

Labor Economics I

MIT 14.661
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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 are intermediate microeconomics and a course in econometrics.

Class requirements: In addition to readings, there are 5 graded problem sets, an empirical project involving replication and extension of published work, and a 3 hour final during exam week.

A [Stellar website](#) has our readings, assignments, and recitation material. Valid MIT web certificates are required for full access to the site.

Articles, handbook chapters, and sections from books on the reading list will be made available through Stellar as we go along. Books are also 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.

Outline and readings

I. Labor Market Facts and Trends

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

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

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.

H. Farber, "Job Loss and the Decline in Job Security in the United States," Princeton Industrial Relations Section, Working Paper No. 520, July 2008.

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.

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.

T. Lemieux, "The Changing Nature of U.S. Wage Inequality," *Journal of Population Economics*, 2007.

D. Autor, L. Katz, and M. Kearney, "Trends in U.S. Wage Inequality: Revising the Revisionists," *The Review of Economics and Statistics*, May 2008.

E. Saez and T. Piketty, "Income Inequality in the United States: 1913-1998," *Quarterly Journal of Economics*, February 2003 (plus web update to 2007: <http://elsa.berkeley.edu/~saez/saez-UStopincomes-2007.pdf>).

W. Kopczuk, E. Saez, and J. Song, "Earnings Inequality and Mobility in the United States: Evidence From Social Security Data Since 1937," forthcoming in *The Quarterly Journal of Economics*.

D. Neal, "The Measured Black-White Wage Gap among Women is Too Small," *Journal of Political Economy* 112, part 2 (2004).

C. Mulligan and Y. Rubinstein, "Selection, Investment, and Women's Relative Wages Over Time," *Quarterly Journal of Economics*, August 2008.

A separate data handout lists readings on data sources and survey methods. For a review of empirical methods, see the Angrist and Krueger (1999) Handbook chapter or Mostly Harmless Econometrics by Angrist and Pischke (covered in detail in 14.387 in the Spring).

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.

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* 2007, 839-848.

D. Card and R. Chetty, "Cash-on-Hand and Competing Models of Intertemporal Behavior: New Evidence from the Labor Market," *QJE* 122, November 2007.

Cab drivers, stadium vendors, and bicycle messengers

C. Camerer, L. Babcock, G. Lowenstein, and R. Thaler, "Labor Supply of New York City Cabdrivers: One Day at a Time," *QJE* 112 (1997), 407-441.

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," *American Economic Review* 97, March 2007.

H. Farber, "Reference-Dependent Preferences and Labor Supply: The Case of New York City Taxi Drivers," *The American Economic Review* 98 (2008), 1069-1082.

D. Household and Family Models

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

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.

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.

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

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

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.

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

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.

Marriage markets

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

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

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.

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

N. Qian, "Missing Women and the Price of Tea in China: The Effect of Sex-Specific Income on Sex Imbalance," *QJE*, August 2008.

Quantity-quality

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.

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.

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

N. Qian, "Quantity-Quality and the One Child Policy: The Only-Child Disadvantage in School Enrollment in Rural China," NBER Working Paper No. 14973, May 2009.

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 (Revised July 2009: <https://econ-www.mit.edu/files/11>).

Rosenzweig, M., and K.I. Wolpin, "Natural 'Natural Experiments' in Economics," JEL 38 (December 2000).

Rosenzweig, M., and J. Zhang, "Do Population Control Policies Induce More Human Capital Investment? Twins, Birthweight, and China's 'One Child' Policy," forthcoming in *The Review of Economic Studies*.

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.

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.

Immigration

J. Altonji and D. Card, "The Effects of Immigration on the Labor Market Outcomes of Less-Skilled Natives," in J. Abowd and R. Freeman, eds., Immigration, Trade, and the Labor Market, University of Chicago Press, 1991, 201-234.

D. Card, 'The Impact of the Mariel Boatlift on the Miami Labor Market.' *Industrial and Labor Relations Review*, vol.43, (January 1990), pp. 245--257.

Pischke, Jorn-Steffen, and Johannes Velling, "Employment Effects of Immigration to Germany: An Analysis Based on Local Labor Markets," *The Review of Economics and Statistics* 79 (Nov. 1997), 594-604.

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," *JPE* 2008, 381-422.

D. Card, "Immigration and Inequality," *AER Papers and Proceedings* 99 (May 2009).

C.L. Smith, "Dude, Where's My Job? The Impact of Immigration on the Youth Labor Market," Federal Reserve Board of Governors, August 2009.

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, "Using Regional Variation to Measure the Effect of the Federal Minimum Wage," *Industrial and Labor Relations Review*, October 1992.

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

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

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.

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.

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

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

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

D. Lee and A. Mas, "Long-run Impacts of Unions on Firms: New Evidence from Financial Markets," NBER Working Paper 14709, February 2009.

IV. Human Capital

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.

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.

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

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

Returns-to-schooling econometrics

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

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.

P. Oreopoulos, "Estimating Average and Local Average Treatment Effects of Education when Compulsory Schooling Laws really Matter," *American Economic Review* 96(1), March 2006, pp. 152-175.

The GI Bill

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.

M. Stanley, "College Education and the Midcentury GI Bills," *QJE* 2003.

J. Angrist and S. Chen, "Long-Term Consequences of Vietnam-Era Conscription: Schooling, Experience and Earnings," IZA Discussion Paper No. 3628, August 2008.

Returns to experience

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

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.

B. Education Production

Inputs

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. 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," *Quarterly Journal of Economics*, May 1999.

J. Angrist and J. Guryan, "Does Teacher Testing Raise Teacher Quality? Evidence from State Certification Requirements," *Economics of Education Review*, October 2008.

E. Duflo, "Schooling and Labor Market Consequences of School Construction in Indonesia: Evidence from an Unusual Policy Experiment," *AER* 2001, 795-813.

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

Incentives

J. Angrist and V. Lavy, "The Effects of High Stakes High School Achievement Awards: Evidence from a Randomized Trial," *AER*, 2009.

J. Angrist and P. Oreopoulos, "Incentives and Services for College Achievement: Evidence from a Randomized Trial," *American Economic Journal: Applied Economics*, January 2009.

M. Kremer, E. Miguel, and R. Thornton, "Incentives to Learn," *The Review of Economics and Statistics*, August 2009.

Competition and regulation of schools

C. Hoxby, "Does Competition among Public Schools Benefit Students and Taxpayers?" *American Economic Review*, December 2000, 90(5), pp. 1209-38.

J. Rothstein, "Does Competition Among Schools Benefit Students and Taxpayers? A Comment on Hoxby (2000)," *American Economic Review* 97, December 2007.

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.

D. Neal and D. Schanzenbach, "Left Behind by Design: Proficiency Counts and Test-Based Accountability," NBER Working Paper 13293, August 2007 (forthcoming, *The Review of Economics and Statistics*).

J. Guryan, "Desegregation and Black Dropout Rates," *American Economic Review* 94 Sep 2004.

J. Rothstein, "Good Principals or Good Peers? Parental Valuation of School Characteristics, Tiebout Equilibrium, and the Incentive Effects of Competition Among Jurisdictions," *AER* 96, September 2006.

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.

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 overall 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 (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.

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

* AA, Chapter 7.

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