

ECONOMETRICS AND PUBLIC POLICY (BASIC)
WWS 508b

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This course introduces the student to an applied, intermediate level of quantitative and econometric analysis. It is intended to be a very hands-on, experience-oriented class, helping the student to develop the skills necessary to carry out empirical analyses of policy issues that especially lend themselves to quantitative specification.

The course primarily focuses on the analysis of survey data in cross-sectional and panel form. The course starts with a review of simple data description, then moves to the simple regression model for continuous response data, the multiple regression model for continuous response data, and proceeds to regression models for binary data, and analysis of demographic data. In addition, advanced topics such as instrumental variable estimation, and panel data models will be discussed. The course also addresses problems unique to public policy, namely program evaluation. The main statistical package we will be using throughout the course is STATA. It is currently available as STATA 8.0 for Windows on the School's server.

To develop your confidence in using the empirical tools you learn in this class, each student is required to write a 10 to 15-page research paper addressing a policy issue of your choice. A research proposal outlining the method to be used, and the data to be exploited, will be due on **March 1**. Please see accompanying hand out for more details.

Evaluation in the course will be based on problem sets, a midterm, the project proposal, the project paper, a final exam, and classroom participation. Each component will be weighted as follows.

Problem sets	20%
Class participation	5%
Midterm	15%
Project proposal	10%
Project paper	25%
Final exam	25%

The required texts for the course are *Statistics and Econometrics: Methods and Applications* by Orley Ashenfelter, Phillip Levine, and David Zimmerman, *Applied Regression* by Lewis-Beck, and a STATA student manual entitled *Statistics with STATA 8* by Lawrence Hamilton.

Additional reference texts you might be interested in (and that you can obtain from me) are Peter Kennedy's *Guide to Econometrics*, *Basic Econometrics* by Damodar Gujararti, *Introductory Statistics for Business and Economics* by Wonnacott and Wonnacott; *Econometric Modeling and Economic Forecasts* by Pindyck and Rubinfeld, *The Practice of Econometrics* by Ernst Berndt, *Introduction to Survey Sampling* by Graham Kalton, and *Our Changing Population* by Nathan Glazer and Stephan Thernstrom for demography.

All announcements and data sets are available on the WWS 508b web page.

READING LIST, SPRING 2004

WEEK	TOPIC	READINGS
1. Feb 2	Introductions, Descriptive Statistics, Differences in Means, and Hypothesis Testing,	ALZ 1. For review, ALZ 2-8
2. Feb 9	The Classical Linear Regression Model, Least Squares Assumptions and Statistical Inference Functional Form, Model Building, and Model Specification	Lewis-Beck, 1-3; ALZ 9-12
3. Feb 16	Multiple Regression continued.	Ayres and Levitt (1996) Hammermesh & Parker (2003)
4. Feb 23	Violating the assumptions of the Classical Linear Regression Model: Heteroscedasticity and Auto-Correlation.	ALZ 14
5. Mar 1	Problems with the Data: Measurement Error, Omitted Variable Bias Instrumental Variables Estimation	ALZ 13; Research Proposal Due
6. Mar 8	MIDTERM (YIKES!!!!)	
7. Mar 15	<i>Spring Break</i>	
8. Mar 22	Evaluation of Public Policy: Control groups, selection bias, sources of variation, and difference in difference estimators	Green and Gerber (2001) Kane and Rouse (1995) Card and Krueger (1995)
9. Mar 29	Logits, Probits and Linear Probability models	ALZ 16

for subjective, binomial data

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| 10. Apr 5 | Models for multinomial discrete choice models | Mora & Davila (1998) |
| 11. Apr 12 | Models of Panel Data,
Fixed Effect Estimators | ALZ 18,
Coates & Humphreys (1999)
Lopez (2001) |
| 12. Apr 19 | Research Paper Draft Due
Extra Lecture | |
| 13. Apr 26 | Student Presentations | |
| 14. May 17 | Research Paper Final Draft Due
FINAL EXAM (tentatively scheduled) | |
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Relevant Papers

- Ian Ayers and Steven Levitt, "Measuring Positive Externalities from Unobservable Victim Precaution: An Empirical Analysis of Lojack," unpublished paper, Harvard University, 1996.
(published in *The Quarterly Journal of Economics*, Vol. 113, No. 1. (Feb., 1998), pp. 43-77: [JSTOR link](#))
- David Card and Alan Kreuger, *Myth and Measurement: The New Economics of the Minimum Wage*, Princeton University Press, 1995. Chapter 1 (on e-reserve)
- David Card and Alan B. Krueger, "Minimum Wages and Employment: A Case Study of the Fast-Food Industry in New Jersey and Pennsylvania", *The American Economic Review*, Vol. 84, No. 4. (Sep., 1994), pp. 772-793 ([JSTOR link](#)).
- Anne Case and Lawrence Katz, "The Company You Keep: The Effects of Family and Neighborhood on Disadvantaged Youths," NBER Working Paper No. 3705, May 1991 ([NBER link: PDF file](#))
- Dennis Coates and Brad R. Humphreys, "The Growth Effects of Sport Franchises, Stadia, and Arenas," *Journal of Policy Analysis and Management*, vol. 18, no. 4, Fall 1999 ([Wiley link: PDF file](#))
- Donald P. Green and Alan S. Gerber, "Getting out the Youth Vote: Results from Randomized Field Experiments," working paper, Yale University, 2001 (published in *The American Political Science Review*, Vol. 94, No. 3. (Sep., 2000), pp. 653-663: [JSTOR link](#))
- Daniel Hamermesh and Amy Parker, "Beauty in the Classroom: Professors' Pulchritude and Putative Pedagogical Productivity," unpublished paper, University of Texas, July 2003 ([Link to Prof. Hamermesh's web page: PDF file](#))
- Thomas Kane and Cecilia Rouse, "Labor Market Returns to Two- and Four- Year College: Is a Credit a Credit and Do Degrees Matter?," *American Economic Review*, Vol. 85, No. 3, pp. 600-613, June 1995 ([JSTOR link](#))

Mark Hugo Lopez, "Evaluating California's Proposition 227," unpublished paper, Public Policy Institute of California and University of Maryland, 2001.

Marie Mora and Alberto Davila, "Gender & Hispanic English Skills," *Economic Inquiry*, Vol. XXXVI, No. 4, October 1998 ([Proquest link: PDF file](#))
