Social Science: Crisis or Crossroads?" Conference details from - https://cissr.uchicago.edu/content/replication-and-transparency-social-science-crisis-or-crossroads
- **(C)** Healy, Kieran. 2013. "Choosing your Workflow Applications." *The Political Methodologist* 18(2): 9-18.
- Lakens, Daniel. 2021. "Computational Reproducibility." Chapter 14 in *Improving your Statistical Inferences*. Available at https://lakens.github.io/statistical_inferences/computationalreproducibility.html.
- Long, J. Scott. 2009. *The Workflow of Data Analysis Using Stata.* Stata Press.
- Trisovic, A., Lau, M.K., Pasquier, T. et al. 2022. "A large-scale study on research code quality and execution." *Scientific Data* 9(60). https://doi.org/10.1038/s41597-022-01143-6.

April 18th – Take-home Exam – Dates & Details TBA

13. April 25th – Time

Required Readings –
- Freedman, Deborah, Arland Thornton, Donald Camburn, Dwane Alwin, and Linda Young-DeMarco. 1988. "The Life History Calendar: A Technique for Collecting Retrospective Data." *Sociological Methodology* 18: 37-68.
- ^ Markovitz et al. 2012. "Where science meets policy: comparing longitudinal and cross-sectional designs to address diarrhoeal disease burden in the developing world." *International Journal of Epidemiology* 41: 504-513.
- Biglan, A., Ary, D., and A, Wagenaar. 2000. "The Value of Interrupted Time-Series Experiments for Community Intervention Research." *Prevention Science.* 1(1): 31-49.
- Kivimäki, M., Singh-Manoux, A, Ferrie, JE, and G Batty. 2013. "Post hoc decision-making in observational epidemiology—is there need for better research standards?" *International Journal of Epidemiology* 42: 367-370.
- ^ Keyes, Katherine M. et al. 2014. "Age, Period, and Cohort Effects in Psychological Distress in the United States and Canada." *American Journal of Epidemiology* 179(10): 1216-1227.

Recommended Additional Readings –
- Cornwell, Benjamin. 2003. "The Dynamic Properties of Social Support: Decay, Growth, and Staticity, and Their Effects on Adolescent Depression." *Social Forces* 81(3):953-78.
- Cornwell, Benjamin. 2015. *Social Sequence Analysis: Methods & Applications.* SASS Series, Cambridge UP.

- George L. 2014. "Taking time seriously: A call to action in mental health research." *Journal of Health and Social Behavior* 55(3):251-264.
- Jones, Nancy L., Stephen E. Gilman, Tina L. Chong, Stacy S. Drury, Carl V. Hill, and Arline T. Geronimus. 2019. "Life Course Approaches to the Causes of Health Disparities." *AJPH* 109(S1): S48-S55.
- Manton, Kenneth G. et al. 2009. "NIH Funding Trajectories and Their Correlations with U.S. Health Dynamics from 1950-2004." *PNAS* 106(27): 10981-10986.
- Moody, James. 2002. "The Importance of Relationship Timing for Diffusion." *Social Forces* 81(1): 25-56.
- Shalizi, Cosma Rohilla and Andrew C. Thomas. 2011. "Homophily and Contagion Are Generally Confounded in Observational Social Network Studies." *Sociological Methods & Research* 40(2):211-39.
- Riosmena, F., B. Everett, R. Rogers, & J. Dennis. 2015. "Negative Acculturation and Nothing More? Cumulative Disadvantage and Hispanic Mortality during the Immigrant Adaptation Process." *International Migration Review* 49(2):443-478.
- Sutton, James E., Paul E. Bellair, Brian R. Kowalski, Ryan Light, and Donald T. Hutcherson. 2011. "Reliability and Validity of Prisoner Self-Reports Gathered Using the Life Event Calendar Method." *Journal of Quantitative Criminology* 27:151-171.
- Umberson, Debra, Kristi Williams, Daniel A. Powers, Hui Liu and Belinda Needham. 2006. "You Make Me Sick: Marital Quality and Health over the Life Course." *Journal of Health and Social Behavior* 47(1):1-16.
- Warren JR. 2009. "Socioeconomic status and health across the life course: A test of the social causation and health selection hypotheses." *Social Forces* 87(4): 2125–2153.

14. May 2ⁿᵈ – Flex Day, Misc Methods, and Adaptive Strategies

Required Readings (Pick *any 4*, listed alphabetically) –
- Akobeng AK. 2005. "Understanding systematic reviews and meta-analysis." *Archives of Disease in Childhood* 90:845-848.
- ^ Eiermann, Martin et al,. 2022. "Racial Disparities in Mortality During the 1918 Influenza Pandemic in United States Cities." *Demography* 59(5): 1953–1979. (historical/archival research)
- ^ Frye, M., & Trinitapoli, J. (2015). Ideals as Anchors for Relationship Experiences. *American Sociological Review* 80(3), 496–525. (pile sorts)
- Lazer, David, Ryan Kennedy, Gary King, and Alessandro Vespignani. 2014. "The Parable of Google Flu: Traps in Big Data Analysis." *Science* 343(14): 1203-1205
- ^ Salganik, Matthew et al,. 2020. "Measuring the predictability of life outcomes with a scientific mass collaboration." *PNAS* 117(15): 8398-8403.
- Troncoso, Carmela et al,. 2022. "Deploying decentralized, privacy-preserving proximity tracing." *Communications of the ACM* 65(9): 48–57.
- Wallerstein, Nina & Bonnie Duran. 2010. "Community-Based Participatory Research Contributions to Intervention Research: The Intersection of Science and Practice to Improve Health Equity." *American Journal of Public Health* 100:S40-S46.
- ^ Watkins, Susan Cotts and Ann Swidler. 2009. "Hearsay Ethnography: Conversational Journals as a Method for Studying Culture in Action." *Poetics* 37:162-84.
- Weller, S. C. 2007. "Cultural Consensus Theory: Applications and Frequently Asked Questions." *Field Methods* 19(4): 339–368.

May 9ᵗʰ – Final proposal Due to Canvas by 5pm