

The Central University of Finance and Economics
China Center for Human Capital and Labor Market Research

Economics of Education

Spring 2014

Instructor: Sophie Wang
Email: sophiewang2004@gmail.com
Class hours & place: 10:10 am – 12:00 pm, Wednesday; Main Building 413
10:10 am – 12:00 pm, Friday; Main Building 413
Office hours & place: 1:30 pm – 4:30 pm, Wednesday; Academic Hall #613

Course Outline

Course Summary and Objectives:

This seminar course on the economics of education examines the theoretical and empirical models developed to study the demand and supply of education. The first topic is the demand for education, the extent to which education is an investment in human capital or a signal of ability to potential employers, and the private and social returns to education. We will also examine how the decision to invest in education is affected by ability, family background, and other factors. We then analyze the supply of education, and how educational inputs such as principals, teachers, and class sizes are related to educational outcomes and the production of human capital.

Required Text:

Checchi, Daniele. 2008. The Economics of Education: Human Capital, Family Background and Inequality, 1st Ed. Cambridge University Press: Cambridge, UK. ISBN: 978-0521066464

Recommended Text:

Belfield, Clive R. (2003) Economic Principles for Education: Theory and Evidence, Edward Elgar Publishing, Inc. ISBN: 978-1843762737
Borjas, George J. (2012) Labor Economics, 6th Ed., McGraw-Hill/Irwin. ISBN: 978-0073523200

Grading:

Presentations and participation	15%
Midterm	20%
Final	20%
Literature Review	15%
Referee Report	10%
Research Paper	20%

The approximate final grade distribution for the course will be as follows. Adjustments will be made as necessary. A: 90% and above; B: 80%-89%; C: 70%-79%; D: 60%-69%; F: below 60%.

Exams: There will be no make-up exam.

Exam Coverage: Exams are cumulative. Each exam will cover lecture notes, required readings and the papers presented in class. The midterm is a close-book exam, and the final is an open-book exam.

Presentation: Throughout the semester, there will be 20 student presentations. Each student will give 10 45-minute oral presentations of papers in the reading list. A sign-up sheet is attached. Students are required to sign up by Saturday noon of week 2 (on March 8). The 1st presentation notes are due on Monday, March 10 noon (week 3), and the 1st presentations are on March 14 (week 3); from then on, we will have 2 presentations each Friday (see the Presentation Sign-up Sheet for detail).

Presentation need to cover objective, background, methodology, main results, conclusions, and any comments you have. The presentation notes should be in the format of 2-4 pages in MS word, single spaced, 12pt; or 3-5 pages in MS word, APA style; 800-1500 words. Students are required to submit their presentation notes (in MS word by email) by Monday noon of the week of the presentation. Please send your presentation note to me and the class list. Late submission (before the oral presentation) will result in 1 marks deduction, and no submission will result in 2 marks deduction.

Because you and your fellow classmates will prepare exams according to your presentation note, please prepare them carefully, with accuracy and clarity.

Research Paper: Students will complete a research paper on the topic of economics of education by the end of the semester. There are 4 steps to complete this assignment.

1. Determine the topic and write a literature review on the topic. The **literature review** is due by Monday noon of week 9 (on April 20).
2. The **first draft of the research paper** is due by Monday noon of week 13 (on May 19). Please submit your word file to me by email by the deadline.
3. And then, I will assign referee to write a referee report for each draft. The **referee report** is due by Monday noon of week 15 (on June 2). Please submit your word file to me by email by the deadline.
4. Now, each student needs to revise their draft according to each comment and suggestion in the referee report. The **revised version of the research paper** and a **response letter to the referee** are due by Monday noon of week 19 (on June 30). Again, please submit your word file to me by email by the deadline.

We will discuss the requirement of research paper more as the semester progresses.

Students are expected to finish their written work (exams, research paper) by themselves in their own words. Cheating, such as, copying from another student's work or permitting another student to copy from your work will result in a "0" for that exam/research paper for all involved students.

Tentative Schedule:

Week	Topics and Activities	Textbook Chapters		
		Checchi	Belfield	Borjas
1				
2	Introduction & Demand for Education	1, 2	1, 2, 3	7
3	Presentation Sign-up Sheet due on March 8			
3	First Presentation Notes due on March 10			
3	Ability, Family Background, and Other Factors	2, 3	3	7
4	Signaling & Screening	6	2	7
5	Signaling & Screening	6	2	7
6	Private & Social Returns to Education	6	2, 9	7
7	Measuring the Returns to Education	6	2, 9	7
8	Estimating the Returns to Education	5	7	
9	Literature Review due on April 20			
9	Education Production Functions	4	4	
9	Midterm 1 exam in class on April 25			
10	Holiday			
11	Estimating Education Production Functions	4	4, 5	
12	Teachers and Principals	4	5, 6	
13	Draft of Research Paper due on May 19			
13	Peer Effect	4	5, 6	
14	Class Size	4	5, 6	
15	Referee Report due on June 2			
15	Class Size	4	5, 6	
16	Final exam on Monday, June 9			
19	Research Paper and Response Letter due on June 30			

Reading List (subject to update; ** = required)

Human Capital

- **R. Freeman, 1986. "Demand for Education," Chapter 6 in *The Handbook of Labor Economics*, Volume I, pp. 357-386.
- **Bursztyn, L, Coffman, L., 2012. "The Schooling Decision: Family Preferences, Intergenerational Conflict, and Moral Hazard in the Brazilian *Favelas*". *Journal of Political Economy*, 120(3), pp. 359-397.
- **Sacerdote, B. 2007. "How Large are the Effects from Changes in Family Environment? A Study of Korean American Adoptees" *The Quarterly Journal of Economics*, 122 (1): 119-157.
- S. Rosen. 1977. "Human Capital: A Survey of Empirical Research". *Research in Labor Economics*, Vol. 1, pp. 3-40.
- Angrist, J, Lavy, V., Schlooser, A. 2006. "Multiple Experiments for the Causal Link between the Quantity and Quality of Children". MIT Department of Economics Working Paper No. 06-26

Signaling, Screening, and Sorting

- **Spence, Michael. 1973. "Job Market Signaling." *Quarterly Journal of Economics*, 87, pp. 355-374.
- **Ferrer, Ana M. and Craig W. Riddell. 2002. "The Role of Credentials in the Canadian Labour Market." *Canadian Journal of Economics*, 35, pp. 879-905.
- Willis, R.J. and Sherwin Rosen, 1979. "Education and Self-Selection," *Journal of Political Economy*, 87(5), Part 2, pp. S7-S36.
- Lang, Kevin, and David Kropp. 1986, "Human Capital Versus Sorting: The Effects of Compulsory Attendance Laws," *Quarterly Journal of Economics* 101, pp. 609-624.
- Tyler, John, Richard J. Murnane and John Willett, 2000. "Estimating the Labor Market Signaling value of the GED," *Quarterly Journal of Economics*.
- Bedard, Kelly. 2001. "Human Capital versus Signaling Models: University Access and High School Dropouts," *Journal of Political Economy*, 109(4), pp. 749-775.
- Costrell, R.M.. 1994. "A Simple Model of Educational Standards." *American Economic Review*. 84(4), pp. 956-71.
- J.H. Tyler, R.J. Murnane, and J.B. Willet. 2000. "Estimating the Labor market Signaling Value of the GED." *Quarterly Journal of Economics*, 115(2), pp. 431-468.
- J. Betts, 1998. "The Impact of Educational Standards on the Level and Distribution of Earnings," *American Economic Review*, 88(1), pp. 266-75.

Returns to Schooling

**Ashenfelter, O. and C. Rouse 1998. "Income, Schooling and Ability: Evidence from a New Sample of Identical Twins." *Quarterly Journal of Economics*, 113, pp. 253-284.

**Angrist, J. and A. Krueger.1991. "Does Compulsory School Attendance Affect Schooling and Earnings?" *The Quarterly Journal of Economics*, 106(4), pp. 979-1014.

**Angrist, J. and A. Krueger.1999. "Empirical Strategies in Labor Economics." *The Handbook of Labor Economics*, Volume III A, pp. 1277-1366.

J. Angrist 1990, "Lifetime Earnings and the Vietnam-Era Draft Lottery: Evidence from Social Security Administrative Records," *American Economic Review*, 80(3), pp. 313-336.

Oreopoulos, P. 2007. "Do dropouts drop out too soon? Wealth, health and happiness from compulsory schooling", *Journal of Public Economics*, 91(11-12), pp. 2213-2229.

Ashenfelter, O. and A. Krueger. 1994. "Estimates of the Economic Returns to Schooling from a New Sample of Twins," *American Economic Review*. 84(5), pp. 1157-73.

Card, David, 1999. "The Causal Effect of Education on Earnings," Chapter 30 in *The Handbook of Labor Economics*, Volume III, pp. 1801-1863.

Lange, F. and Topel, R. 2006. "The social value of education and human capital", *Handbook of the Economics of Education*, Vol. 1, pp. 459-509.

Bound, John and Gary Solon. 1999. "Double Trouble: On the Value of Twins-based Estimation of the Returns to Schooling." *Economics of Education Review*, 18, 169-182.

Z. Griliches and W. Mason, 1972. "Education, Income, and Ability," *Journal of Political Economy*, 80(3), pp. S74-S103.

Z. Griliches. 1977. "Estimating the Returns to Schooling: Some Econometric Problems." *Econometrica*, 45(1), pp. 1-22.

Card, David, 2001. "Estimating the Return to Schooling: Progress on Some Persistent Econometric Problems." *Econometrica*, 69(5), pp. 1127-1160.

Adriana Lleras-Muney, 2005. "The Relationship between Education and Adult Mortality in the United States", *Review of Economic Studies*, 72(1), pp. 189-221.

Lance Lochner and Enrico Moretti, 2004. "The Effect of Education on Crime: Evidence from Prison Inmates, Arrests, and Self-Reports". *The American Economic Review*, 94(1), pp. 155-189.

Thomas S. Dee, 2004. "Are There Civic Returns to Education?" *Journal of Public Economics*, 88, pp. 1697-1720.

Education Production Functions

**E. Lazear. 2001. "Education Production," *Quarterly Journal of Economics*, 116(3), pp. 777-803.

**A. B. Krueger. 1999. "Experimental Estimates of Education Production Functions." *Quarterly Journal of Economics*, 114(2), pp. 497-532.

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

Hanushek, Eric A. 2008. "Education Production Functions." In Steven N. Durlauf and Lawrence E. Blume (eds.), *The New Palgrave Dictionary of Economics*. Basingstoke: Palgrave Macmillan.

Peer Effect

**Duflo, Dupas and Kremer. 2007, "Peer Effects, Pupil Teacher Ratios, and Teacher Incentives: Evidence from a Randomized Evaluation in Kenya".

http://www.cid.harvard.edu/neudc07/docs/neudc07_s6_p03_duflo.pdf

**B. Sacerdote. 2001. "Peer Effects with Random Assignment: Results for Dartmouth Roommates," *Quarterly Journal of Economics*, 116(2), pp. 681-704.

Duflo, Dupas and Kremer. 2010, "Peer Effects, Teacher Incentives, and the Impact of Tracking: Evidence from a Randomized Evaluation in Kenya".

<http://economics.mit.edu/files/5992>

Bishop, J. 2006. "Drinking from the fountain of knowledge: Student incentive to study and learn - externalities, information problems and peer pressure", Ch 15 in *Handbook of the Economics of Education*, Volume 2, pp. 908-944.

Nechyba, T. J. 2006, "Income and peer quality sorting in public and private schools", Ch 22 in *Handbook of the Economics of Education*, Volume 2, pp. 1329-1368.

C. Hoxby and G. Weingarth. 2006. "Taking Race out of the Equation: School Reassignment and the Structure of Peer Effects," *NBER Conference Paper*.

<http://www.hks.harvard.edu/inequality/Seminar/Papers/Hoxby06.pdf>

Hoxby, C. M. 2002. "The Power of Peers," *Education Next* 2(2), pp. 56-63.

http://media.hoover.org/documents/ednext20022_56.pdf

G. Winston. 1999. "Subsidies, Hierarchy and Peers: The Awkward Economics of Higher Education," *Journal of Economic Perspectives*, 13(1), pp. 13-36.

Class Size

**Angrist, Joshua D., and Victor Lavy. 1999. "Using Maimonides' rule to estimate the effect of class size on scholastic achievement." *Quarterly Journal of Economics*, 114, pp. 533-575.

**Krueger, A. and D. Whitmore. 2001. "The Effect of Attending a Small Class in the Early Grades on College-Test Taking and Middle School Test Results: Evidence from Project STAR." *The Economic Journal* 111 (468).

Chetty, R., J. N. Friedman, N.Hilger, E.Saez, D. Whitmore, D. Yagan. 2011. "How Does Your Kindergarten Classroom Affect Your Earnings? Evidence from Project STAR", *The Quarterly Journal of Economics*, vol.126, no.4, pp.1593-1660.

C. Hoxby. 2000. "The Effect of Class Size on Student Achievements: New Evidence from Population Variation," *Quarterly Journal of Economics*, 115(4), pp. 1239-1285.

Teacher

**Rothstein, Jesse A. 2010. "Teacher Quality in Educational Production: Tracking, Decay, and Student Achievement." *Quarterly Journal of Economics* 125(1), pp.175-214.

**Kane, Thomas J., Jonah E. Rockoff, and Douglas O. Staiger. 2008. "What Does Certification Tell Us About Teacher Effectiveness? Evidence from New York City." *Economics of Education Review*, 27, pp.615-631.

Waldinger, F (2010) "Quality Matters:The Expulsion of Professors and the Consequences for PhD Student Outcomes in Nazi Germany", *Journal of Political Economy*,vol.118, no 4, pp.787-831

Hanushek, Eric A and Steven G. Rivkin. 2010. "Generalizations about Using Value-Added Measures of Teacher Quality" *American Economic Review: Papers & Proceedings*, 100(2), pp.267-271.

Glewwe, Paul, Nauman Ilias, and Michael Kremer. 2010. "Teacher Incentives." *American Economic Journal: Applied Economics*, 2(3), pp. 205-27.

V. Lavy, 2009. "Performance Pay and Teachers' Effort, productivity, and Grading Ethics," *The American Economic Review*, 99(5), pp. 1979-2011.

J. Rockoff. 2004. "The Impact of Individual Teachers on Student Achievement: New Estimates from Panel Data". *American Economic Review*, 94(2).

Harris, Douglas N. and Tim R. Sass, 2011. "Teacher training, teacher quality and student achievement," *Journal of Public Economics*, 95(7-8), pp. 798-812.

J. Angrist and J. Guryan. 2004. "Teacher Testing, Teacher Education, and Teacher Characteristics," *American Economic Review*. 94(2).

Principal

**Dhuey, Elizabeth and Justin Smith. 2012. "How Important Are School Principals in the Production of Student Achievement?" Unpublished.

J. Rothstein, 2006. "Good Principals or Good Peers? Parental Valuation of School Characteristics, Tiebout Equilibrium, and the Incentive Effects of Competition Among Jurisdictions," *American Economic Review*, 96.

Branch, Gregory F., Eric A. Hanushek, and Steven G. Rivkin. 2012. "Estimating the Effect of Leaders on Public Sector Productivity: The Case of School Principals". CALDER Working Paper No. 66.

Coelli, Michael and David A. Green, 2012. "Leadership effects: school principals and student outcomes", *Economics of Education Review*, 31(1), pp. 92-109.

Brewer, Dominic J. 1993. "Principals and Student Outcomes: Evidence from U.S. High Schools". *Economics of Education Review* 12(4), pp. 281-93.

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Hallinger, Philip, and Ronald H. Heck. 1998. "Exploring the Principal's Contribution to School Effectiveness: 1980–1995". *School Effectiveness and School Improvement* 9(2), pp. 157–91.

School Quality

**Card, David and Alan B. Krueger. 1992. "Does School Quality Matter? Returns to Education and the Characteristics of Public School in the United States." *Journal of Political Economy*, 100, pp. 1-40.

**Black, S. 1999. "Do Better Schools Matter? Parental Valuation of Elementary Education". *Quarterly Journal of Economics* 114 (2), pp. 577-599.

D. Card and A. Krueger, 1992. "School Quality and Black-White Relative Earnings: A Direct Assessment," *The Quarterly Journal of Economics*, 107.

F. Welch, 1973. "Black-White Differences in Returns to Schooling," *The American Economic Review*, 63.

S. Dale and A. Krueger, 2002, "Estimating the Payoff to Attending a More Selective College: An Application of Selection on Observables and Unobservables". *Quarterly Journal of Economics*, 117(4), pp. 1491-1527.

Angrist, Joshua D, Susan M. Dynarski, Thomas J. Kane, Parag. A. Pathak, and Christopher R. Walters. 2010. "Inputs and Impacts in Charter Schools: KIPP Lynn." *American Economic Review: Papers & Proceedings*, 100(2), pp. 239-243.

W. Evans and R. Schwab. 1993. "Finishing High School and Starting College: Do Catholic Schools Make a Difference?" *Quarterly Journal of Economics*. 110(4), pp. 941-74.

Neal, Derek. 1997. The Effects of Catholic Secondary Schooling on Educational Achievement. *Journal of Labor Economics*. 15(1), pp. 98-123.

Vouchers

**Angrist, Bettinger and Kremer. 2006. "Long-Term Educational Consequences of Secondary School Vouchers: Evidence from Administrative Records in Colombia". *American Economic Review*. 96(3), pp. 847-862.

Ladd. 2002. "School Vouchers: A Critical Review". *Journal of Economic Perspectives*, 16(4), pp. 3-24.

Howell, W.; P. Wolf, D. Campbell, D. and P. Peterson. 2002. "School Vouchers and Academic Performance: Results from Three Randomized Field Trials." *Journal of Policy Analysis and Management* 21(2), pp. 191-217.

Barrow, L. and C. Rouse 2008. "School Vouchers: Recent Findings and Unanswered questions", *Economic Perspectives*, 32(3), pp. 2-16.

Krueger, A. and P. Zhu 2004. "Another Look at the New York City School Voucher Experiment." *American Behavioral Scientist* 47(5), pp. 658-98.

J. Angrist, E. Bettinger, E. Bloom, E. King., M. Kremer, 2002. "Vouchers for Private Schooling in Colombia: Evidence from a Randomized Natural Experiment," *American Economic Review*, 92(5), pp. 1935-1558.

J. Angrist, E. Bettinger, M. Kremer, 2006. "Long-Term Educational Consequences of Secondary School Vouchers: Evidence from Administrative Records in Colombia," *American Economic Review*, 96(3), pp. 847-862.

Other Inputs and Policies

**Banerjee, Duflo and Linden. 2006. "Remedying Education: Evidence from Two Randomized Experiments in India", *Quarterly Journal of Economics*, 122(3), pp. 1235-1264.

E. Duflo, 2001. "Schooling and Labor Market Consequences of School Construction in Indonesia: Evidence from an Unusual Policy Experiment," *American Economic Review*, pp. 795-813.

P. Glewwe, M. Kremer, S. Moulin, and E. Zitzewitz. 2004. "Retrospective versus Prospective Analyses of School Inputs: The Case of Flip Charts in Kenya," *Journal of Development Economics*, 74(1), pp. 251-268.

Angrist, Joshua, Lavy, Victor. 2002. "New Evidence on Classroom Computers and Pupil Learning". *The Economic Journal*, 112, pp. 735-765.

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

Ludwig, J. and Miller, D. (2007). "Does Head Start Improve Children's Life Chances? Evidence from a Regression Discontinuity Design," *Quarterly Journal of Economics*, 122(1), pp. 159-208.

Dynarski, S. M. (2003). "Does Aid Matter? Measuring the Effect Of Student Aid On College Attendance And Completion." *American Economic Review*, 93(1), pp. 279-288.

US Dept of Health and Human Services, 2010. Administration for Children and Families. *Head Start Impact Study: Final Report*, Washington DC.

A. Banerjee, S. Cole, E. Duflo and L. Linden. 2003. "Improving the Quality of Education in India: Evidence from Three Randomized Experiments," NBER mimeo.

J. Angrist and V. Lavy, 2009. "The Effects of High Stakes High School Achievement Awards: Evidence from a Randomized Trial," *American Economic Review*, 99(4), pp. 1384-1414.

J. Angrist and P. Oreopoulos, 2009. "Incentives and Services for College Achievement: Evidence from a Randomized Trial," *American Economic Journal: Applied Economics*, 1(1), pp. 136-163.

- M. Kremer, E. Miguel, and R. Thornton, 2009. "Incentives to Learn," *The Review of Economics and Statistics*, 91(3), pp. 427-456.
- Currie, J. & Moretti, E. (2003). "Mother's Education and the Intergenerational Transmission of Human Capital: Evidence from College Openings." *Quarterly Journal of Economics*, 118(4), pp. 1495-1532.
- Kling, J.R., Liebman, J.B., and Katz, L.F. (2007). "Experimental Analysis of Neighborhood Effects", *Econometrica*, 75(1), pp. 83-129.
- Schultz, T. Paul 2004. "School Subsidies for the Poor: Evaluating the Mexican Progresa Poverty Program", *Journal of Development Economics*, 74(1), pp. 199-250.
- Diaz, J. J., & S. Handa. (2006). "An Assessment of Propensity Score Matching As a Nonexperimental Impact Estimator: Evidence From Mexico's PROGRESA Program." *Journal of Human Resources*, 41(2), pp. 319-345.
- Solon, G. 1999. "Intergenerational Mobility in the Labour Market", *Handbook of Labor Economics*, Volume 3A.
- Cullen, J. B., Jacob, B. A. and Levitt, S. 2006. "The Effect of School Choice on Participants: Evidence from Randomized Lotteries", *Econometrica*, 74(5), pp. 1191-1230.
- Meghir, Costas and Marten Palme, 2005. "Educational Reform, Ability, and Family Background," *American Economic Review*, 95(1), pp. 414-424.