

Professor Nora Gordon

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ECONOMICS 147: ECONOMICS OF EDUCATION

Tues./Thurs. 2:00-3:30, Cognitive Science 002

<http://econ.ucsd.edu/faculty/negordon/econ147.html>

This course uses theoretical and empirical approaches from economics to examine issues in elementary and secondary education. We first analyze decisions to invest in education. We then consider various market structures in education, including school choice and school finance programs. The course focuses on current applied research in the economics of education.

PREREQUISITES:

One quarter of introductory microeconomics (Econ 1A or equivalent) *and* one quarter of statistics (Econ 120A or equivalent).

COURSE REQUIREMENTS:

There will be two problem sets, an unspecified number of unannounced in-class quizzes, a midterm exam, and a cumulative final exam.

Problem sets are due at the beginning of class on their due dates. They will be available on the web one week before they are due. The problem sets will be graded out of five points, and solutions will be posted on the web after class the day they are due. You are encouraged to work on problem sets in groups, but each student must turn in his own *handwritten* (see me if this is a problem) assignment, and must *list all names* of collaborators on each assignment. Late problem sets will not be accepted. The problem sets count for 10% of the grade.

Quizzes will not be announced in advance (they are “pop” quizzes) and will be given at the beginning of class. If you are not in class due to absence or lateness and a quiz is given, you will receive a zero on that quiz. The lowest quiz grade for each student will be dropped. Quizzes will cover assigned readings, including material to be covered that day. Class performance will determine the number of quizzes given. Quizzes count for 10% of the grade. Going over the reading review questions (below) is a good way to prepare for the possibility of a quiz.

The **midterm exam**, in class on Tuesday, February 11, counts for 30% of the grade. If you miss the midterm exam for a legitimate and verifiable reason, the final exam will count as 80% of your course grade. If at all possible, those reasons must be cleared with me in advance. If you miss the midterm exam for any other reason, you will receive a zero on the midterm exam and that will count as 30% of your course grade.

The cumulative **final exam** will be Thursday, March 20, from 3:00-6:00, and counts for 50% of the grade.

Note: there will be no class on Thursday, January 16.

READINGS:

There is no textbook for this course. The coursepack of required readings is available from the UCSD Bookstore and is also on reserve at the library. Most of the readings are on electronic reserve as well. Readings are specified as required or additional on the syllabus. Required readings are given by date on the attached calendar. You must do the required reading *before* the relevant class, and you may be quizzed on it.

Many of the readings are in economics journals and contain parts that are technically quite advanced. You are not expected to understand all of the math in the readings. You should be able to answer the following questions about the readings:

- What hypothesis is the author trying to test/advance?
- What data does the author use?
- Give an intuitive description of the author's test or model.
- What does the author conclude?
- Are you convinced that the author's results (if any) come from a causal relationship? Why or why not?

ATTENDANCE:

Attendance is not part of your grade in the course (but see quizzes, above). Because there is no textbook for the course, however, the lectures are extremely important. The lectures draw heavily but not solely on the required and additional readings, and place those readings in context. If you must miss a class, you are responsible for getting the notes from another student.

There is no section for this course. There will be one optional review session each for the midterm and final exams.

READINGS

1. Investing in education

1.1. The theory of human capital investment

Required reading:

- [1] G. Borjas (1996) Labor Economics, pp. 220-241.

Additional readings:

G. Becker (1993) Human Capital, 3rd edition, pp. 59-70.

Owen, J. D. (1995). Why our kids don't study: An economist's perspective. Baltimore and London, Johns Hopkins University Press.

1.2 Measuring the return to education

Required readings:

- [2] Angrist, J. D. and A. B. Krueger (1991). "Does Compulsory School Attendance Affect Schooling and Earnings?" Quarterly Journal of Economics **106**(4): 979-1014.
- [3] Ashenfelter, O. and C. Rouse (1998). "Income, Schooling, and Ability: Evidence from a New Sample of Identical Twins." Quarterly Journal of Economics **113**(1): 253-84.

1.3 Education as a signal

Required readings:

- [4] Spence, M. (1974) Market Signaling, pp. 1-30.
- [5] Borjas, G. (1996) Labor Economics, pp. 241-47.
- [6] Tyler, J. H., R. J. Murnane, et al. (2000). "Estimating the Labor Market Signaling Value of the GED." Quarterly Journal of Economics **115**(2): 431-68.

Additional readings:

Betts, J. R. (1998). "The Impact of Educational Standards on the Level and Distribution of Earnings." American Economic Review **88**(1): 266-75.

1.4. Private schools

Required readings:

- [7] Neal, D. (1997). "The Effects of Catholic Secondary Schooling on Educational Achievement." Journal of Labor Economics **15**(1): 98-123.

Additional readings:

Evans, W. N. and R. M. Schwab (1995). "Finishing High School and Starting College: Do Catholic Schools Make a Difference?" Quarterly Journal of Economics **110**(4): 941-74.

2. Producing education

2.1. Does money matter?

Required readings:

[8] Betts, J. R. (1996). Is There a Link between School Inputs and Earnings? Fresh Scrutiny of an Old Literature. Does money matter? The effect of school resources on student achievement and adult success. G. Burtless. Washington, D.C., Brookings Institution Press: 141-91.

[9] Hanushek, E. A. (1986). "The Economics of Schooling: Production and Efficiency in Public Schools." Journal of Economic Literature **24**(3): 1141-77.

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

Additional readings:

Hoxby, C. M. (2000). "The Effects of Class Size on Student Achievement: New Evidence from Population Variation." Quarterly Journal of Economics **115**(4): 1239-85.

Duflo, E. (2001). "Schooling and Labor Market Consequences of School Construction in Indonesia: Evidence from an Unusual Policy Experiment." American Economic Review **91**(4): 795-813.

2.2. Peer effects

Required readings:

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

[12] Hoxby, C. (2000) "Peer Effects in the Classroom: Learning from Gender and Race Variation," National Bureau of Economic Research Working Paper No. 7867.

Additional readings:

Dee, T. (2001) "Teachers, Race, and Student Achievement in a Randomized Experiment," National Bureau of Economic Research Working Paper No. 8432.

Hanushek, E. A., J. F. Kain, et al. (1998). "Teachers, Schools, and Academic Achievement." National Bureau of Economic Research Working Paper No. 7082.

3. The market for elementary and secondary education

3.1. Traditional school choice in the U.S.

Required readings:

- [13] Rosen, H. (2002). Public Finance, 6th edition, Chapter 20: Public Finance in a Federal System, pp. 471-506.
- [14] Hoxby, C. M. (2000). "Does Competition among Public Schools Benefit Students and Taxpayers?" American Economic Review **90**(5): 1209-38.

Additional reading:

- Odden, A. and L. Picus (2000). School Finance: A Policy Perspective. Chapter 4, School Finance Structures: Formula Options and Needs Adjustments, pp. 154-240.

3.2. Market valuations of school quality

Required reading:

- [15] Black, S. E. (1999). "Do Better Schools Matter? Parental Valuation of Elementary Education." Quarterly Journal of Economics **114**(2): 577-99.

3.3. School finance

Required readings:

- [16] Evans, W. N., S. E. Murray, et al. (1999). The Impact of Court-Mandated School Finance Reform. Equity and adequacy in education finance: Issues and perspectives. H. F. Ladd, R. Chalk and J. S. Hansen. Washington, D.C., National Academy Press: 72-98.
- [17] Gordon, N. (2002). "Do Federal Funds Boost School Spending? Evidence from Title I." Dissertation, Harvard University.
- [18] Poterba, J. (1997). "Demographic Structure and the Political Economy of Public Education," Journal of Public Policy and Management **16**: 48-66.

3.4. Emerging models of choice

Required readings:

- [19] Rouse, C. E. (1998). "Private School Vouchers and Student Achievement: An Evaluation of the Milwaukee Parental Choice Program." Quarterly Journal of Economics **113**(2): 553-602.
- [20] Reber, S. J. (2002). "Court-Ordered Desegregation: Successes and Failures in Integrating American Schools since *Brown*." Mimeo, Harvard University.

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Additional reading:

Angrist, J. and K. Lang (2002) "How Important Are Classroom Peer Effects? Evidence from Boston's Metco Program," National Bureau of Economic Research Working Paper No. 9263. <http://papers.nber.org/papers/W9263>

3.5. The market for teachers

Required readings:

[21] Murnane, R. J., J. D. Singer, et al. (1991). Who Will Teach? Policies That Matter. Cambridge, MA, Harvard University Press. Chapter 7, Revising Licensing Requirements, and Chapter 8, Getting the Incentives Right, pp. 87-130.

[22] Hanushek, E. A., J. Kain, et al. (1999). Do Higher Salaries Buy Better Teachers? National Bureau of Economic Research Working Paper No. 7082.

Additional reading:

Murnane, R. J., J. D. Singer, et al. (1991). Who Will Teach? Policies That Matter. Cambridge, MA, Harvard University Press. (entire book)

4. Current issues in California education

4.1 School finance in California

Required reading:

[23] Silva, F. and J. Sonstelie (1995). "Did Serrano Cause a Decline in School Spending?" National Tax Journal 48(2): 199-215.

4.2 Private foundations and public schools

Required reading:

[24] Zimmer, R., C. Krop, et al. Private Giving to Public Schools and Districts in Los Angeles County: A Pilot Study, Chapter 2: What We Currently Know about Private Support of Public Education, pp. 7-23.
<http://www.rand.org/publications/MR/MR1429/MR1429.ch2.pdf>

4.3 Class size reduction in California

Required reading:

[25] Reichardt, R. (2000). The Cost of Class Size Reduction: Advice for Policy Makers, Chapter 5: Teacher Qualifications, an Unintended Cost of CSR, pp. 88-138.
<http://www.rand.org/publications/RGSD/RGSD156/RGSD156.ch5.pdf>

**Economics 147 Class Calendar
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Tuesday	Thursday
Jan. 7 Course introduction Introduction to human capital theory	Jan. 9 Estimating the return to education Reading: Borjas [1]
Jan. 14 Ability and the return to education Readings: Angrist and Krueger [2]; Ashenfelter and Rouse [3]	Jan. 16 <i>No class meeting</i>
Jan. 21 Finish ability and return to education; start signaling Readings: Spence [4]; Borjas [5]	Jan. 23 Signaling and the GED Reading: Tyler, Murnane, and Willett [6]
Jan. 28 Returns to private schooling Reading: Neal [7]	Jan. 30 School quality I Readings: Betts [8]; Hanushek [9] <i>Problem set 1 due</i>
Feb. 4 School quality II Reading: Krueger [10]	Feb. 6 Peer effects Readings: Sacerdote [11]; Hoxby [12]
Feb. 11 <i>Midterm exam in class</i>	Feb. 13 Traditional school choice: Tiebout Readings: Rosen [13]; Hoxby [14]
Feb. 18 School choice II Reading: Black [15]	Feb. 20 Ideal school finance Reading: Evans, Murray, and Schwab [16]
Feb. 25 Empirical research on school finance Readings: Gordon [17]; Poterba [18]	Feb. 27 Vouchers Reading: Rouse [19]
Mar. 4 Desegregation Reading: Reber [20] <i>Problem set 2 due</i>	Mar. 6 The market for teachers Readings: Murnane, Singer, <i>et al.</i> [21]; Hanushek, Kain and Rivkin [22]
Mar. 11 School finance in California Readings: Silva and Sonstelie [23]; Zimmer and Krop [24]	Mar. 13 Current topics in California education policy Reading: Reichardt [25]
Mar. 18 Office hours 9-11 a.m., 2-4 p.m.	Mar. 20 <i>Final exam 3:00-6:00</i>