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 two 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.

10/3, 10/10, 10/17
Antonovics will begin by summarizing some of the main problems affecting empirical work, such as omitted variable bias, selectivity bias, endogeneity, and measurement error. Antonovics will then discuss the strengths and weaknesses of employing social experiments to identify causal parameters. In addition, Antonovics will cover the use of fixed effects and difference-in-difference methods.

10/24, 10/31, 11/6
Dahl will discuss the use of propensity score matching and regression discontinuity methods. He will also discuss clustering for accurate estimation of standard errors.

11/14, 11/21, 12/5
Betts will discuss instrumental variables, selection and clustering.

11/28
Students will present their empirical work. Please note that this is the second to last day of class.
Evaluation and Course Requirements:

1. Very Short Paper. A five-page paper (double-spaced, 11 point font) 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 must be completed in groups of three students.

   Email Prof. Antonovics an outline of the dataset your group will use and the question you will study by Tuesday, October 9 at noon.

   Email Prof. Antonovics a table of means and related information, in a format to be explained in the first lecture, by Tuesday, October 16 at noon. 

   Turn in a rough draft as a hard copy to Professor Dahl on Wednesday, October 31. 

   Turn in the final draft as a hard copy to Professor Betts on Wednesday, November 28 in class. 

   Student presentations will be on Wednesday, November 28 in class. 

TOTAL POINTS FOR PAPER AND PRESENTATION  

40 POINTS

2. Comprehensive final exam, Wednesday, December 12, 3-6:00 pm. 

50 POINTS

3. Class participation 

10 POINTS

TOTAL POINTS IN COURSE 

100 POINTS
Reading List

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


**ANTONOVICS SECTION**

This list is subject to change . . .

**Social Experiments**


**Difference-in-Difference Models**


**Fixed Effects**


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.)

DAHL SECTION

Note: This list is preliminary and subject to change.

Propensity Score Matching

Regression Discontinuity

Clustered Standard Errors
BETTS SECTION

Note: This list is short but REQUIRED - you will be expected to read these papers.

Selectivity Correction

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