

Economics 7372
M/W 11:30-1:00
212-M

Dr. Juhn
Fall 2014

Selected Topics in Education

Course Description:

This course is a graduate level course in economics of education. We will begin by reviewing trends in the college premium and wage inequality. A motivating question is why college premiums continue to rise and supply of skill has slowed. Another motivating question is the recent reversal in the gender gap in education. The second section will cover the basic human capital model of education, with discussion of the Mincer earnings equation and some of its shortcomings. We will then turn to measurement and estimation of the “return to schooling” with Becker’s Woytinsky lectures as basis. The fourth topic will cover the efficacy of various inputs in the education production function such as school resources, class size, peer effects, and teacher quality. The fifth topic will cover issues in higher education. We will investigate the importance of cognitive skills, credit constraints, financial aid, and information gaps in explaining college attainment. The course will end with papers on early childhood investments and recent emphasis on the formation of non-cognitive skills. The policy question that frames the course is: what are the most effective human capital policies that will meet the rising demand for an educated workforce?

Office Hours: By appointment. I am around most days but it is always a good idea to call me (x3-3823) or email me before you arrive at my office.

Course Requirements:

The goal of the class is to introduce students to topics in education, to familiarize them with empirical tools, and finally to have students produce an empirical paper with data analysis at the end of the semester. The requirements are a final exam (40%) and either a replication study or a proposal of original research (50%). Attendance and participation in class and regular attendance of empirical micro seminars will constitute the rest of your grade (10%). The syllabus contains two types of readings. The starred readings will be discussed in class. Most papers are available on the web or through JSTOR. Those papers that are hard to find (including Handbook chapters) will be available to be xeroxed in a file drawer outside my office. Please return them promptly after you have made a copy. The following are good sources for reference on the empirical methods that are covered in class.

Angrist, Joshua and Krueger, Alan. “Empirical Strategies in Labor Economics.” In Handbook of Labor Economics. Orley Ashenfelter and David Card, eds. North Holland, 1999, Volume 3A.

Angrist, Joshua and Jorn-Steffen Pischke. Mostly Harmless Econometrics. Princeton University Press, 2009.

DiNardo, John and David S. Lee. “Program Evaluation and Research Designs.” NBER WP 16016, forthcoming Handbook of Labor Economics, David Card, eds. North-Holland, 2010. Volume 4A.

Lee, David and Thomas Lemieux, “Regression Discontinuity Designs in Economics.” *Journal of Economic Literature*. June 2010.

(1) Final – The final exam will be an in-class exam on December 1, 2014. The test will cover lectures and papers discussed in class.

(2) Replication/Paper Proposal – There are two options to fulfill the requirement: option #1) proposal of an original paper with the student’s own research question, design, and data work and option #2) replication of an existing paper. The proposal should be approximately 8-10 pages and should include a literature review and proposed research project including the main hypothesis, description of the data that will be used, and the empirical strategy. Students should schedule appointments with me to discuss their ideas starting the week of September 29th. Towards the end of the course, students will be asked to prepare a 30 minute presentation of their proposal. The written proposal will be due on the last day of class, December 3, 2014.

(3) Attendance at Seminars – Attendance at the weekly micro seminars is required and will count towards your grade for attendance and participation. The micro seminars are generally held on Tuesday afternoons 3:30 p.m.

Useful Web Sites:

NBER Papers in the Economics of Education: <http://www.nber.org/papersbyprog/ED.html>

University of Michigan Library Education Statistics on the Web:

<http://www.lib.umich.edu/govdocs/steduc.html>

Course Outline

I. Evolution of the College Wage Premium and Wage Inequality (Lectures 1) – college premium, evolution of wage inequality, polarization, slowdown in supply of college

*Acemoglu, D. and D. Autor. “Skills, Tasks and Technologies: Implications for Employment and Earnings” NBER Working Paper, 16082, June 2010. (Also in Handbook of Labor Economics, 4A)

*Murphy, Kevin M. and Robert H. Topel. “Human Capital Investment, Inequality and Growth,” George J. Stigler Center for the Study of the Economy and State Working Paper No. 253, February 2014.
<http://www.chicagobooth.edu/assests/stigler/253.pdf>

Autor, D., F. Levy, and R. Murnane. “The Skill Content of Recent Technological Change: An Empirical Investigation?” *Quarterly Journal of Economics*, November 2003.

II. Human Capital, Income Distribution, Self-Selection (Lectures 2, 3) – model of human capital, education as investment, relationship between education and earnings, Mincerian earnings regression

*Willis, R. “Wage Determinants: A Survey and Reinterpretation of Human Capital Earnings Functions,” Handbook of Labor Economics. Orley Ashenfelter and Richard Layard, eds. North-Holland, 1986. Volume 1.

*Rosen, Sherwin. “Human Capital: A Survey of Empirical Research.” *Research in Labor Economics*. R. Ehrenberg, ed. 1977.

*Meghir, C. and S. Rivkin, “Econometric Methods for Research in Education,” NBER working paper 16003, May 2010. (Also in Handbook of Economics of Education), p. 1-47.

Becker, Gary. Human Capital. Chicago: University of Chicago Press. 1975. (pp 56-135)

Heckman, J., Lochner, L. and P. Todd “Fifty Years Mincer Earnings Regressions,” NBER working paper 9732, May 2003.

III. Empirical Estimates of the Return to Schooling (Lectures 4, 5, 6) – important because popularized IV empirical method, LATE discussion, problems with weak instruments

*Angrist, Joshua and Krueger, Alan. “Empirical Strategies in Labor Economics.” In Handbook of Labor Economics. Orley Ashenfelter and David Card, eds. North Holland, 1999, Volume 3A.

*Card, David. “The Causal Effect of Education and Earnings.” In Handbook of Labor Economics. O. Ashenfelter and David Card, eds. 1999. Volume 3A.

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

Bound, John, David Jaeger, and Regina Baker. "Problems with Instrumental Variables Estimation When the Correlation Between the Instruments and the Endogenous Explanatory Variable is Weak." *Journal of the American Statistical Association*. June 1995. JSTOR

IV. Education Production - contrasting empirical methods state aggregate regressions, experiments, RD, debate over whether effective and why the different conclusions?

A. School Resources (Lecture 7, 8)

*Card, D. and A. Krueger. "School Quality and Black-White Relative Earnings: A Direct Assessment." *Quarterly Journal of Economics*. February, 1992.

*Hanushek, E. "The Economics of Schooling: Production and Efficiency in Public Schools." *Journal of Economic Literature*. September 1986.

Jackson, C. Kirabo, Johnson, Rucker, and Claudia Persico. "The Effect of School Finance Reforms on the Distribution of Spending, Academic Achievement, and Adult Outcomes. NBER Working paper 20118. May, 2014.

B. Class Size (Lecture 9, 10)

*Angrist, J. and V. Lavy. "Using Maimonides' Rule to Estimate the Effect of Class Size on Scholastic Achievement." *Quarterly Journal of Economics*, November 1999. JSTOR

*Krueger, A. "Experimental Estimates of Education Production Functions." *Quarterly Journal of Economics*, May 1999. JSTOR

*Chetty, R., Friedman, J. Hilger, N. Saez, E. Schanzenbach, D. and D. Yagan, "How Does your Kindergarten Classroom Affect your Earnings? Evidence from Project STAR," *Quarterly Journal of Economics*, 126(4): 1593-1660, 2011.

C. Peer Effects (Lecture 11) – best examples of estimating peer effects – the key critical difficulty is identifying peer effects from sorting

*Hoxby, C. "The Effect of Class Size on Student Achievement: New Evidence from Natural Population Variation." *Quarterly Journal of Economics*, November 2000. JSTOR

*Sacerdote, B. "Peer Effects with Random Assignment: Results for Dartmouth Roommates," *Quarterly Journal of Economics*, Vol 116.2 (May), pp. 681-704. JSTOR

*Carrell, Scott, Sacerdote. B. and J. West. "From Natural Variation to Optimal Policy? The Importance of Endogenous Peer Group Formation," *Econometrica*, 81(3): 855-882, 2013.

Carrell, Scott, Fullerton, Richard and James E. West, 2009. "Does Your Cohort Matter? Measuring Peer Effects in College Achievement," *Journal of Labor Economics*, University of Chicago Press, vol. 27(3), pages 439-464.

Evans, W., W. Oates, and R. Schwab, "Measuring Peer-Group Effects: A Study of Teenage Behavior," *Journal of Political Economy*, October 1992. JSTOR

D. Teachers (Lecture 12) – recent examples of estimating teacher effects with large administrative data

*Hanushek, E., Kain, J., O'Brien, D., and S. Rivkin. "The Market for Teacher Quality" NBER Working Paper, February 2005.

*Kane, T. and D. Staiger, "Estimating Teacher Impacts on Student Achievement: An Experimental Evaluation," NBER Working paper 14607, December 2008.

Rothstein, Jesse. "Teacher Quality in Educational Production: Tracking, Decay, and Student Achievement," *Quarterly Journal of Economics*, February 2010.

Chetty, R. Friedman, J. and J. Rockoff. "Measuring the Impacts of Teachers I: Evaluating Bias in Teacher Value-Added Estimates," forthcoming, *American Economic Review*.
<http://obs.rc.fas.harvard.edu/chetty/w19423.pdf>

Chetty, R. Friedman, J. and J. Rockoff. "Measuring the Impact of Teachers II: Teacher Value-Added and Student Outcomes in Adulthood," forthcoming, *American Economic Review*.
<http://obs.rc.fas.harvard.edu/chetty/w19424.pdf>

E. Charter Schools (Lecture 13) - effectiveness of some charter schools, what is the secret to success?

* Angrist, J., Abdulkadiroglu, Al, Dynarski, S., Kane, T., and P. Pathak, "Accountability and Flexibility in Public Schools: Evidence from Boston's Charters and Pilots." *The Quarterly Journal of Economics*, August 2011.

* Angrist, J., Dynarski, S., Kane, T., Pathak, P., and Chris Walters. "Inputs and Impacts in Charter Schools: KIPP Lynn." *The American Economic Review Papers and Proceedings* 100(2), May 2010.

Angrist, J, Cohodes S., Dynarski S., Pathak Parag, and C. Walters. "Stand and Deliver: Effects of Boston's Charter Schools on College Preparation, Entry and Choice." NBER Working Paper 19275. July 2013.

V. College Going and College Choice – the debate over whether it is college readiness or credit constraints that explains the college gap, – behavior anomalies, informational problems, why do poor, minority, Hispanic students not go to college?

A. College Gap Across Race, Income, and Ethnicity (Lectures 14,15)

* Cameron, S. and J. Heckman. "The Dynamics of Educational Attainment for Black, Hispanic, and White Males." *Journal of Political Economy*, June 2001.

Trejo, Steve. "Why Do Mexican Americans Earn Lower Wages?" *Journal of Political Economy*, December 1997.

Kane, Thomas. "College Attendance By Blacks Since 1970: The Role of College Cost, Family Background, and the Returns to Education," *Journal of Political Economy*, 1994.

Carneiro, P. and J. J. Heckman, "The Evidence on Credit Constraints in Post-Secondary Schooling," *The Economic Journal*, October 2002.

B. Effect of Subsidies, Financial Aid (Lectures 16,17)

* Dynarski, S. "Hope for Whom? Financial Aid for the Middle Class and Its Impact on College Attendance," NBER Working Paper 7756, June 2000. *National Tax Journal* Vol. 53 no. 3 Part 2 (September 2000) pp. 629-662

Kane, Thomas, "Evaluating the Impact of the D.C. Tuition Assistance Program," *Journal of Human Resources* 42(3), 555-582. 2007.

Angrist, J., Autor, D., Hudson, S., and A. Pallais. "Smart Money: A Randomized Evaluation of Targeted Post-Secondary Aid." Working paper, July 2014.

C. Behavioral Anomalies, information problems

Bettinger, E., Long, B., Oreopoulos, P. and L. Sanbonmatsu, "The Role of Application Assistance and Information in College Decisions: Results from the H&R Block FAFSA Experiment." *The Quarterly Journal of Economics* 127.3 (2012): 1205-242

Hoxby C, and C. Avery. "The Missing One-Offs: The Hidden Supply of High-Achieving Low-Income Students." *Brookings Papers on Economic Activity*, Forthcoming.

http://scholar.harvard.edu/files/cavery/files/hoxby_avery_forthcoming.pdf

Bulman, G., Hoxby, C., Meer, J. "The Effect of Teach For America on College-Going among Poor Students." Working paper. July 2014.

Pallais, A. "Small Differences that Matter: Mistakes in Applying to College." Forthcoming *Journal of Labor Economics*, September 2013.

http://scholar.harvard.edu/files/pallais/files/small_differences_that_matter_1.pdf

VI. Early Childhood (Lectures 18, 19, 20, 21)– model, birth weight and parental offsetting/reinforcing investment, tax policies, Headstart, GED, non-cognitive skills

A. Early Investments

Almond, Douglas and Janet Currie, "Human Capital Development before Age Five," NBER working paper 15827. March 2010. (*Handbook of Labor Economics* 4A).

Cunha, Flavio and Heckman, James J. (2007). "The Technology of Skill Formation," *American Economic Review*, 97(2): 31-47.

Cunha, Flavio and Heckman, James J. (2008). "Formulating, Identifying and Estimating the Technology of Cognitive and Noncognitive Skill Formation." *Journal of Human Resources*, 43(4): 738-782.

Cunha, Flavio, and J. Heckman, "Investing in Our Young People," NBER Working paper 16201, July 2010.

Currie, J. and R. Hyson, "Is the Impact of Shocks Cushioned by Socioeconomic Status? The Case of Low Birth Weight," *American Economic Review*, May 1999.

Currie, J. and Duncan Thomas. "Does Head Start Make a Difference?" *American Economic Review*, 85 (3): 341-361, 1995.

Cascio, E. and D. Whitmore Schanzenbach. "The Impacts of Expanding Access to High-Quality Preschool Education." NBER Working Paper 19735. December 2013.

Dahl, G. and L. Lochner, "The Impact of Family Income on Child Achievement: Evidence from the Earned Income Tax Credit," *American Economic Review*, forthcoming.

. B. Later Investments – GED (Lecture 22)

Murnane, R. J. and J.H. and J. Willett. "Estimating the Impact of the GED on the Earnings of Young Dropouts Using a Series of Natural Experiments," *Quarterly Journal of Economics*, May 2000.

Cameron, S. and J. Heckman. "The Non-equivalence of High School Equivalents." *Journal of Labor Economics*, 1993.

Heckman, J. and Y. Rubinstein, "The Importance of Noncognitive Skills: Lessons from the GED Testing Program," *American Economic Review*, May 2001.

C. Non-Cognitive Skills (Lecture 23)

Heckman, James J., Jora Stixrud and Sergio Urzua. "The Effects Of Cognitive and Noncognitive Abilities On Labor Market Outcomes and Social Behavior," *Journal of Labor Economics*, 2006, v24(3,Jul), 411-482.

Jacob, Brian. "Where the Boys Aren't: Non-Cognitive Skills, Returns to School and the Gender Gap in Higher Education." *Economics of Education Review* 21 (2002): 589-598.