

Labor Economics I

MIT 14.661
Fall 2007-2008

Josh Angrist
Daron Acemoglu

TA: Tal Gross (talgross@mit.edu)

The aim of this course is to acquaint students with traditional topics in labor economics and to encourage the development of independent research interests. Prerequisites include intermediate microeconomics and econometrics.

Class requirements: In addition to readings, there are 2-4 graded problem sets, an empirical project involving a replication and extension of published work, and a 3 hour final during exam week.

There is a Stellar website for this class with readings, assignments, and recitation material (<http://stellar.mit.edu/S/course/14/fa07/14.661/index.html>). Valid MIT web certificates are required for full access.

Articles, handbook chapters, and page selections from other publications on the reading list will be made available through Stellar as we go along. Books are on reserve at Dewey.

FIRST PART -- ANGRIST

Books O. Ashenfelter and R. Layard, *The Handbook of Labor Economics*, Volumes 1 & 2, North-Holland, 1986; Volume 3A, 3B & 3C, 1999.

G. Borjas, *Labor Economics*, 4th Edition, McGraw Hill, 2008.

Outline and readings

I. Labor Market Statistics: Data Sources and Historical Overview

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.

L. Katz and D. Autor, "Changes in the Wage Structure and Earnings Inequality," chapter 26 in volume 3A of The Handbook of Labor Economics, 1999.

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].

U.S. Department of Labor, Bureau of Labor Statistics, *How the Government Measures Unemployment*, BLS Report 505, 1977.

U.S. Department of Labor, Bureau of Labor Statistics, *Concepts and Methods Used in Labor Force Statistics from the CPS*, BLS Report No. 463, Series P-20 No. 62, October 1976.

S. Lebergott, Manpower in Economic Growth: The American Record Since 1800, McGraw-Hill, 1964.

C. Romer, "Spurious Volatility in Historical Unemployment Data," *Journal of Political Economy*, 94 [1], February 1986, 1-37.

A. Polivka, "Data Watch: The Redesigned Current Population Survey," *Journal of Economic Perspectives* 10 [3], Summer 1996, 169-180. Also, see the CPS web site and technical documentation for latest on post-redesign issues.

H. Farber, "The Changing Face of Job Loss in the United States, 1981-1995," *Brookings Papers on Economic Activity: Microeconomics*, 1997, 55-128.

H. Farber, "What Do We Know about Job Loss in the United States? Evidence from the Displaced Workers Survey, 1984-2004," *Economic Perspectives, Federal Reserve Bank of Chicago*, 2Q, 2005.

C. Goldin and R. Margo, "The Great Compression: The Wage Structure in the United States at Mid-century," *QJE*, February 1992.

D. Autor and M. Duggan, "The Rise in the Disability Rolls and the Decline in Unemployment," *Quarterly Journal of Economics*, February 2003.

D. Acemoglu, D. Autor, and D. Lyle, "Women, War, and Wages: The Effect of Female Labor Supply on the Wage Structure at Mid-century," *JPE*, June 2004.

D. Autor, L. Katz, and M. Kearney, "Trends in U.S. Wage Inequality: Re-Assessing the Revisionists," NBER Working Paper 11627, September 2005.

W. Kopczuk, E. Saez, and J. Song, "Uncovering the American Dream: Inequality and Mobility in Social Security Earnings Data since 1937," paper presented at the NBER Summer Institute Labor Studies meeting, July 2007.

II. The Neoclassical Labor Supply Model

A. Basics

A. Deaton and J. Muellbauer, *Economics and Consumer Behavior*, Cambridge University Press, 1980, especially Chapter 4.

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

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.

Blundell and MaCurdy, HOLE Volume 3A, chapter 27, 1999.

M. Killingsworth and J. Heckman, "Female Labor Supply: A Survey," chapter 2 in The Handbook of Labor Economics, Volume 1, 103-204

O. Ashenfelter, "What is Involuntary Unemployment?," *Proceedings of the American Philosophical Society*, 122[3], June 1978.

Heckman, James J., "Shadow Prices, Market Wages and Labor Supply," *Econometrica*, 42[4], July 1974, 679-94.

Imbens, Rubin, and Sacerdote, "Estimating the Effect of Unearned Income on Labor Supply: Evidence from a Survey of Lottery Players," *American Economic Review* 91 (2001).

B. Tax and Transfer Programs

R. Moffitt, "Welfare Programs and Labor Supply," Handbook of Public Economics: Volume 4. eds. A. Aurbach and M. Feldstein, September 2002.

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

Killingsworth, Chapter 6.

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

Greenberg, D., and H. Halsey, "Systematic Misreporting and Effects of Income Maintenance Experiments on Work Effort: Evidence from the SIME-DIME," *Journal of Labor Economics*, 1[4], October 1983, 380-407.

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

O. Ashenfelter and M. Plant, "Non-Parametric Estimates of the Labor Supply Effects of Negative Income Tax Programs," *Journal of Labor Economics*, 8[1] Part 2, 1990, S397-S415.

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.

R. Blundell, A. Duncan, and C. Meghir, "Estimating Labor Supply Responses Using Tax Reforms," *Econometrica* 66 (1998), 827-861.

D. Card and D. Hyslop, "Estimating the Effects of a Time-Limited Earnings Subsidy For Welfare-Leavers," *Econometrica* 73 (November 2005), 1723-1770.

C. The Life-Cycle Model

Lucas, R.E., and L. Rapping, "Real Wages, Employment, and Inflation," *Journal of Political Economy*, 77[5], September-October 1969, 721-764.

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.

P.J. Devereux. "Small Sample Bias in Synthetic Cohort Models of Labor Supply," forthcoming in *The Journal of Applied Econometrics* (University College Dublin Working Paper WP06/06, May 2006).

Oettinger, Gerald S., "An Empirical Analysis of the Daily Labor Supply of Stadium Vendors," *Journal of Political Economy*, 107[2], April 1999, 360-92.

H. Farber, "Is Tomorrow Another Day? The Labor Supply of New York City Cab Drivers," *JPE*, February 2005.

E. Fehr and Goette, "Do Workers Work More if Wages are High? Evidence from a Randomized Field Experiment," University of Zurich, Institute for Empirical Research in Economics Working Paper 125, September 2005.

D. Household and Family Models

Becker, Gary S., 1981, *A Treatise on the Family*, Cambridge: Harvard University Press.

Becker, G., and H.G. Lewis, "On the Interaction between the Quantity and Quality of Children," *Journal of Political Economy*, 82[2] Part 2, March-April 1973, S279-S288.

Becker, G., and N. Tomes, "Child Endowments and the Quantity and Quality of Children," *Journal of Political Economy*, 84[4] Part 2, August 1976, S143-S162.

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.

Browning, M., "Children and Household Economic Behavior," *Journal of Economic Literature*, 30[3], September 1992, 1434-1475.

Goldin C, in R. Ehrenberg and F. Blau, eds., *Gender and Family Issues in the Workplace*, New York: Russell Sage Foundation Press, 1997, 20-58.

Gronau, R., "Leisure, Home Production. and Work -- The Theory of the Allocation of Time Revisited," *Journal of Political Economy*, 85[6], December 1977, 1099-1124.

Grossbard-Shechtman, S., 1984, "A Theory of Allocation of Time in Markets for Labour and Marriage," *Economic Journal*, 94[376], December 1984, 863-882.

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.

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.

Gronau, R., "Sex-Related Wage Differentials and Women's Interrupted Careers-The Chicken or the Egg," *Journal of Labor Economics*, 6[3], July 1988, 277-301.

Gronau, R., "Home Production -- A Survey," Chapter 4 in O. Ashenfelter and R. Layard, eds., The Handbook of Labor Economics, Volume 1, 1986.

Montgomery, Mark R. and Trussell James. "Models of Marital Status and Childbearing." in Orley Ashenfelter and Richard Layard [eds.], The Handbook of Labor Economics, Volume 1, 1986, 205-71.

Rosenzweig, M., and K.I. Wolpin, "Testing the Quantity-Quality Fertility Model: The Use of Twins as a Natural Experiment," *Econometrica*, 48[1], January 1980, 227-240.

Willis, R., "What Have We Learned from the Economics of the Family?," *American Economic Review*, 77[2], May 1987, 68-81.

Chiappori, Pierre-Andre, Bernard Fortin, and Guy Lacroix, 2001, "Marriage Market, Divorce Legislation, and Household Labor Supply," *Journal of Political Economy*, 110[1], February 2002, 37-72.

Becker, G., "A Theory of Marriage: Part I," *Journal of Political Economy*, 81[4], July-August 1973, 813-46.

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

Kearney, M., "Is There an Effect of Incremental Welfare Benefits on Fertility Behavior? A Look at the Family Cap," *Journal of Human Resources* 39(2), 2004.

S. Black, P. Devereux, and K. Salvanes, "The More the Merrier? The Effect of Family Size and Birth Order on Children's Education," *QJE*, May 2005.

J. Angrist, V. Lavy, and A. Schlosser, "New Evidence on the Causal Link between the Quantity and Quality of Children," IZA Discussion Paper 2075, April 2006.

III. Labor Demand, Immigration, Minimum Wages, and Unions

A. Labor Demand and Immigration

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

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.

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

H. Varian, Microeconomic Analysis [third edition], New York: Norton, 1992.

D. Card, "Unexpected Inflation, Real Wages, and Employment Determination in Union Contracts," *American Economic Review*, September 1990, 669-88.

J. Angrist, "Short-Run Demand for Palestinian Labor," *Journal of Labor Economics*, July 1996.

D. Card, "The Impact of the Mariel Boatlift on the Miami Labor Market." *Industrial and Labor Relations Review*, vol.43, (January), pp. 245--257.

J. Angrist and A. Kugler, "Protective or Counter-Productive? Labor Market Institutions and the Effect of Immigration on EU Natives," *The Economic Journal*, June 2003.

G. Borjas, "The Labor Demand Curve is Downward Sloping: Reexamining the Impact of Immigration on the Labor Market," *QJE* November 2003.

P. Cortes, "The Effect of Low-Skilled Immigration on US Prices: Evidence from CPI Data," University of Chicago Graduate School of Business, mimeo, January 2006.

B. Minimum Wages

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.

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

D. Card and A. Krueger, "Minimum Wages and Employment: A Case Study of the Fast-food Industry in New Jersey", *American Economic Review*, 84[4] September 1994, 772-93.

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.

Manning, Alan, *Monopsony in Motion: Imperfect Competition in Labor Markets*, Princeton University Press, 2003.

C. Unions

R. Freeman and J. Medoff, *What Do Unions Do?*, Basic Books, 1985.
H. Gregg Lewis, *Union Relative Wage Effects: A Survey*, Chicago: University of Chicago Press, 1986.

Farber, Henry. "The Analysis of Union Behavior," In Orley Ashenfelter and Richard Layard (eds), The Handbook of Labor Economics, Volume II, 1986.

G. Jakubson, "Estimation and Testing of the Union Wage Effect Using Panel Data," *Review of Economic Studies*, 1991, 971-91.

J.N. Brown and O.C. Ashenfelter, "Testing the Efficiency of Employment Contracts," *Journal of Political Economy* 1986, S40-S87.

J. DiNardo and D.S. Lee, "Economic Impacts of New Unionization on US Private Sector Employers: 1984-2001," *QJE* 119 (2004), 1383-1442.

IV. Human Capital, Education, and Training

A. Schooling, Experience, and Earnings

J. Mincer, Schooling, Experience, and Earnings, New York: NBER, 1974.

G. Becker, Human Capital, 3rd Edition, Chicago: University of Chicago press, 1993.

R.J. Willis, "Wage Determinants," Chapter 10 in The Handbook of Labor Economics.

R.J. Willis, and Sherwin Rosen, "Education and Self-Selection," *Journal of Political Economy*, 87[5] Part 2, Oct 1979: S7-S36.

R. Freeman, "Demand for Education," Chapter 6 in *The Handbook of Labor Economics*, Volume 1, 1986.

Z. Griliches, "Estimating the Returns to Schooling: Some Econometric Problems," *Econometrica*, January 1977.

Griliches and Mason, "Education, Income and Ability," *Journal of Political Economy*, 80[3], May-June 1972 Part 2, S74-S103.

Angrist, J.D. and A. Krueger, "Does Compulsory Schooling Attendance Affect Schooling and Earnings?" *Quarterly Journal of Economics*, 106[4], Nov 1991, 979-1014.

D. Card, "Earnings, Schooling, and Ability Revisited," in: S. Polachek, ed. *Research in Labor Economics*, 14, 1995, 23-48.

D. Card, "The Causal Effect of Education on Earnings," chapter in The Handbook of Labor Economics, Volume 3A, 1999.

R. Freeman, "Overinvestment in College Training," *Journal of Human Resources*, Summer 1975, 10[3], 287-311.

J. Angrist, "Lifetime Earnings and the Vietnam Era Draft Lottery: Evidence from Social Security Administrative Records," *American Economic Review*, 80[3], June 1990, 313-336.

J. Angrist and D. Acemoglu, "How Large are the Social Returns to Education? Evidence From Compulsory Attendance Laws," *NBER Macro Annual* 15, 2000.

J. Angrist, "The Economic Returns to Schooling in the West Bank and Gaza Strip," *American Economic Review*, 85[5], Dec 1995, 1065-1087.

J. Angrist and S. Chen, "Long-Term Consequences of Vietnam-Era Conscription: Schooling, Experience and Earnings," MIT Department of Economics, mimeo, July 2007.

J. Bound and S. Turner, "Going to War and Going to College Did World War II and the G.I Bill Increase Educational Attainment for Returning Veterans?" *Journal of Labor Economics*, 2002, Volume 20, 784-815.

D. Card and A. Krueger, "Does School Quality Matter? Returns to Education and the Characteristics of Public Schools in the United States," *Journal of Political Economy* 100, February 1992.

J. Altonji and R. Shakotko, "Do Wages Rise with Job Seniority?," *Review of Economic Studies*, July 1987.

B. Training Evaluations

J. Angrist and A. Krueger, "Empirical Strategies in Labor Economics," chapter 23 in The Handbook of Labor Economics, Volume IIIA.

Ashenfelter, O.A, "Estimating the Effect of Training Programs on Earnings," *The Review of Economics and Statistics*, 60[1], Feb 1978, 47-57.

Ashenfelter, O.A. and D. Card, "Using the Longitudinal Structure of Earnings to Estimate the Effect of Training Programs on Earnings," *The Review of Economics and Statistics*, 67 [4], November 1985, 648-660.

Card, D. and D. Sullivan, "Measuring the Effect of Subsidized Training on Movements In and Out of Employment," *Econometrica*, 56[3], May 1988, 497-530.

LaLonde, R., "Evaluating the Econometric Evaluations of Training Programs with Experimental Data," *American Economic Review*, 76 [4], September 1986, 604-620.

Heckman, J.J., and J.V. Hotz, "Choosing Among Alternative Nonexperimental Methods for Estimating the Impact of Social programs: The Case of Manpower Training," *JASA*, 84[408], December 1989, 862-880.

R. Dehejia and S. Wahba, "Causal Effects in Non-experimental Studies: Re-evaluating the Evaluation of Training Programs," *JASA*, 94[448], December 1999, 1053-62.

Orr, Larry L., H.S. Bloom, S.H. Bell, F. Doolittle, W. Lin, and G. Cave, *Does Training for the Disadvantaged Work?*, Washington, DC: The Urban Institute, 1996.

Burghardt, John, *et al*, "Does Job Corps Work? Summary of the National Job Corps Study," Princeton: Mathematica Policy Research, June 2001.

J. Smith and P. Todd, "Reconciling Conflicting Evidence on the Performance of Propensity Score Matching Methods," *American Economic Review* 91 (May 2001).

J. Smith and P. Todd, "Does Matching Overcome Lalonde's Critique of Nonexperimental Estimators?," *J. Econometrics* 125 (March-April 2005), 305-353.

R. Dehejia, "Practical Propensity Score Matching: A Reply to Smith and Todd," 355-364.

J. Smith and P. Todd, "Rejoinder," 365-375.

Angrist, Joshua D., "Estimating the Labor Market Impact of Voluntary Military Service Using Social Security Data on Military Applicants," *Econometrica*, 66[2], 249-88. March 1998.

C. School Inputs, Incentives and Peer Effects

J. Angrist and V. Lavy, "Using Maimonides' Rule to Estimate the Effect of Class Size on Student Achievement," *Quarterly Journal of Economics*, May 1999.

A. Krueger, "Experimental Estimates of Education Production Functions," *QJE*, May 1999.

J. Angrist and J. Guryan, "Does Teacher Testing Raise Teacher Quality? Evidence from State Certification Requirements," (with Jon Guryan) NBER Working Paper 9545, March 2003.

J. Angrist and V. Lavy, "The Effect of High School Matriculation Awards: Evidence from Randomized Trials," NBER Working Paper 9389 (with Victor Lavy), December 2002.

J. Angrist, E. Bettinger, E. Bloom, E. King., M. Kremer, "Vouchers for Private Schooling in Colombia: Evidence from a Randomized Natural Experiment," *American Economic Review*, December 2002.

J. Angrist, E. Bettinger, M. Kremer, "Long-Term Consequences of Secondary School Vouchers: Evidence from Administrative Records in Colombia" (with Eric Bettinger and Michael Kremer), *American Economic Review*, forthcoming, 2005 (NBER WP).

J. Angrist and K. Lang, "Does School Integration Generate Peer Effects? Evidence from Boston's Metco Program," *AER*, December 2004.

E. Gould, V. Lavy, M.D. Paserman, "Does Immigration Affect the Long-term Educational Outcomes of Natives? Quasi-Experimental Evidence," Hebrew University Department of economics, mimeo, November 2005.

V. Lavy, and A. Schlosser, "Mechanisms and Impacts of Gender Peer Effects at School," NBER Working Paper 13292, August 2007.

D. Other Human Capital and Schooling Topics

H. Bleakley and A. Chin, "Language Skills and Earnings: Evidence from Childhood Immigrants," *The Review of Economics and Statistics*, May 2004.

J. Angrist and V. Lavy, "The Effect of a Change in Language of Instruction on the Returns to Schooling in Morocco," *Journal of Labor Economics* 15 (January 1997).

J. Angrist, A. Chin, and R. Godoy, "Is Spanish-Only Schooling Responsible for the Puerto Rican Language Gap?," forthcoming, *J. Dev. Economics* (NBER WP 12005).

J. Angrist and V. Lavy, "New Evidence on Classroom Computers and Pupil Learning," *The Economic Journal* (October 2002).

SECOND PART -- ACEMOGLU

Books:

Acemoglu, Daron and David Autor, *Lectures in Labor Economics*, manuscript in preparation.

Becker, Gary, *Human Capital*, The University of Chicago Press, 1964.

Pierre Cahuc and Andre Zilberberg, *Labor Economics* MIT Press, 2004.

Lazear, Edward, *Personnel Economics*, MIT Press, 1995.

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

Outline and readings (* denotes readings of special importance)

I. Topics in The Theory of Human Capital

Overview:

Becker, Gary, *Human Capital*, The University of Chicago Press, 1964.

A. Investment in Education and Skills

* AA, Chapter 1.

* CZ, Chapter 2.

* Ben-Porath, Yoram (1967). "The Production of Human Capital Over the Life Cycle," *Journal of Political Economy*, Vol. 75, No. 4-1, pp. 352-365.

* Richard Willis, and Sherwin Rosen, "Education and Self-Selection," *Journal of Political Economy* (Supplement) 87: S7-S36, 1979.

Roy, A. (1951) "Some Thoughts on the Distribution of Earnings" *Oxford Economic Papers*, 235 – 46.

Richard Freeman, "Demand for Education," Chapter 6 in *The Handbook of Labor Economics*, Volume I.

* 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.

Acemoglu, Daron and Steve Pischke (2001) "Changes in the Wage Structure, Family Income and Children's Education" *European Economic Review, Papers and Proceedings*, vol 45.

B. Signaling

* AA, Chapter 2.

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

Stiglitz, Joseph "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, 609-624.

* Tyler, John, Richard J. Murnane and John Willett (forthcoming) "Estimating the Labor Market Signaling value of the GED" *Quarterly Journal of Economics*..

C. Externalities and Peer Effects

* AA, Chapter 3.

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

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

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

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

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*.

Krueger, Alan (1999) "Experimental Estimates of Education Production Functions," *Quarterly Journal of Economics*, 114.

* Mas, Alex and Enrico Moretti (2006) "Peers at Work" NBER Working Paper # 12508.

* 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.

II. Incentives, Agency and Efficiency Wages

For an overview of this part see:

* Prendergast, Canice (1999) "The Provision of Incentives in Firms" *Journal of Economic Literature*, 28, 7-63

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

Gibbons, Robert (1996) "Incentives and Careers in Organizations" in *Advances in Economics and Econometrics: Theory and Applications* edited by David Kreps and Ken Wallis, Cambridge University Press, Cambridge.

A. Basic Theory of Moral Hazard and Incentives, and Applications to CEO Pay and Unemployment Insurance

* AA, Chapter 4.

* CZ Chapters 6 and 11.

Salanie, Bernard (1997) *The Economics of Contracts: A Primer*, MIT University Press, Chapter 5.

Laffont, Jean-Jacques and David Martimort (2002) *The Theory of Incentives: The Principal-Agent Model*, Princeton University Press, Chapter 4.

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

* Lazear, Edward (1996) *Personnel Economics*, MIT University Press, Chapter 2.

Lazear, Edward (2000) "Performance Pay and Productivity." *American Economic Review* 90: 1346-61.

Murphy, Kevin J. (1985) "Corporate Performance and Managerial Remuneration: An Empirical Analysis." *Journal of Accounting and Economics* 7:11-42

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.

Shavell, Steven and Laurence Weiss (1979) "The Optimal Payment of Unemployment Benefits over Time," *Journal of Political Economy*, 87, 1347--62.

* Hopenhayn, Hugo and Juan Pablo Nicolini (1997) "Optimal Unemployment Insurance," *Journal of Political Economy*, 105, 412--438.

B. Multitasking and Counter-Productive Incentives

* AA, Chapter 5.

* 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

* Jean-Jacques Laffont and David Martimort (2002) *The Theory of Incentives: The Principa- Agent Model*, Princeton University Press, Chapter 4.

Baker, George P. (1992) "Incentive Contracts and Performance Measurement " *Journal of Political Economy* v100, n3: 598-614

C. Career Concerns

Background: Wilson, James (1989) *Bureaucracy: What Government Agencies Do and Why They Do It*, Basic Books Classics.

* AA, Chapter 5.

* 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 (2003) "Incentives in Markets, Firms and Governments" NBER working paper, No. 9802.

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

D. Holdups and Investments

Background: Williamson, Oliver, 1975, *Markets and Hierarchies: Analysis and Antitrust Implications*, New York, The Free Press.

* AA, Chapter 6.

* Laffont, Jean-Jacques and David Martimort (2002) *The Theory of Incentives: The Principa- Agent Model*, Princeton University Press, Chapter 6.

* 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

E. Efficiency Wages, Unemployment and Organization of the Firm

(More on this topic will be covered in David Autor's part)

* AA, Chapter 7.

* CZ, Chapter 7.

* Carl Shapiro and Joseph Stiglitz (1984); "Unemployment as Worker Discipline Device" *American Economic Review*.

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 2002 , volume 46, pp. 1733-1756.

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

Campbell III, Carl M., and Kunal S. Kamani (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 –

* 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.

III. Investment in Skills

A. Theories of Training

* AA, Chapter 8.

* 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" forthcoming *Research in Labor Economics*

B. Firm-Specific Capital and Learning

* AA, Chapter 9.

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

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

Altonji, Joe and R. Shakotko (1987). "Do Wages Rise With Seniority?" *Review of Economics 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.

IV. Search and Unemployment

Overview:

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

* Rogerson, Richard, Robert Shimer and Randall Wright (2004) "Search Models of the Labor Market: A Survey" mimeo.

A. Unemployment, Non-Employment and Labor Market Flows

* 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*, 0(2) pp.75- 126

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.

B. The Partial Equilibrium Search Model

* AA, Chapter 10.

* CZ, Chapter 3.

* Rogerson et al. op. cit.

C. The Basic Equilibrium Search Framework

Background: Bargaining theory, see CZ Chapter 7

* AA, Chapter 11.

* Pissarides, chapters 1, 2 and 8.

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. The Composition of Jobs

* AA, Chapter 12.

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

* Acemoglu, Daron (1998). "Changes in Unemployment and Wage Inequality: An Alternative Theory and Some Evidence," *American Economic Review* 89 (1999a), 1259-1278.