

Economics 229

Empirical Methods

Winter 2009

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: SSPA 3132

Instructor: Professor Marianne Bitler

Office: SSPB 2211

Phone: 949.824.5606

Office Hours: Wednesday 3:30–5 pm and Thursday 1:30–2:30 pm

Course Objectives:

This course is designed to help you learn how to apply the econometric techniques you have learned in the econometrics sequence. We 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 10% 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 be based on attendance and participation.

2. Paper summaries. These will count for 10% of your grade.

Each student will hand in paper summaries of papers we will discuss in class. These will be handed in at the beginning of class, and will be limited to one page (typed). In this summary, you should summarize the paper (touching on data, methods, and findings) and point out any issues with the approach or conclusions. I expect there to be 2 of these.

3. Problem sets. These will count for 30% of your grade.

There will be 2 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 people, but everyone must turn in their own answers 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. Typed answers are preferred. Please do not include pages and pages of undigested STATA output.

4. Referee report. The referee report will count for 10% of your grade and is due no later than Wednesday March 11 (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You will choose an unpublished empirical paper to referee from a list I will provide on the first day of class.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.

5. Empirical project. You will 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.

- Topic. You will need to have the topic approved by me no later than Monday February 2.
- Draft of proposed project. This will count for 10% of your grade.

You will need to turn in an outline or sketch of the proposed project no later than Monday February 23. This outline or sketch should be no longer than 4 pages.

- Final report. This will count for 20% of your grade.

The final report is due Monday March 16, and should be no longer than 20 pages.

- Presentation. This presentation will count for 10% of your grade.

During the last week of class, you will present your project in a 15–20 minute talk.

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). However, to do so you must also give me the final paper you submitted for that other class.

Also note that students taking Economics 251B have a similar assignment for that class. If your project for that class is empirical and is approved by me and Professor Mazzolari, you may submit the same proposal for both courses.

### Course Materials:

Seminars. You should be attending the workshop in your area as often as possible. This is where many people learn to think critically about other people's research. You should also try to meet with outside speakers whose work is close to yours (and/or very interesting to you).

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 will be posted at the following web site:

<http://www.socsci.uci.edu/%7Embitler/reading-empirical.pdf>

**Mostly Harmless Econometrics**, by Josh Angrist and Steven Pischke.

This is a new book out that covers a lot of the material we will be discussing. It is required. You can get

it from Amazon or Princeton University Press (see <http://www.mostlyharmlesseconometrics.com/buy.php>).  
(I have not ordered it through the bookstore because it was not available in the Fall).

Other useful references:

Graduate level:

**Introductory Econometrics**, by Jeffrey Wooldridge.

**Microeconometrics**, by Colin Cameron and Pravin Trivedi.

**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 (3 classes)
  - Survey methodology
  - Weighting
  - Missing data and solutions
  - Measurement error
  - Attrition
- Methods and causal identification (11 classes)
  - Experiments and causal effects

- Panel data, differences in differences, and fixed effects
- Event studies
- Matching and propensity scores
- Instrumental variables
- Regression discontinuity
- Quantile regression
- Kernel densities, nonparametric local regressions, kernel regression
- Inference (2 classes)
  - Bootstrapping (guest lecture by David Brownstone)
  - Clustering
- Bounds (if time and demand, 1 class)
- Duration models (if time and demand, 1 class)
- Presentations (2 classes)