THE UNIVERSITY OF CHICAGO

THE IRVING B. HARRIS GRADUATE SCHOOL
OF PUBLIC POLICY STUDIES

PUBLIC POLICY 346:
PROGRAM EVALUATION

Fall 2016: Wednesdays 3:00 – 5:50pm, Room 140C

Instructor: Ofer Malamud
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Office hours: Wednesdays 2:00-3:00pm

TAs: Olga Namen: onamen@uchicago.edu

Course goals: To introduce students to program evaluation and provide an overview of current issues and methods for estimating treatment impacts.

Prerequisites: PP31000 and PP31100 or equivalent coursework in statistics and economic theory. Students lacking these prerequisites should seek permission from the instructor.

Requirements and grading: Grades will be based on class-participation, four problem sets, a midterm, and a final exam. Class participation will count for 10 percent, problem sets will count for a total of 20 percent; the midterm assignment will count for 30 percent, and the final exam will count for 40 percent.

Problem sets: Late problem sets will not be accepted. Each assignment will receive an equal weight of 5 percent each. You may work together with up to 4 students and should submit one assignment per group. Your problem sets must be typed.

Midterm exam: For the midterm exam, you will read a set of evaluation articles and then critique them according to a set of question with which you will be provided. The exam itself is take-home. You must do your own work and may not discuss the exam with anyone before that time. Your exam must be typed.

Final exam: For the final exam, you will also read a set of evaluation articles and then critique them according to a set of question with which you will be provided. The exam itself is take-home. You must do your own work and may not discuss the exam with anyone before that time. Your exam must be typed.

Readings: There is no required textbook for this class, but you may find it useful to refer to a standard econometrics text such as *Introductory Econometrics: A Modern Approach*, by Jeffrey Wooldridge. Each lecture will make reference to a number of relevant research articles which are listed below. They will be made available through the chalk website.

Tentative List of Lecture Topics and Deadlines (subject to adjustments):

9/28	Program Evaluation and Treatment Parameters	
9/30		
10/5	Social Experiments	
10/7		
10/12	Social Experiments & Panel Data	
10/18		**Problem Set #1 due at 5pm**
10/19	Panel Data	
10/25		**Problem Set #2 due at 5pm**
10/26	Evaluation of Evaluations	
11/1		
11/2	Instrumental Variables	
11/4		**Midterm Exam due at 5pm**
11/9	Regression Discontinuity	
11/15		**Problem Set #3 due at 5pm**
11/16	Matching	
11/22		**Problem Set #4 due at 5pm**
11/23	**No Class (Thanksgiving)**	
11/25		
11/30	Wrapping Up	
12/2		**Final Exam due at 5pm**

Reading List

1. Program Evaluation and Treatment Parameters

Paul W. Holland, "Statistics and Causal Inference" *Journal of the American Statistical Association*, Vol. 81, No. 396 (Dec., 1986), pp. 945-960

Charles F. Manski. "Identification Problems in the Social Sciences and Everyday Life," *Southern Economic Journal* 2003, 70(1), 11-21.

Robert Moffitt. 1991. "Program Evaluation with Nonexperimental Data," *Evaluation Review* 15 (June):291-314.

James J. Heckman, Robert J. Lalonde and Jeffrey A. Smith, "The Economics and Econometrics of Active Labor Market Programs" in *Handbook of Labor Economics*, Volume 3, eds. Orley Ashenfelter and David Card. Amsterdam: North-Holland Chapter 3, sections 1 through 3.

2. Social Experiments

Julian Cristia, Ana Santiago, Santiago Cueto, Pablo Ibarraran, and Eugenio Severio "Technology and Child Development: Evidence from the One Laptop per Child Program" (February, 2012) *IDB Working Paper Series* 304

James Heckman, Neil Hohmann, Jeffrey Smith, Michael Khoo. "Substitution and Dropout Bias in Social Experiments: A Study of an Influential Social Experiment" *Quarterly Journal of Economics*, Vol. 115, No. 2 (May, 2000), pp. 651-694.

Alan B. Krueger "Experimental Estimates of Education Production Functions" *The Quarterly Journal of Economics*, Vol. 114, No. 2. (May, 1999), pp. 497-532.

James Heckman and Jeffrey Smith. "Assessing the Case for Social Experiments" *Journal of Economic Perspectives* (9:2) Spring 1995 85-110.

3. Panel Data

Bruce D. Meyer. "Natural and Quasi-Experiments in Economics," *JBES* (13:2) April 1995 151-162.

David Card and Alan Krueger. "Minimum Wages and Employment: A Case Study of the Fast-Food Industry in New Jersey and Pennsylvania", *American Economic Review*, 1994 84(4) 772-793.

Susan Dynarski (2003) "Does Aid Matter? Measuring the Effect of Student Aid on College Attendance and Completion" *American Economic Review* Vol. 93(1): 279-288

Claudia Goldin and Larry Katz, "The Power of the Pill: Oral Contraceptives and Women's Career and Marriage Decisions," *Journal of Political Economy* 110 (August 2002), 730-770.

Louis Jacobson, Robert Lalonde, and Daniel Sullivan (1993) "Earnings Losses of Displaced Workers" *American Economic Review* 83(4): 685-709.

Orley Ashenfelter and Alan Krueger (1994) "Estimates of the Economic Return to Schooling for a New Sample of Twins" *American Economic Review* 84(5): 1157-1173.

4. Evaluation of Evaluations

Robert J. LaLonde. "Evaluating the Econometric Evaluations of Training Programs with Experimental Data," *American Economic Review* 76(4): 604-620.

James J. Heckman. "Sample Selection Bias as a Specification Error" *Econometrica*, Vol. 47, No. 1 (Jan., 1979), pp. 153-161

5. Instrumental Variables

Joshua D. Angrist and Alan B. Krueger. "Instrumental Variables and the Search for Identification: From Supply and Demand to Natural Experiments" *Journal of Economic Perspectives* (15:4) Autumn, 2001 69-85.

Joshua Angrist, Guido W. Imbens, and Donald B. Rubins. "Identification of Causal Effects using Instrumental Variables" *Journal of the American Statistical Association* 91 1996 444-72.

Joshua Angrist and William Evans. "Children and Their Parents' Labor Supply: Evidence from Exogenous Variation in Family Size" *American Economic Review* (88:3) June 1998 450-77.

Card, David (1995) "Using Geographic Variation in College Proximity to Estimate the Return to Schooling." in *Aspects of Labor Market Behaviour: Essays in Honour of John Vanderkamp*. (eds. L.N. Christofides, E.K. Grant, and R. Swidinsky) Toronto: University of Toronto Press

Janet Currie and Enrico Moretti (2002) "Mother's Education and the Intergenerational Transmission of Human Capital: Evidence from College Openings and Longitudinal Data" *Quarterly Journal of Economics* Vol. 118(4): pp. 1495-1532

6. Regression Discontinuity

Thomas Cook. "`Waiting for Life to Arrive': A History of Regression-Discontinuity Design in Psychology, Statistics, and Economics" *Journal of Econometrics* (142:2) 636-54.

Ofer Malamud and Cristian Pop-Eleches "Home Computer Use and the Development of Human Capital," *Quarterly Journal of Economics* (2011) 126 (2): 987-1027.

Joshua Angrist and Victor Lavy "Using Maimonides' Rule to Estimate the Effect of Class Size on Scholastic Achievement," *Quarterly Journal of Economics,* (1999) Vol. 114 (2)

Miguel Urquiola and Eric Verhoogan "Class-Size Caps, Sorting, and the Regression-Discontinuity Design" in *American Economic Review* 2009, 99:1, 179–215

7. Matching

Rajeev Dehejia and Sadek Wahba. 1999. "Causal Effects of Nonexperimental Studies: Reevaluating the Evaluation of Training Programs," *Journal of the American Statistical Association* 94(448) (December): 1053-1062.

Jeffrey A. Smith and Petra Todd. 2005. "Does Matching Overcome LaLonde's Critique of Non-experimental Estimators," *Journal of Econometrics* 125(1-2): 305-353.

8. Wrapping Up

Janet Currie and Duncan Thomas. "Does Head Start Make a Difference?" *American Economic Review*, June 1995 85(3) 341-364.

Jens Ludwig and Douglas L. Miller "Does Head Start Improve Children's Life Chances? Evidence from a Regression Discontinuity Design" The *Quarterly Journal of Economics* (2007) 122 (1): 159-208.

Jens Ludwig and Deborah A. Phillips. "Long-Term Effects of Head Start on Low-Income Children." *Annals of the New York Academy of Sciences* 1136.1 (2008): 257-268.