

**GRADUATE LABOR ECONOMICS 2800H1F**  
Mondays 1:00PM-3:00PM, GE100 Fall session, 2016

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This is a graduate course in labour economics, appropriate for graduate students in the Department of Economics and other students with preparation in microeconomic theory and econometrics. The course teaches core topics in the field of labor economics as well as empirical methods for applied microeconomic analysis.

Many fine (but somewhat dated) surveys of key topics in labor economics are available in the *Handbook of Labor Economics*, published by Elsevier Science. Volumes 1 and 2 from 1986 are edited by Orley Ashenfelter and Richard Layard. Volume 3 (in three volumes) from 1999 is edited by Orley Ashenfelter and David Card. Volume 4 is on the way and you can locate many of the pre-chapters on the nber web site. An excellent undergraduate textbook in labor economics for an introductory background reference is George Borjas, *Labor Economics*, Fourth Edition, McGraw Hill, 2008. An existing graduate level textbook is Pierre Cahuc and André Zylberberg, *Labor Economics*, MIT Press, 2014. The second edition is better than the first and is worth getting to complement your readings. And an excellent (but quirky) guide to the key empirical methods used in labor economics is Joshua Angrist and Jörn-Steffen Pischke, *Mostly Harmless Econometrics*, Princeton University Press, 2009.

Preparation for research: Students are *strongly* encouraged to attend the applied micro seminar, which meets on Fridays from 4:00 to 5:30 in the department, as well as the CEPA lunches on Tuesdays.

Grading: Grading will be based on a research paper (40%), a referee report (10%), and a final examination (50%). The research paper may be a first draft of some original work, or a replication study. I will also accept research proposals that would use obtainable data, but where it takes time to get access. The purpose of the research paper is to get you started thinking about the road to completing empirical research. You must meet with me before mid October to get your research paper idea approved. In the past, students have submitted their papers after the official end of the class. I accommodate this if sufficient effort is being made already and the student expects to improve on the paper with the additional time. Grading will take into account the additional time.

Please see me early if you want to discuss topic ideas.

## **Replication study**

Comment on, replicate, and extend a piece of econometric research in labor economics. Data from papers published in many journals are available on authors' web sites, or on a centralized journal web site.

A. Your critique should address the following questions:

1. What was the purpose of the research? What questions were asked and what hypotheses were tested? Why are these questions and hypotheses of economic interest? What are the most important findings in the paper?
2. How does this paper fit into the relevant literature? What were the findings at the time the paper was written? What was the contribution of this particular paper? What has been done on this topic since this paper was published?
3. What data were used? Are they reliable or relevant? Are they rich enough to give meaningful answers to the key questions motivating the paper? What would constitute an ideal data set?
4. How was the research conducted? Do the techniques used make sense for this problem and do they appear to have been correctly implemented? What assumptions are needed to draw inferences about causation from the results presented in the paper?

B. Replication/extension

1. Identify the main findings and use the authors' data to replicate these results (if possible). Summarize your results in a table. Discuss why you think your results differ from the authors' (if they do).
2. Extend the work in some way. Do this by either (a) estimating alternative interesting specifications that the author might have tried or that would shed further light on the issues raised in the paper, or (b) collecting new data and producing results for this new sample.

## **ECONOMICS 2810a: Expected Lecture Schedule for Fall 2016**

### **General Calendar**

#### **I. Introduction**

Lecture 1: general facts, debates, and program evaluation

#### **II. Human Capital**

Lecture 2: skill formation and human capital policy

Lecture 3: causal estimates, heterogeneous returns

Lecture 4: liquidity constraints, behavioral models

Lecture 5: signalling and school quality

#### **III. Labor Supply**

Lecture 6: static models and applications

Lecture 7: intertemporal models and applications

#### **IV. Labor Demand**

Lecture 8: classic theory, minimum wages, immigration

Lecture 9: Segmented labor markets, wage differentials, and search

Lecture 10: internal job mobility, technology shifts

#### **V. Externalities, Neighborhoods, and Peer Effects**

Lecture 11: Externalities, Neighborhoods, and Peer Effects

Lecture 12: TBA

## Background Reading

**NOTE: THERE IS A LOT OF BACKGROUND MATERIAL. I WILL TRY TO SUGGEST WHAT TO FOCUS ON. IT IS IMPORTANT TO SUPPLEMENT YOUR NOTES WITH THIS READING. IT'S UP TO YOU TO KEEP UP. GET EXCITED, DIVE IN.**

G. Becker. (1975) *The Economic Approach to Human Behavior*, U. of Chicago Press, pp. 3-14.

Angrist and A.B. Krueger. (1999) Empirical strategies in labor economics, in the *Handbook of Labor Economics*, Vol. 3A, O. Ashenfelter and D. Card, eds., Elsevier, 1278-1366.

Angrist and J.S. Pischke. (2009) *Mostly Harmless Econometrics*, Princeton University Press.

Cahuc, Pierre, Stephane Carcillo, and Andre Zylberberg (2014) "Labor Economics, second edition"

### **1. The Program Evaluation Problem, and experimental approaches to deal with it**

#### Stylized Facts

C. Goldin, "Labor Markets in the 20th Century," NBER Historical Working Paper No. 8, June 1994 [also in Cambridge Economic History of the US, 1-85].

#### Causal inference, counterfactuals, and heterogeneous effects

J. Angrist and A. Krueger, "Empirical Strategies in Labor Economics," chapter 23 in volume 3A of The Handbook of Labor Economics, 1278-1357, Sections 3 and 4.

**G. Imbens and J. Wooldridge (2009) "Recent Developments in the Econometrics of Program Evaluation," *Journal of Economic Literature* 47 (March), 5-86.**

**Freedman, David, "Statistical Models and Shoe Leather," *Sociological Methodology*, 21, 1991, pp. 291-313.**

Holland, Paul, "Statistics and Causal Inference," *Journal of the American Statistical Association*, 81(396), December 1986, pp. 945-960.

J. Angrist and J. Pischke. (2009) *Mostly Harmless Econometrics*, chs. 2, 4, 5, and 6.

#### Some examples of experimental Methods to identify causal effects

**Schweinhart, L. J., Montie, J., Xiang, Z., Barnett, W. S., Belfield, C. R., & Nores, M. (2005). *Lifetime effects: The HighScope Perry Preschool study through age 40*. (Monographs of the HighScope Educational Research Foundation, 14). Ypsilanti, MI: HighScope Press. (<http://www.highscope.org>)**

**Anderson, Michael, "Multiple Inference and Gender Differences in the Effects of Early Intervention: A Reevaluation of the Abecedarian, Perry Preschool, and Early Training Projects."**

**2008. *Journal of the American Statistical Association*. 103(484): pp. 1481-1495.**

E. Duflo, R. Glennerster, and M. Kremer. (2006), "Using Randomization in Development Economics Research: A Toolkit," NBER Technical WP No. 333, December.

Meyer, Bruce, "Natural and Quasi-experiments in Economics," *Journal of Business and Economic Statistics*, 13, 1995, pp. 151-161. (and on NBER web site)

**J. Heckman, R. LaLonde, J. Smith. (1999) The economics and econometrics of active labor market programs," in the *Handbook of Labor Economics*, Vol. 3A, O. Ashenfelter and D. Card, eds. Amsterdam: Elsevier Science.**

J. Heckman and V.J. Hotz. (1989) "Choosing Among Alternative Nonexperimental Methods for Estimating the Impact of Social Programs: The Case of Manpower Training," *Journal of the American Statistical Association*, 84.408 (December), 862-74.

**R. LaLonde (1986) "Evaluating the Econometric Evaluations of Training Programs with Experimental Data," *American Economic Review* 76 (September), 604-620.**

**R. Dehejia and S. Wahba. (1999) A Causal Effects in Non-Experimental Studies: Re-Evaluating the Evaluation of Training Programs,@ *JASA*, 94.448 (December), 1053-1062.**

O. Ashenfelter and D. Card (1985) "Using the Longitudinal Structure of Earnings to Estimate the Effect of Training Programs on Earnings," *RESTAT*, 67 (November), 648-60.

Card, David, Jochen Kluge, and Andrea Weber, "Active Labor Market Policy Evaluations: A Meta-Analysis," NBER Working Paper #16173

R. Chetty. (2009) "Sufficient Statistics for Welfare Analysis: A Bridge between Structural and Reduced Form Models," [http://www.economics.harvard.edu/faculty/chetty/files/suffstat\\_ar.pdf](http://www.economics.harvard.edu/faculty/chetty/files/suffstat_ar.pdf).

J. Angrist. (2003) Treatment Effect Heterogeneity in Theory and Practice,@ NBER WP 9708.

Angrist, Joshua D., and Jörn-Steffen Pischke. 2010. "The Credibility Revolution in Empirical Economics: How Better Research Design Is Taking the Con out of Econometrics." *Journal of Economic Perspectives*, 24(2): 3–30.

Leamer, Edward E. 2010. "Tantalus on the Road to Asymptopia." *Journal of Economic Perspectives*, 24(2): 31–46.

Keane, Michael P. 2010. "A Structural Perspective on the Experimentalist School." *Journal of Economic Perspectives*, 24(2): 47–58.

Sims, Christopher A. 2010. "But Economics Is Not an Experimental Science." *Journal of Economic Perspectives*, 24(2): 59–68.

Nevo, Aviy, and Michael D. Whinston. 2010. "Taking the Dogma out of Econometrics: Structural Modeling and Credible Inference." *Journal of Economic Perspectives*, 24(2): 69–82.

Imbens, Guido (2009) "Better late than nothing: Some comments on Deaton (2009) and Heckman and urzua (2009)," NBER Working Paper #14896

## 2. Labor Supply

### Classic Static models and basics

M. Killingsworth, *Labor Supply*, Cambridge University Press, 1983; Chapters 1, 2, and 7.

O. Ashenfelter, "What is Involuntary Unemployment?," *Proceedings of the American Philosophical Society*, 122[3], June 1978.(and on NBER website)

M. Abbott and O. Ashenfelter, "Labor Supply, Commodity Demand and the Allocation of Time," *Review of Economic Studies*, 43[3] October 1976, 389-411.

O. Ashenfelter and J. Heckman, "The Estimation of Income and Substitution Effects in a Model of Family Labor Supply," *Econometrica*, 42[1], January 1974, 73-86.

J. Pencavel, "Labor Supply of Men: A Survey," in *The Handbook of Labor Economics*, Volume I.

\*J. Smith, "Female Labor Supply," in *The Handbook of Labor Economics*, Volume 1.

### Life-cycle model

**Blundell, R. and T. McCurdy. 1999. "Labour Supply: A Review of Alternative Approaches", *Handbook of Labour Economics*, Volume 3A.**

G. Becker and G. Ghez, *The Allocation of Time and Goods Over the Life-Cycle*, Columbia University Press, 1975.

T. MaCurdy, "An Empirical Model of Labor Supply in a Life-Cycle Setting," *Journal of Political Economy*, 89[6], December 1981, 1059-1085.

J. Altonji, "Intertemporal Substitution in Labor Supply: Evidence from Micro Data," *Journal of Political Economy*, 94[3] Part 2, June 1986, S176-S215.

Browning, Deaton and Irish, "A Profitable Approach to Labor Supply and Commodity Demand Over the Life-Cycle," *Econometrica*, 53[3], May 1985, 503-543.

O. Ashenfelter, "Macroeconomic and Microeconomic Analyses of Labor Supply," *Carnegie-Rochester Conference on Public Policy*, 21, 1984, 117-156.

J. Angrist, "Grouped-Data Estimation and Testing in Simple Labor Supply Models," *Journal of Econometrics*, 47[2], 1991, 243-266.

**D. Card, "Intertemporal Labor Supply: An Assessment," in C. Sims, ed., *Advances in Econometrics Sixth World Congress*, vol. II, Cambridge University Press, 1994, 49-78.**

Life-cycle empirical applications

**Crawford, Vincent P., Juanjuan Meng, "New York City Cabdrivers' Labor Supply Revisited: Reference-Dependence Preferences with Rational-Expectations Targets for Hours and Income," San Diego Economics Department Working Paper, 2008**

**H. Farber, "Is Tomorrow Another Day? The Labor Supply of New York City Cab Drivers," American Economic Review, Volume 98, Number 3, June 2008 , pp. 1069-1082(14).**

**Camerer, Colin F., L. Babcock, G. Loewenstein, and R. Thaler. May 1997. "Labor Supply of New York City Cab Drivers: One Day at a Time." Quarterly Journal of Economics, 111, 408-41.**

**Fehr, Ernst and Goette, Lorenz. "Intertemporal Substitution at Work? Evidence from a Field Experiment", The American Economic Review, Vol. 97, No. 1 (Mar., 2007), pp. 298-317**

**Kimball, Miles S. and Shapiro, Matthew D., Labor Supply: Are the Income and Substitution Effects Both Large or Both Small? (July 2008). NBER Working Paper No. W14208**

O. Ashenfelter, "The Labor Supply Response of Wage Earners," in Palmer and Pechman, eds., Welfare in Rural Areas, Brookings, 1978,109-148.

Impacts of Social Insurance on Labor Supply (and diff in diff introduction)

R. Moffitt, "Welfare Programs and Labor Supply," NBER WP 9168, September 2002.

Card, David, and Philip K. Robins, "Do Financial Incentives Encourage Welfare Recipients to Work? Evidence from a Randomized Evaluation of the Self-Sufficiency Project," NBER Working Paper #5701, August, 1996.

**N. Eissa and J. Leibman, "Labor Supply Response to the Earned Income Tax Credit," Quarterly Journal of Economics 111 (May 1996).**

O. Ashenfelter, "Determining Participation in Income-Tested Social Programs, Journal of the American Statistical Association, 78[383], September 1983, 517-525.

Plant, M., "An Empirical Analysis of Welfare Dependence," American Economic Review, 74[4], September 1984, 673-684.

R. Blank, 'Evaluating Welfare Reform in the United States,' Journal of Economic Literature, December 2002, 1105-66.

Michalopoulos, Charles, Doug Tattrie, Cynthia Miller, Philip Robins, Pamela Morris, David Gyarmati, Cindy Redcross, Kelly Foley, Reuben Ford, "Making Work Pay," Final Report on the Self Sufficiency Project for Long-Term Welfare Recipients," Social Research and Demonstration Corporation, July 2002

**Card, David, and Dean Hyslop, "Estimating the Effects of a Time-Limited Earnings Subsidy for Welfare Leavers." *Econometrica*, 73 (November 2005).**

**M. Bitler, J. Gelbach, H. Hoynes. (2006). "What Means Miss: Distributional Effects of Welfare Reform Experiments," *American Economic Review* 96 (September), 988-1012.**

**Chetty, Raj, and Emmanuel Saez, "Teaching the tax code: Earnings responses to an experiment with EITC recipients," NBER Working Paper 14836**

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Gelbach, J., "Public Schooling for Young Children and Maternal Labor Supply," *American Economic Review*, 92, March 2002, 307-322.

**J. Angrist and W. Evans, "Children and their Parents' Labor Supply: Evidence from Exogenous Variation in Family Size," *American Economic Review*, 88[3], June 1998, 450-477**

Bailey, Martha J., " More Power to the Pill: The Impact of Contraceptive Freedom on Women's Life Cycle Labor Supply ," *Quarterly Journal of Economics*, February 2006, Vol. 121, No. 1, Pages 289-320

J. Angrist, "How Do Sex Ratios Affect Marriage and Labor Markets? Evidence from America's Second Generation," *Quarterly Journal of Economics*, 117[3], August 2002, 997-301.

J.D. Angrist, G.W. Imbens, and D.B. Rubin. (1996) Identification of Causal Effects Using Instrumental Variables, @ *Journal of the American Statistical Association*, 91.434 (June), 444-55.

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Bronars, S., and J. Grogger, "The Economic Consequences of Unwed Motherhood: Using Twins as a Natural Experiment," *American Economic Review*, 84[5], December 1994, 1141-1156.

Conley and Glauber , "Parental Educational Investment and Children's Academic Risk: Estimates of the Impact of sibship size and birth order from exogenous variation in fertility," *J. Human Resources* .2006; XLI: 722-737

Black, Sandra E., Devereux , Paul J. and Salvanes, Kjell G., The More the Merrier? The Effect of Family Composition on Children's Education (September 2004). NBER Working Paper No. W10720

Angrist, Joshua D., Lavy, Victor and Schlosser, Analia, New Evidence on the Causal Link Between the Quantity and Quality of Children (December 2005). NBER Working Paper Series, Vol. w11835

Paternal/maternal leave policies and labor supply



Lalive, Rafael, and Josef Zweimuller, "How does parental leave affect fertility and return to work? Evidence from two natural experiments," *Quarterly Journal of Economics*, August 2009, Vol. 124, No. 3, Pages 1363-1402

Milligan, Kevin, and Mark Stabile. 2009. "Child Benefits, Maternal Employment, and Children's Health: Evidence from Canadian Child Benefit Expansions." *American Economic Review*, 99(2): 128–32.

Andres Erosa, Luisa Fuster, Diego Restuccia, A general equilibrium analysis of parental leave policies, *Review of Economic Dynamics*, In Press

### **3..Labor Demand**

#### **Labor demand basic theory**

See also Katz notes from lecture 20 handout and lecture 21 slides

**D. Hamermesh, "The Demand for Labor in the Long Run," Chapter 8 in O. Ashenfelter and R. Layard [eds.] Handbook of Labor Economics, Volume 1, 1986.**

*D. Hamermesh, Labor Demand, Princeton, NJ: Princeton University Press, Chapters 2-3, 18-136.*

S. Nickell, "Dynamic Models of Labour Demand," Chapter 9 in O. Ashenfelter and R. Layard [eds.] Handbook of Labor Economics, Volume 1, 1986.

R. Freeman. (1994) "Enterprise Labor Demand," *Labor Demand Notes*, February.

J. Abowd et al. (2007) "Technology and the Demand for Skill: An Analysis of Within and Between Firm Differences," NBER WP No. 13043, April.

P. Cahuc and A. Zylberberg. (2004) *Labor Economics*, MIT Press, ch. 4.

K. Clark and R. Freeman. (1980) "How Elastic is the Demand for Labor?" *Review of Economics and Statistics* 62 (November), 509-20.

D. Hamermesh and S. Trejo. (2000) "The Demand for Hours: Direct Evidence from California," *Review of Economics and Statistics* 82 (February), 38-47.

Z. Griliches. (1969) "Capital-Skill Complementarity," *RESTAT* 51 (November), 465-68.

C. Goldin and L. Katz. (1998) "The Origins of Technology-Skill Complementarity," *Quarterly Journal of Economics* 113, 693-732.

A. Bartel and F. Lichtenberg. (1987) "The Comparative Advantage of Educated Workers in Implementing New Technology," *RESTAT* 69 (February), 1-11.

**D. Neal and S. Rosen. (1999) "Theories of Labor Earnings," in the *Handbook of Income Distribution*,**

**A.B. Atkinson and F. Bourguignon, eds. Amsterdam: Elsevier Science.**

### **Minimum Wages**

**Neumark D. and B. Wascher (2000): "Minimum Wages and Employment: A Case Study of the Fast-Food Industry in New Jersey and Pennsylvania: Comment," *American Economic Review*, 90(5), December, 1226-1396.**

**D. Card and A. Krueger (2000): "Minimum Wages and Employment: A Case Study of the Fast-Food Industry in New Jersey and Pennsylvania: Reply," *American Economic Review*, 90(5), December, 1397-1420.**

**M. Baker, D. Benjamin, and S. Stanger (1999): "The Highs and Lows of the Minimum Wage Effect: A Time Series-Cross Section Study of the Canadian Law," *Journal of Labour Economics*, 17(2), April, 318-50.**

D. Card and A. Krueger Myth and Measurement: The New Economics of the Minimum Wage, Princeton: Princeton University Press, 1995.

R. Dickens, S. Machin and A. Manning, "The Effects of Minimum Wages on Employment: Theory and Evidence From Britain", *Journal of Labor Economics*, 17[1], January 1999, 1-22.

J. Kennan, "The Elusive Effects of Minimum Wages," *Journal of Economic Literature* , 33[4], December 1995, 1949-1965.

K. Lang and S. Kahn, "The Effect of Minimum Wage Laws on the Distribution of Employment: Theory and Evidence" *Journal of Public Economics*, 69[1], July 1998, 67-82.

C. Brown, "Minimum Wages, Employment, and the Distribution of Income", Chapter 32 in O. Ashenfelter and D. Card [eds.] Handbook of Labor Economics, Volume 3, 1999.

C. Brown. (1999) "Minimum Wages, Employment, and the Distribution of Income," in O. Ashenfelter and D. Card, eds., *Handbook of Labor Economics*, vol. 3B.

D. Lee and E. Saez. (2009) "Optimal Minimum Wage Policy in Competitive Labor Markets," UC Berkeley; <http://elsa.berkeley.edu/~saez/lee-saezFeb09minwage.pdf>

S. Machin, A. Manning, and L. Ruhman. (2003) "Where the Minimum Wage Bites Hard: Introduction of the Minimum Wage to a Low-Wage Sector," *JEEA* 1 (March), 154-80.

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**A. Dube, T.W. Lester, and M. Reich (2008) "Minimum Wage Effects across State Borders: Estimates Using Contiguous Counties;" <http://repositories.cdlib.org/iir/iirwps/iirwps-157-07/>.**

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Firpo, Sergio, Fortin, Nicole, Lemieux, Thomas, "Decomposition methods in labor economics," forthcoming in volume 4 of the handbook of labor economics

### **Equalizing Wage Differentials – Theory and Econometrics**

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I. Ekeland, J.J. Heckman, and L.P. Nesheim. (2004) Identification and Estimation of Hedonic Models, @ *Journal of Political Economy* 112 (Feb S1), S60-S109.

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L. Summers. (1989) "Some Simple Economics of Mandated Benefits," *AER* 79 (May), 177-83.

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### **II.c Estimating Equalizing Wage Differentials (Hedonic Regressions)**

**C. Brown. (1980) "Equalizing Differences in the Labor Market," *Quarterly Journal of Economics*, 94 (February), 113-34.**

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Will Strange, Rat Race paper

### Segmented Labor Markets and Industry and Establishment Wage Differentials

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