SYLLABUS

Instructors

- Professor: Gabor Simonovits (simonovitsg@ceu.edu)
- Section leader: Reka Branyiczki (Branyiczki_Reka@phd.ceu.edu)
- Teaching assistant: Ameni Mehrez (Mehrez_Ameni@phd.ceu.edu)

Class meetings, section, office hours & asking for help

- Lectures: Mon 15:30-17:10 + Tues 11:00-12:40
- Section: Wednesday/Thursday
- Office hours: TBA

Given that both me and the TAs will commute between Vienna and Budapest during this academic year some or most consultations will necessarily take place online. While this situation is bound to create some difficulties, I strongly suggest to each participants to ask for help in email and/or sign up for consultations via skype. We will do everything we can to compensate for this situation with allocating time to provide extra help to students.

Summary

The goal of this class is to familiarize students with some of the core methods used by political scientists to make causal inferences using quantitative data. We will cover both experimental and observational methods that can be deployed to test theories and for each approach we will consider their strengths and limitations. Much of what we will discuss in this class will surely be frustrating as the material will expose the difficulty of making credible inferences about much of what we care about. Still, a deep understanding of the issues that emerge when we seek reliable answers to hard questions will also make students appreciate the relatively slow progress of our discipline.
During the first year, we will reconsider some of the key concepts of causal inference to provide a groundwork for assessing the methods discussed during the remainder of the course. Then, during each week of the course we will consider one method at a time – first discussing the underlying theory and assumptions and then discuss one or two applications (i.e. journal articles that utilize a particular method). By completing the class, students should acquire a basic understandings of the modern methods of causal inferences and develop an intuition about when and how these methods should be used.
All along the class, the implementation of the methods in R will be demonstrated during the lectures and additional examples will be provided in practice sessions. However, the focus of these class will be informed consumption rather than production of empirical work using these methods – statistical computation will not be tested or required in problem sets of the exam. Instead, evaluation will be based on reflection papers and presentations as well as a final exam testing the conceptual understanding of the methods covered in the class.

Learning Outcomes

The goal of the course is to provide students with a basic understanding of modern quantitative methods used to establish causal relationships. By the end of the course participants will be able to critically read and criticize modern quantitative social science research.

Evaluation

Participants of the class will be assessed through three reflection papers, a submitted research design and a final exam. For the reflection papers, students will be expected to summarize and evaluate the methodology of a journal article that uses the method covered in the given week. For the research design, students will be asked to choose a causal question of their own interest and apply one of the methods covered in the class to explore that question. The final exam will test the understanding of theoretical concepts.
Attendance (with timely arrival) is **REQUIRED** and two unexcused absences will lead to an automatic failure of the class.

Grading

Reflection papers:	3 X 10=30%
Research design:	30 %
Final Exam:	40%

Important Notice

Complete academic honesty is expected of everyone. Failure to comply with this requirement will result in automatic failure in this course (and subsequently in the program) and additional disciplinary action on higher levels. This is an American university and American standards will be applied. For more information about these standards see: http://en.wikipedia.org/wiki/Academic_dishonesty (**READ VERY CAREFULLY!**)

All assignments are to be done individually. You can talk about how to do it, but none of the actual work can be done in a group. Any evidence to the contrary will be investigated.

Readings

There are two assigned textbooks for the class. The first one is Paul Gertler: Impact evaluation in practice. This is a textbook that provides a short and accessible coverage of each of the methods that we will consider during the course. The second one is Mastering Metrics: The path from cause to effect by Josh Angrist and Steven Pitschke. This is a lengthier treatment of the same methods but also more accessible and more fun to read. For the introductory class meetings I will assign additional material covering more conceptual material. Moreover, for each week I will assign one or two political science articles that uses the method covered in that week.
Of course some participants – e.g. those with very strong math background – may prefer a more formal treatment while others might want a lengthier but slower textbook. I am happy to give advice to students if they look for such complementary readings but it will be their responsibility to find the same topics in other textbooks. I also strongly suggest that course participants spend some time to look up key concepts online. It might sound funny, but wikipedia is an extremely useful resource.

Schedule

Week 1: Causality and potential outcomes

- Theory: Gerber and Green (Ch1); Pearl (Chapter 2, re-read) Gertler Ch3
- Application: -

Week 2: Experiments

- Theory: Gertler Ch3, Pearl Ch 4
- Application: Karpowitz et al (2017)

Week 3: Natural experiments and instrumental variables

- Theory: Dunning (2008); Sovey and Green (2011), Gertler Ch5
- Application: Carnegie and Marinov (2017)

Week 4: RDD

- Theory: Gertler Ch6
- Application: Ferwerda and Miller (2014); Mo and Conn (2018)

Week 5: Panel data

- Theory: Gertler Ch7
- Application: Bechtel and Hainmueller (2011)

Week 6: Regression and matching

- Samii (2016), Angrist and Pitschke Ch2 Gertler Ch8
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References

Angrist and Pischke (2014). Mastering'metrics: The path from cause to effect. Princeton University Press.
Bechtel and Hainmueller (2011). How lasting is voter gratitude? An analysis of the short-and long-term electoral returns to beneficial policy. AJPS
Carnegie and Marinov (2017) Foreign Aid, Human Rights and Democracy Promotion: Evidence from a Natural Experiment AJPS
Dunning (2008). Improving causal inference: Strengths and limitations of natural experiments. PRQ
Enos (2014). Causal effect of intergroup contact on exclusionary attitudes. PNAS
Ferwerda and Miller (2014) Political devolution and resistance to foreign rule: A natural experiment. APSR
Gerber and Green (2012). Field experiments: Design, analysis, and interpretation. WW Norton.

Gertler, P.J., Martinez, S., Premand, P., Rawlings, L.B. and Vermeersch, C.M., 2016. Impact evaluation in practice. The World Bank.

Karpowitz, Monson and Preece, (2017). How to elect more women: Gender and candidate success in a field experiment. AJPS

Mo and Conn (2018). When Do the Advantaged See the Disadvantages of Others? A Quasi-Experimental Study of National Service. APSR

Pearl, J. and Mackenzie, D., 2018. The book of why: the new science of cause and effect. Basic Books.

Samii, C., 2016. Causal empiricism in quantitative research. JOP

Sovey and Green (2011). Instrumental variables estimation in political science: A readers' guide. AJPS