

THE ECONOMICS OF EDUCATION

Christopher Taber and Raquel Bernal (Northwestern University)

Dates and Time

June 4th - June 8th, 8am - 12m

June 12th - June 15th, 9:30am - 12m

Description

Education has always been one of the most important policy areas throughout the world. This course will study education from the perspective of an economist. Basically, our objective will be to study the determinants of schooling choices and the formation of human capital since early childhood, and understand the effects of human capital accumulation decisions since childhood on subsequent labor market outcomes such as earnings, occupation, etc. The course will begin with an overview of human capital theory. As the economics of education is primarily an empirical field, we will emphasize on both econometric issues and empirical results in the literature. In this sense, this course should be of use to individuals interested in the economics of education and also to other empirical microeconomists as it can be viewed as a course on empirical methodology with education examples. The following is a brief outline of the topics to be covered: 1) Changes in the structure of wages and returns to schooling; 2) Human capital; 3) Returns to schooling; 4) Catholic schools; 5) Education production functions; 6) Estimation of human capital production function for children; and 7) The importance of cognitive and non-cognitive skills in the labor market.

Section 1 through 5 will be covered by Prof. Taber and Sections 5 and 6 by Prof. Bernal.

The course grade will be based on a final exam to be held on Monday June 18th.

Course Schedule

1. Changes in the Structure of Wages and Returns to Schooling

- L. Katz and D. Autor, "Changes in the Wage Structure and Earnings Inequality," Handbook of Labor Economics, 1999.

2. Human capital

- R. Willis, "Wage Determinants: A Survey and Reinterpretation of Human Capital Earnings Functions," in Handbook of Labor Economics.

3. Returns to Schooling

- Willis, Robert J. and Sherwin Rosen (1979), "Education and Self Selection." *Journal of Political Economy* 87, October, Special Issue.
- Card, D., "Returns to Schooling", *Handbook of Labor Economics*, 1999.
- Taber, C., "The Rising College Premium in the Eighties: Return to College or Return to Ability?," *Review of Economic Studies*, 2000.
- Cameron, S., and Taber, C. "Borrowing Constraints and the Returns to Schooling" *JPE* Feb, 2004.
- Heckman, J., Lochner, L., and Taber, C., "Explaining Rising Wage Inequality: Explorations with a Dynamic General Equilibrium Model of Labor Earnings with Heterogeneous Agents," *Review of Economic Dynamics*, 1998.
- Heckman, J., Lochner, L., and Taber, C., "General Equilibrium Treatment Effects: A Study of Tuition Policy," *American Economic Review, Papers and Proceedings*, May 1998.

4. Catholic Schools

- Evans, William N., and Robert M. Schwab, "Finishing High School and Starting College: Do Catholic Schools Make a Difference?" *Quarterly Journal of Economics*, 110 (1995), 947-974.
- Altonji, Joseph G., Todd E. Elder, and Christopher R. Taber, "An Evaluation of Instrumental Variable Strategies for Estimating the Effects of Catholic Schooling," forthcoming, *Journal of Human Resources*.
- Altonji, Joseph G., Todd E. Elder, and Christopher R. Taber, "Selection on Observed and Unobserved Variables: Assessing the Effectiveness of Catholic Schools," forthcoming, *JPE*.
- Rouse, C., 1998, "Private School Vouchers and Student Achievement: an Evaluation of the Milwaukee Parental Choice Program," *Quarterly Journal of Economics*.
- Altonji, Joseph, Chingyi Huang, and Christopher R. Taber, "Estimating the Cream Skimming Effect of Private School Vouchers on Public School Students," unpublished Manuscript

5. Education Production Functions

- Hanushek, Eric, 1986, "The Economics of Schooling: Production and Efficiency in Public Schools," *Journal of Economic Literature* 24(3).
- Card, David, and Alan Krueger, "Does School Quality Matter: Returns to Education and the Characteristics of Public Schools in the United States," *JPE*, 1992.

- Krueger, Alan, 1999, “Experimental Estimates of Education Production Functions,” *Quarterly Journal of Economics*, 114(2).
- Angrist, Joshua, and Victor Lavy, 1999, “Using Maimonides Rule to Estimate the Effect of Class Size on Scholastic Achievement,” *Quarterly Journal of Economics*, 114(2).

The following reading list is meant to be used as a reference. We will not cover all the papers on the list. I have starred the papers that are particularly important for the course and I recommend that you definitely read those.

6. Estimation of Human Capital Production Functions for Children

- Haveman, R. and B. Wolfe (1995). The Determinants of Children’s Attainments: A Review of Methods and Findings. *Journal of Economic Literature*, 33:4, 1829-1878.
- Heckman, J., Anne Layne-Farra and Petra Todd (1996). Human Capital Pricing Equations with an Application to Estimating the Effect of Schooling Quality on Earnings. *Review of Economics and Statistics*. 562-610.
- *Todd, P. and K. Wolpin (2003). On the Specification and Estimation of the Production Function for Cognitive Achievement. *Economic Journal*, Volume 113 Issue 485..
- *Todd, P. and K. Wolpin (2004). The Production of Cognitive Achievement in Children: Home, School and Racial Test Score Gaps. Manuscript University of Pennsylvania. <http://ideas.repec.org/p/pen/papers/04-019.html>
- *Bernal, Raquel. (2007). “The Effect of Maternal and Child Care on Children’s Cognitive Ability”. Working paper, Northwestern University. http://www.faculty.econ.northwestern.edu/faculty/bernal/Employment_Child%20Care_IER4.pdf
- *Bernal, R. and M. Keane (2006). “Child Care Choices and Children’s Cognitive Achievement: The Case of Single Mothers”, Working Paper, Northwestern University. http://www.faculty.econ.northwestern.edu/faculty/bernal/Bernal_Keane_IV_Single_Mothers.pdf
- *Liu, H., Mroz, T. and W. van der Klaauw (2003) "Maternal Employment, Migration and Child Development." Working paper University of North Carolina. <http://www.unc.edu/~vanderkl/maternal3.pdf>
- *Brown, M. and C. Flinn (2006) “Investment in Child Quality Over Marital States”. Working paper University of Wisconsin and New York University. http://www.ssc.wisc.edu/~mbrown/BrownFlinn_afterSITE-cjf.pdf
- *Tartari, M. (2005) “Divorce and Cognitive Achievement of Children”, Working paper University of Pennsylvania. <http://www.econ.upenn.edu/~mtartari/JobMarketPaper.pdf>

7. The Importance of Cognitive and Non-cognitive Skills in the Labor Market

- Bernal, R. and M. Keane (2005). “Child Care Choices and Children’s Cognitive Achievement: The Case of Single Mothers”, Working Paper, Northwestern University.
- *Currie, J. and D. Thomas, 2001, “Early Test Scores, School Quality and SES: Long Run Effects on Wage and Employment Outcomes,” *Worker Wellbeing in a Changing Labor Market*, Vol. 20. <http://www.econ.ucla.edu/people/papers/Currie/Currie217.pdf>
- *Neal, D. and W. Johnson, 1996, “The Role of Pre-market Factors in Black/White Wage Differences,” *Journal of Political Economy*, 104(5), pgs. 869-895.
- *Murnane, R. J., J. Willet and F. Levy, 1995, “The growing importance of cognitive skills in wage determination,” *Review of Economics and Statistics*, LXXVII, pp. 251-266.
- Zax, J. and D. Rees, 1998, “Environment, Ability, Effort and Earnings”, Center for Research on Economic and Social Policy, Denver, Working Paper No. 9801.
- *Cunha, F. Heckman, J., Lochner, L. and D. Masterov (2006) “Interpreting the Evidence on Life Cycle Skill Formation” forthcoming in *The Handbook of Economics of Education*, E.Hanushek and F.Welch, eds. http://www.iza.org/index_html?lang=en&mainframe=http%3A//www.iza.org/en/webcontent/publications/papers/viewAbstract%3Fdp_id%3D1675&topSelect=publications&subSelect=papers
- *Cunha, F. and J. Heckman (2007) “The Technology of Skill Formation” forthcoming in *American Economic Review*. http://www.iza.org/index_html?lang=en&mainframe=http%3A//www.iza.org/en/webcontent/publications/papers/viewAbstract%3Fdp_id%3D2550&topSelect=publications&subSelect=papers
- *Heckman, J. and Y. Rubinstein (2001), The Importance of Non-cognitive skills: Lessons from the GED Testing Program, *American Economic Review*, v91, n2, pp. 145-140, May.
- Holzer, H. and D. Wissoker (2000), Non-cognitive skills and Employer Hiring Behavior in the Low-wage Labor Market: A preliminary Exploration. Urban Institute.
- *Osborne, Melissa (2000). Personality and Labor Market Outcomes, University of Massachusetts, Dept. of Economics.
- Goldsmith, A. J. Veum and W. Darity (2000). Motivation and Labor Market Outcomes.