14.661 Labor Economics I

Staff:
Instructors: Parag Pathak, E52-426, ppathak@mit.edu; Daron Acemoglu, E52-446, daron@mit.edu
Teaching fellow: Clemence Idoux, cidoux@mit.edu

Logistics:
Two lectures per week on Tuesday and Thursday from 10:30-12pm in E51-395
Recitations: Fridays, location TBA
Pathak begins on 9/6/2018 and ends 10/23/2018
Acemoglu begins on 10/25/2018 and ends 12/11/2018

Description:
This is a graduate course in labor economics, appropriate for PhD students in the Department of Economics and other students with permission of the instructor. Pathak and Acemoglu split the fall semester. In the spring, Professors David Autor and Simon Jäger teach Labor Economics II.

The aim is to acquaint students with traditional topics and to encourage the development of independent research interests. The syllabus contains readings of two sorts. The first will be emphasized in lectures. Other readings may be discussed briefly, but are also listed as a guide to the literature.

Students who are interested in pursuing research in labor economics are *strongly* encouraged to the attend the weekly Labor Economics student workshop, which meets on Tuesdays from 12:00-1:00pm, the joint MIT Labor/Public Finance seminar in the Fall on Mondays from 4-5:30pm, and the Econ-Sloan Applied Microeconomics seminar which meets in the Spring.

A Stellar website has readings, assignments, and recitation material.

Course Materials:
Working labor economists should have easy access to the following resources:

- Ashenfelter, Orley and David Card (2010): Handbook of Labor Economics, Volumes 4A and 4B.
- Angrist, Joshua and Jorn-Steffen Pischke (2009): Mostly Harmless Econometrics: An Empiricist's Companion, Princeton University Press.
- Deaton, Angus and John Muelbauer (1980): Economics and Consumer Behavior, Cambridge University Press.
- Borjas, George (2010): Labor Economics, 5th Edition, McGraw Hill-Irwin.

Grading and Requirements:
Your grade in this course depends on three parts: final exam in December covering material from both quarters (50%), 5-6 problem sets (25%), and an empirical project (25%) involving replication and extension of published work.

14.661 Labor Economics I - Pathak

Part 1: Labor Supply

- Static Model
  - Heckman, James (1974): "Shadow Prices, Market Wages, and Labor Supply." *Econometrica*, 42(4): 679-694.
  - Ashenfelter, Orley (1983): "Determining Participation in Income-Tested Social Programs." *Journal of the American Statistical Association*, 78(383): 517-525.
  - Ashenfelter, Orley, and Michael Plant (1990): "Non-parametric Estimates of the Labor Supply Effects of Negative Income Tax Programs." *Journal of Labor Economics*, 8(1): 397-415.
  - Dickens, William, and Shelly Lundberg (1993): "Labor Supply with Hours Restrictions." *International Economic Review*, 34(1): 169-192.
  - Aguiar, Mark, and Erik Hurst (2008): "Measuring Trends in Leisure: The Allocation of Time Over Five Decades." *Quarterly Journal of Economics*, 122(3): 969-1006.
  - Mas, Alex, and Mandy Pallais (2017): "Labor Supply and the Value of Non-Work Time: Experimental Estimates from the Field." NBER Working Paper 23906.
  - Fernandez, Raquel (2013): "Cultural Change as Learning: The Evolution of Female Labor Force Participation over a Century." *American Economic Review*, 103(1): 472-500.
  - Kline, Patrick, and Melissa Tartari (2016): "Bounding the Labor Supply Responses to a Randomized Welfare Experiment: A Revealed Preference Approach." American Economic Review, 106(4): 972-1014.
  - Ashenfelter, Orley and James Heckman (1974): "Estimation of Income and Substitution Effects in a Model of Family Labor Supply." *Econometrica*, 42(1): 73-86.
  - Borjas, George (1980): "The Relationship Between Wages and Weekly Hours of Work: The Role of Division Bias." *Journal of Human Resources*, 15(3): 409-423.
  - Blomquist, Soren, and Whitney Newey (2002): "Nonparametric Estimation with Nonlinear Budget Sets." *Econometrica*, 70(6): 2455-2480.
  - Blomquist, Soren, and Whitney Newey (2017): "The Bunching Estimator Cannot Identify the Taxable Income Elasticity." NBER Working Paper 24136.
  - Saez, Emmanuel (2010): "Do Taxpayers Bunch at Kink Points?" *American Economic Journal: Economic Policy*, 2(3): 180-212.
  - Mroz, Thomas (1986): "The Sensitivity of an Empirical Model of Married Women's Hours of Work to Economic and Statistical Assumptions." *Econometrica*, 55(4): 765-799.
  - Blundell, Richard, Alan Duncan, and Costas Meghir (1998): "Estimating Labor Supply Responses Using Tax Reforms." *Econometrica*, 66(4): 827-861.
  - Attansio, Orazizo, Peter Levell, Hamish Low, and Virginia Sanchez-Marcos (2018): "Aggregating Elasticities: Intensive and Extensive Margins of Women's Labor Supply." *Econometrica*, forthcoming.

- Dynamics

  - Abowd, John and David Card (1987): "Intertemporal Labor Supply and Long-Term Employment Contracts." *American Economic Review*, 77(1): 50-68.
  - Abowd, John and David Card (1989): "On Covariance Structure of Earnings and Hours Changes" *Econometrica*, 57(2): 411-445.
  - David, Erik, Matthew, and Robert Ostling (2017): "The Effect of Wealth on Individual and Household Labor Supply: Evidence from Swedish Lotteries." *American Economic Review*, 107(12): 3917-3946.
  - Eckstein, Zvi and Ken Wolpin (1989): "Dynamic Labour Force Participation of Married Women and Endogenous Work Experience." *Review of Economic Studies*, 56(3): 375-390.
  - Card, David (1994): "Intertemporal Labor Supply: An Assessment." NBER Working Paper 3602.
  - Blundell, Richard, Thomas, and Costas Meghir (2007): "Labor Supply Models: Unobserved Heterogeneity, Nonparticipation, and Dynamics." Handbook of Econometrics, Volume 6, Chapter 69.
  - Fehr, Ernst and Lorenz Goette (2007): "Do Workers Work More if Wages are High? Evidence from a Randomized Field Experiment." *American Economic Review*, 97(1): 298-317.
  - Farber, Hank (2005): "Is tomorrow another day? The labor supply of New York City Cab Drivers." *Journal of Political Economy*, 113(1): 46-82.
  - Farber, Hank (2015): "Why You Can't Find a Taxi in the Rain and Other Labor Supply Lessons from Cab Drivers." *Quarterly Journal of Economics*, 130(4): 1975-2026.
  - Lucas, Robert and Lucas Rapping (1969): "Real Wages, Employment and Inflation." *Journal of Political Economy*, 77(5): 721-764.
  - MaCurdy, Thomas (1981): "An Empirical Model of Labor Supply in a Life-Cycle Setting." *Journal of Political Economy*, 89(6): 1059-1085.
  - Altonji, Joseph (1986): "Intertemporal Substitution in Labor Supply: Evidence from Micro Data." *Journal of Political Economy*, 94(3): 176-215.
  - John and Kevin Reilly (2002): "Testing Intertemporal Substitution, Implicit Contrast and Hours Restriction Models of Labor Market Using Micro Data." *American Economic Review*, 92(4): 905-927.
  - Geweke, John and Michael Keane (2000): "An Empirical Analysis of Earnings Dynamics Among Men in the PSID: 1968-1989." *Journal of Econometrics*, 96(2): 293-356.

- Household and family models

  - Becker, Gary (1973): "A Theory of Marriage: Part I." *Journal of Political Economy*, 81(4): 813-846.
  - Voena, Alessandra (2015): "Yours, Mine and Ours: Do Divorce Laws Affect the Intertemporal Behavior of Married Couples?" *American Economic Review*, 105(8): 2295-2332.
  - Pierre-Andre, Bernard, and Guy Lacroix (2001): "Marriage Market, Divorce Legislation, and Household Labor Supply." *Journal of Political Economy*, 110(1): 37-72.

- Choo, Eugene and Aloysius Siow (2006): "Who Marries Whom and Why." *Journal of Political Economy*, 114(1): 175-201.
- Becker, Gary (1981): A Treatise on the Family. Harvard University Press.
- Chiaporri, Pierre-Andre and Yoram Weiss (2009): "Investment in Schooling and the Marriage Market." *American Economic Review*, 99(5), 1689-1713.
- Chiaporri, Pierre-Andre and Sonia Oreffice (2008): "Birth Control and Female Empowerment: An Equilibrium Analysis." *Journal of Political Economy*, 116(1): 113-140.
- Goldin, Claudia and Lawrence Katz (2002): "The Power of the Pill: Oral Contraceptives and Women's Career and Marriage Decisions." *Journal of Political Economy*, 110(4): 730-770.
- Joshua Angrist and William Evans (1998): "Children and their Parents' Labor Supply: Evidence from Exogenous Variation in Family Size." *American Economic Review*, 88(3): 450-477.
- Browning, Martin, Pierre-Andre, and Yoram Weiss (2014): Economics of the Family. Cambridge University Press.
- Chiappori, Pierre-Andre (2017): Matching with Transfers: The Economics of Love and Marriage. Gorman Lectures in Economics.

Part 2: Labor Demand

- Foundations
  - Hamermesh, Daniel (1993): Labor Demand. Princeton University Press (chapters 2 and 6).
  - Welch, Finis (1969): "Linear Synthesis of Skill Distributions." *Journal of Human Resources*, 311-329.
  - Rosen, Sherwin (1983): "A Note on Aggregation of Skills and Labor Quality." *Journal of Human Resources*, 425-431.
  - Heckman, James and Jose Scheinkman (1987): "The Importance of Bundling in a Gorman-Lancaster Model of Earnings." *Review of Economic Studies*, 54(2): 243-255.
  - Sattinger, Michael (1979): "Differential Rents and the Distribution of Earnings." *Oxford Economic Papers*, 31(1): 60-71.
  - Li, Hao and Sherwin Rosen (1998): "Unraveling in Matching Markets." *American Economic Review*, 88(3): 371-387.
  - Cahuc, Pierre and Andr Zyllerberg (2004): Labor Economics, MIT Press (chapter 4).
- Immigration
  - Card, David (1990): "The Impact of the Mariel Boatlift on the Miami Labor Market." *Industrial and Labor Relations Review*, 43(2): 245-257.
  - Borjas, George (2003): "The Labor Demand Curve is Downward Sloping: Re-examining the Impact of Immigration on Labor Market." *Quarterly Journal of Economics*, 118(4): 1335-1374.

- Card, David (2005): "Is the New Immigration Really So Bad?" *Economic Journal*, 115(507): F297-F430.
- Card, David (2009): "Immigration and Inequality." *American Economic Review*, 99(2): 1-21.
- Christian, Tommaso and Ian Preston (2013): "The Effect of Immigration along the Distribution of Wages." *Review of Economic Studies*, 80(1): 145-173.
- Peri, Giovanni and Chad Sparber (2009): "Task Specialization, Immigration and Wages." *American Economic Journal: Applied Economics*, 1(3): 135-169.
- Ottaviani, Gianmarco and Giovanni Peri (2012): "Rethinking the Effect of Immigration on Wages." *Journal of the European Economic Association*, 10(1): 152-197.

- Unions - Brigham Frandsen guest
  - Brown, James and Orley Ashenfelter (1986): "Testing the Efficiency of Employment Contracts." *Journal of Political Economy*, 94(3): S40-S87.
  - Card, David (1990): "Unexpected Inflation, Real Wages, and Employment Determination in Union Contracts." *American Economic Review*, 80(4): 669-688.
  - Card, David (1996): "The Effect of Unions on the Structure of Wages: A Longitudinal Analysis", *Econometrica*, 64 (4): 957-979.
  - Holmes, Thomas (1998): "The Effects of State Policies on the Location of Industry: Evidence from State Borders." *Journal of Political Economy*, 106 (4): 667-705.
  - DiNardo, John and David Lee (2004): "Economic Impact of New Unionization on Private Sector Employers: 1984-2001." *Quarterly Journal of Economics*, 119(4): 1383-1442.
  - Mas, Alex (2006): "Pay, Reference Points, and Police Performance." *Quarterly Journal of Economics*, 71(3): 783-821.
  - Lewis, Gregg (1986): "Union Relative Wage Effects: A Survey." *Handbook of Labor Economics*, 20(2): 1139-1181.
  - Lee, David and Alex Mas (2012): "Long-run Impacts of Unions on Firms: New Evidence from Financial Markets." *Quarterly Journal of Economics*, 127(1): 333-378.
  - Frandsen, Brigham (2013): "The Surprising Impacts of Unionization on Establishments: Accounting for Selection in Close Union Representation Elections." Working paper, BYU.
  - David, Francesco and Agata Maida (2014): "Rent-Sharing, Holdup, and Wages: Evidence from Matched Panel Data." *Review of Economic Studies*, 81(1): 84-111.

- Minimum Wages
  - Stigler, George (1946): "The Economics of Minimum Wage Legislation." *American Economic Review*, 36(3): 358-365.
  - Brown, Charles (1999): "Minimum Wages, Employment and the Distribution of Income." *Handbook of Labor Economics*, 3(B): 2101-2163.
  - Card, David (1992): "Using Regional Variation to Estimate the Effects of the Federal Minimum Wage." *Industrial and Labor Relations Review*, 46(1): 22-37.

- Card, David and Alan Krueger (1994): "Minimum Wages and Employment: A Case Study of the Fast Food Industy in New Jersey." *American Economic Review*, 84(4): 772-793.
- Card, David and Alan Krueger (1995): "Myth and Measurement: The New Economics of the Minimum Wage." *Princeton University Press.* 48(4): 827-849.
- Kennan, John (1995): "The Elusive Effects of Minimum Wages." *Journal of Economic Literature*, 33(4): 1949-1965.
- Arindrajit, William and Michael Reich (2010): "Minimum Wage Effects across State Borders: Estimating Using Continuous Counties." *Review of Economics and Statistics*, 92(4): 945-964.
- Emma, Carol and John Van Reenen (2010): "Can Pay Regulation Kill? Panel Data Evidence on the Effects of Labor Markets on Hospital Performance." *Journal of Political Economy*, 118(2): 222-273.
- David, Ian and William Wascher (2013): "Revisiting the Minimum Wage and Employment Debate: Throwing out the Baby with the Bathwater?" *Industrial and Labor Relations Review*, 67(2.5): 608-648.
- MaCurdy, Thomas (2015): "How Effective is the Minimum Wage at Supporting the Poor?" *Journal of Political Economy*, 123(2): 497-545.
- Ekaterina, Mark, Robert, Emma, Jacob, and Hilary Wething (2018): "Minimum Wage Increases, Wages, and Low-Wage Employment: Evidence from Seattle." NBER Working Paper 23532.
- Harasztosi, Peter, and Attila Lindner (2017): "Who Pays for the Minimum Wage?", Working Paper UCL.
- Doruk, Arindrajit, Attila, and Ben Zipperer (2018): "The Effect of Minimum Wages on Low Wage Jobs: Evidence from the United States Using a Bunching Estimator." Working Paper UCL.

Part 3: Human Capital

A. Basics and Estimating the Returns to Schooling

- Ben-Porath, Yoram (1967): "The Production of Human Capital and the Lifecycle of Earnings." *Journal of Political Economy*, 75: 352-365.
- Angrist, Joshua and Alan Krueger (1991): "Does Compulsory School Attendance Affect Schooling and Earnings?" *Quarterly Journal of Economics*, 106(4): 979-1015.
- Griliches, Zvi (1977): "Estimating the Returns to Schooling: Some Econometric Problems." *Econometrica*, 45(1): 1-22.
- Card, David (2001): "Estimating the Return to Schooling: Progress on Some Persistent Econometric Problems." *Econometrica*, 69 (5): 1129-1160.
- Lemieux, Thomas (2006): "The Mincer Equation Thirty Years after Schooling, Experience, and Earnings." in S. Grossbard-Shechtman (ed.) Jacob Mincer, A Pioneer of Modern Labor Economics, Springer Verlag.
- Cunha, Flavio and James Heckman (2007): "The Technology of Skill Formation." *American Economic Review*, 97 (2): 31-47.

- Stephens, Melvin and Dou-Yan Yang (2014): "Compulsory Education and Benefits of Schooling." *American Economic Review*, 104(6): 1777-1792.
- Mincer, Jacob (1974): Schooling, Experience, and Earnings. *Columbia University Press*, for the NBER.
- Becker, Gary (1993): Human Capital. Third Edition, University of Chicago Press.
- John, David, and Regina Baker (1995): "Problems with Instrumental Variables Estimation when the Correlation between the Instruments and the Endogenous Explanatory Variable is Weak." *Journal of the American Statistical Association*, 90(430): 443-450.
- Ashenfelter, Orley and Cecila Rouse (1998): "Income, Schooling and Ability: Evidence from a New Sample of Identical Twins." *Quarterly Journal of Economics*, 113 (1): 253-284.
- Duflo, Esther (2001): "Schooling and Labor Market Consequences of School Construction in Indonesia: Evidence from an Unusual Policy Experiment." *American Economic Review*, 91(4): 795-813.
- Keane, Michael and Ken Wolpin (1997): "The Career Decisions of Young Men." *Journal of Political Economy*, 105(3): 473-522.
- Eckstein, Zvi and Ken Wolpin (1999): "Youth Employment and Academic Performance in High school." *Econometrica*, 67(6): 1295-1339.
- Cameron, Stephen. and Chris Taber (2004): "Estimation of Educational Borrowing Constraints Using Returns to Schooling." *Journal of Political Economy*, 112 (1): 132-182.
- Heckman, James and Alan Krueger (2005): Inequality in America: What Role for Human Capital Policies? MIT Press.
- Oreopoulos, Phillip (2006): "Estimating Average and Local Treatment Effects of Education when Compulsory Schooling Laws Really Matter." *American Economic Review*, 96(1): 152-175.
- Neal, Derek and William Johnson (1996): "The Role of Premarket Factors in Black-White Wage Differences," *Journal of Political Economy*, 104(5): 859-895.

B. Evaluating the Impacts of School Policies on Student Outcomes / Program Evaluation Problem

- Joshua, Guido, and Donald Rubin (1996): "Identification of Causal Effects Using Instrumental Variables." *Journal of the American Statistical Association*, 91(434): 444-455.
- Angrist, Joshua and Jorn Pischke (2008): Mostly Harmless Econometrics, esp. chapters 2, 4, 5, and 6.
- Oreopolous, Philip (2006): "Estimating Average and Local Average Treatment Effects of Education when Compulsory Schooling Laws Really Matter." *American Economic Review*, 96 (1): 152-175.
- Krueger, Alan (1999): "Experimental Estimates of Education Production Functions." *Quarterly Journal of Economics*, 114 (2): 497-532.
- Raj, John, Nathaniel, Diane, Emmanuel, and Danny Yagan (2011): "How Does Your Kindergarten Classroom Affect Your Earnings? Evidence from Project Star." Quarterly Journal of Economics, 126(4): 1593-1660.

- Peter, Bjorn and Hessel Oosterbeek (2013): "Long-Term Effects of Class Size." *Quarterly Journal of Ecnomics*, 128(1): 249-285.
- Atila, Josh, Susan, Thomas, and Parag Pathak (2011): "Accountability and Flexibility in Public Schools: Evidence from Boston's Charters and Pilots." *Quarterly Journal of Economics*, 126(2): 699-748.
- Altonji, Joseph, Todd, and Chris Taber (2005): "Selection on Observed and Unobserved Variables: Assessing the Effectiveness of Catholic Schools." *Journal of Political Economy*, 113(1): 151-184.
- Kline, Patrick, and Chris Walters (2016): "Evaluating Public Programs with Close Substitutes: The Case of Head Start" *Quarterly Journal of Economics*, 131(4): 1795-1848.

C. Schools

- Joshua, Parag, and Chris Walters (2013): "Understanding Charter School Effectiveness." *American Economic Journal: Applied Economics*, 5(4): 1-27.
- Abdulkadiroğlu, Atila and Tayfun Sönmez (2003): "School Choice: A Mechanism Design Approach." *American Economic Review*, 93(3): 729-747.
- Pathak, Parag and Tayfun Sönmez (2008): "Leveling the Playing Field: Sincere and Sophisticated Players in the Boston Mechanism." *American Economic Review*, 98(4): 1636-1652.
- Pathak, Parag and Tayfun Sönmez (2014): "School Admissions Reforms in Chicago and England: Comparing Mechanisms by their Vulnerability to Manipulation." *American Economic Review*, 103(1): 80-106.
- Epple, Dennis and Richard Romano (1998): "Competition Between Private and Public Schools, Vouchers, and Peer-Group Effects," *American Economic Review*, 88(1): 33-62.
- Nikhil, Atila, and Parag Pathak (2017): "The Welfare Effects of Congestion in Uncoordinated Assignment: Evidence from the NYC HS Match." *American Economic Review*, 107(12): 3635-3689.
- Atila, Parag, Jonathan, and Christopher Walters (2017): "Do Parents Value School Effectiveness?" NBER Working Paper 23912.
- Pathak, Parag and Peng Shi (2017): "How Well Do Structural Demand Models Work? Counterfactual Predictions in School Choice." NBER Working Paper 24017.

D. Teachers

- Rothstein, Jesse (2010): "Teacher Quality in Educational Production, Tracking, Decay and Student Achievement." *Quarterly Journal of Economics*, 125(1): 175-214.
- Fryer, Roland (2013): "Teacher Inventives and Student Achievement: Evidence from New York City Public Schools." *Journal of Labor Economics*, 31(2): 373-407.
- Goodman, Sarena and Lesley Turner (2013): "The Design of Teacher Incentive Pay and Educational Outcomes: Evidence from the NYC Bonus Program,.' *Journal of Labor Economics*, 31(2): 409-420.
- Raj, John, and Jonah Rockoff (2014): "Measuring the Impacts of Teachers I: Evaluating Bias in Teacher Value-Added Estimates." *American Econoimc Review*, 104(9): 2593-2632.

– Raj, John, and Jonah Rockoff (2014): "Measuring the Impacts of Teachers II: Teacher Value-Added and Student Outcomes in Adulthood." *American Economic Review*, 104(9): 2633-2679.
– Rothstein, Jesse (2017): "Measuring the Impact of Teachers: Comment." *American Economic Review*, 107(6): 1656-1684.
– Raj, John, and Jonah Rockoff (2017): "Measuring the Impacts of Teachers: Reply." *American Economic Review*, 107(6): 1685-1717.
– Rothstein, Jesse (2015): "Teacher Quality when Supply Matters." *American Economic Review*, 105(1): 100-130.
– Joshua, Peter, Parag, and Christopher Walters (2017): "Leveraging Lotteries for School Value-Added: Testing and Estimation." *Quarterly Journal of Economics*, 132(2): 871-919.
– Neal, Derek (2017): <u>Information, Incentives, and Education Policy</u>. Harvard University Press.

E. Housing Markets and Residential Sorting

– Black, Sandra (1999): "Do Better Schools Matter? Parental Evaluation of Elementary Education." *Quarterly Journal of Economics*, 114 (2): 577-600.
– Patrick, Fernando, and Robert McMillan (2007): "A Unified Framework for Measuring Preferences for Schools and Neighborhoods." *Journal of Political Economy*, 115(4): 588-638.
– Kling, Liebman, and Larry Katz (2007): "Experimental Analysis of Neighborhood Effects." *Econometrica*, 75(1): 83-119.
– Chetty, Raj, Nathan, and Larry Katz (2016): "The Effects of Exposure to Better Neighborhoods on Children: New Evidence from the Moving to Opportunity Experiment." *American Economic Review*, 106(4): 855-902.
– Chyn, Eric (2018): "Moved to Opportunity: The Long-Run Effect of Public Housing Demolition on Labor Market Outcomes of Children." *American Economic Review*, forthcoming.
– Pinto, Rodrigo (2016): "Learning from Non-Compliance: The Case of Moving to Opportunity." *Working paper.*
– Fernandez, Raquel and Richard Rogerson (1996): "Income Distribution, Communities, and the Quality of Public Education." *Quarterly Journal of Economics*, 111(1): 135-164.
– David, Alex, and Jesse Rothstein (2008): "Tipping and the Dynamics of Segregation." *Quarterly Journal of Economics*, 123(1): 177-218.
– Nechyba, Thomas (2003): "Introducing School Choice into Multidistrict Public School Systems." <u>The Economics of School Choice</u>, chapter 5, 145-194.
– Epple, Dennis, and Holger Sieg (1999): "Estimating Equilibrium Models of Local Jurisdictions." *Journal of Political Economy*, 107-84: 645-681.
– Rothstein, Jesse (2006): "Good Principals or Good Peers: Parental Valuation of School Characteristics, Tiebout Equilibrium, and the Incentive Effects of Competition Among Jurisdictions." *American Economic Review*, 96(4): 1333-1350.
– Avery, Christopher, and Parag Pathak (2016): "The Distributional Consequences of Public School Choice." NBER Working Paper 21525.

- Glaeser, Edward (2008): Cities, Agglomeration, and Spatial Equilibrium. Oxford University Press.
- David, Christopher, and Parag Pathak (2014): "Housing Market Spillovers: Evidence from the End of Rent Control in Cambridge, MA." *Journal of Political Economy*, 122(3): 661-717.

F. Externalities and Peers

- Manski, Charles (1993): "Identification of Endogenous Social Effects: The Reflection Problem." *Review of Economic Studies*, 60(3): 531-542.
- Lazear, Edward (2001): "Education Production." *Quarterly Journal of Economics*, 116 (3): 777-803.
- Angrist, Josh (2014): "The Perils of Peer Effects." *Labour Economics*, 30(C): 98-108.
- Sacerdote, Bruce (2001): "Peer Effects with Random Assignment: Results for Dartmouth Roomates." *Quarterly Journal of Economics*, 116 (2), 681-704.
- Card, David and Laura Giuliano (2013): "Peer Effects and Multiple Equilibria in the Risky Behavior of Friends." *Review of Economics and Statistics*, 95(4): 1130-1149.
- Atila, Joshua, and Parag Pathak (2014): "The Elite Illusion: Achievement Effects at Boston and New York Exam Schools." *Econometrica*, 82(1): 137-196.
- Scott, Bruce, and James West (2013): "From Natural Variation to Optimal Policy? The Importance of Endogenous Peer Group Formation." *Econometrica*, 81(3): 855-882.
- Graham, Bryan (2011): "Econometric Methods for the Analysis of Assignment Problems in the Presence of Complementarity and Social Spillovers." *Handbook of Social Economics*, (1B): 965-1052.
- Zarate, Roman (2018): "Social and Cognitive Peer Effects: Experimental Evidence from Selective High Schools in Peru." Working Paper, MIT.

G. Affirmative Action in Education

- Coate, Stephen, and Glenn Loury (1993): "Will Affirmative Action Policies Eliminate Negative Stereotypes?" *American Economic Review*, 83(5): 1220-40.
- Steele, Claude and Aronson, Joshua (1995): "Stereotype Threat and the Intellectual Test Performance of African Americans." *Journal of Personality and Social Psychology*, 69(5): 797-811.
- Ellison, Glenn and Parag Pathak (2016): "The Efficiency of Race-Neutral Alternatives to Race-Based Affirmative Action: Evidence from Chicago's Exam Schools." NBER Working Paper 22589.
- Joshua, Parag, Mikka, and Roman Zarate (2018): "Choice and Consequence: Assessing Mismatch at Chicago's Exam Schools." Working paper.
- Chan, Jimmy and Erik Eyster (2003): "Does Banning Affirmative Action Lower College Student Quality?" *American Economic Review*, 93(2): 858-872.
- Fryer, Roland and Glenn Loury (2005): "Affirmative Action and Its Mythology." *Journal of Economic Perspectives*, 19(3): 147-162.

– Fryer, Roland and Glenn Loury (2013): “Valuing Diversity.” *Journal of Political Economy*, 121(4): 747-774.

– Bowen, William and Derek Bok (1998): Shape of the River. Princeton: Princeton University Press.

– Loury, Glenn (2002): The Anatomy of Racial Inequality. Cambridge, MA: Harvard University Press.

– Dale, Stacy, and Alan Krueger (2002): “Estimating the Payoff to Attending a More Selective College: An Application of Selection on Observables and Unobservables.” *Quarterly Journal of Economics*, 117(4): 1491-1527.

– Dale, Stacy, and Alan Krueger (2011): “Estimating the Return to College Selectivity over the Career Using Administrative Earnings Data.” *Journal of Human Resources*, 49(2):323-358.

– Arcidiacono, Peter and Mike Lovenheim (2016): “Affirmative Action and the Quality-Fit Tradeoff.” *Journal of Economic Literature*, 54(1): 3-51.

– Peter, Esteban, Coate, and Joseph Hotz (2014): “University Differences in the Graduation of Minorities in STEM Fields: Evidence from California.” *American Economic Review*, 106(3): 525-562.

– Card, David (2017): “Expert Report in Students for Fair Admissions vs. President and Fellows of Harvard College.”

– Arcidiacono, Peter (2017): “Expert Report in Students for Fair Admissions vs. President and Fellows of Harvard College.”

Second Part - Acemoglu

Cahuc and Zilberberg's *Labor Economics* MIT Press, 2004 is a useful reference. You may also want to consult the lecture notes on my website (Acemoglu, Daron and David Autor, *Lectures in Labor Economics,* Web notes), though these do not cover all our material.

I. Labor Market Externalities

A. Non-Pecuniary and Pecuniary Externalities in the Labor Market

Rauch, James E. (1993) "Productivity Gains from Geographic Concentration of Human Capital: Evidence from the Cities" Journal of Urban Economics 34, 380-400.

Acemoglu, Daron (1996) "A Microfoundation for Social Increasing Returns in Human Capital Accumulation," Quarterly Journal of Economics 111 [3], 779-804.

* Acemoglu, Daron and Joshua Angrist (2000) "How Large Are The External Returns to Education: Evidence from Compulsory Schooling Laws" NBER Macro Annual 2000.

B. Signaling

* Spence, Michael (1973) "Job Market Signaling" Quarterly Journal of Economics, 87(3), 355 – 374.

Stiglitz, Joseph (1986) "The Theory of Screening, Education, and the Distribution of Income" American Economic Review, 66, 283 – 300.

Lang, Kevin, and David Kropp (1986) "Human Capital Versus Sorting: The Effects of Compulsory Attendance Laws," Quarterly Journal of Economics 101(2), 609-624.

Bedard, Kelly (2001) "Human Capital Versus Signaling Models: University Access and High School Dropouts." Journal of Political Economy 109.4, 749 – 775.

* Tyler, John, Richard J. Murnane and John Willett (2000) "Estimating the Labor Market Signaling value of the GED" Quarterly Journal of Economics, 115(2), 431-468.

II. Social Mobility, Peer Effects and Human Capital

A. Social Mobility

* Becker, Gary and Nigel Tomes "Human capital and the rise and fall of families," Journal of Labor Economics 4, (1986) S1-S39.

* Solon, Gary "Intergenerational Income Mobility in the United States" American Economic Review v82, n3 (June 1992): 393-408

Zimmerman, David J. "Regression Toward Mediocrity in Economic Stature" American Economic Review v82, n3 (June 1992): 409-29

Mulligan Casey, Parental Priorities and Economic Inequality, (1997) University of Chicago Press.

Chetty, Raj, Nathaniel Hendren, Patrick Kline and Emmanuel Saez (2014) “Is the United States Still a Land of Opportunity? Recent Trends in Intergenerational Mobility” American Economic Review: Papers and Proceedings, 104(5), 141-147.

* Chetty, Raj, Nathaniel Hendren, Patrick Kline and Emmanuel Saez (2014) “Where Is the Land of Opportunity? The Geography of Intergenerational Mobility in the United States” The Quarterly Journal of Economics, vol. 129(4), pages 1553-1623.

* Chetty, Raj, Nathaniel Hendren, and Lawrence F Katz (2016) “The Effects of Exposure to Better Neighborhoods on Children: New Evidence from the Moving to Opportunity Experiment.” American Economic Review 106.4, 855 – 902.

Roback, Jennifer (1982) “Wages, Rents and the Quality of Life” Journal of Political Economy, 90(6), 1257-1278.

* Galor, Oded and Joseph Zeira (1993) “Income Distribution and Macroeconomics.” Review of Economic Studies, 60, pp. 35-52.

* Benabou, Roland (1993) “Workings of a City: Location, Education and Production”, Quarterly Journal of Economics, Vol. 108, No. 3, pp. 619-652.

* Benabou, Roland (1996) “Heterogeneity, Stratification and Growth: Macroeconomic Implications of Community Structure in School Finance” American Economic Review Vol. 86, No. 3, pp. 584-609.

Fernandez, Racquel and Richard Rogerson (1996) “Income Distribution, Communities and the Quality of Public Education,” Quarterly Journal of Economics 111(1), 135-164.

Hoxby, Caroline (1996) “Are Efficiency and Equity in School Finance Substitutes or Complements”, Journal of Economic Perspectives, Vol. 10, No. 4, pp. 51-72.

B. Peer Effects

Lazear, Edward P. (2001) “Educational Production” Quarterly Journal of Economics, 116(3), 777-803.

Black, Sandra (1999) “Do Better Schools Matter? Parental Evaluation of Elementary Education” Quarterly Journal of Economics, 114(3), 577-600.

Bayer, Patrick Fernando Ferreira and Robert MacMillan (2007) “Unified Framework for Measuring Preferences for Schools and Neighborhoods,” Journal of Political Economy, 115(4), 588-68.

Manski, Charles (1993) “Identification of Endogenous Social Effects: the Reflection Problem,” Review of Economic Studies, 60, 531-542.

Angrist, Joshua (2014) “The Perils of Peer Effects,” Labour Economics, vol. 30(C), pages 98-108.

* Crepon, Bruno, Esther Duflo, Grugand, Marc, Rathelot, Roland and Philippe Zamora (2014) “Do Labor Market Policies have Displacement Effects? Evidence from a Clustered Randomized Experiment," The Quarterly Journal of Economics, vol. 128(2), pages 531-580.

* Sacerdote, Bruce (2001) “Peer Effects with Random Assignment: Results from Dartmouth Roommates” Quarterly Journal of Economics, 116, 681-704.

Zimmerman, David (2003) “Peer Effects in Higher Education: Evidence from a Natural Experiment,” Review of Economics and Statistics, 85, 9-23.

Lyle, David (2007) “Estimating and Interpreting Peer and Role Model Effects from Randomly Assign Social Groups at West Point” Review of Economics and Statistics, 89, 289-299.

Mas, Alex and Enrico Moretti (2009) “Peers at Work” American Economic Review, American Economic Association, vol. 99(1), pages 112-45, March.

Card, David and Laura Giuliano (2013) “Peer Effects in Multiple Equilibria in the Risky Behavior of Friends,” The Review of Economics and Statistics, MIT Press, vol. 95(4), pages 1130-1149, October.

Bramoulle, Yann, Rachel Kranton and Martin D'Amours (2014) “Strategic Interaction and Networks,” American Economic Review, American Economic Association, vol. 104(3), pages 898-930, March.

Ballester, Coralio, Antoni Calvo-Armengol, and Yves Zenou (2006) “Who's Who in Networks: Wanted: The Key Player”, Econometrica, 74(5), 1403-1417.

* Bramoulle, Yann, Habiba Djebbari, and Bernard Fortin (2009) “Identification of Peer Effects through Social Networks” Journal of Econometrics, 150, 41-55.

Acemoglu, Daron, Camilo Jimeno Garcia and James a Robinson (2015) “State Capacity and Economic Development: A Network Approach,” American Economic Review, American Economic Association, vol. 105(8), pages 2364-2409, August.

* Carrell, Scott, Bruce Sacerdote and James West (2013) “From Natural Variation to Optimal Policy? The Lucas Critique Meets Peer Effects” Econometrica, 81(3), 855-882.

Zarate, Roman Andres (2018) “Social and Cognitive Peer Effects: Experimental Evidence from Selective High Schools in Peru” MIT mimeo.

III. Incentives, Agency and Efficiency Wages

A. Multitasking

* Holmstrom, Bengt (1979) “Moral Hazard and Observability” Bell Journal of Economics, 10, 74-91.

Lazear, Edward (2000) “Performance Pay and Productivity.” American Economic Review, 90(5): 1346-61.

* Holmstrom, Bengt and Milgrom, Paul (1991) “Multitask Principal-Agent Analyses: Incentive Contracts, Asset Ownership, and Job Design” Journal of Law, Economics and Organization vol 7, n0 (Special Issue): 24-52
Baker, George P. (1992) “Incentive Contracts and Performance Measurement ” Journal of Political Economy v100, n3: 598-614

Courty, Pascal, and Gerald Marschke (2004) “An Empirical Investigation of Gaming Responses to Explicit Performance Incentives.” Journal of Labor Economics 22: 23-56.

* Oyer, Paul (1998) “Fiscal Year Ends and Nonlinear Incentive Contracts: The Effect on Business Seasonality.” Quarterly Journal of Economics 113:149-85.

Alston, Lee, and Robert Higgs (1982) “Contractual Mix in Southern Agriculture since the Civil War: Facts, Hypotheses, and Test.” Journal of Economic History 42:327-53.

B. Career Concerns in the Private and the Public Sector

* Holmstrom, Bengt (1999) “Managerial Incentive Problems: A Dynamic Perspective” Review of Economic Studies 66, n1: 169-82.

Dewatripont, Mathias; Ian Jewitt; and Jean Tirole (1999) “The Economics of Career Concerns, Part I: Comparing Information Structures,” Review of Economic Studies, January, 66(1),183-198.

Dixit, Avinash (2002) “Incentives and Organizations in the Public Sector: An Interpretative Review”, Journal of Human Resources 37 (4), Fall, 696-727.

Acemoglu, Daron, Michael Kremer and Atif Mian (2007) “Incentives in Markets, Firms and Governments” Journal of Law, Economics and Organizations, December 2007.

Chevalier, Judith and Glenn Ellison (1999) “Career Concerns of Mutual Fund Managers.” Quarterly Journal of Economics 114: 389-432.

C. Efficiency Wages

* Carl Shapiro and Joseph Stiglitz (1984) “Unemployment as Worker Discipline Device,” American Economic Review, vol. 74(3), pages 433-44, June.

Bulow, Jeremy and Lawrence Summers (1986);"A Theory of Dual Labor Markets with Application to Industrial Policy, Discrimination and Keynesian Unemployment" Journal of Labor Economics, Vol 4, pp376-415.

Acemoglu, Daron and Andrew Newman (2002) "The Labor Market and Corporate Structure," European Economic Review, December, volume 46, pp. 1733-1756.

Lazear, Edward (1996) Personnel Economics, MIT University Press, Chapter 3.

Raff, Danielle and Lawrence Summers (1987) "Did Henry Ford Pay Efficiency Wages?" Journal of Labor Economics, vol. 5, S57-S86.

Campbell III, Carl M., and Kunal S. Kamlani (1997) “The Reasons for Wage Rigidity: Evidence from a Survey of Firms.” Quarterly Journal of Economics, 112(3), 759 – 789.

Neil, Derek (1993) “Supervision and Wages Across Industries,” Review of Economics and Statistics, August, 1993, vol. 75, pp. 409-17.

Krueger, Alan B. (1991) “Ownership, Agency and Wages: An Examination of Franchising in the Fast Food Industry.” Quarterly Journal of Economics, 106(1) 75 – 101.

* Cappelli, Peter and Keith Chauvin (1991) "An Interplant Test of the Efficiency Wage Hypothesis." Quarterly Journal of Economics, 106(3), 769 – 787.

* Krueger, Alan B, and Lawrence H. Summers (1988) "Efficiency Wages and the Inter-Industry Wage Structure, Econometrica, 56(2) 259 - 93.

IV. Investment in Skills

A. Holdups and Investments

* Grout, Paul, 1984 "Investment and Wages in the Absence of Binding Contracts: A Nash Bargaining Approach," Econometrica, 52, 449-460.

Grossman, Sanford and Oliver Hart (1986) "The Costs and Benefits of Ownership: a Theory of Vertical and Lateral Integration" Journal of Political Economy, vol. 94, pp. 691-719.

Hart, Oliver and John H. Moore, 1990 "Property Rights and the Nature of the Firm" Journal of Political Economy, 98, 1119-58

B. Investment in General Skills

Acemoglu, Daron (1997a) "Training and Innovation in An Imperfect Labor Market," Review of Economic Studies 64, 445-464.

* Acemoglu, Daron and Steve Pischke (1998). "Why Do Firms Train", Quarterly Journal of Economics, Vol. 113, No. 1, pp. 79-119.

* Acemoglu, Daron and Steve Pischke (1999). "The Structure of Wages and Investment in General Training," Journal of Political Economy, vol 107, June 1999, pp. 539-572.

* Autor, David H. (2001) "Why do Temporary Help Firms Provide Free General Skills Training?", Quarterly Journal of Economics, Vol. 116, No. 3, pp. 1409-1448.

Acemoglu, Daron and Steve Pischke (1999). "Beyond Becker: Training in Imperfect Labor Markets," Economic Journal vol 109 February 1999, pp F112-142.

Acemoglu, Daron and Steve Pischke (2000) "Minimum Wages and on-the-Job Training" Research in Labor Economics 22, 2003, 159-202.

C. Specific Skills, Investments and Learning

Topel Robert (1991). "Specific Capital, Mobility, and Wages: Wages Rise with Job Seniority" Journal of Political Economy v99, n1 145-76

* Jacobson, Louis, Robert LaLonde and Daniel Sullivan (1993). "Earning Losses of Displaced Workers," American Economic Review, vol. 83, pp. 685-709.

Neal, Derek (1995). "Industry-Specific Human Capital: Evidence From Displaced Workers," Journal of Labor Economics, October, 1995, vol. 13, pp. 653-77.

Altonji, Joseph and R. Shakotko (1987). "Do Wages Rise With Seniority?" Review of Economies Studies, 54, 1987, 437-459.

Abraham Katherine and Henry Farber (1986). "Job Duration, Seniority, and Earnings," American Economic Review, 1986, 278-297.

* Jovanovic, Boyan (1979). "Job Matching and the Theory of Turnover," Journal of Political Economy, 1979, 972-990.

* Jovanovic, Boyan (1979). "Firm Specific Capital and Turnover," Journal of Political Economy, 1979, 1246-1260.

* Lazear, Edward (2003). "Firm-Specific Human Capital: A Skill Weights Approach." NBER Working Paper No. 9679.

Topel Robert and Michael Ward (1992). "Job Mobility and the Careers of Young Men," Quarterly Journal of Economics 107 [2], 439-479.

* Prendergast, Canice (1993). "The Role of Promotion in Inducing Specific Human Capital Acquisition", Quarterly Journal of Economics, Vol. 108, No. 2, pp. 523-534.

Charmichael, Lorne, (1983). "Firm-Specific Capital and Promotion Ladders", Bell Journal of Economics, Vol. 14, No. 1, pp. 251-258.

Lazear, Edward P. Personnel Economics, (Cambridge: MIT Press), 1995, Chapter 7.

Farber, Henry and Robert Gibbons (1996). "Learning and Wage Dynamics" Quarterly Journal of Economics, 111, 107-147.

V. Search and Unemployment

<u>A. Unemployment, Non-Employment and Labor Market Flows</u>

* Nickell, Steve (1997) "Unemployment and Labor Market Rigidities: Europe versus North America," Journal of Economic Perspectives, Vol 11, pp. 55-74.

Shimer, Robert (1998) "Why Is the U.S. Unemployment Rate So Much Lower?" Macroeconomics Annual, 1998

* Juhn, Chinhui, Kevin Murphy and Robert H. Topel, (1991) "Why Has the Natural Rate of Unemployment Increased over Time?" Brookings Papers on Economic Activity, 1991(2) pp.75-126

* Elsby, Michael, Bart Hobjin and Aysegul Sahin (2010) "The Labor Market in the Great Recession" Brookings Papers on Economic Activity, vol. 41(1 (Spring), pages 1-69

OECD (1994); Jobs Study Volumes 1 and 2.

Blanchard, Olivier and Peter Diamond (1989); "The Beveridge Curve" Brookings Papers on Economics Activity 1989:1, pp 1-60.

<u>B. The Partial Equilibrium Search Model</u>

* Rogerson, Richard, Robert Shimer and Randall Wright (2004) "Search Models of the Labor Market: A Survey" Journal of Economic Literature, 43, pp. 959-988.

C. The Basic Equilibrium Search Framework

* Pissarides, Christopher; Equilibrium Unemployment Theory, MIT Press, 2000

Hosios, Arthur (1990) “On the Efficiency of Matching and Related Models of Search and Unemployment.” Review of Economics Studies 57:2, 279-98.

* Mortensen, Dale and Christopher Pissarides (1994). “Job Creation and Job Destruction in the Theory of Unemployment” Review of Economic Studies Vol 61, pp 397-416.

D. Assignment Models

Rosen, Sherwin (1981) “The Economics of Superstars,” American Economic Review, 71, pp. 845--858.

* Sattinger, Michael (1975) “Comparative Advantage and the Distribution of Earnings and Abilities,” Econometrica, 43, pp. 455-468.

* Teulings, Coen N. (1995) “The Wage Distribution in a Model of the Assignment of Skills to Jobs,” Journal of Political Economy, 103, pp. 280-315.

* Gabaix, Xavier and Augustin Landier (2006) “Why Has CEO Pay Has Increased so Much?” Quarterly Journal of Economics, 123, pp. 49-100.

Tervio, Marko (2008) “The Difference that CEOs Make: An Assignment Model Approach,” American Economic Review, 98, pp. 642-668.

Acemoglu, Daron, David Laibson and John List (2014) “Equalizing Superstars: The Internet and the Democratization of Education” American Economic Review: Papers and Proceedings, pp. 523-527.

E. The Composition of Jobs

* Acemoglu, Daron (2001), “Good Jobs vs Bad Jobs” Journal of Labor Economics, Janaury 2001, vol 19, pp 1-22.

* Acemoglu, Daron (1999). “Changes in Unemployment and Wage Inequality: An Alternative Theory and Some Evidence,” American Economic Review 89(6), 1259-1278.

Autor, David and David Dorn (2013) “The Growth of Low-Skill Service Jobs and Polarization in the US Labor Market” American Economic Review, 103(5), 1553-1597

Jaimovich, Nir and Henry Siu (2013) “The Trend Is the Cycle: Job Polarization and Jobless Recoveries,” NBER Working Papers 18334.

Foote, Christopher L. and Richard W. Ryan (2015) “Labor Market Polarization over the Business Cycle,” NBER Macroeconomics Annual 2015 29:1, 371-413.

F. Real Wage Rigidity, Unemployment and Unemployment Persistence (time permitting)

Shimer, Robert (2005) “The Cyclical Behavior of Equilibrium Unemployment in Vacancies” American Economic Review, vol 95, 25-49.

Hall, Robert E. (2008) "Limited Influence of Unemployment on the Wage Bargain" American Economic Review, vol 98, 1653-1674.

* Shimer, Robert (2008) "The Consequences of Rigid Wages and Search Models" Journal of European Economic Association, vol 2, 469-479.

* Pissarides, Christopher (2009) "The Unemployment Volatility Puzzle: Is Wage Stickiness the Answer?" Econometrica, vol 77, 1339-1369.

Shimer, Robert (2012) "Wage Rigidities and Jobless Recoveries" Journal of Monetary Economics, 59, S65-S77.

<u>G. Nominal Wage Rigidity and Unemployment (time permitting)</u>

* Bewley, Truman (1999), Why Wages Don't Fall During a Recession, Harvard University Press.

* Card, David and Dean Hyslop (1997). "Does inflation grease the wheels of the labor market?" In C. D. Romer and D. H. Romer (eds.), Reducing Inflation: Motivation and Strategy. NBER, Studies in Business Cycles, 30. Chicago: University of Chicago Press.

Baker, George, Michael Gibbs and Bengt Holmström (1994), "The Wage Policy of a Firm," Quarterly Journal of Economics 109(4), pp. 921-955.

Dickens W.T., L. Goette, E.L. Groshen, S. Holden, J. Messina, M.E. Schweitzer, J. Turunen, and M.E. Ward (2007). "How wages change: micro evidence from the International Flexibility Project," Journal of Economic Perspectives, 21(2),195-214.

* Fehr, Ernest, and Lorenz Goette (2005), "Robustness and Real Consequences of Nominal Wage Rigidity," Journal of Monetary Economics, vol. 52(4), pages 779-804.

Nickell, Steve , and Glenda Quintini (2003). "Nominal wage rigidity and the rate of inflation." The Economic Journal vol. 113, 762–781.