Location: Econ 300

Time: Thursday, 1:30–4:20 pm

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 microeconomics and empirical Social Science. Indeed, it is a popular choice for students from many applied fields.

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 (for that see the 220 sequence). Instead, we will focus on presenting a practical guide to the key advantages and disadvantages of each technique in estimation. 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 research in labor economics, which has historically been a font of innovation in applied econometrics.

9/28
After Berman provides an overview and Antonovics introduces the basic course requirements, Dahl will discuss how different economists define causality and identification. Betts will then summarize some of the main problems affecting empirical work, such as omitted variable bias, selectivity bias, endogeneity bias and measurement error, and present an overview of the standard techniques used to deal with these problems. Betts will then begin discussing selectivity bias.

10/5, 10/12
Betts will cover selectivity bias and clustering.

10/19, 10/26
Eli will cover experiments and instrumental variable methods.

11/02, 11/16
Antonovics will cover difference-in-differences methods and social experiments.

11/09, 11/30
Dahl will cover control functions, matching methods, and regression discontinuity.

12/07
Students will present their Very Short Papers. It’s possible that we will need to schedule an additional meeting for presentations depending on the class size.
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 be interesting for you and your team.

This assignment must be completed in groups of three students.

VSP due dates:
**All assignments are to be turned in to the Professor teaching on the given day (listed in parentheses below).**

<table>
<thead>
<tr>
<th>Due date</th>
<th>Description</th>
<th>Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>Thurs, Oct. 5, in class</td>
<td>Each group must submit the question they will study, the dataset they will use, and the names of the group’s members (Betts)</td>
<td>5 points</td>
</tr>
<tr>
<td>Thurs, Oct. 12, in class</td>
<td>Each group must submit its table of means (see VSP handout for details) (Betts)</td>
<td>5 points</td>
</tr>
<tr>
<td>Thurs, Oct. 26, in class</td>
<td>Each group must turn in a hard copy rough draft of its VSP (see VSP handout for details) (Berman)</td>
<td>5 points</td>
</tr>
<tr>
<td>Thurs, Dec. 7, in class</td>
<td>Each group will present its VSP</td>
<td>5 points</td>
</tr>
<tr>
<td>Mon, Dec. 11 at 5 pm</td>
<td>Each group must turn in a hard copy final draft of its VSP (see VSP handout for details) (Betts in Econ 212 or his mailbox in Econ 207)</td>
<td>20 points</td>
</tr>
</tbody>
</table>

TOTAL POINTS FOR VSP 40 POINTS

2. Comprehensive final exam, Saturday 12/16, 11:30 am - 2:30 pm 50 POINTS

3. Class participation 10 POINTS

TOTAL POINTS IN COURSE 100 POINTS

Office Hours
Each professor will hold office hours during the weeks he or she is teaching and will be available for meetings outside those weeks.

Students can make appointments with an individual professor outside professors’ “teaching weeks” by sending an email to the relevant professor:
Julian Betts  ibetts@ucsd.edu
Kate Antonovics  kantonov@ucsd.edu
Eli Berman  elib@ucsd.edu
Gordon Dahl  gdahl@ucsd.edu
Reading List

BETTS SECTION

Note: This list is short but REQUIRED – unless noted otherwise you will be expected to read these papers.

Selectivity Correction

Clustered Standard Errors and Wild Bootstrap
My notes on this section will be quite self contained. You should read Bertrand et al., while Donald and Lang is worth skimming. Cameron and Miller provide for more detailed and advanced information, special cases, and examples of estimation. Cameron, Gelbach and Miller (2008) introduce the wild bootstrap. For this paper you should know how to implement the method, but you are not responsible for derivations!
BERMAN SECTION

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


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

ANTONOVICS SECTION

This list is subject to change . . .

Social Experiments

Burtless, Gary, “The Case for Randomized Field Trials in Economic and Policy Research,”

Cullen, Julie, Brian Jacob and Steven Levitt. “The Effect of School Choice on Participants:

Heckman, James, Robert LaLonde, and Jeff Smith, “The Economics and Econometrics of Active
Labor Market Programs,” Handbook of Labor Economics, Vol. 3A, O. Ashenfelter and

Difference-in-Difference Models

Abadie, Alberto; Diamond, Alexis; Hainmueller, Jens, “Synthetic Control Methods for
Comparative Case Studies: Estimating the Effect of California's Tobacco Control
pp. 493-505.

Abadie, Alberto and Javier Gardeazabal, “The Economic Costs of Conflict: A Case Study of the

Economics and Statistics, 60(1), 47-57.

Athey, Susan and Guido Imbens, “Identification and Inference in Non-Linear Difference-in-

Bertrand, M., E. Duflo, and S. Mullainathan (2004), "How Much Should We Trust Differences-

Betts, Julian, Jesse Levin, Ana Paula Miranda, Bruce Christenson, Marian Eaton and Hans Bos
Interrupted Time Series Analyses: An Application to Elementary Education,” manuscript,
Department of Economics UCSD and American Institutes for Research.

and School,” working paper.

Black, Sandra E. and Philip E. Strahan, “The Division of Spoils: Rent-Sharing and
Discrimination in a Regulated Industry.” American Economic Review, September 2001,
814-831.

Handbook of Labor Economics, edition 1, volume 3, chapter 27, pages 1559-1695
Elsevier.

on Health Insurance Coverage and the Demand for Labor: Evidence from Hawaii”,

and Labor Relations Review, 43:245-257.

the Fast Food Industry in New Jersey and Pennsylvania,” American Economic Review,
(84:4), September.

Conley and Taber (2011) “Inference with Difference in Differences with a Small Number of


DAHL SECTION

Note: This list is preliminary and subject to change.

Propensity Score Matching

Control Function

Regression Discontinuity