Economics of Educational Policy (ECON 8310, Spring 2019)

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Office Hours: Tuesday 10:00-11:30a.m. Wednesday 3:30-5:00pm and by appointment

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Catalogue Description:

This course explores policy issues associated with K-12 education, focusing on issues raised since the publication of *A Nation at Risk*. The course first provides an economic conceptual framework in which to evaluate education policy alternatives and then examines education reform proposals that have been advanced over the last two decades.

Course Objectives:

A variety of education policy issues—including school accountability, teacher evaluation, charter schools, early childhood education and achievement gaps—have been on the front pages of newspapers and at the forefront of political debates during the last several years. Often these discussions are superficial and fail to engage the conceptual foundations of and evidentiary base for these issues. We will explore the goals of policies and the extent to which the intentions, implementation and ultimate effects of the policies align. In addition to providing you with an understanding of the results of recent research that bear on important educational policy issues the course will also help you to critically evaluate educational policy research and learn how to communicate key policy findings in the form of policy briefs.

Prerequisites:

Intermediate-level Microeconomics and Basic Statistics are highly recommended.

Method of Instruction:

ECON 8310 is taught through a combination of lecture, guided discussion and student presentations.

Required Text:

Lovenheim, Michael and Sarah Turner. 2018. *Economics of Education*. New York: Worth Publishers.

Additional required readings will be based on journal articles as specified in the course outline below.

Class Times:

Tuesdays 12:45-3:15p.m. Aderhold 106.

Office Hours:

Tuesday 10:00-11:30am and Wednesday 3:30-5:00pm. These hours are reserved for students, so do not hesitate to drop in without an appointment and spend as much of this time as you need getting help. If you would like to meet with me at other times of the day, please let me know ahead of time and I can arrange a mutually agreeable appointment time.

E-mail:

Feel free to send e-mail to me at <u>tsass@gsu.edu</u>; you will generally get a prompt reply. Also, please check the course web site and your email on a regular basis for announcements.

Web Page:

The course web page is available on the iCollege system. You can access it by going to the University's home page, http://www.gsu.edu/, click on the "Students" tab at the top and click on the iCollege link under "Technology" on the right-hand-side of the menu.

Course Requirements:

There will be a midterm (25%), a written policy brief and classroom presentation (25% in total) and a comprehensive final exam (40%). In addition, 10% of your grade will be based on class participation, which includes completing assigned readings prior to class and participating in classroom discussions. *There is no extra credit work available*.

PhD students in economics are required to complete a "grant proposal" rather than the policy brief and associated presentation.

Exams:

The midterm and final exam will consist of both short-answer (3-4 sentences) and longer multi-part "essay" questions. Your final exam is comprehensive, covering all of the material presented in class. The dates and times for the exams are given below.

Make-Ups:

If you anticipate a conflict with the midterm, *let me know in advance*. You can contact me via email anytime or during business hours by phone (if no one answers initially, stay on the line and leave a message). In most cases, it is possible to arrange an alternate time for an individual student to take a midterm. If you miss the midterm, let me know as soon as possible. If you have a valid reason for missing the exam (e.g. illness) and *let me know within 24 hours* of the scheduled exam, in most cases it is possible to take the exam at a later time. If you miss the midterm and do not contact me within 24 hours, you may be allowed to count your final exam extra. The "double counting" of the final exam will only be allowed under extraordinary circumstances, however.

Policy Briefs:

No matter what professional path you follow, you will have opportunities to write brief memos. Doing this well is critical to making a difference (and to professional advancement). For that reason, the required course work includes writing and presenting a policy brief. For the written brief, please type it and submit it to me in both hardcopy and electronic formats. The due dates for initial topic selection as well as for the final version of the written brief are listed on the course outline below. When grading this assignment I will pay attention to:

- The quality of the economic reasoning
- The use of data to support your argument
- The quality of the writing, including the extent to which the memo or speech is appropriate for the audience to which it is intended.

There is an on-line tutorial developed for the education policy course at Harvard that you may find useful: http://gseacademic.harvard.edu/~instruct/articulate/a205/player.html
In addition, the journal *Education Finance and *Policy* devoted an entire issue to policy briefs (http://www.mitpressjournals.org/toc/edfp/8/3) which should provide many useful examples. In particular I highly recommend you read the article by Carrie Conaway, "The Problem with Briefs, In Brief." You can also find many good examples of policy briefs at the Center for the Analysis of Longitudinal Data in Education Research (CALDER) web site: http://caldercouncil.org/policy-briefs/. Additional examples, along with a list of potential topics, will be posted on the class web site. Classroom presentation of the policy briefs will occur during the last week of classes, as noted on the course outline below. Students will be expected to have a professional looking presentation using Powerpoint, Beamer or a similar electronic format.

Grant Proposals (Economics PhD Students Only):

Grant writing is often a critical component of professional life for both academic economists and economists working in think tanks and consulting firms. A good proposal involves all of the steps involved in a research project, except for actually gathering the data and analyzing it. Thus the process of writing a grant proposal requires you to go through the thought process required for any research project. In lieu of a policy brief, economics PhD students are required to write and present a grant proposal on a topic of their choosing. Sample grant proposals will be available on the class web site. Deadlines are specified below. The standards for the presentation of the grant proposals are the same as for the policy briefs.

Policy on Academic Honesty:

All students are responsible for knowing and adhering to <u>GSU's Policy on Academic Honesty</u>. Put simply, cheating will not be tolerated. If an instance of academic dishonesty takes place, all students involved will receive a zero for that exam or assignment.

Attendance and Conduct:

It is essential that you come to class prepared to actively participate in classroom discussions. This includes having read the required assignments ahead of time; 10 percent of your grade will be based on class participation. When in class, each student is expected to respect the

rights of fellow students to learn in the best possible environment. This includes avoiding any personal attacks or dis-respectful behavior toward fellow students. Behavior that restricts the ability of others to learn (e.g. talking during lecture or when another student asks a question) will not be tolerated and violators may be asked to leave the classroom. *In respect for other students, turn off all cell phones before coming to class*.

Students With Disabilities:

Students who wish to request accommodation for a disability may do so by registering with the Office of Disability Services. Students may only be accommodated upon issuance by the Office of Disability Services of a signed Accommodation Plan and are responsible for providing a copy of that plan to instructors of all classes in which an accommodation is sought.

Class Assessment:

Your constructive assessment of this course plays an indispensable role in shaping education at Georgia State. Upon completing the course, please take time to fill out the online course evaluation.

Disclaimer:

The course syllabus provides a general plan for the course; deviations may be necessary.

Course Outline

(*=required reading; L&T=Lovenheim and Turner, Economics of Education)

January 15

A Brief History of U.S. Education Policy and Performance

- *L&T Chapter 2
- The National Commission on Excellence in Education. 1983. A Nation at Risk, 5-36.
- Koretz, Daniel. 2009. "How Do American Students Measure Up? Making Sense of International Comparisons," *The Future of Children* 19(1): 37-51.
- Murnane, Richard J. 2013. "U.S. High School Graduation Rates: Patterns and Explanations," *Journal of Economic Literature* 51(2):370-422.

Determining What Works in Education

- *L&T Chapter 3
- Cook, Thomas D. 2001. "Sciencephobia," Education Next 1(3):63-68.
- Angrist, Joshua. 2004. "American Education Research Changes Tack," *Oxford Review of Economic Policy* 20:2, 198-212.
- Barrow, Lisa and Cecilia E. Rouse. 2005. "Causality, Causality, Causality: The View of Education Inputs and Outputs from Economics." WP 2005-15, Federal Reserve Bank of Chicago, pp. 1-21.

January 22

A Framework for Analysis: The Education Production Function

- *L&T Chapter 7
- Boardman, Anthony E., and Richard J. Murnane. 1979. "Using Panel Data to Improve Estimates of the Determinants of Educational Achievement," *Sociology of Education*, 52: 113-121.
- Todd, Petra E. and Kenneth I. Wolpin. 2003. "On the Specification and Estimation of the Production Function for Cognitive Achievement," *The Economic Journal*, 113: F3-F33.
- *Sass, Tim R., Anastasia Semykina and Douglas N. Harris. 2014. "Value-added Models and the Measurement of Teacher Productivity," *Economics of Education Review*, 38:9-23.

The Budget Constraint: School Financing

- *L&T Chapter 8 and Section 9.1
- Card, David and Abigail Payne. 2002. "School Finance Reform, the Distribution of School Spending, and the Distribution of Student Test Scores," *Journal of Public Economics* 83:49-82.
- Hanushek, Eric A. 2003. "The Failure of Input-Based Schooling Policies." *Economic Journal* 113: F64-F98.

- Kreisman, Daniel, "The Effect of Increased Funding on Budget Allocations and Student Outcomes: RD and IV Estimates from Texas's Small District Adjustment," unpublished manuscript.
- *Jackson, C. Kirabo, Rucker C. Johnson and Claudia Persico. 2016. "The Effects of School Spending on Educational and Economic Outcomes: Evidence from School Finance Reforms," *Quarterly Journal of Economics*, 131(1):157-218.
 - For a less-technical version, see Jackson, C. Kirabo, Rucker C. Johnson and Claudia Persico. 2015. "Boosting Educational Attainment and Adult Earnings: Does School Spending Matter After All?" *Education Next*, 15(4):69-76.

January 29

Non-School Inputs: Families, Neighborhoods and Ancillary Services

- *L&T pp. 241-242
- Dobbie, Will and Roland G. Fryer, Jr. 2011. "Are High-Quality Schools Enough to Increase Achievement Among the Poor? Evidence from the Harlem Children's Zone," *American Economic Journal: Applied Economics* 3(3):158-187.
- *Frisvold, David E. 2015. "Nutrition and Cognitive Achievement: An Evaluation of the School Breakfast Program," *Journal of Public Economics*, 124:91-104.
- Chyn, Eric. 2016. "Moved to Opportunity: The Long-Run Effect of Public Housing Demolition on Labor Market Outcomes of Children," unpublished manuscript.
- Anderson, Michael L., Justin Gallagher and Elizabeth Ramirez Ritchie. 2017. "School Lunch Quality and Academic Performance." Unpublished manuscript.
- Oreopoulos, Philip, Robert S. Brown and Adam M. Lavecchia. 2017. "Pathways to Education: An Integrated Approach to Helping At-Risk High School Students," *Journal of Political Economy* 125(4):947-984.

Schools: Accountability

- *L&T Chapter 11
- Neal, Derek and Diane Whitmore Schanzenbach. 2010. "Left Behind by Design: Proficiency Counts and Test-Based Accountability," *Review of Economics and Statistics* 92:2, 263-283.
- Dee, Thomas and Brian Jacob. 2011. "The Impact of No Child Left Behind on Student Achievement," *Journal of Policy Analysis and Management* 30(3):418-446.
- Rouse, Cecilia, Jane Hannaway, Dan Goldhaber, and David Figlio. 2013. "Feeling the Florida Heat? Low-Performing Schools Respond to Voucher and Accountability Pressure." *American Economic Journal: Economic Policy* 5(2):251-281.
- *Deming, David J., Sarah Cohodes, Jennifer Jennings and Christopher Jencks. 2016. "School Accountability, Postsecondary Attainment, and Earnings," *Review of Economics and Statistics* 98(5):848-862.

February 5

Schools: Charters

- *L&T Chapter 10
- Angrist, Joshua A., Parag Pathak and Christopher R. Walters. 2013. "Explaining Charter School Effectiveness," *American Economic Journal: Applied Economics* 5(4):1-27.
- Epple, Dennis, Richard Romano and Ron Zimmer. 2015. "Charter Schools: A Survey of Research on their Characteristics and Effectiveness. NBER Working Paper No. 21256.
- *Sass, Tim R., Ron W. Zimmer, Brian P. Gill and T. Kevin Booker. 2016. "Charter High Schools' Effects on Long-Term Attainment and Earnings," *Journal of Policy Analysis and Management* 35(3):683-706.
- Dobbie, Will S. and Roland G. Fryer, Jr. 2017. "Charter Schools and Labor Market Outcomes." Unpublished manuscript. This is a revision to NBER working paper no. 22502.

Schools: Vouchers and Private Schools

- *L&T Chapter 10
- Rouse, Cecilia. 1998. "Private School Vouchers and Student Achievement: An Evaluation of the Milwaukee Parental Choice Program." *Quarterly Journal of Economics* 113(2): 553-602.
- Wolf, Patrick J., Brian Kisida, Babette Gutmann, Michael Puma, Nada Eissa and Lout Rizzo. 2013. "School Vouchers and Student Outcomes: Experimental Evidence from Washington, DC," *Journal of Policy Analysis and Management* 32(2):246-270.
- Figlio, David and Cassandra M. D. Hart. 2014. "Competitive Effects of Means-Tested School Vouchers," *American Economic Journal: Applied Economics* 6(1)133-156.
- Chingos, Matthew M. and Paul E. Peterson. 2015. "Experimentally Estimated Impacts of School Vouchers on College Enrollment and Degree Attainment," *Journal of Public Economics*, 122: 1-12.
- Epple, Dennis, Richard Romano and Miguel Urquila. 2017. "School Vouchers: A Survey of the Economics Literature," *Journal of Economic Literature*, 55(2):441-492.
- *Abdulkadiroglu, Atila, Parag A. Pathak, Christopher R. Walters. 2018. "Free to Choose: Can School Choice Reduce Student Achievement?," *American Economic Journal: Applied Economics*, 10(1):175-206.

February 12

Classrooms: Class Size

- *L&T Section 9.2
- Krueger, Alan. 1999. "Experimental Estimates of Education Production Functions," *Quarterly Journal of Economics*, 114(2):497-532.
- Diane Whitmore Schanzenbach. 2007. "What Have Researchers Learned From Project STAR?," Brookings Papers on Education Policy, 2006/2007, 205-228.
- *Chetty, Raj, John N. Friedman, Nathaniel Hilger, Emmanuel Saez, Diane Whitmore Schanzenbach and Danny Yagan. 2011. "How Does Your Kindergarten Classroom

- Affect Your Earnings? Evidence from Project Star," *Quarterly Journal of Economics* 126(4):1593-1660.
- Matthew Chingos. 2012. "The Impact of a Universal Class-Size Reduction Policy: Evidence from Florida's Statewide Mandate," *Economics of Education Review* 31:543-562.

Classrooms: Peer Effects and Tracking

- Duflo, Esther, Pascaline Dupas and Michael Kremer. 2011. "Peer Effects, Teacher Incentives and the Impact of Tracking: Evidence from a Randomized Evaluation in Kenya," *American Economic Review*, 101(5): 1739-1774.
- Imberman, Scott A., Adriana Kugler and Bruce I. Scarerdote. 2012. "Katrina's Children: Evidence on the Structure of Peer Effects from Hurricane Evacuees," *American Economic Review*, 102(5):2048-2082.
- *Burke, Mary A. and Tim R. Sass. 2013. "Classroom Peer Effects and Student Achievement," *Journal of Labor Economics*, 31(1):51-82.

February 19

Teachers: Measuring Teacher Quality (Part I)

- *L&T Section 9.3
- Hanushek, Eric A. and Steven G. Rivkin. 2010. "Generalizations about Using Value-Added Measures of Teacher Quality," American Economic Review Papers and Proceedings 100:267-271.
- Chetty, Raj, John N. Friedman and Jonah E. Rockoff. 2014. "Measuring the Impacts of Teachers I: Evaluating Bias in Teacher Value-Added Estimates," *American Economic Review* 104(9): 2593-2632.
- *Chetty, Raj, John N. Friedman and Jonah E. Rockoff. 2014. "Measuring the Impacts of Teachers II: Teacher Value-Added and Student Outcomes in Adulthood," *American Economic Review* 104(9): 2633-2679.
- Guarino, Cassandra M., Mark D. Reckase, and Jeffrey M. Wooldridge. 2015. "Can Value-Added Measures of Teacher Performance be Trusted?" *Education Finance and Policy* 10(1): 117-156.
- Koedel, Cory, Kata Mihaly and Jonah E. Rockoff. 2015. "Value-Added Modeling: A Review," *Economics of Education Review* 47:180-195.

Teachers: Measuring Teacher Quality (Part II)

- Taylor, Eric S., and John H. Tyler. 2012. "The Effect of Evaluation on Teacher Performance." *American Economic Review*, 102(7): 3628-51.
- Mihaly, Kata, Daniel F. McCaffrey, Douglas O. Staiger and J. R. Lockwood. 2013. "A Composite Estimator of Effective Teaching," unpublished manuscript.
- *Whitehurst, Grover J., Matthew M. Chingos, and Katharine M. Lindquist. 2014. "Evaluating Teachers with Classroom Observations: Lessons Learned in Four Districts." Washington, DC: Brown Center on Education Policy at Brookings Working Paper.

- *Steinberg, Matthew P., and Lauren Sartain. 2015. "Does Teacher Evaluation Improve School Performance? Experimental Evidence from Chicago's Excellence in Teaching Project, *Education Finance and Policy* 10(4):535-572.
 - For a less technical version see, Steinberg, Matthew P. and Lauren Sartain. 2015.
 "Does Better Observation Make Better Teachers?: New Evidence from a Teacher Evaluation Pilot in Chicago," *Education Next* 15(1):70-76.
- Sartain, Lauren and Matthew P. Steinberg. 2016. "Teachers' Labor Market Responses to Performance Evaluation Reform: Experimental Evidence from Chicago Public Schools," *Journal of Human Resources* 51(3):615-655.

February 26

Teacher Labor Markets: Supply and Hiring

- *L&T Sections 12.1 12.3
- Corcoran, Sean P., William N. Evans and Robert M. Schwab. 2004. "Women, the Labor Market, and the Declining Relative Quality of Teachers, *Journal of Policy Analysis and Management*, 23(3):449-470.
- Hoxby, Caroline and Andrew Leigh. 2004. "Pulled Away or Pushed Out? Explaining the Decline of Teacher Aptitude in the U.S.," *American Economic Review* 94(2):236-240.
- Steven Glazerman, Daniel Mayer, and Paul Decker. 2006. "Alternative Routes to Teaching: The Impacts of Teach for America on Student Achievement and Other Outcomes." *Journal of Policy Analysis and Management* 25(1):75-96.
- Donald Boyd, Hamilton Lankford, Jim Wyckoff, Pamela Grossman and Susanna Loeb. 2006. "How Changes in Entry Requirements Alter the Teacher Workforce and Affect Student Achievement," *Education Finance and Policy* 1(2):176-216.
- Boyd, Donald, Hamilton Lankford, Susanna Loeb, and James Wyckoff. 2013. "Analyzing the Determinants of the Matching of Public School Teachers to Jobs: Disentangling the Preferences of Teachers and Employers," *Journal of Labor Economics*, 31(1):83-117.
- Henry, Gary T., Kevin C. Bastain, C. Kevin Fortner, David C. Kershaw, Kelly M. Purtell, Charles L. Thompson, and Rebecca A Zulli. 2014. "Teacher Preparation Policies and Their Effect on Student Achievement," *Education Finance and Policy* 9(3):264-303.
- *Sass, Tim R. 2015. "Licensure and Worker Quality: A Comparison of Alternative Routes to Teaching," *Journal of Law and Economics* 58:1-35.
- Goldhaber, Dan, Cyrus Grout, and Nick Huntington-Klein. 2017. Spring. "Screen Twice, Cut Once: Assessing the Predictive Validity of Applicant Selection Tools." *Education Finance and Policy* 12 (2): 197-223.

Teacher Labor Markets: Retention & Mobility

• Boyd, Donald, Hamilton Lankford, Susanna Loeb and James Wyckoff. 2005. "Explaining the Short Careers of High-Achieving Teachers in Schools with Low-Performing Students," *American Economic Review*, 95(2):166-171.

- *Goldhaber, Dan, Betheny Gross, and Daniel Player. 2011. "Teacher career paths, teacher quality, and persistence in the classroom: Are public schools keeping their best?" *Journal of Policy Analysis and Management* 30(1):57-87.
- Jackson, C. Kirabo. 2012. "Match Quality, Worker Productivity, and Worker Mobility: Direct Evidence from Teachers," *Review of Economics and Statistics* 95(4): 1096-1116.
- Adnot, Melinda, Thomas Dee, Veronica Katz and James Wyckoff. 2017. "Teacher Turnover, Teacher Quality and Student Achievement in DCPS," *Educational Evaluation and Policy Analysis* 39(1): 54-76.

March 5

Teacher Labor Markets: Teacher Shortages and What to Do About Them

- Clotfelter, Charles, Elizabeth Glennie, Helen Ladd, and Jacob Vigdor (2008). "Would Higher Salaries Keep Teachers in High-Poverty Schools? Evidence from Policy Intervention in North Carolina," *Journal of Public Economics* 92: 1352-1370
- Steele, Jennifer L., Richard J. Murnane, and John B. Willett (2009). "Do Financial Incentives Help Low-Performing Schools Attract and Keep Academically Talented Teachers? Evidence from California," *Journal of Policy Analysis and Management* 29(3): 451-478.
- Protik, Ali, Steven Glazerman, Julie Bruch and Bing-ru The. 2015. "Staffing a Low-Performing School: Behavioral Responses to Selective Teacher Transfer Initiatives," Education Finance and Policy 10(4):573-610.
- *Feng, Li and Tim R. Sass. 2017. "The Impact of Incentives to Recruit and Retain Teachers in 'Hard-to-Staff' Subjects," *Journal of Policy Analysis and Management*, 37(1):112-135.
- Dee, Thomas S. and Dan Goldhaber. 2017. "Understanding and Addressing Teacher Shortages in the United States." Washington, DC: Brookings Institute Policy Proposal 2017-05.
- Bueno, Carycruz and Tim R. Sass. 2018. "The Effects of Differential Pay on Teacher Recruitment, Retention and Quality." Unpublished manuscript.

Review for Midterm

March 12 - Midterm

March 19 - No Class (Spring Break)

March 26 [Policy Brief/ Grant Proposal Topic due]

Teacher Training: Pre-Service

- *L&T Section 12.5
- Boyd, Donald, Pamela Grossman, Hamilton Lankford, Susanna Loeb and James Wyckoff.
 2009. "Teacher Preparation and Student Achievement," *Educational Evaluation and Policy Analysis*, 31(4): 416-440.

- Mihaly, Kata, Daniel McCaffrey, Tim R. Sass, J. R. Lockwood. 2013. "Where You Come From or Where You Go? Distinguishing Between School Quality and the Effectiveness of Teacher Preparation Program Graduates," *Education Finance and Policy* 8(4):459-493.
- *Koedel, Cory, Eric Parsons, Michael Podgursky and Mark Ehlert. 2015. "Teacher Preparation Programs and Teacher Quality: Are There Real Differences Across Programs?," *Education Finance and Policy* 10(4):508-534.

Teacher Training: In-Service

- Jacob, Brian A. and Lars Lefgren. 2004. "The Impact of Teacher Training on Student Achievement: Quasi-Experimental Evidence from School Reform Efforts in Chicago," *Journal of Human Resources*, 39(1):50-79.
- Garet, Michael S., Stephanie Cronen, Marian Eaton, Anja Kurki, Meredith Ludwig, Wehmah Jones, Kazuaki Uekawa, Audrey Falk, Howard S. Bloom, Fred Doolittle, Pei Zhu, and Laura Sztejnberg. "The Impact of Two Professional Development Interventions on Early Reading Instruction and Achievement." Washington, DC: National Center for Education Evaluation and Regional Assistance, Institute of Education Sciences, U.S. Department of Education, September 2008.
- Garet, Michael S., Andrew J. Wayne, Fran Stancavage, James Taylor, Marian Eaton, Kirk Walters, Mengli Song, Seth Brown, Steven Hurlburt, Pei Zhu, Susan Sepanik, and Fred Doolittle. "Middle School Mathematics Professional Development Impact Study: Findings After the Second Year of Implementation." Washington, DC: National Center for Education Evaluation and Regional Assistance, Institute of Education Sciences, U.S. Department of Education, May 2011.
- Glazerman, Steven, Eric Isenberg, Sarah Dolfin, Martha Bleeker, Amy Johnson, Mary Grider and Matthew Jacobus. 2010. *Impacts of Comprehensive Teacher Induction Final Results from a Randomized Controlled Study*. Washington, DC: U.S. Department of Education.
- *Harris, Douglas N. and Tim R. Sass. 2011. "Teacher Training, Teacher Quality, and Student Achievement," *Journal of Public Economics* 95:798-812.
- Chingos, Matthew M. and Paul E. Peterson. 2011. "It's Easier to Pick a Good Teacher Than to Train One: Familiar and New Results on the Correlates of Teacher Effectiveness," *Economics of Education Review* 30:449-465.
- Papay, John, Eric S. Taylor, John H. Tyler, and Mary Laski. 2016. "Learning Job Skills from Colleagues at Work: Evidence from a Field Experiment Using Teacher Performance Data." NBER Working Paper no. 21986.

April 2

Performance-Based Teacher Compensation:

- *L&T Section 12.4
- Michael Podgursky and Matthew Springer. 2007. "Teacher Performance Pay: A Review." *Journal of Policy Analysis and Management* 26 (4): 909-949.
- Springer, M. G., et al. (2010). Teacher pay for performance: Experimental

- Evidence from the Project on Incentives in Teaching. Nashville, TN: National Center on Performance Incentives at Vanderbilt University.
- Springer, Matthew G., John F. Pane, Vi-Nhuan Le, Daniel F. McCaffrey, Susan Freeman Burns, Laura S. Hamilton and Brian Stecher. 2012. "Team Pay for Performance: Experimental Evidence From the Round Rock Pilot Project on Team Incentives," *Educational Evaluation and Policy Analysis* 34(4):367–390.
- Fryer, Roland G., Steven D. Levitt, John List, Sally Sadoff. 2012. "Enhancing the Efficacy of Teacher Incentives Through Loss Aversion: A Field Experiment." Cambridge, MA: NBER Working Paper No. 18237.
- *Dee, Thomas and James Wyckoff. 2015. "Incentives, Selection and Teacher Performance: Evidence from IMPACT." *Journal of Policy Analysis and Management* 34(2):267-297.

The Distribution of Teacher Quality

- Clotfelter, Charles T., Helen F. Ladd, and Jacob Vigdor. 2005. "Who Teachers Whom? Race and the Distribution of Novice Teachers." *Economics of Education Review*, 24, 377-392.
- *Sass, Tim R., Jane Hannaway, Zeyu Xu, David N. Figlio, and Li Feng. 2012. "Value Added of Teachers in High-poverty Schools and Lower Poverty Schools." *Journal of Urban Economics* 72(2–3):104-122.
- Isenberg, Eric, Jeffrey Max, Philip Gleason, Liz Potamites, Robert Santillano and Heinrich Hock. 2013. *Access to Effective Teaching for Disadvantaged Students*. Washington, DC: U.S. Department of Education.

April 9

Special Populations: Special Education

- *Hanushek, Eric A., John F. Kain, and Steven G. Rivkin. 2002. "Inferring Program Effects for Special Populations: Does Special Education Raise Achievement for Students with Disabilities?," *Review of Economics and Statistics*, 84(4): 584–599.
- *Fletcher, Jason. 2010. "Spillover Effects of Inclusion of Classmates with Serious Emotional Problems on Test Scores in Early Elementary School," *Journal of Policy Analysis and Management*, 29(1):69–83.
- Iversen, Jon Marius Vaag; Hand Bonesronning and Ivar Pettersen. 2013. "Are Non-Eligible Students Affected by Special Education?," CESifo Working Paper Series No. 4156.

Special Populations: ESL and Gifted

- Bui, Sa A., Steven G. Craig and Scott A. Imberman. 2014. "Is Gifted Education a Bright Idea? Assessing the Impact of Gifted and Talented Programs on Students," *American Economic Journal: Economic Policy*, 6(3): 30-62.
- Davis, Billie, John Engberg, Dennis Epple, Holger Sieg and Ron Zimmer (2013).
 Bounding the Impact of a Gifted Program On Student Retention using a Modified Regression Discontinuity Design, unpublished manuscript.

- *Chin, Aimee, N. Melterm Daysal and Scott Imberman (2013). "Impact of Bilingual Education Programs on Limited English Proficient Students and Their Peers: Regression Discontinuity Evidence from Texas," *Journal of Public Economics*, 107: 63-78.
- Card, David and Laura Giuliano (2014). "Does Gifted Education Work? For Which Students? Cambridge, MA: NBER Working Paper No. 20453.

April 16

Early Childhood Education

- Currie, Janet (2001). "Early Childhood Education Programs." *The Journal of Economic Perspectives*, 15(2): 213–238.
- Clive Belfield et al. 2006. "The High---Scope Perry Preschool Program: Cost-Benefit Analysis Using data from the Age-40 Followup," *Journal of Human Resources* 41(1):162-190.
- Jens Ludwig and Douglas Miller (2007). "Does Head Start Improve Children's Life Chances? Evidence from a Regression Discontinuity Design." *Quarterly Journal of Economics* 122(1):159---208.
- *Deming, David (2009). "Early Childhood Intervention and Life-Cycle Skill Development: Evidence from Head Start." *American Economic Journal: Applied Economics*, 1(3), 111-134.
- Heckman, James J., Seong Hyeok Moon, Rodrigo Pinto, Peter A. Savelyev and Adam Yavitz, Adam (2010). "Analyzing Social Experiments as Implemented: A Reexamination of the Evidence From the HighScope Perry Preschool Program," *Quantitative Economics*, 1(1): 1-46.
- Garcia, Jorge Luis, James J. Heckman, Duncan Ermini Leaf and Maria Jose Prados. 2016.
 "The Life-Cycle Benefits of an Influential Early Childhood Program." NBER working paper no. 22993.

Class Presentations of Grant Proposals

April 23

Class Presentations of Policy Briefs

April 30 -- Final Exam (10:45-1:15)