

**University of Chicago**

**Econ 311 Reading List**

**G**

James J. Heckman  
Room: HM103  
Class Time  
Tues. & Thurs.: 11:30-12:50  
Two Review Problem Sessions  
Fri: 1-30-3:00/3:30-5:00

Office: SS405  
Office Hours: By Appointment Only  
TA's: Neil Hohmann  
Ben Sacks  
Alex Monge  
Lance Lochner

This course is the second part of a three part sequence designed to acquaint students with basic tools for research in empirical economics. The focus in this course is on microeconomics and the evaluation of microeconomic social programs.

This course is organized around discussions of important problems in economic policy. Samples of topics to be discussed this year include: What are the effects of education and training programs on earnings? Are training subsidies justified? Is labor supply inelastic with respect to tax and transfer policies? What is the economic return to education? Do educational policies of communities explain wages? How does unemployment respond to unemployment insurance benefit structures? Does parental background explain ability? Does ability explain wages and wage differentials? Discussions will be partly organized around Herrnstein and Murray's book - The Bell Curve. Students are required to write a paper on a topic in the original empirical section of the book. This paper is due on Feb. 23, which is the last scheduled lecture. (Problem sessions will continue until the end of the quarter).

Students will be expected to master both the economics and the econometrics relevant to resolving these issues and gain familiarity with the quality of the data sources required to answer these questions in an honest and rigorous fashion. Toward this end, students are expected to work through three problem sets which will partly motivate the discussion in class. There will also be a final exam, and the afore-mentioned paper. As previously advertised, authors of the top two papers will be excused from the final and given an A for the course.

In terms of econometric content, students will be exposed to (a) models for discrete choice and self-selection (b) latent variable models for panel data and (c) models for duration data. A basic tool will be likelihood-based inference. There will be discussion of the merits of social experimentation and general discussions of the general evaluation problem.

Note that I hope to schedule the course so it meets for 1 hour and 40 minutes each lecture. This way, the course ends after 8 weeks. (Room will be announced later). Lecture notes will be available for sale at SS101.

## I. The Policy Evaluation Problem: Constructing Counterfactuals

Ashenfelter, O., "Discrete Choice in Labor Supply: The Determinants of Participation in the Seattle-Denver Income Maintenance Experiment", Journal of The American Statistical Association, Vol. 78, 1983, pp. 517-525.

Heckman, J., "Randomization and Social Program Evaluation" in C. Manski and I. Garfinkle, Evaluating Welfare and Training Programs, Harvard University Press, 1982.

\_\_\_\_\_, "The Case For Simple Estimators: Experimental Evidence From The National JTPA Study", University of Chicago, August, 1993.

Heckman, J. and Robb, R., "Alternative Methods For Evaluating The Impact of Interventions", in J. Heckman and Burton Singer Longitudinal Analysis of Labor Market Data, Cambridge, 1985.

\_\_\_\_\_, and Smith, J., "Assessing The Case For Randomized Evaluation of Training Programs", forthcoming, Journal of Economic Perspectives, 1995.

## II. Background Lectures on Self-selection, Discrete choice and Maximum Likelihood Estimation

Amemiya, T., Advanced Econometrics, Chapter 9, Harvard University Press, 1985.

Cox, D. R. and Hinkley, D. V., Theoretical Statistics, Chapter 9, "Asymptotic Theory", Chapman-Hall, 1982.

Domenich, T. and McFadden, D., Urban Travel Demand, North-Holland, 1975, Chapters 3,4,5.

Greenberg, E. and C. Webster, Chapter 1, Advanced Econometrics: A Bridge To The Literature, Krieger, 1991.

Greene, W., Econometric Analysis, Chapter 21, MacMillian, 1990.

Heckman, J. and Honore B., "Empirical Content of The Roy Model", Econometrica, September, 1990.

## III. Labor Supply and Transfer Policy: Tobit Models, Instrumental Variables and Generalizations With A Discussion of Specification Tests

Amemiya, T., op.cit., Chapter 10.

Berndt, E., The Practice of Econometrics, Chap. 11, Addison-Wesley, 1991.

Greene, W., op.cit., Chapter 21.

Heckman, J., "Sample Selection Bias As A Specification Error", in Smith, J., ed. Female Labor Supply: Theory and Estimation, Princeton University Press, pp. 206-248.

Heckman, J. and MaCurdy, T., "New Methods For Estimating Labor Supply Functions: A Survey", in R. Ehrenberg, ed., Research in Labor Economics, Vol. 4, 1981, pp. 65-102.

\_\_\_\_\_, and Sedlacek, G., "Heterogeneity, Aggregation and Market Wage Functions: An Empirical Model of Self-Selection in the Labor Market", Journal of Political Economy, 1985, Vol. 93, No. 6, pp. 1077-1125.

Mroz, T., "The Sensitivity of An Empirical Model of Married Women's Work To Economic and Statistical Assumptions", Econometrica, Vol. 55, 1987, pp. 765-799.

## IV. Do Repeated Measurements Help? Panel Data Models and Repeated Cross Sections: Errors in Variables, Incidental Parameters and Fixed Effect Models

Ashenfelter, O. and Krueger, A., "Estimates of the Economic Returns to Schooling from a New Sample of Twins", unpublished manuscript, Princeton, 1992.

Chamberlain, G., "Panel Data", Chapter 22, Handbook of Econometrics, Vol. II, 1985.

Heckman, J., "Statistical Models For Discrete Panel Data", Chapter 3 and 4, in C. Manski and D. McFadden (eds), Structural Analysis of Discrete Data With Econometric Applications. M.I.T. Press, 1986.

Heckman, J., B. Singer and G. Tsiong, Lecture Notes on Panel Data, University of Chicago, 1984.

Hsiao, C., Panel Data, Chapter 1,2,3, Cambridge, 1986.

Johnston, J., Chapter on Errors in Variables, Econometric Methods, First Edition, McGraw Hill, 1963.

Judge, G., Griffiths, W., Hill, R. and Lee, T., The Theory and Practice of Econometrics, Chapter 13, "Unobserved Variables", Wiley, 1980.

**V. Review of Regression Methods: Does Schooling Quality Raise Earnings? The Earnings Function and Hedonic Models; Age-Period-Cohort Effects, Specification Testing; Dummy Variables, The Lindley Paradox; Bayesian Methods**

Berndt, E., op. cit., Chapter 5.

Card, D. and Krueger, A., "Does Schooling Quality Matter?", JPE, February, 1992, pp. 1-40.

\_\_\_\_\_, "School Quality and Black-White Relative Earnings", Quarterly Journal of Economics, Feb 1992.

Heckman, J., and A. Layne-Farrar and P. Todd, "Does Measured School Quality Really Matter? Understanding The Empirical and Economic Foundations of the Evidence", unpublished manuscript, University of Chicago, 1994.

Heckman, J. and Robb, R., "Using Longitudinal Data to Estimate Age, Period and Cohort Effects in Earnings Equations, in Cohort Analysis in Social Research Beyond the Identification Problem", ed. by William M. Mason and Stephen E. Feinberg, Springer-Verlag New York Inc. 1985.

Leamer, E., Specification Searches, Chapters 3 & 4, Wiley, 1978.

Smith, J. and F. Welch, "Black Economic Progress After Myrdal", Journal of Economic Literature, June 1989, pp. 519-564.

**VI. The Impact of Training on Earnings**

Ashenfelter, O., "Estimating The Effect of Training Programs on Earnings", Review of Economics and Statistics, 1978, pp. 47-57.

\_\_\_\_\_, and D. Card, "Using The Longitudinal Structure of Earnings To Estimate The Effects of Training Programs", Review of Economics and Statistics, 1985, pp. 648-660.

Heckman, J. and R. Roselius, "Evaluating The Impact of Training on Earnings and The Labor Force Status of Young Women: Better Data Help A Lot", unpublished manuscript, University of Chicago, 1994.

**VII. Unemployment and Turnover Dynamics: Duration Models**

Amemiya, T., op.cit., Chapter 11.

Flinn C. and Heckman, J., "Models For The Analysis of Labor Force Dynamics", pp. 65-69, Advances in Econometrics, Vol. 1, ed. by R. Bassman and G. Rhodes, JAI Press.

\_\_\_\_\_, "The Likelihood Function" in Advances in Econometrics, Vol. 3, ed. by R. Bassman and G. Rhodes.

\_\_\_\_\_, "New Methods For Analyzing Structural Models of Labor Force Dynamics", Journal of Econometrics, Vol. 18, 1982, pp. 115-168.

Heckman, J., and B. Singer, "Social Science Duration Analysis", in Heckman, J. and B. Singer, Longitudinal Analysis of Labor Market Data, Cambridge, 1985.

Heckman, J., B. Singer, and G. Tsang, op.cit., Chapters on Duration Analysis.

Lancaster, T., The Econometric Analysis of Transition Data, Chapter 1-4, Cambridge University Press, 1991.

Meyer, B., "Unemployment Insurance and Unemployment Spells", Econometrica, 1990.