

Empirical Methods in Political Economy

Devin Caughey and F. Daniel Hidalgo

MIT | 17.830 | Fall 2020 | Tu 1:00–3:00
<https://canvas.mit.edu/courses/3567>

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Course Description

This course surveys recent methodological approaches to the study of political economy. Unlike a typical graduate-level course in political science, we will focus on a limited number of readings each week, with the goal of understanding and evaluating in detail the analytical decisions made by the authors of each study. In addition to learning about advanced methods being used in the social sciences today, the goal of the class is for students to develop an appreciation for how publishable quantitative papers are constructed, from the questions they ask to how they defend and justify the methodological choices they make.

Substantive topics range from the link between institutions and political development in poor societies to the operation of legislatures in rich democracies. Methodological topics that will be covered include text analysis, statistical learning models, measurement models, estimating spillover effects, and the interplay between formal theory and empirics.

The bulk of each class will be devoted to discussion of the assigned reading, though some class time will be dedicated to student-led presentations on the week's readings. We assume a working knowledge of the materials covered in the first two courses of the methods sequence in the MIT Political Science Department. For those of you without this background, we suggest that you either wait to take the class or take a substantial amount of time to familiarize yourself with that material.

Expectations

- *Class Discussion:* Because we assign 2–3 papers each week, we expect students to be prepared to discuss each paper in detail. To be prepared for class discussion, students should seek to understand every important analytical choice made in each paper to the best of their ability. This may mean reading the paper multiple times or consulting methodological references on the techniques used in the papers. We are happy to provide references for related material if students would like to better understand the approaches used in the assigned reading. (30% of the class grade)
- *Weekly Reading Responses:* To facilitate discussion, each week each student will write a short memo based on the assigned reading. This memo should be at least two paragraphs, and it should focus on either the substantive or methodological claims of the papers. You are welcome to critically respond to the argument and evidence presented in the papers, but you can also use this space to discuss which aspects of the methodology are unclear or confusing. Given that many of the methodological approaches used in the papers are not standard in the discipline, it is perfectly reasonable to not fully understand the logic of their use or the details of their implementation. These memos are a good space to highlight the most challenging aspects of the papers so that we can focus class discussion on these points. If you are presenting in a given week, you do not need to submit a reading response. (20% of the class grade)

Please post the memos on to the appropriate week in the “Discussion” section of the Canvas class website under the appropriate discussion thread by 11:59pm Monday. The Discussion section can be found here: https://canvas.mit.edu/courses/3567/discussion_topics

- *Class Presentations:* Students are expected to about 3 10–12 minute presentations during the semester. Each week two students will present, so presenters for any given week should divide the material to minimize overlap between the two presentations. For example, each student may present on a different paper or one presenter could focus on theory, while the other could focus on the empirical analysis.

These presentations are an opportunity to go more in depth on the topics covered in the class. The presentations should not summarize the week’s papers, but rather should further educate the class on the data, theory, research designs, or methodological techniques used in the week’s readings. Preparing an adequate presentation typically means reading and summarizing related methodological or substantive literature, analyzing replication datasets, or conducting simulations to illustrate the properties of techniques used in the papers. Because we expect considerable effort in preparing the presentation, we encourage you to start early. (50% of the class grade)

Semester Overview

I Warm-Up

1 September 1: Accountability

II Measurement

2 September 8: Choices as Data

3 September 15: Text as Data

4 September 22: Images and Audio as Data

III Causal Inference

5 September 29: Causal Inference with Noisy Measures

6 October 6: Shoe Leather and Causal Inference

October 13: NO CLASS (Columbus/Indigenous Peoples Day)

7 October 20: Causal Inference and Historical Legacies

8 October 27: Machine Learning and Causal Inference

9 November 3: Interpretation of Causal Estimates

IV Causal Structure

10 November 10: Networks and Interference

11 November 17: Causal Graphs

November 24: NO CLASS (Thanksgiving)

12 December 1: Empirical Implications of Formal Models

13 December 8: Structural Models

Course Schedule

Part I

Warm-Up

1 September 1: Accountability

Required Readings

- [PDF](#) James M. Snyder Jr. and David Strömberg. 2010. "Press Coverage and Political Accountability." *Journal of Political Economy* 118 (2): 355–408
- [PDF](#) Lucy Martin and Pia J. Raffler. 2020. "Fault Lines: The Effects of Bureaucratic Power on Electoral Accountability." *American Journal of Political Science*. Pre-published. doi:10.1111/ajps.12530

Part II

Measurement

2 September 8: Choices as Data

Required Readings

- [PDF](#) David A. Bateman, Joshua D. Clinton, and John S. Lapinski. 2017. "A House Divided? Roll Calls, Polarization, and Policy Differences in the U.S. House, 1877–2011." *American Journal of Political Science* 61 (3): 698–714
- [PDF](#) Adam Bonica. 2018. "Inferring Roll-Call Scores from Campaign Contributions Using Supervised Machine Learning." *American Journal of Political Science* 62 (4): 830–848

3 September 15: Text as Data

Required Readings

- [PDF](#) Pamela Ban et al. 2018. "How Newspapers Reveal Political Power." *Political Science Research and Methods* 21:1–18
- [WEB](#) Elliott Ash, Daniel L. Chen, and Suresh Naidu. 2020. "Ideas Have Consequences: The Impact of Law and Economics on American Justice." Working Paper. <https://elliottash.com/wp-content/uploads/2020/04/ash-chen-naidu-2020-04-17.pdf>

4 September 22: Images and Audio as Data

Required Readings

- [PDF](#) Francisco Cantú. 2019. "The Fingerprints of Fraud: Evidence from Mexico's 1988 Presidential Election." *American Political Science Review* 113 (3): 710–726
- [WEB](#) Dean Knox and Christopher Lucas. 2020. "A Dynamic Model of Speech for the Social Sciences." *American Political Science Review* (May 1). <http://christopherlucas.org/files/PDFs/mass.pdf>

Part III

Causal Inference

5 September 29: Causal Inference with Noisy Measures

Required Readings

- [PDF](#) Andrew B. Hall. 2015. "What Happens When Extremists Win Primaries?" *American Political Science Review* 109 (1): 18–42
- [PDF](#) Raj Chetty and Nathaniel Hendren. 2018a. "The Impacts of Neighborhoods on Intergenerational Mobility I: Childhood Exposure Effects." *Quarterly Journal of Economics* 133 (3): 1107–1162
- [PDF](#) Raj Chetty and Nathaniel Hendren. 2018b. "The Impacts of Neighborhoods

on Intergenerational Mobility II: County-Level Estimates." *Quarterly Journal of Economics* 133 (3): 1163–1228

6 October 6: Shoe Leather and Causal Inference

Required Readings

- [PDF](#) Melissa Dell and Pablo Querubin. 2017. "Nation Building Through Foreign Intervention: Evidence from Discontinuities in Military Strategies." *The Quarterly Journal of Economics* 133 (2): 701–764
- [PDF](#) Carolyn Abott and Asya Magazinnik. 2020. "At-Large Elections and Minority Representation in Local Government." *American Journal of Political Science* 64 (3): 717–733

October 13: NO CLASS (Columbus/Indigenous Peoples Day)

7 October 20: Causal Inference and Historical Legacies

Required Readings

- [PDF](#) Avidit Acharya, Matthew Blackwell, and Maya Sen. 2016. "The Political Legacy of American Slavery." *Journal of Politics* 78 (3): 621–641
- [PDF](#) Vasiliki Fouka. 2020. "Backlash: The Unintended Effects of Language Prohibition in U.S. Schools after World War I." *Review of Economic Studies* 87 (1): 204–239
- [PDF](#) Morgan Kelly. 2019. "The Standard Errors of Persistence." UCD Centre for Economic Research, Working Paper Series, June. https://www.ucd.ie/economics/t4media/WP19_13.pdf

8 October 27: Machine Learning and Causal Inference

Required Readings

- [PDF](#) Cyrus Samii, Laura Paler, and Sarah Zukerman Daly. 2016. "Retrospective Causal Inference with Machine Learning Ensembles: An Application to Anti-recidivism Policies in Colombia." *Political Analysis* 24 (4): 434–456
- [WEB](#) Sören R. Künzle et al. 2019. "Meta-learners for Estimating Heterogeneous Treatment Effects using Machine Learning." April 25. arXiv: 1706.03461

9 November 3: Interpretation of Causal Estimates

Required Readings

- [PDF](#) Jasjeet S. Sekhon and Rocío Titiunik. 2012. "When Natural Experiments Are Neither Natural nor Experiments." *American Political Science Review* 106 (1): 35–57
- [PDF](#) Ethan Bueno de Mesquita and Scott A. Tyson. 2020. "The Commensurability Problem: Conceptual Difficulties in Estimating the Effect of Behavior on Behavior." *American Political Science Review* 114 (2): 375–391

Part IV

Causal Structure

10 November 10: Networks and Interference

Required Readings

- [PDF](#) Jake Bowers, Mark M. Fredrickson, and Costas Panagopoulos. 2013. "Reasoning about Interference Between Units: A General Framework." *Political Analysis* 21 (1): 97–124
- [PDF](#) Jennifer M. Larson and Janet I. Lewis. 2017. "Ethnic Networks." *American Journal of Political Science* 61 (2): 350–364

11 November 17: Causal Graphs

Required Readings

- [PDF](#) Adam N. Glynn and Konstantin Kashin. 2017. "Front-Door Difference-in-Differences Estimators." *American Journal of Political Science* 61 (4): 989–1002
- [PDF](#) Dean Knox, Will Lowe, and Jonathan Mummolo. 2020. "Administrative Records Mask Racially Biased Policing." *American Political Science Review*: 1–19. Pre-published. doi:10.1017/s0003055420000039
- [WEB](#) Johann Gaebler et al. 2020. "Deconstructing Claims of Post-Treatment Bias in Observational Studies of Discrimination." June 22. arXiv: 2006.12460

November 24: NO CLASS (Thanksgiving)

12 December 1: Empirical Implications of Formal Models

Required Readings

- [PDF](#) Marko Klačnja and Rocío Titiunik. 2017. "The Incumbency Curse: Weak Parties, Term Limits, and Unfulfilled Accountability." *American Political Science Review* 111 (1): 129–148
- [PDF](#) Timothy Besley et al. 2017. "Gender Quotas and the Crisis of the Mediocre Man: Theory and Evidence from Sweden." *American Economic Review* 107 (8): 2204–2242

13 December 8: Structural Models

Required Readings

- [PDF](#) Patrick Kline and Enrico Moretti. 2014. "Local Economic Development, Agglomeration Economies, and the Big Push: 100 Years of Evidence from the Tennessee Valley Authority." *Quarterly Journal of Economics* 129 (1): 275–331
- [WEB](#) Federico Huneus and In Song Kim. 2019. "The Effects of Firms' Lobbying on Resource Misallocation." Working paper. <http://web.mit.edu/insong/www/pdf/misallocation.pdf>

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References

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- Ash, Elliott, Daniel L. Chen, and Suresh Naidu. 2020. "Ideas Have Consequences: The Impact of Law and Economics on American Justice." Working Paper. <https://elliottash.com/wp-content/uploads/2020/04/ash-chen-naidu-2020-04-17.pdf>.
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- Bateman, David A., Joshua D. Clinton, and John S. Lapinski. 2017. "A House Divided? Roll Calls, Polarization, and Policy Differences in the U.S. House, 1877–2011." *American Journal of Political Science* 61 (3): 698–714.
- Besley, Timothy, Olle Folke, Torsten Persson, and Johanna Rickne. 2017. "Gender Quotas and the Crisis of the Mediocre Man: Theory and Evidence from Sweden." *American Economic Review* 107 (8): 2204–2242.
- Bonica, Adam. 2018. "Inferring Roll-Call Scores from Campaign Contributions Using Supervised Machine Learning." *American Journal of Political Science* 62 (4): 830–848.
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- Cantú, Francisco. 2019. "The Fingerprints of Fraud: Evidence from Mexico's 1988 Presidential Election." *American Political Science Review* 113 (3): 710–726.
- Chetty, Raj, and Nathaniel Hendren. 2018a. "The Impacts of Neighborhoods on Intergenerational Mobility I: Childhood Exposure Effects." *Quarterly Journal of Economics* 133 (3): 1107–1162.
- . 2018b. "The Impacts of Neighborhoods on Intergenerational Mobility II: County-Level Estimates." *Quarterly Journal of Economics* 133 (3): 1163–1228.
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- Künzel, Sören R., Jasjeet S. Sekhon, Peter J. Bickel, and Bin Yu. 2019. "Meta-learners for Estimating Heterogeneous Treatment Effects using Machine Learning." April 25. arXiv: 1706.03461.
- Larson, Jennifer M., and Janet I. Lewis. 2017. "Ethnic Networks." *American Journal of Political Science* 61 (2): 350–364.
- Martin, Lucy, and Pia J. Raffler. 2020. "Fault Lines: The Effects of Bureaucratic Power on Electoral Accountability." *American Journal of Political Science*. Pre-published. doi:10.1111/ajps.12530.

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- Sekhon, Jasjeet S., and Rocío Titiunik. 2012. "When Natural Experiments Are Neither Natural nor Experiments." *American Political Science Review* 106 (1): 35–57.
- Snyder, James M., Jr., and David Strömberg. 2010. "Press Coverage and Political Accountability." *Journal of Political Economy* 118 (2): 355–408.