LABOR ECONOMICS 250A
SYLLABUS
Empirical Methods in Labor Economics
UCSD
Fall 2009

Professors Kate Antonovics, Eli Berman, Julian Betts and Gordon Dahl

Location: Econ 304

Overview: This first of three graduate labor courses focuses on the empirical methods used in labor (and other applied microeconomics fields). The course is designed to prepare you to read and evaluate empirical work in the other 2 graduate labor courses, 250B and 250C. However, the toolkit presented in this course will be useful for research in all areas of applied micro.

This course is intended to be both more and less than a course in applied econometrics. It is “less” in that we will not concentrate heavily on deriving properties of estimators, but, instead, we will focus on presenting a practical guide to the key statistical advantages and disadvantages of each technique. It is “more” than a course in applied econometrics in that, for each technique, we will study empirical examples in considerable detail. In this way, the course also will provide an introduction to many different areas of labor research.

The preliminary schedule below takes into account that Nov. 26 is a UCSD holiday.

9/29 through 10/13
Betts will begin by summarizing some of the main problems affecting empirical work, such as omitted variable bias, selectivity bias, endogeneity, and measurement error. We will then cover techniques to control for selectivity bias including the Heckman technique. We will then discuss the use of fixed effects as a means of reducing omitted variable bias in panel data. Finally we will survey natural experiments and difference in difference models as a means of identifying causal parameters. In each case we will emphasize benefits and pitfalls of each approach, and will cover real-world examples.

10/15-10/29
Berman will examine different types of biases and discuss examples in which instrumental variables convincingly allow identification. The discussion will include the ideal experimental coefficient, overidentification and small sample bias. We will also cover measurement error and other miscellaneous data issues.

11/3, 11/12-11/24
Dahl will discuss the use of propensity score matching and regression discontinuity methods as approaches to eliminate selection bias and identify causal effects. He will also discuss clustering for accurate estimation of standard errors.

11/5-11/10
Antonovics will discuss the strengths and weaknesses of employing social experiments to identify causal parameters.

In the last week of classes, students will present their empirical work.
Evaluation and Course Requirements:

1. Very Short Paper. A five page paper in which you will be required to engage a data set of your choosing. It will be marked on the econometric method alone, with no marks deducted for even the most ludicrous economic analysis; so feel free to have fun. On the other hand, you will spend many intimate hours with this project, so you may as well construct it in a way that will make it interesting for you and your team.

This assignment can be completed in groups of up to three students. Below we list the main professor to whom each part of the project is due. The other three would appreciate receiving cc’s by email.

Email Prof. Betts an outline of the dataset you will use and the question you will study by Tuesday, October 6.

Email Prof. Betts a table of means, correlations and related information, in a format to be explained in the first lecture, by Tuesday, October 13. 5 points

Email Prof. Berman a rough draft of paper by Thursday, October 29. 5 points

The paper is due Tuesday, November 24 in class. In addition to one hardcopy, please email a copy to all four professors. 35 points

In the final week of the course, students will present their results. 10 points

TOTAL POINTS FOR PAPER AND PRESENTATION 55 POINTS

2. Comprehensive final exam, December 11, from 11:30 to 2:30pm. 45 points

TOTAL POINTS FOR FINAL EXAM 45 POINTS

TOTAL POINTS IN COURSE 100 POINTS

Students are encouraged to enroll on a letter grade basis. Students who enroll on an S/U basis must complete the empirical paper and the in-class presentation (in week 10).1

Readings:
The readings, which begin on the next page, are mostly journal articles. However, two very useful supplementary graduate texts, the first on labor economics (the only one we know of) and the second on causal inference, are or will soon be available at the bookstore:


1 By university policy, students who enroll on an S/U basis must obtain the equivalent of a B- in the course. For all students, 60 points will earn a grade of B- overall for the course. Thus a flawless paper and presentation plus 5 points earned on the final would be one way to meet the B- requirement.
Reading List

Note: In Betts and Antonovics’ sections, a “*” indicates papers that you are expected to read carefully. (This is not a license to completely ignore the other papers though!)

Introduction to the Central Problems of Omitted Variable Bias, Self-Selection, Endogeneity and Measurement Error


Selectivity Correction


http://emlab.berkeley.edu/users/dslee/wp/Selection5all.pdf

Case Studies:


Fixed Effects and Omitted Variable Bias


Case Study: The Returns to Education


* Ashenfelter, Orley and Alan Krueger (1994), "Estimates of the Economic Return to Schooling from a New Sample of Twins", American Economic Review (December). (Note: This paper uses both instrumental variables and fixed effects. IV methods will be covered in greater detail in section 9 of the course.)


Natural Experiments/Difference-in-Difference Models


See also the Angrist and Krueger paper in Section 1.

Case Study #1: The Impact of Immigrants on Local Labor Markets

Case Study #2: Minimum Wages


Case Study #3:
BERMAN SECTION

Note: This list is short but is REQUIRED READING in the sense that you will be expected to actually read these papers.

Causal Inference and Experiments

Just master the notation and concept

Examples of Experiments (skim these):

Instrumental Variable (IV) Method

Measurement Error and other Data Issues

To reiterate: The above list is short but is REQUIRED READING in the sense that you will be expected to arrive in class having actually read these papers.
ANTONOVICS SECTION

Social Experiments


DAHL SECTION

Note: This list is preliminary and subject to change.

Propensity Score Matching


Regression Discontinuity


Clustered Standard Errors

