Economics 245

Empirical Methods for Applied Microeconomics

Fall 2014

Course Meetings: MW 11–12:20

Web Site: http://www.socsci.uci.edu/%7Embitler/teaching.html

Syllabus: http://www.socsci.uci.edu/%7Embitler/syllabus-empirical.pdf

Class Room: SSPB 3218

Instructor: Professor Marianne Bitler

Office: SSPB 3271

Phone: 949.824.5606

Office Hours: Tuesday 10 am - 12 pm

TA: Jennifer Muz

Office hours will be held in SSPB 3218 on Fridays from 10–12. There will be no office hours the first week.

Course Objectives:

This course is designed to help you learn how to apply the econometric techniques you have learned in the econometrics sequence. This course is meant to be complementary to the course taught by Professor Clark. So, I can't guarantee there will be no overlap, but I will spend less time on the basics of experiments/IV/RD, and more time on extensions of these topics. I will also cover data issues and distributional estimators in some detail along with marching and propensity scores, local regressions, and inference issues. I will focus on how to get (or try to get) causal estimates. There will be a particular focus on techniques used in public economics, health, micro-development, and labor economics but I hope the material will be useful to any applied researcher. Many of the examples however will come from the above disciplines. I hope this class will help you become a critical consumer of the empirical work in existing literature and will teach you about techniques that can be applied to your own original research.

Course requirements:

1. Readings and class discussion. These will count for 15% of your grade.

   Each class we will focus on several papers. I expect you to read them before class so you are prepared to discuss them. Your grade will based on attendance and participation. If some of you select the empirical project, there will also be presentations at the end of class, and participation in these will also be counted towards your grade. If participation is not sufficient, I will start to assign more papers to be presented.

2. Verbal paper presentations. These will count for 15% of your grade.

   Another key part of our profession is providing verbal feedback/discussions of work at conferences, in meetings, etc. Each student will present up to 2 critical discussions of papers, likely in small groups. I will assign papers and groups. You can use slides, but I will enforce a strict time limit. Remember, discussions are not for the authors, but for the audience. (They should be helpful to the author too, but a discussion about how page 15 is confusing is boring.) You should briefly summarize the paper (touching on data, methods, and findings) and then point out any major issues with the approach or conclusions. I expect there to be 2 of these. We will start with these next week.

3. Referee report. The referee report will count for 10% of your grade and is due no later than Wednesday December 10 (the last day of classes).

   You will choose an unpublished empirical paper to referee from a list I will provide on the first day of class. The referee report can be at most 5 typed pages and will preferably be shorter. The purpose of a referee report is to help the editor of a journal decide if they should reject the paper or request revisions (and if so, what revisions to request). Your report should discuss the paper critically, pointing out what (if anything) it contributes to the literature as well as any important flaws in the approach it takes. It should also include suggestions to improve the paper.

Remember, for a real referee report, you are working for the editor, while trying to be fair to the author. Writing more is not better. The summary of the findings should be no longer than 1/2 page. I will distribute an example referee report in class.

4. Choice: Problem sets or empirical project: You will select one of these two things. Either you must complete all of the problem sets or you must complete the empirical project. The option you choose will count for 60% of your grade.

   - Problem sets. There will be 3–4 empirical problem sets. They will involve using STATA or another package to estimate models like those we discuss in class. You are free to collaborate on the problem sets with up to 2 other persons. You must turn in a common problem set and write the name of their collaborators on the top of their problem set. Answers should include key output and well-commented STATA do or other files for performing the estimation in other languages. Typed answers are required. Please do not include pages and pages of undigested STATA output. These will each count the same amount towards your grade. So if there are 3 problem sets, they will be worth 20% and if 4, each will be worth 15%. The first problem set is posted, and will be due Monday October 20.

   - Empirical project. You can instead carry out an empirical project on a topic you choose, and complete a progress report on the results of your project. This must be an original research topic on a question of interest to you. Meeting the deadlines is an important part of this exercise, so there will be no extensions.

     You may continue a project you began in another course (e.g., graduate labor economics, urban, etc. However, to do so you must also give me the final paper you submitted for that other class.

     – Topic. You will need to have the topic approved by me no later than Wednesday October 29.

     – Draft of proposed project. This will count for 15% of your grade if you choose the empirical project.

You will need to turn in an outline or sketch of the proposed project no later than Wednesday November 19. This outline or sketch should be no longer than 4 pages.

- Final report. This will count for 30% of your grade if you select this option.
  The final report is due the Monday of final's week by 5 pm (Decenber 15), and should be no longer than 20 pages (including text and tables).
- Presentation. This presentation will count for 15% of your grade if you select this option.
  During the last week of class, you will present your project in a 15–20 minute talk.

Course Materials:

Seminars. You should be attending the workshop(s) in your area as often as possible. This is where many people learn to think critically about other people's research. There are many students on the market this year presenting, and other talks in the other seminar series. So, there will be a number of talks of likely interest. You should also try to meet with outside speakers whose work is close to yours (and/or very interesting to you). Sometimes there are seminars in other schools of interest (e.g., education, public health).

Readings. The required readings are mostly journal articles or working papers. I will typically assign one or two articles per class meeting. Your job is read these articles before class and come in ready to discuss them. Most will be available at JSTOR or one of the working paper sites or through the library. The reading list is posted at my teaching website Reading list: http://www.socsci.uci.edu/%7Embitler/reading-empirical-14.pdf

Mostly Harmless Econometrics, by Josh Angrist and Steven Pischke.
This book covers a lot of the material we will be discussing at a nuts and bolts level. It is required. You can get it from Amazon or Princeton University Press
(see http://press.princeton.edu/titles/8769.html) or some of you may have obtained it already for another course.

Other useful references:

Graduate level:

Introductory Econometrics, by Jeffrey Wooldridge.

Microeconometrics, and **Microeconometrics Using Stata**, by Colin Cameron and Pravin Travedi.

The Analysis of Household Surveys, by Angus Deaton.

What's New in Econometrics? NBER Summer Course, Guido Imbens and Jeffrey Wooldridge.

Undergraduate level:

Econometric Methods. by Jack Johnston and John DiNardo.

A Guide to Econometrics, by Peter Kennedy. (Get a recent edition.)

Schedule:

Note that this schedule is preliminary. Keep checking the web page for updates.

- Data (4 classes)
  - Survey methodology
  - Weighting
  - Missing data and solutions
  - Measurement error
  - Attrition
- Methods and causal identification (8 classes)
  (Note that some topics (topics marked brief) were covered in detail by Professor Clark, and my coverage of them will assume some familiarity)
  - Experiments and causal effects (*brief*)

  - Matching and propensity scores
  - Instrumental variables (*brief*)
  - Panel data, differences in differences, and fixed effects (*brief*)
  - Event studies (*brief*)
  - Regression discontinuity (*brief if at all*)
  - Quantile regression and quantile IV
  - Kernel densities, nonparametric local regressions, kernel regression
  - Decompositions

- Inference (4 classes)
  - Bootstrapping
  - Clustering
  - Permutation tests
  - Multiple testing

- Odds and ends if time and demand permit (2-3 classes)
  - Principal stratification
  - Bounds
  - Duration models

- Presentations (2 classes)