

Brown University  
Economics 236  
Topics in Labor and Health  
Fall 2006  
MW 1:30-2:50  
Robinson 301

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Office Hours: Monday 3:00 – 4:30

#### Course Description:

This course is divided in two parts. The first covers the basic issues and empirical techniques in applied microeconomics and the second will introduce you to the issues, theory and practice of health economics. This course will do two things: 1) familiarize you with the methodological problems and approaches in applied microeconomics with applications to the theory of human capital and 2) survey the major topics in Health Economics. By the end of this course you should understand how to draw credible inference using non-experimental data and be able to contribute to public policy debates regarding health and medical care in the US.

#### Course Work

1. Each student should expect to present 2 papers to the class this semester and to “discuss” papers as well
2. There will be three problem sets using data
3. A 10-15 page research proposal is due at the end of the class. You will present your progress to the class towards the end of the semester (exact dates to be determined in class)

## Syllabus

### I. Theory of Human Capital and the Return to Schooling

Willis, Robert (1986) "Wage Determinants: A Survey and Reinterpretation of Human Capital Earnings Functions" *Handbook of Labor Economics* Volume 1.

Card, David (1998) "The Causal Effect of Education on Earnings" Berkeley Center for Labor Economics, Working Paper 2, forthcoming *Handbook of Labor Economics*.

Becker "Human Capital" The University of Chicago Press, 1964.

Spence (1973) "Job Market Signaling" *Quarterly Journal of Economics*, Vol 87 no 3, August 355-374

Stiglitz (1975) "The Theory of Screening, Education and the Distribution of Income" *American Economic Review* vol 65, no 3 (June) 283-300.

Roy (1951) "Some Thoughts on the Distribution of Earnings" *Oxford Economic Papers* pp 235-246.

Willis and Rosen (1979) "Education and Self-Selection" *Journal of Political Economy*, s7-s36

### II. Estimation - Problems of Identification and Strategies

Angrist, Joshua and Alan Krueger (1998) "Empirical Strategies in Labor Economics" *Handbook of Labor Economics* vol 3 and Princeton University Working Paper #401.

Meyer, Bruce (1995) "Natural and Quasi-Experiments in Economics" *Journal of Business and Economic Statistics* Vol 13 no 2 . pp 151-161.

Manski, Charles (1995) "Identification Problems in the Social Science" Harvard University Press.

### III. Estimating the Returns to Education/training

#### A. Fixed effect (twins)

Ashenfelter, Orley and Alan Krueger "Estimating the Return to Schooling Using a New Sample of Twins" *American Economic Review* 1994

Ashenfelter, Orley and Cecilia Rouse "Income, Schooling and Ability: Evidence from a New Sample of Identical Twins" NBER # 6106

Almond, Douglas, Chay, Ken and David Lee (2005) "The Costs of Low Birth Weight" *Quarterly Journal of Economics*, August 2005, 1031-1083.

Bound and Solon "Double Trouble: On the Value of Twins-based Estimation of the Return to Schooling" *Economics of Education Review*" 18, 1999

#### B. Difference in Differences

Card, David (1990) "The Impact of the Mariel Boatlift on the Miami Labor Market" *Industrial and Labor Relations Review*, Vol 43, no 2 245-257

Card, David and Alan Krueger (1994) "Minimum Wages and Employment: A Case Study of the Fast-Food Industry in New Jersey and Pennsylvania" *American Economic Review*, Vol 84, No 4.

Deere, Donald, Murphy, Kevin and Finis Welch (1995) "Employment and the 1990-1991 Minimum Wage Hike" *American Economic Review* Vol 85, no. 2 (Papers and Proceedings).

Bertrand, Marianne, Esther Duflo and Sendhil Mullainathan, "How much should we trust Difference in Difference Estimates?", NBER Working Paper #8841, March 2002

#### C. IV

Angrist, Joshua and Alan Krueger "Does Compulsory School Attendance Affect Schooling and Earnings?" *Quarterly Journal of Economics* (November 1991)

Staiger, Douglas and James Stock (1997) "Instrumental Variables Regression with Weak Instruments" *Econometrica* Vol 65, No 3.

Bound, Jaeger and Baker (1995) "Problems with Instrumental Variables Estimation When the Correlation Between the Instruments and Endogenous Explanatory Variable is Weak" *Journal of the American Statistical Association*, Vol 90, No 430.

Angrist, Joshua, Guido Imbens and Donald B. Rubin, "Identification of Causal Effects Using Instrumental Variables," *Journal of the American Statistical Association*, June 1996, Vol 91, No 434

Angrist, Joshua (2005) "Instrumental Variables Methods in Experimental Criminological Research" NBER technical wp # 314.

#### D. Regression Discontinuity

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

Black, Sandy (1999) "Do Better Schools Matter? Parental Valuation of Elementary Education," *Quarterly Journal of Economics*.

Van der Klaauw, W. (2002), "Estimating the Effect of Financial Aid Offers on College Enrollment: A Regression-Discontinuity Approach," *International Economic Review* 43(4), 1249-1287.

Hahn, J., Todd, P., and W. Van der Klaauw. (2001), "Identification and Estimation of Treatment Effects With a Regression Discontinuity Design," *Econometrica* 69(1), 201-209.

#### E. Propensity Score

Lalonde, Robert, (1986) "Evaluating Econometric Evaluations of Training Programs with Experimental Data," *American Economic Review*, 76(4), September 1986, 604-620.

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

Smith, Jeffrey and Petra Todd (2004), "Does Matching Overcome Lalonde's Critique of Nonexperimental Methods?" *Journal of Econometrics*, Volume 125 (1-2), 2004, 305-353.

#### F. Omitted Variable Bias: the rising Return to Education and Computers

Krueger, Alan (1993) "How Computers have changed the wage structure: Evidence from Microdata 1984-1989" *Quarterly Journal of Economics* 108

DiNardo, John and Steven Pischke (1997) "The Returns to Computer Use Revisited: Have Pencils Changed the Wage Structure Too?" *Quarterly Journal of Economics* 112

#### G. Measurement Error

Kane, Rouse and Douglas Staiger “Estimating Returns to Schooling when Schooling is Misreported” NBER 7235

Duncan and Hill (1995) “An Investigation into the Extent and Consequences of Measurement Error in Labor Economics Survey Data” *Journal of Labor Economics* 508.

Bound, John and Jaeger (1991) “The Extent of Measurement Error in Longitudinal Earnings Data: Do Two Wrongs Make a Right?” *Journal of Labor Economics*.

Chay, Kenneth, McEwan, Patrick and Miguel Urquiola, (2005) “The Central Role of Noise in Evaluating Interventions That Use Test Scores to Rank Schools” *American Economic Review*, September 2005, 1237-1258

## Start Health Economics

### I. Introduction -

Arrow, Kenneth (1963) “Uncertainty and the Welfare Economics of Medical Care” *American Economic Review* December 1963

De Lew, Nancy, Greenberg, George “A Layman’s Guide to the US Health Care System” *Health Care Financing Review* Fall 1992

Fuchs, Victor (2000) “The Future of Health Economics” *Journal of Health Economics* 19.

### II. The Demand for Health and Medical Care

Dardanoni and Wagstaff (1987) “Uncertainty, Inequalities in Health and the Demand for Health” *Journal of Health Economics*.

Grossman, Michael (1972) “On the Concept of Health Capital and the Demand for Health” *Journal of Political Economy*

Chang (1996) “Uncertainty and Investment in Health” *Journal of Health Economics* 15.

### III. The Determinants of Health

## Birth Production Functions

Rosenzweig, Mark and Paul Schultz “Estimating a Household Production Function: Heterogeneity, the Demand for Health Inputs, and Their Effects of Birth Weight” *Journal of Political Economy*.

Almond, Douglas “Is the 1918 Influenza Pandemic Over? Long-term Effects of In Utero Influenza Exposure in the Post-1940 U.S. Population” Forthcoming, *Journal of Political Economy* (August 2006)

### Education and Health

Currie, Janet and Enrico Moretti (2003) “Mother’s Education and the Intergenerational Transmission of Human Capital: Evidence from College Openings” *Quarterly Journal of Economics*

Lleras-Muney, Adriana (2005) "The Relationship Between Education and Adult Mortality in the U.S.," *Review of Economic Studies*, Vol.72(1), January 2005

Grossman, Michael and Robert Kaestner (1997), “Effects of Education on Health,” in Jere. R. Behrman and Nezver Stacey eds. The Social Benefits of Education, University of Michigan Press, Ann Arbor.

Kenkel, Donald (1991) “Health Behavior, Health Knowledge and Schooling” *Journal of Political Economy* Vol 99 no (2) April 1991 287-305.

Ding, Weili, Lehrer, Steven, Rosenquist, Neil and Janet Audrain-McGovern (Feb 2006 ) “The Impact of Poor Health on Education: New Evidence Using Genetic Markers” NBER WP # 12304

### Pollution

Chay, Kenneth and Michael Greenstone (2003 ) “ The Impact of Air Pollution on Infant Mortality: Evidence from Geographic Variation in Pollution Shocks Induced by a Recession” August 2003, *Quarterly Journal of Economics*, 118(3)

### Race & Access to Health Care

Almond, Douglas, Chay, Kenneth and Michael Greenstone ["Civil Rights, the War on Poverty, and Black-White Convergence in Infant Mortality in Mississippi"](http://www.nber.org/~almond/mississippi.pdf) found at <http://www.nber.org/~almond/mississippi.pdf>

Almond, Douglas and Kenneth Chay ["The Long-Run and Intergenerational Impact of Poor Infant Health: Evidence from Cohorts Born During the Civil Rights Era"](http://www.nber.org/~almond/cohorts.pdf) found at <http://www.nber.org/~almond/cohorts.pdf>

### Income and Business Cycles

Ruhm, Christopher (2000) "Are Recessions Good for Your Health?" *Quarterly Journal of Economics*.

Case, Anne, Lubotsky, Darren and Christina Paxson "Economic Status and Health in Childhood: The Origins of the Gradient" NBER WP # 8344 (also American Economic Review 2003)

### Other

Kremer, Michael (1996) "Integrating Behavioral Choice into Epidemiological Models of AIDS" *Quarterly Journal of Economics* 111(2).

### IV. Consumer Behavior - Addiction

Becker, Gary, Grossman, Michael and Kevin Murphy (1994) "An Empirical Analysis of Cigarette Addiction" *American Economic Review* .

Manning, Willard and Ted Keeler (1989) "Taxes of Sin: Do Smokers and Drinkers Pay their Way?" *Journal of the American Medical Association* 261(11).

Gruber, Jonathon and Botand Kosegi (2001) "Is Addiction Rational? Theory and Evidence" *Quarterly Journal of Economics*.

Laux (2000) "Addiction as a Market Failure: Using Rational Addiction Results to Justify Tobacco Regulation" *Journal of Health Economics*.

### V. Externalities

Manski, Charles "Identification of Endogenous Social Effects: The Reflection Problem" *The Review of Economic Studies*, Vol. 60, No. 3. (Jul., 1993), pp. 531-542.

Sacerdote, Bruce (2001) "Peer Effects with Random Assignment: Results for Dartmouth Roommates" *Quarterly Journal of Economics*

Miguel, Edward and Michael Kremer, "Worms: Education and Health Externalities in Kenya," NBER Working paper 8481. *Econometrica* Vol 72, #1 (2004).

Aizer, Anna and Janet Currie (2004) "Networks or Neighborhoods? Correlations in the Use of Publicly Provided Health Insurance" *Journal of Public Economics*.

## VI. Health Insurance

### Adverse Selection

Rothschild, Michael and Joseph Stiglitz (1976) "Equilibrium in Competitive Insurance Markets: An Essay on the Economics of Imperfect Information" *Quarterly Journal of Economics*.

Akerlof, George (1970) "The Market for Lemons" *Quarterly Journal of Economics*

Cutler, David and Sara Reber (1998) "Paying for Health Insurance: The Tradeoff Between Competition and Adverse Selection" *Quarterly Journal of Economics*

Buchmueller, Tom and Jon Dinardo (2002) "Did Community Rating Induce an Adverse Selection Death Spiral" *American Economic Review*.

### Health Insurance and the Labor Market

Summers, Lawrence (1989) "Some Simple Economics of Mandated Benefits" *American Economic Review*. May 1989.

Farber and Levy (2000) "Recent Trends in Employer-Sponsored Health Coverage: Are Bad Jobs Getting Worse?" *Journal of Health Economics*.

Madrian, Bridgette (1994) "Employment Based Health Insurance and Job Mobility: Is There Evidence of Job-Lock?" *Quarterly Journal of Economics*.

Gruber, Jonathon and Bridgette Madrian (1995) "Health Insurance Availability and Early Retirement Decisions" *American Economic Review*.

Olson (2002) "Do Workers Accept Lower Wages in Exchange for Health Benefits" *Journal of Labor Economics*.

Gruber, Jonathon (1994) "The Incidence of Mandated Maternity Benefits" *American Economic Review* 84(3).

### Moral Hazard

Gynor, Hass-Wilson and Vogt (2000) "Are Invisible Hands Good Hands? Moral Hazard, Competition and the Second-Best in Health Care Markets" *Journal of Political Economy*

Pauly, Mark (1968) "The Economics of Moral Hazard" *American Economic Review*.

Eichner, (1988) “The Demand for Medical Care: What people Pay Does Matter,” *American Economic Review* 88.

Feldstein, Martin (1973) “The Welfare Loss of Excess Health Insurance” *Journal of Political Economy* part 1.

Manning, Newhouse, Duan, Keeler, Leibowitz and Marquis (1987) “Health Insurance and the Demand for Medical Care: Evidence from a Randomized Experiment.” *American Economic Review*.

### Public Health Insurance

Currie, Janet and Jon Gruber (1996) “Saving Babies: The Efficacy and Cost of Recent Changes in Medicaid Eligibility of Pregnant Women” *Journal of Political Economy*

Cutler, David and Jon Gruber (1996) “Does Public Insurance Crowd Out Private Insurance?” *Quarterly Journal of Economics*

Yelowitz, Aaron. (1995) "The Medicaid Notch, Labor Supply and Welfare Participation: Evidence from Eligibility Expansions." *Quarterly Journal of Economics* 105.

### VII. Technology

Weisbrod, Burton “The Health Care Quadrilemma: An Essay on Technological Change, Insurance, Quality of Care and Cost Containment” *Journal of Economic Perspectives* June 1991

Baker, Lawrence “Managed Care and Technology Adoption in Health Care: Evidence from Magnetic Resonance Imaging” *Journal of Health Economics* 2001

Finkelstein, Amy (2004) “Health Policy and Technological Change: Evidence from the Vaccine Industry” NBER Working Paper # 9460 and *Quarterly Journal of Economics*.

Amy Finkelstein (2005) “The Aggregate Effects of Health Insurance: Evidence from the Introduction of Medicare” forthcoming *Quarterly Journal of Economics* found at [http://www.nber.org/~afinkels/papers/Finkelstein\\_Medicare\\_April06.pdf](http://www.nber.org/~afinkels/papers/Finkelstein_Medicare_April06.pdf)

### VIII. Supply Side of Health – Provider Incentives

#### Physicians

Rizzo and Zeckhauser (1990) "Advertising and Entry: The Case of Physician Services" *Journal of Political Economy*.

Kessler, Daniel and Mark McClellan (1996) "Do Doctors Practice Defensive Medicine?" *Quarterly Journal of Economics*

Reinhardt, Uwe (1985) "The Theory of Physician Induced Demand: Reflections After a Decade" *Journal of Health Economics*.

Farley (1986) "Theories of the Price and Quantity of Physician Services: A Synthesis and Critique" *Journal of Health Economics*.

### Hospitals

Kessler, Daniel and Mark McClellan (2000) "Is Hospital Competition Socially Wasteful?" *Quarterly Journal of Economics*

Cutler, David (1997) "The Incidence of Adverse Medical Outcomes Under Prospective Payment" *Econometrica* 16(4) 1997.

Duggan, Mark. (2000) "Hospital Ownership and Public Medical Spending." *Quarterly Journal of Economics* 115.