

PRINCETON UNIVERSITY

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Department of Economics
Economics 531

The Economics of Labor

Fall Term 1994-1995

Professors O. Ashenfelter
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This course is the first of a two-semester sequence of courses in labor economics and industrial relations. The purpose of the course is twofold. On the one hand, the student should obtain a general survey of the problems, methods, and substantive literature in labor economics. On the other hand, the student should learn how measurement and hypothesis testing are carried on in the application of economic analysis to specific problems. To serve both purposes, students are expected to prepare a presentation during the first semester. Students are expected to prepare a paper during the second semester.

An outline of the topics covered throughout the year and the instructor responsible for each topic.

There is no single textbook for the course. Were it affordable, we would recommend that you purchase The Handbook of Labor Economics, edited by Orley Ashenfelter and Richard Layard. Several surveys from this collection will be used as assigned reading. Copies are on reserve in the Industrial Relations Section Library.

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List of Topics for Economics 531

- I. Overview and Introduction to Data Sets
 - II. Labor Supply
 - A. Static Analysis of the Classical Model
 - B. Life-Cycle Analyses of the Classical Model
 - C. Poverty Traps and State Dependence in Incomes
 - D. Labor Supply in Markets Without Complete Worker Flexibility
 - III. Labor Demand
 - A. Static Analyses
 - B. Dynamic Analyses
 - IV. Education, Experience, and Earnings
 - A. Human Capital Earnings Functions: Empirical Regularities and Hedonic Interpretations
 - B. Education and Earnings: Human Capital Market Perspectives
 - V. Aggregate Models of the Labor Market
 - A. Basic Facts About Unemployment
 - B. Job Search and Natural Rate
 - C. Unemployment Insurance
 - D. Intertemporal Substitutions
- List of Topics for Economics 532
- I. Compensating Wage Differentials
 - A. Theory of Equalizing Differences
 - B. Empirical Analysis of Job and Work Characteristics in Labor Market Equilibrium
 - II. Implicit Contracts

III. Recent Developments in the Wage Structure

- A. Facts
- B. Theoretical Explanations
- C. Evaluation of Explanations

IV. Economics of Discrimination

V. Social Program Evaluation

- A. Minimum Wage
- B. Training Programs

VI. Unions and Collective Bargaining

- A. History, Theory and Background
- B. Union Growth (and decline)
- C. Modeling Union Behavior
- D. "Effects" of Unions

VII. Dispute Settlement

- A. Strikes
- B. Arbitration and Litigation

Reading List

Labor Supply

A. Static Analyses of the Classical Model

M. R. Killingsworth, Labor Supply, Cambridge University Press, 1983, (pp. 1 -206) - A very useful survey.

O. Ashenfelter, "Notes on Labor Supply and the Allocation of Time."

J. Pencavel, "Labor Supply of Men: A Survey," in the Handbook of Labor Economics, Vol. 1--A deservedly influential survey of the empirical and econometric issues in measuring labor supply.

M. Abbott and O. Ashenfelter, "Labor Supply, Commodity Demand, and the Allocation of Time," Review of Economic Studies (October 1976).

O. Ashenfelter and M. Plant, "Non-Parametric Estimates of the Labor Supply Effects of Negative Income Tax Programs," Journal of Labor Economics, January 1990.

O. Ashenfelter and J. Heckman, "The Estimation of Income and Substitution Effects in a Model of Family Labor Supply," Econometrica, January 1974.

J. J. Heckman, "Shadow Prices, Market Wages, and Labor Supply," Econometrica, July 1974.

T.A. Mroz, "The Sensitivity of an Empirical Model of Married Women's Hours of Work to Economic and Statistical Assumptions," Econometrica, July 1987, pp. 765-799.

B. Life-Cycle Analyses of the Classical Model (Much of this material is reviewed in Pencavel's paper above)

M. Killingsworth, op. cit., pp. 207-330.

T. MaCurdy, "An Empirical Model of Labor Supply in a Life-Cycle Setting," Journal of Political Economy (December 1981): 1059-1085.

J. Altonji, Intertemporal Substitution in Labor Supply: Evidence from Micro Data, Journal of Political Economy (June 1986).

J. Abowd and D. Card, "Intertemporal Labor Supply and Long Term Employment Contracts," American Economic Review (March 1987).

C. Poverty Traps and State Dependence in Incomes: This issue concerns what inference about poverty programs we are entitled to draw from the fact that the same people stay in them for several periods, or the fact receiving income transfers if their fathers (or mothers) were. The goal is to separate the part of the dependence that results from the natural correlation of incomes from the incentive effects of social programs.

O. Ashenfelter, "Determining Participation in Income-Tested Social Programs," Journal of the American Statistical Association, September 1983. This paper clarifies the relationship between participation in an income tested social program and the natural parameters of the income distribution in the absence of the program. The economic analysis is in an appendix.

M. Plant, "An Empirical Analysis of Welfare Dependence," American Economic Review, September 1984. This paper generalizes the analysis to a study of the relationship between the intertemporal correlation in poverty status and the natural intertemporal correlation in incomes.

D. Labor Supply in Markets without Complete Worker Flexibility: In the last decade many labor economists have come to believe that it is difficult or impossible to identify incentives in worker labor supply functions from the available data on their choices--especially with the assumption that workers face a perfectly elastic demand for their hours worked. The literature in this field attempts to document just what is wrong with the classical assumption, suggests alternative assumptions, and explores their empirical implications.

D. Card, "Supply and Demand in the Labor Market," W.P. No. 228, Industrial Relations Section, Princeton University, Nov. 1987. An excellent readable summary and starting point for this literature.

John Ham, "Estimation of a Labour Supply Model with Censoring Due to Unemployment and Underemployment," Review of Economic Studies, July 1982. The first paper to deal with the possible presence of constraints on worker choice in the estimation of static labor supply functions in a logically satisfactory way.

John Ham, "Testing Whether Unemployment Represents Intertemporal Labor Supply Behavior," Review of Economic Studies, 1986. Similar to Ham's 1982 paper, this one deals with a more complex intertemporal labor supply model, and establishes just how poorly this model does compared to model that explicitly allows for the presence of employer demands for hours.

John Abowd and O. Ashenfelter, "Unemployment and Compensating Wage Differentials," IRS Working Paper 120, March 1979. This paper, never published because the empirical material always seemed unsatisfactory, spells out a simple equilibrium model of labor supply and compensating wage differentials that is consistent with the employer interest in employee hours of work.

J. Altonji and C. Paxson "Job Characteristics and Hours of Work," in R. Ehrenberg, ed. Research in Labor Economics Volume 8 (Part A). Greenwich Connecticut: JAI Press, 1986.

II.

Labor Demand

A. Static Analyses

D. Hamermesh "The Demand for Labor in the "Long Run". Chapter 8 in Ashenfelter and Layard, ed. Handbook of Labor Economics (Amsterdam: North Holland), 1986.

G.E. Johnson, "The Demand For Labor by Educational Category," Southern Economic Journal, October 1970, pp. 190-204.

D.E. Card and A. Krueger, "Minimum Wages and Employment: A Case Study of the Fast Food Industry in New Jersey and Pennsylvania," American Economic Review, September 1994.

B. Dynamic Analyses

Sargent, Thomas. "Estimation of Dynamic Labor Schedules Under Rational Expectations". JPE 86 (December 1978).

Kennan, John. "The Estimation of Partial Adjustment Models with Rational Expectations". Econometrica 47 (November 1979): 1441-1456.

Brown, James and Orley Ashenfelter. "Testing the Efficiency of Employment Contracts". JPE 94 (June 1986, Supplement): S40-S87.

see also the paper by Thomas MaCurdy and John Pencavel, "Testing Between Competing Models of Wage and Employment Determination in Unionized Markets", in the same volume of the IPE.

Card, David. "Unexpected Inflation, Real Wages, and Employment Determination in Union Contracts". AER 80 (September 1990).

Card, David. "Efficient Contracts with Costly Adjustment: Short Run Employment Determination for Airline Mechanics". AER 76 (December 1986).

III. Education, Experience, and Earnings

A. Human Capital Earnings Functions: Empirical Regularities and Hedonic Interpretation

R. Willis, "Wage Determinants: A Survey and Reinterpretation of Human Capital Earnings Function," in O. Ashenfelter and R. Layard, "Handbook of Labor Economics," Vol. 1, Chapter 10.

R.E.B. Lucas, "Hedonic Wage Equations and Psychic Wages in the Return to Schooling," American Economic Review, September 1977.

B. Education and Earnings: Human Capital Market Perspectives

G. Becker, Human Capital.

J. Mincer, Schooling Experience, and Earnings, Columbia University Press, 1974.

S. Rosen, "Human Capital: A Survey of Empirical Research," Research in Labor Economics, Vol. 1, 1977, pp. 3-40.

R. Willis and S. Rosen, "Education and Self-Selection," Journal of Political Economy, 1979, Supplement, S7-S36.

C. Evidence on the Return to Schooling

Z. Griliches, "Estimating the Returns to Schooling: Some Econometric Problems," Econometrica, January 1977, pp. 1-22.

J. Angrist and A. Krueger "Does Compulsory School Attendance Affect Schooling and Earnings?" Quarterly Journal of Economics, November 1991, 979-1014.

O. Ashenfelter and A. Krueger, " Estimates of the Economic Return to Schooling From a New Sample of Twins," American Economic Review, December 1994.

Princeton University

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Department of Economics
Economics 532

Topics in Labor Economics

Spring Term 1995

Professors O. Ashenfelter
J. DiNardo

This course is the second of a two-semester sequence of courses in labor economics and industrial relations. The purpose of the course is twofold. On the one hand, the students should obtain a general survey of the problems, methods, and substantive literature in labor economics. On the other hand, the student should learn how measurement and hypothesis testing is carried on in the application of economic analysis to specific problems. To serve both purposes, students are expected to prepare a paper on a topic of their choice within the general scope of the course. This might be a small theoretical or empirical exploration, or a discussion and critique of existing literature.

This course is a continuation of Econ 531 and is a survey of additional topics not covered in the first semester. There is no required textbook for the course. Were it affordable, I would recommend purchasing *The Handbook of Labor Economics*, edited by Orley Ashenfelter and Richard Layard. A few surveys from this collection will be assigned reading.

The list is too long to be read in its entirety. I will assign specific papers as required reading well in advance.

1. Compensating Wage Differentials

- [1] Adam Smith. *The Wealth of Nations*, Chapter 10.
- [2] Sherwin Rosen. "The Theory of Equalizing Differences." In Orley Ashenfelter and Richard Layard, editors, *Handbook of Labor Economics*. North Holland, Amsterdam, 1986.
- [3] Charles Brown "Equalizing Differences in the Labor Market," *Quarterly Journal of Economics*, 1980.
- [4] J. Roback "Wages, Rent and the Quality of Life," *Journal of Political Economy*, 1982.
- [5] John Abowd and Orley Ashenfelter, "Temporary Layoffs, Anticipated Unemployment, and Compensating Wage Differentials" in Sherwin Rosen, ed. *Studies in Labor Markets*, University of Chicago Press, 1981.

2. Implicit Contracts

- [1] Costas Azariadis and Joseph Stiglitz. Implicit contracts and fixed price equilibria. *Quarterly Journal of Economics*, 98(Supplement):1-22, 1983.
- [2] Martin Baily. Wages and employment under uncertain demand. *Review of Economic Studies*, 41:37-50, 1974.
- [3] Robert Hall and David Lillian. Efficient wage bargains under uncertain supply and demand. *American Economic Review*, 69:868-79, 1979.
- [4] Oliver Hart and Bengt Holstrom. The Theory of Contracts. in *Advances in Economic Theory* T.Bewely, editor. Cambridge University Press, 1987
- [5] Milton Harris and Bengt Holstrom. A theory of wage dynamics. *Review of Economic Studies*, 49:315-333, 1982.
- [6] Bengt Holstrom. Contractual models of the labor market. *American Economic Review*, 71:308-313, May 1981.
- [7] Bengt Holstrom. Equilibrium Long-Term Contracts. *Quarterly Journal of Economics*, 98(Supplement):23-54, 1983.
- [8] Sherwin Rosen. Implicit contracts: A survey. *Journal of Economic Literature*, 23:1144-1175, September 1985.

- [9] John Abowd and David Card. Intertemporal labor supply and long term employment contracts. *American Economic Review*, 77:50-68, 1987.
- [10] John Abowd and David Card. On the covariance structure of earnings and hours. *Econometrica*, 57(2):411-446, March 1989.
- [11] Paul Beaudry and John DiNardo. The effect of implicit contracts on the movement of wages over the business cycle:evidence from microdata. *Journal of Political Economy*, pages 1-25, 1991.
- [12] Paul Beaudry and John DiNardo. Are Hours Worked Consistent with Implicit Contract Theory? *Unpublished paper*, 1994

3. Recent Developments in the Wage Structure

- [1] McKinley Blackburn, David Bloom, and Richard Freeman, "Changes in Earnings Differentials in the 1980s: Concordance, Convergence, Causes and Consequences," NBER Working Paper 3901, National Bureau of Economic Research, Cambridge, MA. November 1992.
- [2] John Bound and George Johnson, "Changes in the Structure of Wages in the 1980s: An Evaluation of Alternative Explanations," *American Economic Review*, June 1992, 82, 371-392.
- [3] David Card, "The Effect of Unions on the Distribution of Wages: Redistribution or Relabelling?," NBER Working Paper 4195, National Bureau of Economic Research, Cambridge, MA. October 1992.
- [4] John DiNardo, Nicole Fortin, and Thomas Lemieux, "Labor Market Institutions and The Distribution of Wages, 1973-1992: A Semi-parametric Approach," *Unpublished Manuscript*, 1994.
- [5] John DiNardo and Thomas Lemieux, "Diverging Male Wage Inequality in the United States and Canada, 1981-1988: Do Unions Explain the Difference?," Unpublished Manuscript, University of California-Irvine and Université de Montréal. August 1993.
- [6] Lynn Karoly, "The Trend in Inequality Among Families, Individuals, and Workers," in Sheldon Dansiger and Peter Gottschalk, eds., *Uneven Tides: Rising Inequality in America*, New York: Russell Sage Foundation, 1993, chapter 2, pp. 19-94.
- [7] Lawrence Katz and Kevin Murphy, "Changes in Relative Wages, 1963-1987 - Supply and Demand Factors," *Quarterly Journal of Economics*, February 1992, 107 (1), 35-78.
- [8] Frank Levy, and Richard Murnane, "U.S. Earnings Levels and Earnings Inequality: A Review of Recent Trends and Proposed Explanations," *Journal of Economic Literature*, September 1992, 30, 1331-81.
- [9] Kevin Murphy and Finis Welch, "The Structure of Wages," *Quarterly Journal of Economics*, February 1992, 107 (1), 285-328.
- [10] Silverman, B.W., *Density Estimation for Statistics and Data Analysis*, London: Chapman & Hall, 1986.

4. Social Program Evaluation

4.1. The Minimum Wage

- [1] Brown, Charles, "Minimum Wage Laws: Are They Overrated?," *Journal of Economic Perspectives*, Summer 1988, 2 (3), 133-145.
- [2] —, Curtis Gilroy, and Andrew Kohen, "The Effect of the Minimum Wage on Employment and Unemployment," *Journal of Economic Literature*, June 1982, 20, 487-528.
- [3] Card, David, "Do Minimum Wages Reduce Employment? A Case Study of California, 1987-1989," *Industrial and Labor Relations Review*, October 1992, 46 (1), 38-44.
- [4] —, "Using Regional Variation in Wages to Measure the Effects of the Federal Minimum Wage," *Industrial and Labor Relations Review*, October 1992, 46 (1), 22-37.
- [5] — and Alan Krueger, "Minimum Wages and Employment: A Case Study of the Fast Food Industry in New Jersey and Pennsylvania," Industrial Relations Section Working Paper 315, Princeton University, Princeton, NJ. March 1993.
- [6] — and Alan Krueger, "New Views on the Minimum Wage," *Unpublished Manuscript*, 1994.
- [7] —, Larry Katz and Alan Krueger, "Employment Effects of Minimum and Subminimum Wages—Panel Data on State Minimum Wage Laws: Comment," *Industrial and Labor Relations Review*, April 1994, 46 (1), 55-80.
- [8] Neumark, David and William Wascher, "Employment Effects of Minimum and Subminimum Wages: Panel Data on State Minimum Wage Laws," *Industrial and Labor Relations Review*, October 1992, 46 (1), 55-80.
- [9] —, "Employment Effects of Minimum and Subminimum Wages—Panel Data on State Minimum Wage Laws: Reply," *Industrial and Labor Relations Review*, April 1994, 46 (1)

4.2. Training Programs

- [1] Orley Ashenfelter. Estimating the effect of training programs on earnings. *Review of Economics and Statistics*, 60, 1978.
- [2] Orley Ashenfelter. The case for evaluating training programs with randomized trials. Working Paper 203, Industrial Relations Section, Princeton University, Princeton, New Jersey, January 1986.
- [3] Orley Ashenfelter and David Card. Using the longitudinal structure of earnings to estimate the effect of training programs. *Review of Economics and Statistics*, 67, 1985.
- [4] David Card and Dan Sullivan. Measuring the effect of subsidized training programs on movements in and out of employment. *Econometrica*, 56, May 1988.
- [5] J.J. Heckman and J. Hotz. Choosing among alternative nonexperimental methods for estimating the impact of social programs: The case of manpower training. *Journal of the American Statistical Association*, 84, December 1989.

- [6] Robert Lalonde. Evaluating the econometric evaluations of training programs with experimental data. *American Economic Review*, 76, September 1986.

5. Unions and Collective Bargaining

5.1. Background, Growth, and Decline

- [1] O. Ashenfelter and J. H. Pencavel. American trade union growth: 1900-1960. *Quarterly Journal of Economics*, pages 434-468, 1969.
- [2] H. S. Farber. The decline of unionization in the united states: What can be learned from recent experience. *Journal of Labor Economics*, 8:S75-S105, Jan 1990.
- [3] H. S. Farber and D. H. Saks. Why workers want unions: The role of relative wages and job characteristics. *Journal of Political Economy*, 88:349-369, apr 1980.
- [4] A. Rees. *The Economics of Trade Unions*. University of Chicago Press, Chicago, 1977.
- [5] Richard Freeman. Contraction and Expansion: The Divergence of Private Sector and Public Sector Unionism in the United States. *Journal of Economic Perspectives*, Spring 1988, pp. 63-88.
- [6] H.S. Farber and A.B. Kruger. Union Membership in the United States: The Decline Continues. in *Employee Representation: Alternatives and Future Directions*, Bruce Kaufman and Morris Kleiner, editors. Industrial Research Association, 1993.

5.2. Modelling Union Behavior

- [1] H.S. Farber. The analysis of union behavior. In Orley Ashenfelter and Richard Layard, editors, *Handbook of Labor Economics*. North Holland, Amsterdam, 1986.
- [2] R.B. Freeman and J.L. Medoff. *What Do Unions Do?* Basic Books, 1984.
- [3] H.S. Farber. Review of *What Do Unions Do?* *Journal of Economic Literature*, December 1986, pp. 1842-1844.
- [4] A Review Symposium on *What Do Unions Do?* *Industrial and Labor Relations Review*, 38, January 1985, pp 244-263.
- [5] Barry T. Hirsch and John T. Addison. *The Economic Analysis of Unions: New Approaches and Evidence*. Allen & Unwin, Boston, 1986.
- [6] James N. Brown and Orley Ashenfelter. Testing the efficiency of employment contracts. *Journal of Political Economy*, 94:S40-S87, 1986.
- [7] David Card. Efficient contracts with costly adjustment: Short run employment determination for airline mechanics. *American Economic Review*, 76:1045-1071, December 1986.

- [8] George Johnson. Work rules, featherbedding, and pareto-optimal union-management bargaining. *Journal of Labor Economics*, 8(1), 1990.
- [9] Thomas MaCurdy and John Pencavel. Testing the efficiency of employment contracts. *Journal of Political Economy*, 94:S3-S39, 1986.

5.3. Unions and Wages

- [1] David Card. The effect of unions on the distribution of wages: Redistribution or relabelling? Working Paper 287, Industrial Relations Section, Princeton University, July 1991.
- [2] George Jakobson. Estimation and testing of fixed effects models: Estimation of the union wage effect using panel data. Working Paper 208, Industrial Relations Section, Princeton University, 1986.
- [3] George Jakobson. Measurement error in binary explanatory variables in panel data models: Why do cross section and panel estimates of the union wage effect differ. Working Paper 209, Industrial Relations Section, Princeton University, July 1986.
- [4] Thomas Lemieux. Job switchers, dual job holders, and union wage differences. April 1991.
- [5] H. Gregg Lewis. *Unionism and relative wages in the United States*. University of Chicago Press, Chicago, 1983.
- [6] H. Gregg Lewis. Union relative wage effects. In Orley Ashenfelter and Richard Layard, editors, *Handbook of Labor Economics*, volume 2, chapter 20, pages 1139-1182. North Holland, Amsterdam, 1986.
- [7] H. Gregg Lewis. *Unionism relative wage effects: A Survey*. University of Chicago Press, Chicago, 1986.
- [8] Richard Freeman. Longitudinal Analysis of the Effects of Trade Unions. *Journal of Labor Economics*, January 1984.
- [9] S. Jarrell and T.D. Stanley. A Meta-Analysis of the Union-Nonunion Wage Gap. *Industrial and Labor Relations Review*, October 1990.
- [10] Chris Robinson. The joint determination of union status and union wage effects: Some tests of alternative models. *Journal of Political Economy*, 97:639-667, June 1989.
- [11] John DiNardo and Thomas Lemieux, "Diverging Male Wage Inequality in the United States and Canada, 1981-1988: Do Unions Explain the Difference?," Unpublished Manuscript, University of California-Irvine and Université de Montréal. August 1993.

6. Search

- [1] Lawrence Katz. Layoffs, recall and the duration of unemployment. Working Paper 1825, National Bureau of Economic Research, Cambridge, Mass., 1986.

- [2] Lawrence Katz and Bruce Meyer. The impact of potential duration of unemployment spells on the duration of unemployment. Working Paper 241, Industrial Relations Section, Princeton University, Princeton, 1988. also NBER Working Paper 2594.
- [3] Nicholas Keifer. Economic duration data and hazard functions. *Journal of Economic Literature*, 26:646-679, 1988.
- [4] Brian P. McCall. Occupational mobility: A test of sorts. *Journal of Political Economy*, 98(1):45-69, 1990.
- [5] Bruce Meyer. Unemployment insurance and unemployment spells. *Econometrica*, 58:757-782, July 1990.
- [6] D. T. Mortensen. Unemployment insurance and job search decisions. *Industrial and Labor Relations Review*, 30:505-517, 1977.
- [7] D. T. Mortensen. Job search and labor market analysis. In Orley Ashenfelter and Richard Layard, editors, *Handbook of Labor Economics*, volume 1 of *Handbook In Economics*. North Holland, Amsterdam, 1986.
- [8] Zvi Eckstein and Kenneth I. Wolpin. The specification and estimation of dynamic stochastic discrete choice models. *Journal of Human Resources*, 24(4):562-598, 1989.
- [9] Steven Lippman and John J. McCall. The economics of job search: A survey. *Economic Inquiry*, 14:155-189, 1976.
- [10] S. Ross. *Introduction to Stochastic Dynamic Programming*, pages 1-88. Probability and mathematical statistics. Academic Press, 1983.
- [11] Kenneth Wolpin. Estimating a structural search model: The transition from school to work. *Econometrica*, 55:801-818, 1987.