

**York University**  
**Faculty of Liberal Arts & Professional Studies**  
**Department of Economics**  
**Winter 2024**

**AP/ ECON 5480 3.0 – Economics of Education**

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**Office:** 1114 Vari Hall (VH)  
**Office hours:** By Appointment  
**Class time and location:** T 11:30am-2:30pm, ACW 008  
**Course website:** <https://eclass.yorku.ca/>

### **Course Description**

This is an introductory graduate course in the economics of education and is designed to provide students with a broad coverage of the field. We will cover both classic and emerging topics, mainly from an empirical microeconomic perspective, although the required theoretical foundations will be covered as well. Students will be introduced to a variety of ideas to help them think critically about education policy. The course is taught mainly through discussion of academic papers in the economics of education, and topics include, but are not limited to, education production functions; class size reforms; incentives for educators; the returns to higher education; teacher quality measurement and policy; and applications of behavioral economics in the field. The course also provides a brief review of basic econometric techniques.

### **Recommended Textbooks**

There is no required textbook. The course relies on discussion of academic papers. To help students understand the empirical analyses in those papers, I recommended the following excellent texts on econometrics:

**(Basic)** Wooldridge, Jeffery M., *Introductory Econometrics: A Modern Approach* 6th Edition. Cengage Learning.

**(Basic)** Joshua D. Angrist and Jörn-Steffen Pischke, *Mastering ‘Metrics: The Path from Cause to Effect*. Princeton University Press.

**(More advanced)** Joshua D. Angrist and Jörn-Steffen Pischke, *Mostly Harmless Econometrics: An Empiricist's Companion*. Princeton University Press.

These are three textbooks that any empirical microeconomist should have on their shelf – well worth the investment. There is also the following good text on the economics of education:

**(Optional/Supplemental)** Michael Lovenheim and Sarah E. Turner, *Economics of Education*. Macmillan Learning.

It is pitched at a level that is a bit too low for our purposes, but it may prove useful as a supplement to our discussion in lectures. I refer to the book as “LT” below.

### Course Evaluation

The final course grade will consist of class participation, two assignments, a referee report and associated presentation, and a final exam, according to the following breakdown:

Evaluation	Date	Weight of Final Grade
Participation	Ongoing	5%
Assignment 1	To be announced in class	10%
Assignment 2	To be announced in class	10%
Referee Report and Presentation	To be announced in class	30%
Final Exam	To be scheduled by the University	45%

### Exams

This exam is a closed book exam and will cover material from the entire semester. It must be taken by all students at the scheduled time. **There is NO make-up exam.** There will be no deferred standing agreements. This means that students missing the final exam must petition following the corresponding administrative procedures as established by the faculty.

### Assignments

The homework assignments will include a combination of data work (using a statistical software package) and theoretical (pen and paper) work. You are encouraged to use Stata for the data work in your assignments. You are free to use other software for assignments, such as R, Matlab, etc., but I will not provide support for questions pertaining to any software package other than Stata. I will also demonstrate data applications using Stata in lecture.

Students are strongly encouraged to attempt all the homework questions. Not only do the assignments count toward the course grade, but learning the material effectively requires working through difficult ideas and getting your hands dirty with data analyses. There is no way around this. Please complete all assignments to the best of your ability and ask a question when something is unclear.

No assignments will be accepted after the due date, unless proof of a legitimate reason that caused delay is provided. If a student does not provide detailed documentation of the reason, a grade of zero will be assigned to the late assignment.

### Referee Report and Presentation

Students will critically analyze a paper of their choosing (from a set of papers I provide) in the form of a referee report and an in-class presentation. I will provide more guidance in class about how to structure both the report and presentation, but both will contain a short summary of the paper, a critical analysis of its key pieces, and helpful and constructive suggestions for improvement.

### Regrade Policy

For the assignments, referee report, and exam, students who wish to request a regrade must do so within one week from the day the evaluation is returned to the class, regardless of when the student receives his or her assignment or exam. If a student finds a problem with the grading of an evaluation, she/he should inform the course instructor immediately. When requesting a regrade, the student should submit a clear, concise note, explaining which question she/he would like regraded and why, making clear reference to how her/his answer compares to the correct solution.

If an evaluation is submitted for a regrade, the entire evaluation will be regraded, not just the question(s) that is (are) of interest. This means the overall grade on the evaluation can go up, down, or stay the same.

## Grading

The grading scheme for the course conforms to the 9-point grading system used in undergraduate programs at York (e.g., A+ = 9, A = 8, B+ = 7, C+ = 5, etc.). Assignments and tests will bear either a letter grade designation or a corresponding number grade (e.g. A+ = 90 to 100, A = 80 to 90, B+ = 75 to 79, etc.).

## Course Coverage

A tentative outline of the topics and associated readings we will cover appears below. Note that this list is subject to change. **I do not expect that you will read each paper below!** But you should carefully read some, and I will emphasize which ones as we move through the lectures. We will discuss a wide assortment of papers in lectures and you should look at the original papers (listed below) whenever something is unclear.

### 1. Review of Empirical Methods

- LT Chapter 3
- We will draw material from the recommended econometrics textbooks above and some empirical papers in the field.

### 2. The Education Production Function

- LT Chapters 7 and 9

#### Theory

- Cunha, Flavio, and James Heckman (2007). "The Technology of Skill Formation." *American Economic Review* 97 (2).
- Todd, Petra, and Kenneth Wolpin (2003). "On the Specification and Estimation of the Production Function for Cognitive Achievement." *The Economic Journal* 113 (485).

#### Empirical Measurement

- Carrell, Scott E. Bruce I. Sacerdote, James E. West (2013). "From Natural Variation to Optimal Policy? The Importance of Endogenous Peer Group Formation." *Econometrica*,

Vol. 81, No. 3, 855–882.

- Ding, Weili and Steven F Lehrer (2010). "Estimating Treatment Effects from Contaminated Multiperiod Education Experiments: The Dynamic Impacts of Class Size Reductions," *The Review of Economics and Statistics*, MIT Press, vol. 92(1), pages 31-42
- 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).
- Johnson, Rucker C. and C. Kirabo Jackson (2018). "Reducing Inequality Through Dynamic Complementarity: Evidence from Head Start and Public School Spending." National Bureau of Economic Research Working Paper No. 23489
- Gilraine, Michael (2018). "School Accountability and the Dynamics of Human Capital Formation." New York University Working Paper.
- Malamud, Ofer, Cristian Pop-Eleches, and Miguel Urquiola (2016). "Interactions Between Family and School Environments: Evidence on Dynamic Complementarities?" National Bureau of Economic Research Working Paper No. 22112
- Pop-Eleches, Cristian, and Miguel Urquiola. 2013. "Going to a Better School: Effects and Behavioral Responses." *American Economic Review*, 103 (4): 1289-1324.

### 3. Class Size Reforms

- LT Chapter 9 (Section 9.2)
- Angrist, Joshua, and Victor Lavy (1999). "Using Maimonides' Rule to Estimate the Effect of Class Size on Scholastic Achievement." *The Quarterly Journal of Economics* 114 (2).
- Gilraine, Michael (2017). "Multiple Treatments from a Single Discontinuity: An Application to Class Size." New York University Working Paper.
- Gilraine, Michael, Hugh Macartney, Robert McMillan. 2018. "Education Reform in General Equilibrium: Evidence from California's Class Size Reduction" National Bureau of Economic Research Working Paper No. 24191
- Hoxby, C.M. 2000. "The effects of class size on student achievement: New evidence from population variation." *The Quarterly Journal of Economics*, 115(4), pp.1239-1285.
- Jepsen, Christopher and Steven Rivkin (2009), "Class Size Reduction and Student Achievement: The Potential Tradeoff between Teacher Quality and Class Size," *Journal of Human Resources*, 44(1): 223-250.
- Krueger, Alan (1999). "Experimental Estimates of Education Production Functions." *The Quarterly Journal of Economics* 114 (2).
- Sims, David (2008), "A Strategic Response to Class Size Reduction: Combination Classes and Student Achievement in California," *Journal of Policy Analysis and*

*Management*, 27(3): 457-478.

#### 4. Accountability and Performance Incentives for Schools and Teachers

##### School-based Accountability

- LT Chapter 11
- Chay, Kenneth Y., Patrick J. McEwan and Miguel Urquiola (2005), "The Central Role of Noise in Evaluating Interventions That Use Test Scores to Rank Schools," *American Economic Review*, 95(4): 1237-1258.
- Davidson, Elizabeth, Reback, Randall, Jonah Rockoff, and Heather L. Schwartz (2015). "Fifty Ways to Leave a Child Behind: Idiosyncrasies and Discrepancies in States' Implementation of NCLB", *Educational Researcher* 44(6).
- Dee, Thomas S. and Brian Jacob (2011), "The Impact of No Child Left Behind on Student Achievement," *Journal of Policy Analysis and Management*, 30(3): 418-446.
- Deming, David J., Sarah Cohodes, Jennifer Jennings, and Christopher Jencks (2016). "School accountability, postsecondary attainment and earnings." *Review of Economics and Statistics*
- Kane, Thomas J. and Douglas O. Staiger (2001), "Improving School Accountability Measures," NBER Working Paper No. 8156, March.
- Kane, Thomas J. and Douglas O. Staiger (2002), "The Promise and Pitfalls of Using Imprecise School Accountability Measures," *Journal of Economic Perspectives*, 16(4): 91-114.
- Figlio, David and Susanna Loeb (2011). "School Accountability." In Handbook of the Economics of Education Vol. 3, E. Hanushek, S. Machin, and L. Woessmann (Ed) Elsevier: Amsterdam.
- Macartney, H., 2016. The dynamic effects of educational accountability. *Journal of Labor Economics*, 34(1), pp.1-28.
- Macartney, Hugh, Robert McMillan and Uros Petronijevic (2015), "Incentive Design in Education: An Empirical Analysis," NBER Working Paper No. 21835, December.
- Neal, D., and Schanzenbach, D. (2010). "Left Behind by Design: Proficiency Counts and Test-Based Accountability." *Review of Economics and Statistics*, 92 (2): 263–83.
- Reback, Randall, Jonah Rockoff, and Heather L. Schwartz. 2014. "Under Pressure: Job Security, Resource Allocation, and Productivity in Schools under No Child Left Behind." *American Economic Journal: Economic Policy*, 6 (3): 207-41.
- Rockoff J. and L. Turner. 2010. "Short Run Impacts of Accountability on School Quality," *American Economic Journal: Economic Policy*, 2.4: 119-147.

##### Performance Pay for Teachers

- LT Chapter 12 (Section 12.4)
- Fryer, Roland G (2013). "Teacher Incentives and Student Achievement: Evidence from New York City Public Schools." *Journal of Labor Economics* 31.2: 373-407.
- Fryer Jr, Roland G., et al. "Enhancing the efficacy of teacher incentives through loss aversion: A field experiment." NBER Working Paper No. w18237, 2012.
- Goodman, S. and Turner, L. (2013). The Design of Teacher Incentive Pay and Educational Outcomes: Evidence from the New York City Bonus Program. *Journal of Labor Economics*, 31(2): 409-420.
- Imberman, Scott A., and Michael F. Lovenheim (2015). "Incentive strength and teacher productivity: evidence from a group-based teacher incentive pay system." *Review of Economics and Statistics* 97.2: 364-386.
- Lavy. 2009. "Performance Pay and Teachers' Effort, Productivity and Grading Ethics." *American Economic Review* 99(5): 1979-2021.
- Muralidharan, Karthik and Venkatesh Sundararaman (2011), "Teacher Performance Pay: Experimental Evidence from India," *Journal of Political Economy*, 119(1): 39-77.
- Neal, D. (2011). "The Design of Performance Pay in Education." In Handbook of the Economics of Education Vol. 4, E. Hanushek, S. Machin, and L. Woessmann (Ed) Elsevier: Amsterdam.

## 5. Teacher Quality: Estimation and Policy

- LT Chapter 9 (Section 9.3)

### Estimation

- Bacher-Hicks, Andrew, Thomas J. Kane, and Douglas O. Staiger. 2014. "Validating Teacher Effect Estimates Using Changes in Teacher Assignments in Los Angeles." NBER Working Paper No. 20657. Cambridge, MA.
- Chetty, Raj, John Friedman, and Jonah Rockoff (2014). "Measuring the Impacts of Teachers I: Evaluating Bias in Teacher Value-Added Estimates." *American Economic Review* 104 (9).
- Chetty, Raj, John Friedman, and Jonah Rockoff (2014). "Measuring the Impacts of Teachers II: Teacher Value-Added and Student Outcomes in Adulthood." *American Economic Review* 104 (9).
- Jackson, Kirabo C., and Elias Bruegmann. 2009. "Teaching Students and Teaching Each Other: The Importance of Peer Learning for Teachers." *American Economic Journal: Applied Economics*. 1(4): 85-108.
- Jackson, Kirabo C. 2013. "Match Quality, Worker Productivity, and Worker Mobility: Direct Evidence From Teachers." *Review of Economics and Statistics*. 95: 1096-1116.

- Kane T. and D. Staiger (2008). "Estimating Teacher Impacts on Student Achievement: An Experimental Evaluation" NBER Working Paper 14607.
- Kane, Thomas J., Daniel F. McCaffrey, Trey Miller, and Douglas O. Staiger. 2013. "Have We Identified Effective Teachers? Validating Measures of Effective Teaching Using Random Assignment." Report Prepared for the Measuring Effective Teaching Project.
- Ost, Ben. 2014. "How Do Teachers Improve? The Relative Importance of Specific and General Human Capital." *American Economic Journal: Applied Economics*. 6(2): 127-151.
- Rothstein, Jesse (2010). "Teacher Quality in Education Production: Tracking, Decay and Achievement." *Quarterly Journal of Economics* 125 (1).

### Policy

- Biasi, Barbara (2017). "The Labor Market for Teachers Under Different Pay Schemes." NBER Working Paper no. 24813
- Dee, Thomas S., and James Wyckoff (2015). "Incentives, selection, and teacher performance: Evidence from IMPACT." *Journal of Policy Analysis and Management* 34.2: 267-297.
- Jackson, C. Kirabo, Jonah E. Rockoff, Douglas O. Staiger (2014). Teacher Effects and Teacher-Related Policies," *Annual Review of Economics* 2014 6:1, 801-825
- Kane, Thomas J. and Douglas O. Staiger. 2014. "Making Decisions with Imprecise Performance Measures: The Relationship Between Annual Student Achievement Gains and a Teacher's Career Value Added" Chapter 5 in Kane, T.J., Kerr, K.A. and Pianta, eds, *Designing teacher evaluation systems: New guidance from the Measures of Effective Teaching project*. San Francisco: Jossey-Bass.
- Lovenheim, Michael and Scott Imberman (2016). "Does the Market Value Value-Added? Evidence from Housing Prices after Public Release of Teacher Value-Added" *Journal of Urban Economics*, 91.
- Macartney, Hugh, Robert McMillan, and Uros Petronijevic (2018). "Teacher Performance and Accountability Incentives" NBER Working Paper No. 24747.
- Rothstein, Jesse (2015). "Teacher Quality Policy When Supply Matters," *American Economic Review*, 105(1): 100-130
- Pope, Nolan G. (2018). "The Effect of Teacher Ratings on Teacher Performance" University of Maryland working paper.

### **6. School Choice**

- LT Chapter 10

### Parental Valuation of School Quality

- Bayer, Patrick, Fernando Ferreira, and Robert McMillan. “A Unified Framework for Measuring Preferences for Schools and Neighborhoods” *Journal of Political Economy* (2007) 115(4): 588-638.
- Black, S. (1999). Do Better Schools Matter? Parental Valuation of Elementary Education. *Quarterly Journal of Economics*, 114 (2): 577–99.
- Brian, Jacob, and Lars Lefgren (2007), “What Do Parents Value in Education? An Empirical Investigation of Parents Revealed Preferences for Teachers,” *Quarterly Journal of Economics*, 122(4): 1603-1637.

### School Choice Among Traditional Public Schools

- Cullen, Julie Berry, Brian Jacob, and Steven Levitt. 2006. “The Effect of School Choice on Participants: Evidence from Randomized Lotteries.” *Econometrica*, 74(5): 1191-1230.
- Deming, D., Hastings, J., Kane, T., & Staiger, D. (2014). School Choice, School Quality, and Postsecondary Attainment. *The American Economic Review*, 104(3), 991-1013.
- Hastings, Justine S., and Jeffrey M. Weinstein (2008). "Information, School Choice, and Academic Achievement: Evidence from Two Experiments." *The Quarterly Journal of Economics*: 1373-1414.

### ***Competition Among Traditional Public Schools***

- Clark, Damon (2009), “The Performance and Competitive Effects of School Autonomy,” *Journal of Political Economy*, 117(4): 745-783.
- Hoxby, C.M., “Does Competition among Public Schools Benefit Students and Taxpayers?” *American Economic Review*, vol. 90(5): 1209-38, 2000.
- Hoxby, Caroline M. 2003b. “School Choice and School Productivity. Could School Choice Be a Tide that Lifts All Boats?” Chapter 8 in Caroline M. Hoxby, eds, *The Economics of School Choice*. University of Chicago Press.
- J. Rothstein, “Does Competition Among Public Schools Benefit Students and Taxpayers? Comment on Hoxby (2000)” *American Economic Review*, 97(5), December 2007, 2026-2037.

### Public-Private School Interactions

- Dinerstein, Michael, and Troy Smith (2015). “Quantifying the Supply Response of Private Schools to Public Policies.” University of Chicago Working paper.
- Hsieh, Chang-Tai and Miguel Urquiola (2006), “The Effects of Generalized School Choice on Achievement and Stratification: Evidence from Chile's Voucher Program,” *Journal of Public Economics*, 90(8): 1477-1503.
- Neilson, Christopher (2014), “Targeted Vouchers, Competition Among Schools, and the

Academic Achievement of Poor Students," mimeo.

- Urquiola, M. (2016). "Competition Among Schools: Traditional Public and Private Schools" In Handbook of the Economics of Education Vol. 5, E. Hanushek, S. Machin, and L. Woessmann (Ed) Elsevier: Amsterdam.

## Charter Schools

### ***Lottery-Based Studies***

- Abdulakiroglu, Atila, Joshua Angrist, Susan Dynarski, Thomas Kane, and Parag Pathak (2011). "Accountability and Flexibility in Public Schools: Evidence from Boston's Charters and Pilots." *Quarterly Journal of Economics* 126 (2).
- Angrist, Joshua D., Parag A. Pathak, and Christopher R. Walters. 2013. "Explaining Charter School Effectiveness." *American Economic Journal: Applied Economics*, 5(4): 1-27.
- Dobbie, Will, and Roland Fryer (2013). "Getting Beneath the Veil of Effective Schools: Evidence from New York City." *American Economic Journal: Applied Economics* 5 (4).
- Dobbie, Will, and Roland Fryer (2015). "The Medium-Term Impacts of High-Achieving Charter Schools." *Journal of Political Economy* 123 (5).

### ***Going Beyond Lotteries***

- Abdulkadiroglu, Atila, Joshua Angrist, Peter Hull, and Parag Pathak (2016). "Charters Without Lotteries: Testing Takeovers in New Orleans and Boston." *American Economic Review* 106 (7).
- Chabrier, Julia, Sarah Cohodes, and Philip Oreopoulos. (2016). "What Can We Learn from Charter School Lotteries?" *Journal of Economic Perspectives*, 30 (3): 57–84.
- Fryer, Roland G. Injecting Charter School Best Practices into Traditional Public Schools: Evidence From Field Experiments (2014). *Quarterly Journal of Economics*. 2014;129 (3) :1355-1407.

### ***Studies Based on Observational Data***

- Baude, Patrick L., Marcus Casey, Eric A. Hanushek, and Steven G. Rivkin (2014). "The Evolution of Charter School Quality" NBER Working Paper No. 20645
- Booker, Kevin, et al. "The Effects of Charter High Schools on Educational Attainment." *Journal of Labor Economics* 29.2 (2011): 377-415.
- Imberman, Scott A. 2011. "Achievement And Behavior In Charter Schools: Drawing A More Complete Picture." *The Review of Economics and Statistics*, 93(2): 416-435.
- Ladd, H.F., C.T. Clotfelter and J.B. Holbein (2015), "The growing segmentation of the charter school sector in North Carolina," NBER Working Paper No. 21078

### ***Competition with Traditional Public Schools***

- Jackson, C. Kirabo (2012), “School Competition and Teacher Quality: Evidence from Charter School Entry in North Carolina,” *Journal of Public Economics*, 96(5-6): 431-438.
- Jinnai Yusuke (2014). “Direct and Indirect Impact of Charter Schools' Entry on Traditional Public Schools: New Evidence from North Carolina.” *Economics Letters*, 124 (3): 452-456
- Imberman, Scott A. 2011. “The Effect of Charter Schools on Achievement and Behavior of Public School Students.” *Journal of Public Economics*, 95(7/8): 850-863.

### **7. Human Capital and The Returns to Education**

- LT Chapters 4, 5, and 6.
- Card, David (1999). “The Causal Effect of Education on Earnings.” *Handbook of Labor Economics*, Volume 3A.
- Card, David (2001). “Estimating the Return to Schooling: Progress on Some Persistent Econometric Problems.” *Econometrica* 69 (5).
- Oreopoulos, Philip, and Kjell G. Salvanes. 2011. "Priceless: The Nonpecuniary Benefits of Schooling." *Journal of Economic Perspectives*, 25 (1): 159-84.

#### K-12 Education

- Angrist, Joshua D., and Alan B. Krueger (1991). “Does Compulsory School Attendance Affect Schooling and Earnings?” *The Quarterly Journal of Economics*, vol. 106, no. 4, pp. 979–1014.
- Card, D., & Krueger, A. (1992). Does School Quality Matter? Returns to Education and the Characteristics of Public Schools in the United States. *Journal of Political Economy*, 100(1), 1-40.
- Clark, Damon, and Paco Martorell (2014). "The signaling value of a high school diploma." *Journal of Political Economy* 122.2: 282-318.
- Chetty, Raj, John Friedman, Nathaniel Hilger, Emmanuel Saez, Diane Schanzenbach, and Danny Yagan (2011). “How Does Your Kindergarten Classroom Affect Your Earnings? Evidence from Project STAR.” *Quarterly Journal of Economics* 126 (4).
- Oreopoulos, Philip 2006. “Estimating Average and Local Average Treatment Effects of Education When Compulsory Schooling Laws Really Matter” *American Economic Review*, Vol. 96, No. 1 pp. 152-175

#### Higher-Education

- Massimo Anelli (2016). “The returns to elite college education: a quasi-experimental analysis” Bocconi University Working Paper.

- Barrow, Lisa and Ofer Malamud (2015). “Is College a Worthwhile Investment?” *The Annual Review of Economics*, 7:519–55
- Card, David and Thomas Lemieux, "Education, Earnings, and the 'Canadian G.I. Bill'," *Canadian Journal of Economics* 34, no. 2 (2001): 313-44.
- Card, David. "Using Geographic Variation in College Proximity to Estimate the Return to Schooling," in *Aspects of Labor Market Behaviour: Essays in Honour of John Vanderkamp*, edited by Louis N. Christofides, E. Kenneth Grant, and Robert Swidinsky (University of Toronto Press, 1995), pp. 20
- Hastings, Justine S., Christopher A. Neilson, Seth D. Zimmerman (2014). “Are Some Degrees Worth More than Others? Evidence from college admission cutoffs in Chile” NBER Working Paper No. 19241
- Hoekstra, Mark. 2009. “the Effect of Attending the Flagship State University on Earnings: A Discontinuity- Based Approach,” *Review of Economics and Statistics*, 91 (4), 717-724.
- Kirkeboen, Lars, Edwin Leuven and Magne Mogstad (2016). “Field of Study, Earnings, and Self-Selection” *Quarterly Journal of Economics*, 131:1057-1111.
- Oreopoulos, Philip and Uros Petronijevic “Making College Worth It: A Review of the Returns to Higher Education.” *Future of Children*, 23(1): 41 – 65. 2013.
- Ost, Ben, Weixiang Pan, and Douglas Webber (2018). “The Returns to College Persistence for Marginal Students: Regression Discontinuity Evidence from University Dismissal Policies” *Journal of Labor Economics* 36:3, 779-805
- Riehl, Evan (2018). “Fairness In College Admission Exams: From Test Score Gaps To Earnings Inequality” Cornell University Working Paper.
- Zimmerman, Seth (2014). “The Returns to College Admission for Academically Marginal Students.” *Journal of Labor Economics* 32 (4).
- Zimmerman, Seth. “Elite Colleges and Upward Mobility to Top Jobs and Top Incomes” *American Economic Review*, forthcoming.

## **8. Behavioral Economics of Education and Student Support Programs**

- Lavecchia, Adam, Heidi Liu, and Philip Oreopoulos "Behavioral Economics of Education: Progress and Possibilities." (with) in *Handbook of Economics of Education* Volume 5, edited by E.A. Hanushek, S. Machin and L. Woessmann, Elsevier, 1-74, 2016.
- Damgaard, Mette Trier and Helena Skyt Nielsen. 2018. “Nudging in education.” *Economics of Education Review*. 64: 313-342.

### K-12 Education

#### ***Students***

- Bettinger, Eric, Sten Ludvigsen, Mari Rege, Ingeborg F. Solli, and David Yeager. 2018. “Increasing Perseverance in Math: Evidence from a Field Experiment in Norway.” *Journal of Economic Behavior and Organization*. 146: 1-15.
- Fryer R. Financial Incentives and Student Achievement: Evidence from Randomized Trials. *Quarterly Journal of Economics*. 2011;126 (4) :1755-1798.
- Fryer, Roland G and Allan BM (2011). The Powers and Pitfalls of Education Incentives, in The Hamilton Project. Washington, D.C.
- Fryer, Roland G. 2016. "Information, Non-Financial Incentives, and Student Achievement: Evidence from a Text Messaging Experiment." *Journal of Public Economics*. 144:109-121.
- Gneezy, Uri, John List, Jeffrey Livingston, Sally Sadoff, Xiangdong Qin and Yang Xu (2017). "Measuring Student Success: The Role of Effort on the Test Itself". NBER Working paper No. 24004.
- Heller, Sara B., Anuj K. Shah, Jonathan Guryan, Jens Ludwig, Sendhil Mullainathan, Harold A. Pollack (2017). “Thinking, Fast and Slow? Some Field Experiments to Reduce Crime and Dropout in Chicago.” *Quarterly Journal of Economics*, Volume 132, Issue 1, 1 February 2017, Pages 1–54.
- Lavecchia Adam, Philip Oreopoulos and Robert S. Brown "Pathways to Education: An Integrated Approach to Helping At-Risk High School Students." *Journal of Political Economy* 125(4), 947-984, 2017.
- Levitt, Steven D., John A. List, Susanne Neckermann, and Sally Sadoff (2016). “The Behavioralist Goes to School: Leveraging Behavioral Economics to Improve Educational Performance.” *American Economic Journal: Economic Policy*, 8(4): 183–219

### ***Parents***

- Bergman, Peter (2018). “Parent-Child Information Frictions and Human Capital Investment: Evidence from a Field Experiment Investment.” Columbia University Working Paper.
- Bergman, Peter and Eric Chan (2018). “Leveraging Parents through Technology: The Impact of High-Frequency Information on Student Achievement” Columbia University Working Paper.
- Fryer, Roland G., Steven D. Levitt, John A. List (2015). “Parental Incentives and Early Childhood Achievement: A Field Experiment in Chicago Heights” NBER Working Paper No. 21477
- Susan E. Mayer, Ariel Kalil, Philip Oreopoulos, Sebastian Gallegos (2015). “Using Behavioral Insights to Increase Parental Engagement: The Parents and Children Together (PACT) Intervention” NBER Working Paper No. 21602

### **Higher Education**

### ***Attendance and Persistence***

- Bettinger, Eric, 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.” *Quarterly Journal of Economics* 127(3):1205-1242.
- Castleman, Benjamin, and Lindsay Page. 2015. “Summer nudging: Can personalized text messages and peer mentor outreach increase college going among low-income high school graduates?” *Journal of Economic Behavior & Organization*, 115, 144-160.
- Castleman, Benjamin, and Lindsay Page. 2016. “Freshman Year Financial Aid Nudges: An Experiment to Increase FAFSA Renewal and College Persistence.” *Journal of Human Resources*, 51(2): 389-415.
- Dynarski, Susan, C.J. Libassi, Katherine Micheltore, Stephanie Owen (2018). “Closing the Gap: The Effect of a Targeted, Tuition-Free Promise on College Choices of High-Achieving, Low-Income Students” NBER Working Paper No. 25349
- Hastings, Justine, Christopher A. Neilson, Seth D. Zimmerman (2018). “The Effects of Earnings Disclosure on College Enrollment Decisions” NBER Working Paper No. 21300
- Field, Erica. 2009. "Educational Debt Burden and Career Choice: Evidence from a Financial Aid Experiment at NYU Law School." *American Economic Journal: Applied Economics*, 1 (1): 1-21.
- Philip Oreopoulos & Ryan Dunn, 2013. "Information and College Access: Evidence from a Randomized Field Experiment," *Scandinavian Journal of Economics*, Wiley Blackwell, vol. 115(1), pages 3-26,
- Oreopoulos, Philip and Reuben Ford (2016). “Keeping College Options Open: A Field Experiment to Help All High School Seniors Through the College Application Process” NBER Working Paper No. 22320

### ***Performance***

- Angrist, Joshua, Daniel Lang, and Philip Oreopoulos (2009). “Incentives and Services For College Achievement: Evidence From A Randomized Trial.” *American Economic Journal: Applied Economics*, 1:1.
- Clark, Damon, David Gill, Victoria Prowse, and Mark Rush. 2017. “Using Goals to Motivate College Students: Theory and Evidence from Field Experiments.” NBER Working Paper # 23638. Cambridge, Mass.: National Bureau of Economic Research.
- Dobronyi, Christopher R., Philip Oreopoulos, and Uros Petronijevic. “Goal Setting, Academic Reminders, and College Success: A Large-Scale Field Experiment.” *Journal of Research on Educational Effectiveness*, forthcoming.
- Marx, Ben and Lesley Turner. “Student Loan Nudges: Experimental Evidence on Borrowing and Educational Attainment” *American Economic Journal: Economic Policy*, forthcoming

- Morisano, Dominique, Jacob B. Hirsh, Jordan B. Peterson, Robert O. Pihl, and Bruce M. Shore, 2010. "Setting, Elaborating, and Reflecting on Personal Goals Improves Academic Performance." *Journal of Applied Psychology*, 95(2): 255-264.
- Oreopoulos, Philip and Uros Petronijevic. 2018. "Student Coaching: How Far Can Technology Go?" *Journal of Human Resources*, 53(2): 299-329.
- Oreopoulos, Philip, Richard Patterson, Uros Petronijevic and Nolan Pope (2018). "Lack of Study Time is the Problem, but What is the Solution? Unsuccessful Attempts to Help Traditional and Online College Students" NBER Working Paper No. 25036

## **9. Early Childhood Education**

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### **Important Course Information for Students**

All students are expected to familiarize themselves with the following information, available on the Senate Committee on Academic Standards, Curriculum & Pedagogy webpage (see Reports, Initiatives, Documents): <http://www.yorku.ca/secretariat/policies/index-policies.html/>

- Senate Policy on Academic Honesty and the Academic Integrity Website
- Ethics Review Process for research involving human participants
- Course requirement accommodation for students with disabilities, including physical, medical, systemic, learning and psychiatric disabilities
- Student Conduct Standards
- Religious Observance Accommodation