Instructor: Yixiao Sun
TA: Meng Huang
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Course Description

The primary goal of Econ 220C is to introduce tools necessary to understand and implement empirical studies in economics focusing on issues other than time-series analysis. This course contains two parts. The first part deals with panel data models: (1) static panel data models (2) dynamic panel data models and (3) other misc. panel topics. Multiple Equation GMM and Minimum Distance Estimator will be introduced and used to estimate some panel data models. The second part of the course deals with limited-dependent-variable models: (1) discrete choice models; (2) censored and truncated regression models, (3) sample selection models; and (4) evaluation of treatment effects. While the second part focuses mainly on cross sectional data, it also covers panel Probit/Logit, panel Tobit and panel attrition models.

We will study different issues in the specification, estimation and testing of these models with cross-sectional data and with panel data. The emphasis of the course is on both econometric ideas and econometric techniques. For some of the problem sets you will have to deal with actual data or perform simulation experiments. You should become familiar as soon as possible with some general features of the econometric package that you choose. MATLAB and GAUSS are widely used by econometricians. It seems that more and more people starts using MATLAB. STATA seems to have gained increasing popularity in recent years among applied micro economists. SAS is another option.

Text Book

Wooldridge, Jeffrey (2002): Econometric Analysis of Cross Section and Panel Data, MIT press.
This is the main text for the course

Cameron, A. C. and Trivedi, P.K. (2005): Microeconometrics: Methods and Applications.

Grading Policy

Grades for Econ 220C will be determined as follows:

- 40%: Four problem sets, each carrying a weight of 10%. You may form a group with no more than three people and work together on the problem sets, but must hand in your own write-up of the answers.

- 60%: Final Exam. No books or notes are allowed.

Office Hours: Thursday 2:00 pm-4:00pm & by Appointment in Econ 219 (Yixiao Sun)
Monday 4:00-5:30pm in Econ 114 (Meng Huang)

General References: Panel Data

Arellano, M. (2003) Panel Data Econometrics. Oxford University Press

Arellano, M. and B. Honore (2001). "Panel data models: some recent developments", in J. J. Heckman and E. E. Leamer (eds), Handbook of Econometrics, Vol. 5, North Holland

Baltagi, B. H. (2005). Econometric Analysis of Panel Data, Third Edition, John Wiley & Sons.

Chamberlain, G. (1984). Handbook of Econometrics: Chapter 22 – "Panel Data"

Heckman, J. and B. Singer, Handbook of Econometrics: Ch. 29 - Econometric Analysis of Longitudinal Data

Hsiao, C. (2003). Analysis of Panel Data, Cambridge University Press

Kirshnakumar, J. and E. Ronchetti, editors (2000). Panel Data Econometrics: Future Directions, North-Holland, Amsterdam.

Lee, M. (2002). Panel Data Econometrics, Academic Press

Matyas, L. and P. Sevestre, editors (1996). The Econometrics of Panel Data: A Handbook of Theory and Applications, Kluwer Academic Publishers.

General References: Limited Dependent and Qualitative Variables

Amemiya. T. (1985). Advanced Econometrics, Cambridge, Harvard University Press.

Deaton, A. (1997). The Analysis of Household Survey, The John Hopkins University Press

Greene, W. H. (2003), Econometric Analysis, Ch 22.

Kenneth Train, (2002), Discrete Choice Methods with Simulation, Cambridge University Press.

A zip archive is available for downloading (1.8M)

Maddala, G.S. (1987), Limited Dependent and Qualitative Variables in Econometrics