C. F. Manski 3216 Andersen Hall, 1-8223
cfmanski@northwestern.edu

Economics 336: Analytical Methods for Public Policy (Fall 2009)

An important practical objective of empirical economic research is to predict the consequences of alternative public policies. Economists combine data with assumptions to draw conclusions about policy impacts. The strength and credibility of these conclusions depend on the data and assumptions brought to bear, as well as on the analytical methods used. This course will study basic methodological problems in policy analysis and examine how researchers perform policy analysis in practice.

The prerequisites are courses in microeconomics and econometrics at or above the level of Economics 310 and 281. Instruction will include lectures and class discussion. Examination of methodology and applications will occur throughout the course. Grading will be based on problem sets (10 points), an in-class midterm examination (40 points), and a final examination (50 points).

Text: C. Manski, *Identification Problems in the Social Sciences* (IPSS), Harvard University Press, 1995, paperback edition 1999.

Optional Advanced Text: C. Manski, *Identification for Prediction and Decision*, Harvard University Press, 2007.

Tentative Schedule and Readings

0. Overview (9/22)
IPSS, Introduction

1. Conditional Prediction (9/24, 9/29, 10/1)
IPSS, Chapter 1

Genes as a Predictor of Depression

Caspi, A. *et al.*, "Influence of Life Stress on Depression: Moderation by a Polymorphism in the 5-HTT Gene," *Science*, Vol. 301, 18 July 2003, pp. 386-389.
Duenwald, M., "Gene is Linked to Susceptibility to Depression," *New York Times*, July 18, 2003.
Risch, N. *et al.* "Interaction Between the Serotonin Transporter Gene (5-HTTLPR), Stressful Life Events, and Risk of Depression, A Meta-analysis," *Journal of the American Medical Association*, Vol. 301, No. 23, 2009, pp. 2462-2471
Carey, B. "Report on Gene for Depression is now Faulted," *New York Times*, June 17, 2009.

2. Predicting Individual Behavior (10/6, 10/8, 10/13)
IPSS, Chapter 5
Delavande, A., "Pill, Patch, or Shot? Subjective Expectations and Birth-Control Choice," *International Economic Review*, Vol. 49, No. 3, 2008, pp. 999-1042.

3. Prediction with Missing Outcome Data (10/15, 10/20, 10/22)
IPSS, Chapter 2, Sec. 2.1 – 2.4.

Midterm Examination: Tuesday October 27, 9:30 – 11:00 AM, in class

4. Analysis of Treatment Response (10/29, 11/3, 11/5)
IPSS, Chapter 2, Sec. 2.5 – 2.7, Chapter 6.
Manski, C. and D. Nagin, "Bounding Disagreements About Treatment Effects: A Case Study of Sentencing and Recidivism," *Sociological Methodology*, Vol. 28, 1998, pp. 99-137.

5. Planning Under Ambiguity (11/10, 11/12, 11/17)

Manski, C. "Diversified Treatment under Ambiguity," *International Economic Review*, Vol. 50, No. 4, 2009, pp. 1013-1041.

6. Identification of Social Interactions (11/19, 11/24)

IPSS, Chapter 7.

or Manski, C., "Identification of Endogenous Social Effects: the Reflection Problem," *Review of Economic Studies,* Vol. 60, No. 3, 1993, pp. 531–542.

Social Networks and Obesity

Christakis, N. and J. Fowler, "The Spread of Obesity in a Large Social Network over 32 Years," *New England Journal of Medicine*, Vol. 357, No. 4, 2007, pp. 370-379.

Cohen-Cole, E. and J. Fletcher, "Is obesity contagious? Social networks vs. environmental factors in the obesity epidemic," *Journal of Health Economics*, Vol. 27, No. 5, 2008, pp. 1400-1405.

Fowler, J. and N. Christakis, "Estimating peer effects on health in social networks: A response to Cohen-Cole and Fletcher; and Trogdon, Nonnemaker, and Pais," *Journal of Health Economics*, Vol. 27, No. 5, 2008, pp. 1382-1387.

Final Examination: Thursday December 10, 12:00 – 2:00 PM