Department of Economics UCLA Professor V. Joseph Hotz 8351 Bunche Hall Email: <u>hotz@econ.ucla.edu</u> Spring Quarter, 2007 10:45 a.m. – 12 noon, MW, 9384 Bunche Hall Office Hours: M 2:00 – 4:00 p.m. Course Website: <u>http://www.econ.ucla.edu/hotz/e262p_075/</u>

Economics 262P Topics in Labor Economics

Goals

This course will consider two related, but distinct topics. During the first part of the course, we will examine the literature on Treatment Effects. aka Causal Inference, aka Program Evaluation. We will characterize "The Selection Problem," i.e., that due to the fact that agents are optimizers, or at least purposeful decision-makers, their actions and the effects of those actions on others are endogenously, rather than exogenously, determined. That is, agents *select* their actions. Selection complicates our ability to make inferences about the (causal) effects of treatments, whatever they may be. We will consider this problem, examining both experimental and non-experimental strategies for dealing with selection. I will focus on the ideas behind these various methods rather than the formal properties of alternative methods. We will examine a number of empirical studies that these methods and critically assess their appropriateness.

The second topic I will consider, which will take up the roughly the second half of the course, will be a very close look at the Roy Model. The Roy Model is an important formulation of the Selection Problem. It is a model that is at the heart of many models in modern labor economics, as well as other fields in microeconomics. We will spend a number of lectures carefully analyzing the Roy Model, its empirical implications and its empirical content. We will then consider some notable applications of Roy Model, namely, schooling and job choice, migration and wage determination in a multi-sector economy.

Course Requirements

The course will be a mix of lecture, discussion and student presentations. I will provide you with an introduction and overview of the various topics we will consider in my lectures. In addition, students will prepare presentations and lead discussions of some specific papers, typically ones that apply the methods or use the concepts I have been lecturing on. In these presentations, students will be expected to critically assess papers, trying to highlight their strengths and weaknesses with respect to improving our understanding of various phenomena. Each student will make at least one presentation during the quarter, possibly two if time permits. Whether during my lectures or the presentations of your classmates, I expect you to participate in the course by asking questions or providing insights into the topics that we consider. I cannot overemphasize the importance of asking questions and probing new ideas as an essential mode of learning. Finally, I expect students to read the papers on the reading list and will resort to "putting you on the spot" in class about the readings in class if it appears students are not doing them. Grades in the course will be based on your presentations (40%) and a take-home written final examination (60%). If you are taking the course, whether for credit or not, you are expected to make a presentation and write the final examinations.

Course Website

I have established a website for the course. The URL is:

http://www.econ.ucla.edu/hotz/e262p_07S

You can obtain the following materials from the website: this syllabus, and its updates, handouts, and some of the course readings and/or their location on the web. Most of the readings for the course can be obtained from JSTOR (<u>www.jstor.org</u>) or the websites for the various journals that are accessible to UCLA (and USC) students. If you have trouble finding papers on the reading list, please let me know.

Outline for First Half of Course:

- 1. The Effects of Treatments and Causal Inference
- 1.1 An Overview: The Program Evaluation Framework, Causal Inference, The Selection Problem, and Parameters of Interest
- 1.2 Randomized Experimental Designs
- 1.3 Non-Experimental Methods for Estimating Treatment Effects (for Conducting Causal Inference)
- 1.3.1 <u>Overview</u>
- 1.3.2 Bounding Treatment Effects
- 1.3.3 Control Function Estimators
- 1.3.4 <u>Matching Methods and the Propensity Score</u>
- 1.3.5 <u>Regression Discontinuity</u>
- 1.3.6 Instrumental Variable Methods
- 1.3.7 Panel Data Methods: Fixed Effect Estimators
- 1.3.8 <u>Difference-in-Difference Methods</u>
- 1.4 Using Experimental Data to Evaluate Selection Bias and Alternative Non-Experimental Methods