Political Science /150C, IPS 350C:
Political Methodology III

Contact information

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Times and Locations

Lectures: MW 0900-1050, Room 205 in Building 200
Sections: TBA

Prerequisites

Polisci 350A (probability and statistics) or equivalent.
Polisci 350B (linear models) or equivalent.

Requirements

Bi-weekly problem sets
Final Exam

Texts

The texts are listed here in (approximately) ascending difficulty. Wooldridge and
Cameron-Trivedi are the primary texts; the others are suggested.

  South-Western College Publishers.

  Press.

- A. Colin Cameron and Pravin K. Trivedi. 2005 *Microeconometrics : Methods and Applica-
  tions*. Cambridge University Press. [referred to as C&T]

  Hall/CRC.
Course outline and readings

1. Introduction and overview (April 5)
   
   Illustrations of types of questions and topics which are related to this course.
   
   • Freedman 1
   • C&T Ch 2, 3

2. Discrete choice models (April 10 and 12)
   
   Derivation of mathematical models of utility maximizing choice.
   
   • Freedman Ch 6
   • Wooldrigde Ch 17.1
   • C&T Ch 14

3. Maximum Likelihood (April 17)
   
   Estimation and inference, some asymptotics; examples with discrete choice models.
   
   • C&T Ch 5, 7, 10

4. Instrumental Variables and Endogeneity (April 19)
   
   • Wooldridge, ch. 15.
   • C&T, chap. 4.8–4.10.

5. Introduction to Simultaneous Equations Models (April 24)
   
   • Wooldrige, ch. 16.
   • C&T, chap. 6.9.

6. The Identification Problem (April 26)
   
   • Lecture notes.

7. Two-Stage Least Squares (May 1)
   
   • Wooldridge, ch. 16.

8. Causal inference (May 3 and 8)
   
   Potential outcomes framework, matching, RDD, IV/LATE.
   
   • C&T Ch 25

9. Censoring, truncation, and selection models (May 10)
   
   • Wooldrige 17.4–17.5
   • C&T Ch 16
10. **Aggregate choice** (May 15)
   *Models of counts, binomial, poisson, ...*
   - C&T Ch 20

11. **Generalized models of choice: multiple choice, duration** (May 17)
    *Multinomial logit, GEV, Ordered logit, hazard models.*
    - C&T Ch 15, 17, 19

12. **Panel Data** (May 22)
    - Wooldridge 13
    - C&T Ch 21

    - Wooldridge 14
    - C&T Ch 22

14. **Introduction to Bayesian Theory** (May 31)
    - C&T, chap. 13.1–13.3
    - Gelman et al., ch. 1–2.

15. **Markov Chain Monte Carlo** (June 5)
    - Gelman et al., ch. 11.

16. **Hierarchical Bayes** (June 7)
    - Gelman et al., ch. 5, 15.

**Note:** No class on Memorial Day (May 29)