

Harvard Kennedy School
SUP-427: Analyzing Education Policy
(Also listed as HGSE A-142)

Instructor: Professor Joshua Goodman
Joshua_Goodman@hks.harvard.edu (subject: "SUP-427")

Teaching Fellow: Laura Quinby
lquinby@fas.harvard.edu (subject: "SUP-427")

Classes: T/Th 1:10-2:30 PM, L280

Office hours: Prof. Goodman: TBD (sign up on my website)
Laura Quinby: TBD

Course overview

This course examines education policy issues in the United States and abroad, with an emphasis on rigorous quantitative evaluation of such policies. By the course's end, students should have an analytical framework for thinking clearly about the impacts of education policies, as well as the ability to distinguish good quantitative research from bad. The course's major units are the human capital model, private and social returns to schooling, resource quantity and quality, and school and individual incentives. Within each unit we will explore specific policy questions, with an emphasis on the methods used to best evaluate such policies.

Course goals

- 1) You will have an analytical framework for thinking about education policy.
- 2) You will be able to judge the quality of quantitative education research.
- 3) You will be able to communicate the central findings of such research to others.

Common questions

Should you take this course? - Yes, if you care about rigorous quantitative evaluation of education policies and if you have solid grounding in regression analysis (API-202 or equivalent).

How does this course differ from similar courses at HKS (and HGSE)? - My goal is for you to hone the tools you use to think rigorously about a wide range of educational policy issues. As such, we will only spend a few classes on each unit but will focus on the methods used to analyze policies more generally. You will become very practiced in critical analysis of empirical research.

What are your obligations as a student in this course? - Learn your econometrics. Read slowly and carefully, and come to class prepared for discussion and presentation. Be courteous to your classmates and use our time wisely. Write well.

Course structure and grading

The first part of the course will consist of nine classes that focus on the human capital model of educational investment decisions, as well as on evidence about the causal impact of education on earnings. I will lead these discussions and each class will focus on a single paper that illustrates a particular econometric technique, as well as a topic of policy interest. You will then take an in-class midterm exam covering those nine classes, with an emphasis on the econometric issues we've discussed. That midterm will count for **30% of your grade**.

The second part of the course will consist of three classes in which I and other researchers will discuss current projects we're working on. The goal here is to give you a sense of the research process as it unfolds in reality.

The third part of the course will consist of two six-class units, one focused on evidence for the efficacy of various school resource-based interventions and the other focused on evidence for the efficacy of various incentive-based interventions. Each of you, along with a partner (or two, depending on enrollment), will lead the first 40 minutes of discussion in one of these twelve classes. To do so, you will:

- 1) Starting with the single assigned reading, generate a larger literature review of the 5-10 best papers on the topic at hand. Also find one example of bad academic research or a poorly reasoned opinion piece about the topic.
- 2) Starting with a PowerPoint template I will give you, create a presentation that you will send to me 48 hours before the class. The presentation will address the central question being asked by the assigned reading, the empirical strategy used to answer it, the validity of the results, and your take on what those results and the wider literature you've identified imply for education policy.
- 3) You will then lead the first 40 minutes of class discussion on this topic. You will take questions from your classmates and me, so be prepared to answer them.

This presentation will count for **40% of your grade**. You will be graded on how clearly you orally and visually communicate the most important aspects of this research area to the class. I will then lead the discussion of the topic in the second half of the class, in order to share my own take on these issues.

The final class of the semester will be a discussion of non-education based interventions, as well as of open questions in education policy. After that, you will complete a take-home final exam that will count for **30% of your grade**. The final will focus on topics selected from the discussions you and your classmates have led.

Finally, a word about participation. Please help facilitate good discussion during class, or in office hours. Ask questions that matter, including those for help with tough concepts. I'll notice and will take this into account should you be on the margin between two letter grades.

Required texts

All of the required readings will come from articles that are available online through Harvard's libraries. I've also listed three books here that address some of the most fundamental issues we'll discuss. Buy or borrow them should your interest in this topic run deep. They're worth it.

The Race between Education and Technology. 2008. Claudia Goldin and Lawrence Katz.

Methods Matter: Improving Causal Inference in Educational and Social Science Research. 2010. Richard Murnane and John Willett.

Mastering 'Metrics: The Path from Cause to Effect. 2014. Josh Angrist and Jorn-Steffen Pischke.

Schedule

<u>Class</u>	<u>Date</u>	<u>Unit</u>	<u>Topic</u>	<u>Skill Focus</u>
1	1/27	Introduction	Causal inference	
2	1/29	The human capital model	Labor markets	Econometrics, reading and assessing research
3	2/3		Information	
4	2/5		Costs	
5	2/10		Returns to schooling	
6	2/12	College		
7	2/17	College quality I		
8	2/19	College quality II		
9	2/24	Earnings spillovers		
10	2/26	Midterm		
11	3/3	The research process	Work in progress (TBD)	Production and dissemination of research
12	3/5		Work in progress (TBD)	
13	3/10		Work in progress (TBD)	
14	3/12	Resources	Class size	Oral and visual presentation
15	3/24		Technology	
16	3/26		Instructional time	
17	3/31		Financial resources	
18	4/2		Teacher quality	
19	4/7		Curriculum	
20	4/9	Incentives	Competition	
21	4/14		Charter schools	
22	4/16		Accountability	
23	4/21		Teachers	
24	4/23		Families	
25	4/28		Students	
26	4/30	Conclusion	Are schools enough?	

Readings

Introduction

Causal inference

Murnane, Richard J. (2013). U.S. High School Graduation Rates: Patterns and Explanations. *Journal of Economic Literature* 51:2, 370-422.

The human capital model

Labor markets (ordinary least squares)

Kuhn, Peter and Weinberger, Catherine (2005). Leadership Skills and Wages. *Journal of Labor Economics* 23:3, 395-436.

Information (randomization)

Bettinger, Eric P., Bridget Terry Long, Philip Oreopoulos, and Lisa Sanbonmatsu (2012). 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, 1205-1242.

Costs (difference-in-difference)

Goodman, Joshua (2008). Who Merits Financial Aid? Massachusetts' Adams Scholarship. *Journal of Public Economics* 92:10-11, 2121-2131.

Returns to schooling

Early childhood (fixed effects)

Deming, David (2009). Early Childhood Intervention and Life-Cycle Skill Development: Evidence from Head Start. *American Economic Journal: Applied Economics* 1:3, 111-134.

College (instrumental variables)

Card, David (1995). Using Geographic Variation in College Proximity to Estimate the Return to Schooling. *Aspects of Labour Market Behaviour: Essays in Honour of John Vanderkamp*, 201-222.

College quality I (regression discontinuity)

Cohodes, Sarah and Joshua Goodman (2014). Merit Aid, College Quality and College Completion: Massachusetts' Adams Scholarship as an In-Kind Subsidy. *American Economic Journal: Applied Economics* 6:4, 251-285.

College quality II (interpreting research)

Heil, Scott, Liza Reisel, and Paul Attewell (2014). College Selectivity and Degree Completion. *American Educational Research Journal* 51:5, 913-935.

Earnings spillovers

Moretti, Enrico (2004). Workers' Education, Spillovers, and Productivity: Evidence from Plant-Level Production Functions. *American Economic Review* 94:3, 656-690.

Resources

Class size

Fredriksson, Peter; Ockert, Bjorn; and Oosterbeek, Hessel (2013). Long-Term Effects of Class Size. *The Quarterly Journal of Economics* 128:1, 249-285.

Technology

Fairlie, Robert and Robinson, Jonathan (2013). Experimental Evidence on the Effects of Home Computers on Academic Achievement among Schoolchildren. *American Economic Journal: Applied Economics* 5:3, 211-40.

Instructional time

Goodman, Joshua (2014). Flaking Out: Student Absences and Snow Days as Disruptions of Instructional Time. NBER Working Paper 20221.

Financial resources

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

Teacher quality

Chetty, Raj, Friedman, John and Jonah Rockoff (2014). Measuring the Impacts of Teachers II: Teacher Value-Added and Student Outcomes in Adulthood. *American Economic Review* 104:9, 2633–2679.

Curriculum

Goodman, Joshua (2012). The Labor of Division: Returns to Compulsory Math Coursework. HKS Faculty Research Working Paper Series 12-032.

Incentives

Competition

Figlio, David and Hart, Cassandra (2014). Competitive Effects of Means-Tested School Vouchers. *American Economic Journal: Applied Economics* 6:1, 133-156.

Charter schools

Abdulkadiroglu, Atila; Angrist, Joshua; Dynarski, Susan; Kane, Thomas and Pathak, Parag (2011). Accountability and Flexibility in Public Schools: Evidence from Boston's Charters and Pilots. *The Quarterly Journal of Economics* 126:2, 699-748.

Accountability

Chakrabarti, Rajashri (2014). Incentives and Responses Under No Child Left Behind: Credible Threats and The Role of Competition. *Journal of Public Economics* 110: 124-146.

Teachers

Duflo, Esther; Hanna, Rema and Ryan, Stephen (2012). Incentives Work: Getting Teachers to Come to School. *American Economic Review* 102:4, 1241-78.

Families

Barrera-Osorio, Felipe; Bertrand, Marianne; Linden, Leigh and Perez-Calle, Francisco (2011). Improving the Design of Conditional Transfer Programs: Evidence from a Randomized Education Experiment in Colombia. *American Economic Journal: Applied Economics* 3:2 167-195.

Students

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

Conclusion

Are schools enough?

Almond, Douglas and Currie, Janet (2011). Killing Me Softly: The Fetal Origins Hypothesis. *Journal of Economic Perspectives* 25:3, 153–72.

Gelber, Alexander, Isen, Adam and Kessler, Judd (2014). The Effects of Youth Employment: Evidence from New York City Summer Youth Employment Program Lotteries. NBER Working Paper 20810.

Brian Jacob, Max Kapustin, Jens Ludwig (2014). Human Capital Effects of Anti-Poverty Programs: Evidence from a Randomized Housing Voucher Lottery. NBER Working Paper 20164.

Sarah Cohodes, Samuel Kleiner, Michael F. Lovenheim, Daniel Grossman (2014). The Effect of Child Health Insurance Access on Schooling: Evidence from Public Insurance Expansions. NBER Working Paper 20178.