

ECON 7340: Empirical Methods in Public Economics

Spring 2016

Prof. Claire S.H. Lim

Mon/Wed 1:25 -2:40 p.m. at Uris Hall 420

(There will be no class on Wed, Feb 17.)

Description: This course is designed for students who want to acquire knowledge of research methods used in empirical microeconomics. It is entitled “Empirical Methods in Public Economics”. However, the scope of the papers discussed in this course is not restricted to public economics. Rather, it is intended to address the needs of students who want to conduct research in applied microeconomics in general, including industrial organization and labor economics.

This course focuses on the *application* of methods, rather than their theoretical properties. That is, the emphasis of the course will be on understanding how the nature of the research question, the structure of the data, and the context together influence the design of empirical strategies.

The context of applications will often be political economy. But, you are not required to have background knowledge of political economy. Many political economy questions that we discuss in this course will be intuitive and familiar to students without knowledges of the field. The contexts also include various other fields such as labor economics, development economics, and industrial organization.

As for the methods covered, the primary emphasis will be on reduced-form methods for the first half of the semester, while it will be on structural methods for the second half of the semester. By the end of the course, you will have acquired a clear understanding of the role that institutional knowledge plays in identification of causal effects as well as the role that theoretical reasoning plays in policy simulations and welfare evaluations in empirical research.

Pre-requisites: There are no pre-requisites other than econometrics at the level of first-year economics Ph.D. coursework. Students who did not take the first-year Ph.D. courses in econometrics should ask for instructors’ permission before enrolling or sitting in the course.

Instructor’s office hours: By appointment at Uris 436

Requirements: All students are required to read the papers in the course outline carefully every week and actively participate in the class discussion. You will also have to do a presentation of a research paper, write a 5-page original research proposal, and present your proposal by the end of the semester. Your research proposal does *not* have to be on public economics. But, it should be on empirical microeconomics.

Evaluation: Presentation of a research paper (40%), Research Proposal and its Presentation (40%), and Class Participation (20%)

Due dates: A paper for presentation needs to be chosen by Feb 19. A written research proposal is due May 23.

Course Outline

Week 1 (Jan 27 & Feb 1)

Overview of Topics; Identification problem

- Angrist, Joshua and Alan Krueger (Fall, 2001), “Instrumental Variables and the Search for Identification: From Supply and Demand to Natural Experiments”, *Journal of Economic Perspectives* V.15 # 4, pp. 69-85.
- Duflo, Esther, Rachel Glennerster, and Michael Kremer, “Using Randomization in Development Economics Research: A Toolkit” (**only Sections 1, 2, and 8**), *Handbook of Development Economics*, Vol 4. pp. 3895–3962 <http://www.sciencedirect.com/science/article/pii/S1573447107040612#>

Week 2 (Feb 3 & Feb 8)

Experiments

- Moffitt, Robert (January, 2004), “The Role of Randomized Field Trials in Social Science Research: A Perspective from Evaluations of Reforms of Social Welfare Programs”, *American Behavioral Scientist*. <http://abs.sagepub.com/content/47/5/506>
- ✚ Gerber, Alan S., Dean Karlan, and Daniel Bergan. 2009. “Does the Media Matter? A Field Experiment Measuring the Effect of Newspapers on Voting Behavior and Political Opinions.” *American Economic Journal: Applied Economics*, 1(2): pp.35-52.

Week 3 (Feb 10 & Feb 22) **Note: There will be no class on Feb 17.**

Natural Experiments

- Chattopadhyay, Raghendra and Esther Duflo (2004), “Women as Policy Makers: Evidence from a Randomized Policy Experiment in India,” *Econometrica* Vol. 72(5): pp.1409-1443.
- ✚ Pande, Rohini, “Can Mandated Political Representation Provide Disadvantaged Minorities Policy Influence? Theory and Evidence from India,” *American Economic Review*, September 2003, Vol. 93(4): pp. 1132-1151.

Week 4 (Feb 24 & Feb 29)

Weak Identification and Altonji-Elder-Taber Test

- Joseph G. Altonji, Todd E. Elder, and Christopher R. Taber, "Selection on Observed and Unobserved Variables: Assessing the Effectiveness of Catholic Schools", *Journal of Political Economy*, 2005, vol. 113, no. 1, pp. 151-184
- ✚ Oster, Emily, “Unobservable Selection and Coefficient Stability: Theory and Evidence”. <http://www.brown.edu/research/projects/oster/sites/brown.edu.research.projects.oster/files/uploads/election.pdf>

Week 5 (Mar 2 & Mar 7)

Regression Discontinuity Design

- Lee, David S., Enrico Moretti, and Matthew J. Butler, “Do Voters Affect or Elect Policies? Evidence from the U.S. House,” *Quarterly Journal of Economics*, August 2004, 119, pp. 807–859.
- ✚ Ferreira, Fernando and Joseph Gyourko, “Do Political Parties Matter? Evidence from U.S. Cities,” *Quarterly Journal of Economics*, 2009, 124 (1), pp. 399–422.

Week 6 (Mar 9 & Mar 14)

Structural Estimation of Static Models – Part I: Applications in Political Economy

- ✚ Coate, Stephen and Michael Conlin, 2004. “A Group Rule-Utilitarian Approach to Voter Turnout: Theory and Evidence,” *American Economic Review*, 94 (5), pp. 1476-1504.
- ✚ Stromberg, David, 2008. “How the Electoral College Influences Campaigns and Policy: The Probability of Being Florida”, *American Economic Review*, 98 (3), pp. 769-807.

Week 7 (Mar 16 & Mar 21)

Structural Estimation of Static Models – Part II: Applications in IO

- ✚ Bresnahan, Timothy F and Peter C Reiss, “Empirical Models of Discrete Games,” *Journal of Econometrics*, 1991, 48, pp. 57-81.
- Berry, Steven and Peter C Reiss, 2007. “Empirical Models of Entry and Market Structure”, *Handbook of Industrial Organization*, Vol 3, pp.1845–1886

Weeks 8 and 9 (Mar 23, April 4, April 6, and April 11)

Structural Estimation of Dynamic Models – Part I: Nested Fixed Point Algorithm

- John Rust. 1987. "Optimal Replacement of GMC Bus Engines: An Empirical Model of Harold Zurcher", *Econometrica*, Vol. 55, No. 5, pp. 999-1033
- ✚ Diermeier, Daniel, Michael Keane, and Antonio Merlo. 2005. "A Political Economy Model of Congressional Careers." *American Economic Review*, 95(1): pp. 347-373.
- ✚ Michael P. Keane and Kenneth I. Wolpin, (June 1997) “The Career Decisions of Young Men” *Journal of Political Economy*, Vol. 105, No. 3, pp. 473-522
- Igal Hendel and Aviv Nevo, 2006. "Sales and Consumer Inventory," *RAND Journal of Economics*, Vol. 37(3), pp. 543-561.
Igal Hendel and Aviv Nevo, (November, 2006), "Measuring the Implications of Sales and Consumer Inventory Behavior", *Econometrica*, Vol. 74, No.6, pp. 1637-1673

Week 10 (April 13)

Structural Estimation of Dynamic Models, Part II – CCP method

- ✚ V. Joseph Hotz and Robert A. Miller. (Jul., 1993) "Conditional Choice Probabilities and the Estimation of Dynamic Models", *Review of Economic Studies*, Vol. 60, No. 3, pp. 497-529

Week 10 and 11 (April 18, April 20 & April 25)

Structural Estimation of Dynamic Models, Part III – BBL method

- Patrick Bajari, C. Lanier Benkard, and Jonathan Levin (2007) "Estimating Dynamic Models of Imperfect Competition" *Econometrica*, Vol. 75, No. 5, pp. 1331–1370
- ✚ Stephen P. Ryan (2012), "The Costs of Environmental Regulation in a Concentrated Industry" *Econometrica*, Volume 80, Issue 3, pp.1019–1061
- Lim, Claire S.H. and Ali Yurukoglu (2015), "Dynamic Natural Monopoly Regulation: Time Inconsistency, Moral Hazard, and Political Environments"
<https://lim.economics.cornell.edu/main.pdf>

Week 12 –14 (April 27 – May 11): Proposal Presentations