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Office Hours: By appointment.

Time and location: TBA

Textbook: No specific textbook- this is a "papers" class. Will be referring to specific papers as well as some lengthy manuscripts. Having said that, here are some of the references I’ll be using frequently in my lectures:


Grading: There will be bi-weekly assignments, a discussion or paper and final.

Scheme:

- Assignments : 35%
- Discussion or Paper : 35%
- Final: 30%
Course Objectives

Economics 883 is part of the second or third-year sequence in econometric methodology. It will represent a break from Econometrics 1, 2, and 3 in the sense that is designed to be more specialized and encourage students to start thinking about their dissertation and what topics to work on. Consequently, it will be less about answering problem set and exam questions and more about discussing recent research papers from a critical perspective. This particular specialized module will be about panel data, which as we will see, is increasingly useful in both micro and macro from both theoretical and empirical perspectives.

Panel data analysis is at the divide of time series and cross-section econometrics. While the identification of time series parameters relied on notions of stationarity and predeterminedness, cross-sectional parameters relied on exogenous instrumental variables and random sampling for identification.

By combining the time series and cross-sectional dimensions, panel datasets have enriched the set of possible identification approaches/strategies. A main strand of the panel data literature was exploiting panel data for controlling unobserved time-invariant heterogeneity in cross-sectional models. A different strand of the literature incorporated dynamics and studied autoregressive models with individual effects. This has been done in both linear and nonlinear models. Recently the literature has recognized the difficulty in attaining (point) identification results for nonlinear panel data models, and consequently much recent work has focused on partial identification and inference.

Course Outline


   AH, Sections 2,3.
   H, Chapter 5.
   W, 7.8
2. **Nonlinear Panel Data Models (Static)**: CMLE of Logit and Poisson models, Discrete Choice models with Fixed Effects, Censored and Transformation Models with Fixed effects.

   C, Sections 3.1, 3.2
   AH, Sections 4-7.
   W, Sections 13.8, 13.9, 15.8, 15.9, 16.8, 16.9

3. **Nonlinear Panel Data Models (Dynamic)**: Lagged dependent variables, discrete choice with state dependence, duration models and duration dependence, dynamic censored models.

   C, Sections 3.3, 3.4
   AH, Section 8.

4. **Partial Identification in Panel Data Models**: Set Identification, Moment inequalities, unobserved heterogeneity


5. **Large Dimensional Panel Data Models**: “Big Data”, LASSO, Large $N,T,K$ asymptotics.