

Conduct IV: Causal Inference in the Lab, the Field, and in Nature
GOVT-696
Spring 2016

Instructor: Thomas Zeitzoff, Assistant Professor

Schedule: Wednesdays 2:35-5:15PM, Ward 201

Office: Ward 249

Office hours: Wednesdays 11:00AM-12:30PM, Thursdays 2:00PM-3:30PM or by appointment

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Course Description

Increasingly social science research is concerned with causal inference. Experimental, quasi-experimental, and field designs intended to make causal inferences have special considerations outside of the standard econometric framework. The class will be focused on causality, and will examine this topic observationally, and experimentally. It will be split into two parts: "Causal Framework" and "Field Methods."

Learning Outcomes (things you will know after taking this class)

1. Demonstrate the ability to understand the causal inference framework.
2. Identify threats to causal identification.
3. Design and implement sophisticated research design to estimate causal effects.
4. Identify the tradeoffs between field and laboratory designs.

Readings and Software

There are no required books for this course. All of the readings and materials will be available on Blackboard. However, we will draw on material from the following texts, and you may find purchasing them helpful for your own research.

- Morgan, Stephen L., and Christopher Winship. *Counterfactuals and Causal Inference: Methods and Principles for Social Research*. Cambridge University Press, 2007.
- Angrist, Joshua D., and Jörn-Steffen Pischke. *Mastering 'metrics: The Path from Cause to Effect*. Princeton University Press, 2014.
- Gerber, Alan S., and Donald P. Green. *Field experiments: Design, analysis, and interpretation*. WW Norton, 2012.

As for software, students may use whatever they want but instructor support will be given for R and Stata.

Sharing of Course Content

Students are not permitted to make visual or audio recordings, including live streaming, of classroom lectures or any class related content, using any type of recording devices (e.g., smart phone, computer, digital recorder, etc.) unless prior permission from the instructor is obtained, and there are no objections from any of the students in the class. If permission is granted, personal use and sharing of recordings and any electronic copies of course materials (e.g., PowerPoints, formulas, lecture notes and any classroom discussions online or otherwise) is limited to the personal use of students registered in the course and for educational purposes only, even after the end of the course.

Exceptions will be made for students who present a signed Letter of Accommodation from the Academic Support and Access Center. See: How Do I Request Accommodations?

< <http://www.american.edu/ocl/asac/Accommodations.cfm> >

To supplement the classroom experience, lectures may be audio or video recorded by faculty and made available to students registered for this class. Faculty may record classroom lectures or discussions for pedagogical use, future student reference, or to meet the accommodation needs of students with a documented disability. These recordings are limited to personal use and may not be distributed (fileshare), sold, or posted on social media outlets without the written permission of faculty.

Unauthorized downloading, file sharing, distribution of any part of a recorded lecture or course materials, or using information for purposes other than the student's own learning may be deemed a violation of *American University's Student Conduct Code* and subject to disciplinary action (see Student Conduct Code VI. Prohibited Conduct).

Academic Integrity

I take issues of cheating and plagiarism very seriously. Please familiarize yourself with the AU Academic Integrity Code. I regard violations of this code seriously and will immediately refer the matter to the dean. If you have any questions about the course, or more general requirements about the code, please do not hesitate to talk to me.

Assessment

Participation/Attendance (10%)

Presentations (30%)

Replication Project (10%)

Research Design Proposal Presentation and Feedback (10 %)

Final Project (40%) Paper (30%) + Presentation (10%)

****NOTE: LATE WORK WILL NOT BE ACCEPTED****

Students Resources

If you experience difficulty in this course for any reason, please do not hesitate to consult with me. In addition to the resources of the department, a wide range of services is available to support you in your efforts to meet the course requirements.

Academic Support Center (x3360, MGC 243) offers study skills workshops, individual instruction, tutor referrals, and services for students with learning disabilities. Writing support is available in the ASC Writing Lab or in the Writing Center, Battelle 228.

Disability Support Services (x3315, MGC 206) offers technical and practical support and assistance with accommodations for students with physical or psychological disabilities. If you have a disability and might require accommodations in this course, please notify me with a letter from DSS or ASC early in the semester so that we can make arrangements to address your needs.

Counseling Center (x3500, MGC 214) offers counseling and consultations regarding personal concerns, self-help information, and connections to off-campus mental health resources.

Writing Center in 228 Battelle-Tompkins offers free, individual coaching sessions to all AU students. In your 45-minute session, a student writing consultant can help you address assignments, understand the conventions of academic writing, and learn how to revise and edit your own work. The Center offers appointments on the hour from 11 a.m. to 9 p.m. Monday through Thursday; 11 a.m. to 4 p.m. Friday, and 3 to 6 p.m. on Sundays. Call [202- 885- 2991](tel:202-885-2991) to arrange a session.

Center for Diversity & Inclusion is dedicated to enhancing LGBTQ, Multicultural, First Generation, and Women's experiences on campus and to advance AU's commitment to respecting & valuing diversity by serving as a resource and liaison to students, staff, and faculty on issues of equity through education, outreach, and advocacy. It is located on the 2nd floor of Mary Graydon Center: [202-885-3651](tel:202-885-3651), email is cdi@american.edu.

Dean of Students Office (x3300, 408 Butler Pavilion) offers one-on-one meetings to discuss academic, adjustment, and personal issues that may be interfering with a student's ability to succeed academically. The DOS office also verifies documentation for students who have medical or mental health issues that cause them to be absent from class.

Emergency Preparedness

In the event of a declared pandemic (influenza or other communicable disease), American University will implement a plan for meeting the needs of all members of the university community. Should the university be required to close for a period of time, we are committed to ensuring that all aspects of our educational programs will be delivered to our students. These may include altering and extending the duration of the traditional

term schedule to complete essential instruction in the traditional format and/or use of distance instructional methods. Specific strategies will vary from class to class, depending on the format of the course and the timing of the emergency. Faculty will communicate class-specific information to students via AU e-mail and Blackboard, while students must inform their faculty immediately of any absence due to illness. Students are responsible for checking their AU e-mail regularly and keeping themselves informed of emergencies. In the event of a declared pandemic or other emergency, students should refer to the AU Web site (american.edu/emergency) and the AU information line at (202) 885-1100 for general university-wide information, as well as contact their faculty and/or respective dean's office for course and school/college-specific information.

THEORY

Week 1 (January 13) Intro/Jay Lyall

Week 2 (January 20) Counterfactuals and Randomization

- *Theory*
 - Winship, Christopher, and Stephen L. Morgan. "The estimation of causal effects from observational data." *Annual review of sociology* (1999): 659-706.
- *Presentations*
 - Angrist, Joshua D., Parag A. Pathak, and Christopher R. Walters. "Explaining charter school effectiveness." No. w17332. National Bureau of Economic Research, 2011. (James)
 - Voigtländer, Nico, and Hans-Joachim Voth. "Persecution Perpetuated: The Medieval Origins of Anti-Semitic Violence in Nazi Germany." *The Quarterly Journal of Economics* 127.3 (2012): 1339-1392. (Brandon)

Week 3 (January 27) Laboratory Experiments

- *Theory*
 - McDermott, Rose. "Experimental methods in political science." *Annual Review of Political Science* 5.1 (2002): 31-61.
 - **Take NIH Protecting Research Participants!**
<https://phrp.nihtraining.com/users/login.php>
- *Presentations*
 - McDermott, Rose, et al. "Monoamine oxidase A gene (MAOA) predicts behavioral aggression following provocation." *Proceedings of the National Academy of Sciences* 106.7 (2009): 2118-2123. (Sydney)
 - Levitt, Steven D., and John A. List. "What do laboratory experiments measuring social preferences reveal about the real world?." *The journal of economic perspectives* (2007): 153-174. (Dani)

- Fehr, Ernst, and Simon Gächter. "Altruistic punishment in humans." *Nature* 415.6868 (2002): 137-140. (Michael)

Week 4 (February 3) Regression, Control, and Panel Methods

Assign Replication

- *Theory*
 - Mastering Metrics (Chapter 2)
 - Freedman, David A. "Statistical models and shoe leather." *Sociological methodology* 21.1 (1991): 201-313.
- *Presentations*
 - Ross, Michael L. "Oil, Islam, and women." *American Political Science Review* 102.01 (2008): 107-123. (Dania)
 - Fisman, Raymond. "Estimating the value of political connections." *American Economic Review* (2001): 1095-1102. (Alex)
 - Levitt, Steven D. "Using electoral cycles in police hiring to estimate the effect of police on crime." *The American Economic Review* (1997): 270-290. (Jason)

Week 5 (February 10) Instrumental Variables

- *Theory*
 - Sovey, Allison J., and Donald P. Green. "Instrumental variables estimation in political science: A readers' guide." *American Journal of Political Science* 55.1 (2011): 188-200.
- *Presentations*
 - Miguel, Edward, Shanker Satyanath, and Ernest Sergenti. "Economic shocks and civil conflict: An instrumental variables approach." *Journal of political Economy* 112.4 (2004): 725-753. (Min)
 - Angrist, Joshua D., and Alan B. Krueger. "Does Compulsory School Attendance Affect Schooling and Earnings?." *Quarterly Journal of Economics* 106.4 (1991): 979-1014. (Jimmy)
 - Madestam, A., Shoag, D., Veuger, S., & Yanagizawa-Drott, D. (2013). Do Political Protests Matter? Evidence from the Tea Party Movement*. *The Quarterly Journal of Economics*. (Brianna)

Week 6 (February 17) Matching/RDD

Replication Due

- *Theory*
 - Rubin, Donald B. "The design versus the analysis of observational studies for causal effects: parallels with the design of randomized trials." *Statistics in medicine* 26.1 (2007): 20-36.
 - King, Gary, and Richard Nielsen. "Why Propensity Scores Should Not Be Used For Matching." (2016).
- *Presentations*
 - Lyall, Jason. "Are coethnics more effective counterinsurgents? Evidence from the second Chechen war." *American Political Science Review* 104.01 (2010): 1-20. (Laura)
 - Klofstad, Casey A., Anand Edward Sokhey, and Scott D. McClurg. "Disagreeing about disagreement: How conflict in social networks affects political behavior." *American Journal of Political Science* 57.1 (2013): 120-134. (Jason)
 - Samii, Cyrus. "Perils or Promise of Ethnic Integration? Evidence from a Hard Case in Burundi." *American Political Science Review* 107.03 (2013): 558-573. (Mashal)

Week 7 (February 24) Quasi Experiments/ "Natural Experiments"

Assign Research Design/Final Paper

- *Theory*
 - Sekhon, Jasjeet S., and Rocio Titiunik. "When natural experiments are neither natural nor experiments." *American Political Science Review* 106.01 (2012): 35-57:588-604.
- *Presentation*
 - Getmansky, Anna, and Thomas Zeitzoff. "Terrorism and Voting: The Effect of Exposure to Rockets on Voting in Israeli Elections." 108.03 (2014). (Dani)
 - Dube, Arindrajit, Oeindrila Dube, and Omar García-Ponce. "Cross-Border Spillover: US Gun Laws and Violence in Mexico." *American Political Science Review* 107.03 (2013): 397-417. (Michael)

Week 8 (March 2) Survey Design

- *Theory*
 - Selections: Groves, Robert M., Floyd J. Fowler Jr, Mick P. Couper, James M. Lepkowski, Eleanor Singer, and Roger Tourangeau. *Survey methodology*. John Wiley & Sons, 2013.

- Krosnick, Jon A. "Survey research." *Annual review of psychology* 50.1 (1999): 537-567.
- *Presentation*
 - Scacco, Alexandra. "Who Riots? Explaining Individual Participation in Ethnic Violence." PhD diss., Columbia University, 2010. (Cherie)
 - Blair, Graeme, C. Christine Fair, Neil Malhotra, and Jacob N. Shapiro. "Poverty and support for militant politics: Evidence from Pakistan." *American Journal of Political Science* 57, no. 1 (2013): 30-48. (Cathy)

Week 9 (March 9) NO CLASS SPRING BREAK

Week 10 (March 16) Research Design Presentations

FIELD METHODS

Week 11 (March 23) Survey Experiments and Randomized Response

- *Theory*
 - Gaines, Brian J., James H. Kuklinski, and Paul J. Quirk. "The logic of the survey experiment reexamined." *Political Analysis* 15.1 (2007): 1-20.
- *Presentation*
 - Hainmueller, Jens, and Michael J. Hiscox. "Attitudes toward highly skilled and low-skilled immigration: Evidence from a survey experiment." *American Political Science Review* 104.01 (2010): 61-84.
 - Rosenfeld, Bryn, Kosuke Imai, and Jacob Shapiro. "An empirical validation study of popular survey methodologies for sensitive questions." Working paper. *American Journal of Political Science* (2015).

Week 12 (March 30) Field Experiments

- *Theory*
 - Humphreys, Macartan, and Jeremy M. Weinstein. "Field experiments and the political economy of development." *Annual Review of Political Science* 12 (2009): 367-378.
- *Presentation*
 - Bond, Robert M., et al. "A 61-million-person experiment in social influence and political mobilization." *Nature* 489.7415 (2012): 295-298.
 - Findley, Michael G., Daniel L. Nielson, and Jason Campbell Sharman. "Using field experiments in international relations: A randomized study of anonymous incorporation." *International Organization* 67.04 (2013): 657-693.
 - Paluck, Elizabeth Levy, Hana Shepherd, and Peter M. Aronow. "Changing climates of conflict: A social network experiment in 56 schools." *Proceedings of the National Academy of Sciences* (2016): 201514483.

SPECIAL TOPICS

Week 13 (April 6) Simulation and Bayesian Methods

- *Theory*
 - Jackman, Simon. "Bayesian analysis for political research." *Annual Review Political Science*. 7 (2004): 483-505.
- *Presentation*
 - Barberá, Pablo. "Birds of the same feather tweet together: Bayesian ideal point estimation using Twitter data." *Political Analysis* 23.1 (2015): 76-91.
 - Slapin, Jonathan B., and Sven-Oliver Proksch. "A scaling model for estimating time-series party positions from texts." *American Journal of Political Science* 52.3 (2008): 705-722.
 - Lax, Jeffrey R., and Justin H. Phillips. "How should we estimate public opinion in the states?." *American Journal of Political Science* 53.1 (2009): 107-121.

Week 14 (April 13) Student Choice: Spatial Statistics, Time Series, or Other)?

Week 15 (April 20) Final Presentations

****Final Paper Due****