

# The Economics of Education

Econ 325, University of Michigan, Fall 2016

TuTh 8:30 – 10am, 1202 SEB

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**Office Hours:** Lorch Hall, room 154, Tuesdays 1-3pm, and other times by appointment

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Office hours tba

**Website:** I maintain a Canvas site for this course. It contains lecture notes, homework assignments and answers, old exams, and all required readings. Scores of all assignments will be posted. We will also be using M+Box (which is integrated into Canvas) for electronic submission of writing assignments.

## **Purpose**

We study the economic approach to the analysis of education. This course is designed to increase your comfort in describing, modeling, and evaluating policy interventions. It will be useful for students who want to have a firm background in one of the most important ongoing public policy arenas, and for educators who want to serve as better advocates for effective educational reform. The economic study of education is heavily empirical, so we will spend some time introducing the statistical tools most commonly used by economists, and we will spend large amounts of time discussing the state of the art of the evidence in favor of, and against, many current (and proposed) educational practices.

## **Prerequisites:**

You must have taken Econ 101 (Micro) in order to enroll in the class. Experience in statistics at the level of STATS 250 will be very very helpful, though it is not strictly required.

If you are an international student or an ESL student, consider taking one of the following courses concurrently with Econ 325: [Writing 119](#), [Writing 120](#), [Writing 240](#), or [Writing 350](#), all of which are designed to increase confidence and skill in writers for whom English is a second language.

## **Course Structure**

Successful completion of this course (with a C- or better) satisfies Michigan's ULWR requirement. As such, it has two intertwining structures.

The first structure serves to present the subject matter of the course. We start by discussing the demand side of education: the student's path through the educational system, and the value derived therefrom. Next, we discuss the supply side: the school and its production choices. Then we discuss policy issues: systemic reform and the interaction between education, social mobility, and income inequality. This is the "stuff" we talk about throughout the class, using economic theory and econometric evidence to understand the practice and potential of our educational system.

The second structure serves to develop students as readers and writers. The assignments are designed to help you become a more critical thinker about economics, and the nature of the evidence it produces. They will build your confidence in interacting with primary sources – journal articles – so that you can judge for yourself "what works". A thoughtful person must answer for themselves whether one model or another accurately describes the world, whether policies have the effect their advocates claim, and what practices and behaviors you yourself might choose to advocate. By the end of the class, you will summarize, synthesize and propose extensions of an active area of social research.

## **Required Readings**

There is no textbook in this class. I pull readings from a number of sources, all of which are listed in the Topics and Readings section below. Every item listed in that section has been scanned in as a pdf file, and is posted on the Canvas site. You should not have to buy any reading materials for this class, though you may want to invest in more paper and printer ink than usual.

## **Attendance:**

I do not take attendance per se. There are a number of days where we either discuss or create “low stakes” writing assignments in class. These constitute a fairly substantial part of your grade. They may NOT be submitted late, and they MUST (absent prior arrangements) be submitted in physical form. Failing to attend class on these days will earn you a zero on those assignments. On all other days, you are, of course, cheating yourself of a fuller understanding of important issues (issues that may appear on exams!) by skipping class. Attendance is strongly recommended.

## **Evaluation structure**

There are three major components to your grade:

Exams: 50%

Low-stakes writing: 15%

Formal writing: 35%

Each of these components has multiple items. All items and their due dates are given in the calendar of assignments below. A fuller description of the writing assignments (and their purpose and evaluation standards) is posted in the “[Assignment Descriptions](#)” document on Canvas. A fuller description of the term paper is given in the “[Term Paper Description](#)” document. A number of [evaluation rubrics](#) and [feedback forms](#) are posted as well, to give clear guidance about expectations.

### Exams

(25% x 2 = 50% of total)

There are two in-class exams. These are non-cumulative and equally-weighted. Check your calendars immediately for any conflicts with these times. If you are unable to come to class on exam day, you should withdraw from the class. If you are unable for medical reasons to attend the exam you must inform me of your illness BEFORE the time of the exam, and you must fill out the [official Economics Department verification form](#). A medical professional must attest that you are actually ill and unable to take the exam at the time it was administered. If you have an excused absence for the exam, I will waive your responsibility for taking it.

### Low-stakes writing

(15% of total)

This is a catch-all term to indicate participation-based assignments that are designed to build your confidence in thinking like an economist, talking like an economist, and writing like an economist. All assignments in this category will be graded on a 0/1/2 basis, depending on if you made a “good faith effort” to participate. Points on low-stakes writing are assigned as follows:

2 points: The assignment was done in a “good faith effort”.

1 point: Assignment completed, but the work was insufficient. Depending on the assignment type, either (i) many questions, or important questions, were skipped, (ii) the writing is illegible or incoherent, or (iii) participation in discussion was minimal or counterproductive.

0 points: Did not participate in the assignment.

The following assignment types are considered low-stakes:

- Three homework problem sets
- Three short “free writing” exercises (two of which are done at home and submitted with homework problem sets).
- Three low-stakes paper summaries

- Two peer feedback discussions
- One instructor meeting

### Formal writing

(35% of total)

This category includes all writing assignments that contribute to the term paper (including, of course, the final product). The following assignment types are considered “formal”:

- Topic proposal
- Three paper summaries
- Synthesis and policy analysis
- Complete term paper.

The defining feature of the “formal writing” assignments is NOT that they are worth a lot of points – the first three bullets under this heading will be graded in a manner that’s very similar to the low-stakes writing. The defining characteristic of the formal writing is that you will get detailed feedback on each item, and you are expected to revise your writing based on this feedback. The revisions of these submissions will then be combined and edited down into your complete term paper. The completed term paper itself is worth 25% of your overall grade (i.e., the same value as an exam, and about 70% of your “formal writing” points).

### Misc. Rules:

**Electronic Devices:** Silence your cell phones, pagers, and whatever else you have that makes noise. Despite what you may think, it is very obvious when you’re watching YouTube in class. Please consume your (non-course-related) media elsewhere – it’s distracting to me, and to your peers around you. I reserve the right to ban all laptops from the class if this becomes an issue.

**Students with Disabilities:** If you need alternate exam or writing accommodations due to a disability, you must submit your official SSD accommodations form to Dr. Stevenson at least 2 weeks before the first exam.

**Calculators:** There will be numerical questions on the exams. You will want to use a *scientific* calculator on the exams, but you may only use ones that are non-programmable. This rule excludes the use of most graphing calculators – the graphing functions will never be useful, and the incentive to use them to cheat is too great. You may NOT use your cell phones, Blackberries, PDAs, or any other multi-purpose electronic devices for their calculator functions. Single-line calculators are preferable.

**E-etiquette:** I will delete, without responding, any email that does not include at least, an indication of who is writing, the purpose of the email in the title (including the fact that it’s for the course Econ 325) and some semblance of the proper format (a rubric that includes reasonable attempts at spelling and the proper use of the shift and caps lock keys). In the real world, people do not take this kind of communication seriously, and I certainly do not, so please refrain.

**Academic Misconduct and Plagiarism:** I follow [Economics Department policy with respect to academic integrity](#). This means that if I suspect you of plagiarism, cheating on exams, or any other academic dishonesty in any of your work, I will notify you of such. Absent a compelling explanation, your name will be forwarded to the Dean of Student Affairs for adjudication. If your academic misconduct is “documented” by the Dean, then you will automatically fail the entire course (in addition to any University punishments assigned by the Dean). While I very much encourage students to study and prepare for class together, I expect that all work submitted is the student’s own. There is to be NO collaboration (outside of classroom feedback sessions) on the formal writing assignments.

## Assignment schedule

Week of	Tuesday	Thursday
Sept 6		
Sept 13	Low-stakes paper report 1: Avery and Turner summary & discussion	Homework problem set 1: Private value of education problems and free write
Sept 20		Homework problem set 2: Estimation
Sept 27	<b>In-class:</b> informal paper topic proposal peer feedback discussion <b>At home:</b> M+Box setup assignment	Low-stakes paper report 2: Winston summary & discussion
Oct 4	Formal writing: proposal and motivation	
Oct 11	Homework problem set 3: Production theory problems and free write	
Oct 18	No class - Fall study break	Low-stakes paper report 3: Carrell & Hoekstra summary & discussion
Oct 25	EXAM 1	
Nov 1		Formal writing: paper summary 1
Nov 8		Formal writing: paper summary 2
Nov 15		Formal writing: paper summary 3
Nov 22	<b>In-class:</b> informal synthesis and conclusions peer feedback discussion	No class- Thanksgiving
Nov 29		Formal writing: Synthesis and policy analysis
Dec 6	<b>In-class:</b> Free write on higher education's role in social inequality	EXAM 2
Dec 13	Instructor meetings	Instructor meetings
Dec 20: Paper due by Tuesday at 10am		

## Topics and Readings schedule:

A fuller list of the papers from which I drew my lectures (which may be taken as a “recommended reading” list) is available, upon request.

What follows is a day-to-day breakdown of classroom coverage and the required readings for each day. The exact timetable may change as topics take more or less time to cover, and I will notify you ASAP when such adjustments become necessary. It is always possible (and strongly recommended) that you read ahead.

## SECTION 1: The “Demand Side” of Education

### Topic 1: The theory of private returns to education.

Thur, Sept 8: Human Capital Theory

Ehrenberg, Ronald, and Robert Smith, 2009, Ch. 9 “Investments in Human Capital: Education and Training,” of *Modern Labor Economics: Theory and Public Policy*, Pearson Education, Boston, MA

Tues, Sept 13: Signaling theory of education, and other market values

Avery, Christopher, and Sarah Turner, 2012. "Student Loans: Do College Students Borrow Too Much – Or Not Enough?," *Journal of Economic Perspectives* 26(1), pp. 165-192.

## **Topic 2: Measurement in economics and policy analysis**

Thur, Sept 15: Linear Regression

Ehrenberg, Ronald, and Robert Smith, 2009. Ch. 1 appendix "Statistical Testing of Labor Market Hypotheses," of *Modern Labor Economics: Theory and Public Policy*, Pearson Education, Boston, MA.

Tues, Sept 20: Causal Inference

Schlotter, Martin, Guido Schwerdt, and Ludger Woessmann, 2011. "Econometric Methods for Causal Evaluation of Education Policies and Practices: A Non-Technical Guide," *Education Economics* 19(2).

Thur, Sept 22: The causal effect of education on earnings

Goldberg, Jessica, and Jeffrey Smith, 2008. "The Effects of Education on Labor Market Outcomes," in *Handbook of Research in Education Finance and Policy*, Ladd and Fiske, eds., Ch. 38, pp. 688-708.

## **SECTION 2: The "Supply Side" of Education**

### **Topic 3: Educational finance**

Tues, Sept 27: The public finance of primary and secondary education

Thur, Sept 29: The finance of post-secondary education

Winston, Gordon, 1999. "Subsidies, Hierarchy and Peers: The Awkward Economics of Higher Education," *Journal of Economic Perspectives* 13(1), pp. 13-36.

### **Topic 4: Educational production.**

Tues, Oct 4: Fin of PS ed, cont'd, intro to theory of educational production

Nicholson, Walter, 2004. Chapters 5-7 of *Intermediate Microeconomics and its Application*, 9<sup>th</sup> ed, Thomson/South-Western, Mason, OH.

Thur, Oct 6: The theory of educational production

Tues, Oct 11: Does money matter?

Hanushek, Erik, 2006. Pages 879 – 884 and 886 – 896 of "School Resources," *Handbook of the Economics of Education* vol 2, Chapter 14.

### **Topic 5: Inputs of educational production**

Thur, Oct 13: Class size as an educational input

Finn, Jeremy, and Charles Achilles, 1999. "Tennessee's Class Size Study: Findings, Implications, Misconceptions," *Educational Evaluation and Policy Analysis* 21(2), pp. 97-109.

Thur, Oct 20: Peer effects in education

Carrell, Scott and Mark L. Hoekstra, 2010. "Externalities in the Classroom: How Children Exposed to Domestic Violence Affect Everyone's Kids," *American Economic Journal: Applied Economics* 2(1), pp. 211-228

Thur, Oct 27: The market for teachers: teacher characteristics and student achievement

Goldhaber, Daniel, 2002. "The Mystery of Good Teaching: Surveying the Evidence on Student Achievement of Teacher's Characteristics," *Education Next* 2(1), pp. 76-82.  
<http://educationnext.org/the-mystery-of-good-teaching/>

Clotfelter, Charles T., Helen F. Ladd, and Jacob L. Vigdor 2007, "Teacher credentials and student achievement: longitudinal analysis with student fixed effects" *Economics of Education Review* 26(6), 673-682.

### **SECTION 3: Policy Issues**

#### **Topic 6: Educational reform: Accountability policy**

Tues Nov 1: Accountability background theory

Schotter, Andrew, 1997. pp. 285-289 (in Ch. 8) *Microeconomics: A Modern Approach*, 2<sup>nd</sup> (or 3<sup>rd</sup>) edition, Addison-Wesley.

Thur, Nov 3: Accountability evidence

Dee, Thomas, and Brian Jacob, 2010. "Evaluating NCLB," *Education Next* 10(3), pp. 54-61. <http://educationnext.org/evaluating-nclb/>

Podgursky, Michael J., Matthew G. Springer, 2007. pp. 922-941 of "Teacher Performance Pay: A Review," *Journal of Policy Analysis and Management* 26(4), pp. 909-949.

#### **Topic 7: Educational reform: School Choice.**

Tues, Nov 8: School choice background and theory

McEwan, Patrick, 2000. pp. 103-107 and 123-125 of "The Potential Impact of Large-Scale Voucher Programs," *Review of Educational Research* 70(2), pp. 103-149.

Gruber, Jonathan, 2007. pp. 288-298 of Chapter 11 of *Public Finance and Public Policy*, 2<sup>nd</sup> ed., Worth Publishers, NY, NY.

Thur, Nov 10: School choice evidence

Ladd, Helen. 2002. "School Vouchers: A Critical View," *Journal of Economic Perspectives* 16(4), pp. 3-24.

#### **Topic 8: Equality of access to a high-quality education**

Tues, Nov 15: Early childhood education

Carniero, Pedro, and James Heckman, 2003. pp. 1-10, 27-32, and 45-49 of "Human Capital Policy," *NBER working paper w9495* (also in the book "*Inequality in America*" by Heckman and Krueger)

Elder, Todd, and Darren Lubotsky, 2008. pp. 641-645 and 650-664 of "Kindergarten Entrance Age and Children's Achievement: Impacts of State Policies, Family Background, and Peers," *The Journal of Human Resources* 44(3).

- Thur, Nov 17: The production and private value of college quality  
Hoxby, Caroline, 2001. "The Return to Attending a More Selective College," Ch. 2, *Exploring the Future of Higher Education, 2000*, Maureen Devlin and Joel Meyerson, eds., Jossey-Bass Inc..  
Black, Dan, and Jeff Smith, 2006. "Estimating the Returns to Quality with Multiple Proxies for Quality," *Journal of Labor Economics* 24(3), pp. 701-728.

**Topic 9: Education and social mobility.**

- Tues, Nov 29: Family background, education, and social mobility  
Bjorklund, Anders, and Kjell Salvanes, 2011. pp. 202-211 and 233-241 of "Education and Family Background: Mechanisms and Policies," *Handbook of the Economics of Education vol 3, Chapter 3*.
- Thur, Dec 1: Financial Aid as a tool of equal opportunity  
Dynarski, Susan, 2003. "Does Aid Matter? Measuring the Effect of Student Aid on College Attendance and Completion." *American Economic Review* 93:1, pp. 279-288.  
Cunha, Flavio, James Heckman, Lance Lochner and Dimitriy Masterov, 2006. "Interpreting the Evidence on Life Cycle Skill Formation," *Handbook of the Economics of Education vol 1, Chapter 12*.
- Tues, Dec 6: American inequality: education and technology  
Goldin, Claudia, and Lawrence Katz 2008. pp. 44-57 and 83-88 of Ch. 2 of *The Race between Education and Technology*, The Belknap Press, Cambridge, MA.  
Goldin, Claudia, and Lawrence Katz 2008. pp. 89-102 and 119-125 of Ch. 3 of *The Race between Education and Technology*, The Belknap Press, Cambridge, MA