

SYLLABUS



Course title	ECONOMICS OF EDUCATION AND CHILD DEVELOPMENT
Instructor	TÍMEA LAURA MOLNÁR, Assistant Professor in Economics
Email	MolnarTL@ceu.edu
Office Hour	Wednesdays 10.45-11.45am
Office	C312
Time and Location	Mondays 1.30-3.10pm (QS C-210) and Wednesdays 9.00-10.40am (QS B-421)
Duration	between September 28 and November 4 (duration: 6 weeks)
Credits	2 US credits (4 ECTS credits)
Module	<i>Elective in:</i> MA in Economic Policy in Global Markets, MA in Economics
Term	Fall 2020-2021
Course level	Master
Prerequisites	Data Analysis 2 (CBS5145 or similar); Microeconomics for EconPol (ECBS5035 or similar) + user knowledge of STATA – strongly suggested: Data Analysis 4 (Causal Analysis) or Econometrics 2 (ECBS5061)

1. COURSE DESCRIPTION

The course is an introduction to economics of education and child development, emphasizing applied microeconomic theory and the important empirical methods for microeconomic analysis, as well as the link between research and public policy. Topics include: returns to education, human capital accumulation *versus* signaling, the technology of skill formation, the importance of early childhood investments, and selected educational policies.

The main goal of the course is to acquaint students with some core topics in the economics of education and child development together with the important empirical methods (Difference-in-Differences Models, Instrumental Variables, Regression Discontinuity Design, Matching, *etc.*), while building a set of tools that will allow students to be able to read and evaluate high-level contributions in the field. Another goal is to develop students' understanding of some core educational and child policies, *e.g.* re: universal daycare provision, school vouchers, and teachers.

2. LEARNING OUTCOMES

By the end of the course, students will be able to

- understand basic theories behind the educational production function and the economic perspective on education;
- read journal articles on the research frontier of economics of education and child development;
- understand econometric identification issues in the aforementioned journal articles;
- understand and analyze educational policy outcomes.

3. READING LIST

No textbook is entirely fitting the level and topics of this course; selected sections of the followings will be used:

- George Borjas (2013): *Labor Economics*, McGraw-Hill (International Edition) (“GB”);
- Acemoglu, D. and D. Autor: *Lectures in Labor Economics* (free at <https://economics.mit.edu/files/4689>).

4. ASSESSMENT

The course will be based around journal articles on the research frontier of economics of education and child development. Students are expected to read the required articles, be ready to talk about them in class, and participate in the in-class discussions of the journal articles. In addition, depending on the number of participants, each week or class there will be one journal article presented by a student, who is also required to hand in beforehand a brief report on the paper describing the key points in the paper and the main source of econometric identification. The presentation should be brief (~20 minutes), with exactly 6 parts, answering the following questions:

1. What is the research question of the paper?
2. What is the core identification challenge (endogeneity issue) in answering the research question?
3. What is the identification strategy of the paper?
4. What is the source of identifying variation used in the paper? Do you find it credible?
5. What are main results of the paper? Do you find it credible?
6. What are the policy implications of the paper?

There will be a take-home final exam, assigned on November 2nd and **due on Monday, November 9th, 10am.**

There will be two empirical assignments: two replication projects in which students need to replicate the main results of a journal article in economics of education and child development, given by the course instructor, along with the underlying raw data and detailed steps to follow in STATA; students also need to read the corresponding journal article and answer questions related to the interpretation&implications of the results. The first replication will be **due on Monday, October 12th, 10am**, and the second will be **due on Monday, October 26th, 10am.**

Students who miss any of the above deadlines earn zero credit, unless presenting a doctor's note for medical reasons, or in a justified case (e.g., extenuating family circumstances, or funerals) that needs to be indicated in advance, in writing (via email) to the instructor.

Grading will be based on the total score out of 100, in line with CEU's standard grading guidelines, as in:

In-Class Participation	8%
In-Class Journal Article Presentation + Brief	20%
Replication 1	18%
Replication 2	18%
Final Take-Home Exam	36%

5. ATTENDANCE

Regular class attendance is a precondition for course completion. Students who miss 3 or more classes, either excused or unexcused, cannot receive a passing grade.

6. TOPIC OUTLINE AND SCHEDULE (* DENOTES REQUIRED READINGS FOR ALL, AND ** DENOTES READINGS UP FOR STUDENT PRESENTATIONS)

1. Human Capital Accumulation, Returns to Education and Signalling (3 Lectures)

*GB, Chapter 7 ("Human Capital")

Card, D., "Estimating the Returns to Schooling: Progress on Some Persistent Econometric Problems," *Econometrica* (2001), 69(5): 1127-1160. (selected sections)

Card, D., "The Causal Effect of Education on Earnings," Chap. 30 in Ashenfelter, O.C. and D. Card, editors, *Handbook of Labor Economics*, Vol. 3A North-Holland (1999), 1801-1863. (*selected sections required)

*Oreopoulos, P. "Estimating Average and Local Average Treatment Effects of Education when Compulsory Schooling Laws Really Matter." *American Economic Review* (2006), 152-175.

*Bedard K., "Human Capital versus Signaling Models: University Access and High School Dropouts", *Journal of Political Economy* (2001), 109(4): 749-75.

**Duflo, E., "Schooling and Labor Market Consequences of School Construction in Indonesia: Evidence from an Unusual Policy Experiment." *American Economic Review* (2001), 91(4): 795-800.

**Tyler, J. H., R. J. Murnane, and J. B. Willett, "Estimating the Labor Market Signaling Value of a GED," *The Quarterly Journal of Economics* (2000), 155(2): 431-468.

2. Technology of Skill Formation and the Role of Early Interventions (4 Lectures)

Almond D. and J. Currie, "Human Capital Development before Age Five," in Ashenfelter O. and D. Card (eds.), *Handbook of Labor Economics*, vol. 4B, ch. 15, Elsevier, North Holland, 2011. (selected sections)

Cunha, F., Heckman, J. J., and Lochner, L., "Interpreting the Evidence on Life Cycle Skill Formation," volume 1 of Handbook of the Economics of Education (2006), chapter 12, 697–812. Elsevier. (selected sections)

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

Cunha F. and J. Heckman, "The Economics and Psychology of Inequality and Human Development," Journal of the European Economic Association (2009), 7(2-3): 320-364. (selected sections)

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

*Baker, M., "Innis Lecture: Universal Early Childhood Interventions: What is the Evidence Base?" Canadian Journal of Economics (2011), 44(4):1069-1105.

*Baker, M., J. Gruber, and K. Milligan, "Universal Childcare, Maternal Labor Supply, and Family Well-Being," Journal of Political Economy (2008), 116(4): 709-745.

**Carneiro, P. and Ginja, R., "Long-Term Impacts of Compensatory Preschool on Health and Behavior: Evidence from Head Start," American Economic Journal: Economic Policy (2014). 6(4):135-73.

**Cornelissen, T., Dustmann, C., Raute, A., and Schonberg, U., "Who Benefits from Universal Child Care? Estimating Marginal Returns to Early Child Care Attendance," Journal of Political Economy (2019), 126:2356-2409.

3. Educational Policy: The Importance of Teachers (2 Lectures)

Hanushek, E., and Rivkin, S., "Teacher Quality," in Hanushek, E., and Welch, D. (eds.), Handbook of the Economics of Education (2006) vol. 2, chap. 18. (selected sections)

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

*Chetty, R., Friedman, J., and Rockoff, J., "Measuring the Impacts of Teachers II: Teacher Value-Added and Student Outcomes in Adulthood," American Economic Review (2014b), 104(9): 2643-2679.

**Rothstein, J. (2015) "Teacher Quality Policy when Supply Matters," American Economic Review, 105(1), 100-130.

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

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

**Duflo, E., Dupas, P. and M. Kremer, "Peer Effects, Teacher Incentives, and the Impact of Tracking: Evidence from a Randomized Evaluation in Kenya," American Economic Review (2011), 101: 1739–1774.

4. Educational Policy: Evidence on Class Size and School Resources (1 Lecture)

*Angrist, J. and Lavy, V., "Using Maimonides' Rule to Estimate the Effect of Class Size on Student Achievement," Quarterly Journal of Economics (1999), 114: 535-575.

Hanushek, E.A. "The Failure of Input-Based Resource Policies," The Economic Journal (2003), 113(485). 64-98.

**Urquiola, M. and E. Verhoogen, "Class Size Caps, Sorting, and the Regression Discontinuity Design." American Economic Review (2009), 99(1): 179-215.

5. Educational Policy: Public Provision, School Choice and Vouchers (1 Lecture)

Figlio D. and Loeb S., "School Accountability," in E. Hanushek, S. Machin, and L. Woessmann, eds., Handbook of Economics of Education (2006), volume 3, Elsevier. (selected sections)

*Angrist, J., Dynarski, S., Kane, T., and Pathak, P. "Accountability and Flexibility in Public Schools: Evidence from Boston's Charters and Pilots," *The Quarterly Journal of Economics* (2011), 126(2): 699-748.

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

**Figlio D. and Hart C., "Competitive Effects of Means-Tested School Vouchers", *American Economic Journals: Applied Economics* (2014), 6(1): 133-156.

6. Educational Policy: The Importance of Incentives (1 Lecture)

*Kremer, M., E. Miguel, and R. Thornton, "Incentives to Learn," *Review of Economics and Statistics* (2009), 91(3): 437-456.

**Leuven, E., H. Oosterbeek, and B. Van der Klaauw, "The Effect of Financial Rewards on Students Achievement: Evidence from a Randomized Experiment," *Journal of the European Economic Association* (2010), 8(6):1243-1265.

**Fryer, R. "Financial Incentives and Student Achievement: Evidence from Randomized Trials," *Quarterly Journal of Economics* (2011), 126(4): 1755-1798.