UNIVERSITÀ
DEGLI STUDI DI MILANO-BICOCCA

SYLLABUS DEL CORSO

Topics in Human Capital

2223-2-F5602M022-F5602M030M

Learning objectives

The course provides students with an in-depth methodology to analyze the functioning of the labour market, and thus offers useful tools to understand economic problems in global contexts. The course introduces the students to the main results of the relevant literature, and promotes students' involvement through class presentations and discussions of the most relevant topics.

Contents

This course will provide students with basic models and empirical applications related to human capital theory and accumulation. It is designed as an advanced course focusing on topics in-depth and requires active students' participation.

The first part of the course will be mainly based on the book "Labor economics" by Cahuc, Carcillo, and Zylberberg. We will study the two main theories that explain the positive correlation between education and earnings (Human Capital Theory and Signaling Theory), as well as the empirical works that estimate the causal relationship between education and earnings. We will then study returns to education other than on earnings, such as occupational, non-pecuniary, and social returns.

Once we establish the importance of education for the labor market, we will move to understand the determinants of quality education. We will study what enters the education production function (such as school investments, teacher quality, and teachers' incentives), the importance of early childhood investments and non-cognitive skills, and social and neighborhood interactions, focusing on network models. This second part of the course will be based on seminal papers about each topic.

Detailed program

05-10-2022: Introduction and functioning of the labor market + Theory of Human Capital I
07-10-2022: Theory of Human Capital II + Theory of Signaling
12-10-2022: Causal relationship between schooling and earnings
14-10-2022: Pecuniary, non-pecuniary, and social returns to education
19-10-2022: Education production
21-10-2022: Non-cognitive abilities + Early childhood + Life cycle skill formation
26-10-2022: Social interactions + Network Models
16-11-2022: Paper discussion + presentation
18-11-2022: Paper discussion + presentation

Prerequisites

Basic knowledge of statistics, econometrics, and microeconomics theory.

Teaching methods

Lectures, classroom discussion, and students' presentations

Assessment methods

The final grade will be composed of the following components:
• Class participation (50%)
• Test (50%)

Class participation: Meaningful participation in the course constitutes a substantial portion of the grade (50%). Students will have the chance to show course participation in three ways:

(i) Classroom discussion: students should read the lecture's mandatory readings (listed with one star in the reading list below) before the lecture and be prepared to discuss these readings (no slide needed). I will moderate a class discussion and perhaps ask specific questions to each student.

(ii) End of course discussions: the last two classes of the course are reserved for students' presentations (see item below) and discussions of papers on the contents covered during the course (listed with two stars in the reading list below). Again, all students should read these papers before the lecture and be prepared to discuss them (no slide needed). I will moderate a class discussion and perhaps ask specific questions to each student.

(iii) Paper presentation: each student will be the presenter of at least one (depending on the final number of students) of the non-mandatory assigned readings (see the reading list below); if two or more students choose to present the same paper, they can try to negotiate. Otherwise, I will randomize the assignment of papers. Students' presentations will take place in the last two classes of the course.

Test: the exam will cover all contents of the course, and it will happen during the examination week in November.

Textbooks and Reading Materials

The reading list is preliminary; expect it to evolve according to time constraints and interests.

Legend:

- (¥) Mandatory
- (¥¥) Mandatory for end of course discussion
- Students might choose non-mandatory papers (the ones not market with (¥) or (¥¥)) for presentation

Theory of Human Capital + Theory of Signaling

(¥) Cahuc, Pierre, Stéphane Carcillo, and André Zylberberg. Labor economics. MIT press, 2014. – Chapter 4, Sections 2 and 3

Clark, Damon, and Paco Martorell. "The signaling value of a high school diploma." Journal of Political Economy 122.2 (2014): 282-318.

(¥) Jensen, Robert. "The (perceived) returns to education and the demand for schooling." The Quarterly Journal of Economics 125.2 (2010): 515-548.

Causal relationship between schooling and earnings

(¥) Cahuc, Pierre, Stéphane Carcillo, and André Zylberberg. Labor economics. MIT press, 2014. – Chapter 4, Section 4

(¥) Angrist, Joshua D., and Alan B. Keueger. "Does compulsory school attendance affect schooling and earnings?." The Quarterly Journal of Economics 106.4 (1991): 979-1014.

(¥¥) Harmon, Colm, and Ian Walker. "Estimates of the economic return to schooling for the United Kingdom." The American Economic Review 85.5 (1995): 1278-1286.

Card, David, and Alan B. Krueger. "School quality and black-white relative earnings: A direct assessment." The quarterly journal of Economics 107.1 (1992): 151-200.

(¥) Barrera-Osorio, Felipe, and Hernando Bayona-Rodríguez. "Signaling or better human capital: Evidence from Colombia." Economics of Education Review 70 (2019): 20-34.

Pecuniary, non-pecuniary, and social returns to education

(¥) Cahuc, Pierre, Stéphane Carcillo, and André Zylberberg. Labor economics. MIT press, 2014. – Chapter 4, Section 5

(¥) Oreopoulos, Philip, and Kjell G. Salvanes. "Priceless: The nonpecuniary benefits of schooling." Journal of Economic perspectives 25.1 (2011): 159-84.

(¥) Oreopoulos, Philip. "Estimating average and local average treatment effects of education when compulsory schooling laws really matter." American Economic Review 96.1 (2006): 152-175.

Hanushek, Eric A., and Ludger Wößmann. "The role of education quality for economic growth." World Bank policy research working paper 4122 (2007).

Milligan, Kevin, Enrico Moretti, and Philip Oreopoulos. "Does education improve citizenship? Evidence from the United States and the United Kingdom." Journal of public Economics 88.9-10 (2004): 1667-1695.

Lochner, Lance, and Enrico Moretti. "The effect of education on crime: Evidence from prison inmates, arrests, and self-reports." American economic review 94.1 (2004): 155-189.

Machin, Stephen, Olivier Marie, and Sun?ica Vuji?. "The crime reducing effect of education." The Economic Journal 121.552 (2011): 463-484.

Oreopoulos, Philip. "Do dropouts drop out too soon? Wealth, health and happiness from compulsory schooling." Journal of public Economics 91.11-12 (2007): 2213-2229.

Currie, Janet, and Enrico Moretti. "Mother's education and the intergenerational transmission of human capital: Evidence from college openings." The Quarterly journal of economics 118.4 (2003): 1495-1532.

Education Production

(¥) Todd, P. E. and Wolpin, K. I. (2003) 'On the specification and estimation of the production function for cognitive achievement', Economic Journal 113(485), F3–F33.

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

(¥¥) C. K. Jackson, R. C. Johnson and C. Persico (2016) "The Effects of School Spending on Educational and Economic Outcomes: Evidence from School Finance Reforms," The Quarterly Journal of Economics, 131(1): 157-218

Martorell, F., K. Stange, and I. McFarlin (2015) "Investing in Schools: Capital Spending, Facility Conditions and Student Achievement", NBER working paper

(¥) Angrist, J. D. and Victor Lavy. 1999. "Using Maimonides' Rule to Estimate the Effect of Class Size on Scholastic Achievement", Quarterly Journal of Economics, pages 533-577

Chetty, R, J. Friedman and J. Rockoff (2014) Measuring the Impacts of Teachers I: Evaluating Bias in Teacher Value-Added Estimates, American Economic Review 104(9): 2593-2632.

Steven G. Rivkin & Eric A. Hanushek & John F. Kain (2005) "Teachers, Schools, and Academic Achievement," Econometrica, Econometric Society, vol. 73(2), pages 417-458,

(¥¥) Victor Lavy (2015) "What Makes an Effective Teacher? Quasi-Experimental Evidence," CESifo Economic Studies

Kane, Thomas J., and Douglas O. Staiger. 2008. "Estimating Teacher Impacts on Student Achievement: An Experimental Evaluation," NBER Working Paper No. 14607

(¥¥) Chetty, R, J. Friedman and J. Rockoff (2014) Measuring the Impact of Teachers II: Teacher Value-Added and Student Outcomes in Adulthood, American Economic Review 104(9): 2633-2679.

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

Hoxby, C.M. (1996) "How Teachers' Unions Affect Education Production," The Quarterly Journal of Economics, 111(3): 671-718.

Corcoran, S.; W. Evans, and R. Schwab (2004). "Changing Labor Market Opportunities for Women and the Quality of Teachers, 1957-2000." American Economic Review 94(2): 230-35

Bacolod, Marigee P. "Do alternative opportunities matter? The role of female labor markets in the decline of

teacher quality." The Review of Economics and Statistics 89.4 (2007): 737-751.

Fryer, Roland G., et al. Enhancing the efficacy of teacher incentives through loss aversion: A field experiment. No. w18237. National Bureau of Economic Research, 2012.

Non-cognitive abilities

Heckman, James J., and Yona Rubinstein. "The importance of noncognitive skills: Lessons from the GED testing program." American Economic Review 91.2 (2001): 145-149.

(¥) Borghans, Lex, et al. "The economics and psychology of personality traits." Journal of human Resources 43.4 (2008): 972-1059.

(¥¥) Mischel, Walter, Yuichi Shoda, and Monica L. Rodriguez. "Delay of gratification in children." Science 244.4907 (1989): 933-938.

Early childhood

(¥) Attanasio, Orazio, et al. "Early Stimulation and Nutrition: the impacts of a scalable intervention." Journal of the European Economic Association 20.4 (2022): 1395-1432.

(¥¥) Jens Ludwig & Douglas L Miller, 2007. "Does Head Start Improve Children's Life Chances? Evidence from a Regression Discontinuity Design," The Quarterly Journal of Economics, vol. 122(1), pages 159-208, 02.

Currie, Janet & Thomas, Duncan, 1995. "Does Head Start Make a Difference?," American Economic Review, vol. 85(3), pages 341-64, June.

Deming, David. 2009. “Early Childhood Intervention and Life-Cycle Skill Development: Evidence from Head Start.” American Economic Journal: Applied Economics, 1(3): 111–34.

Life cycle skill formation

(¥) Flavio Cunha, James J. Heckman, Lance Lochner, Dimitriy V. Masterov, Chapter 12 Interpreting the Evidence on Life Cycle Skill Formation, In: E. Hanushek and F. Welch, Editor(s), Handbook of the Economics of Education, Elsevier, 2006, Volume 1, Pages 697-812.

(¥¥) Cunha, Flavio, and James J. Heckman. 2008. “Formulating, Identifying and Estimating the Technology of Cognitive and Noncognitive Skill Formation.” Journal of Human Resources, 43(4): 738–82.

Social Interactions

(¥) Manski, C. (1993), ‘Identification of endogenous social effects: The reflection problem’, The Review of Economic Studies, 60(3): 531–542.
Lavy and Schlosser (2011) “Mechanisms and Impacts of Gender Peer Effects at School”, AEJ: Applied Economics, April.

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

(¥) Sacerdote (2001) “Peer Effects with Random Assignment: Results for Dartmouth Roommates”, Quarterly Journal of Economics, 116(2).

Gaviria and Raphael (2001) “School-based Peer Effects and Juvenile Behavior”, Review of Economics and Statistics, 83(2).

Austen-Smith, D. and R. G. Fryer (2005) “An Economic Analysis of ‘Acting White’," The Quarterly Journal of Economics (May).

Imberman, S. A., A. D. Kugler, and B. I. Sacerdote (2012) “Katrina’s Children: Evidence on the Structure of Peer Effects from Hurricane Evacuees,” American Economic Review 102 (5), 2048–82.

Network Models

(¥) Bramoulle, Y., H. Djebbari, and B. Fortin (2009, May). Identification of peer effects through social networks. Journal of Econometrics 150(1), 41–55.

(¥¥) De Giorgi, Giacomo, and Michele Pellizzari. "Understanding social interactions: Evidence from the classroom." The Economic Journal 124.579 (2014): 917-953.

(¥) Gagete-Miranda, Jessica. "An aspiring friend is a friend indeed: on the mechanisms behind peer effects." Manuscript (2022).

Semester

First semester

Teaching language

English

Sustainable Development Goals

QUALITY EDUCATION