

Syllabus

PSC 504 - Causal Inference

Professor & Term:

Room & Time:

Office & Hours:

Email:

Overview

Prerequisites

Computation

project.org mran.revolutionanalytics.com/download/

[www.r-](http://www.r-project.org)

Grading

Report on an Unpublished Article

Final Project

Presentation and Participation

Schedule

Books

- **Mostly Harmless Econometrics: An Empiricist's Companion**
- **Counterfactuals and Causal Inference: Methods and Principles for Social Research**

Other Useful Books and Summary Articles

- **Recent Developments in the Econometrics of Program Evaluation**
- **Econometric Analysis of Cross Section and Panel Data**
- **Microeconometrics Methods and Applications**

Preliminary Schedule

Introduction

The Potential Outcome Model

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- Statistics and Causal Inference
- Quality Meets Quantity: Case Studies, Conditional Probability and Counterfactuals
- Sources of Selection Bias in Evaluating Social Programs: An Interpretation of Conventional Measures and Evidence on the Effectiveness of Matching as a Program Evaluation Method
- Four parameters of interest in the evaluation of social programs

Randomized Experiments

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- Better LATE than nothing: some comments on Deaton (2009) and Heckman and Urzua (2009)
- Instruments, Randomization, and Learning about Development
- Why economists should conduct field experiments and 14 tips for pulling one off
- Natural Experiments in the Social Sciences: A Design-Based Approach
- What Do Laboratory Experiments Tell Us About the Real World?
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- Exposing Corrupt Politicians: The Effects of Brazil's Publicly Released Audits on Electoral Outcomes
- Monitoring corruption : Evidence from a field experiment in Indonesia
- Social Pressure and Voter Turnout: Evidence from a Large Scale Field Experiment

Matching and Propensity Score

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- Constitutions, Politics, and Economics: A Review Essay on Persson and Tabellini
The Economic Effects of Constitutions
- Opiates for the Matches: Matching Methods for Causal Inference
- Some practical guidance for the implementation of propensity score matching
- Matching Methods in Practice: Three Examples
- Matching as Nonparametric Preprocessing for Reducing Model Dependence in Parametric Causal Inference
- Nonparametric Estimation of Average Treatment Effects under Exogeneity: A Review
- Matching as an econometric evaluation estimator: Evidence from evaluating a job training programme
- Reconciling conflicting evidence on the performance of propensity score matching methods
- Matching Estimators of Causal Effects: Prospects and Pitfalls in Theory and Practice

Examples

- When Payouts Pay Off : Conditional Cash Transfers and Voting Behavior in Brazil 2002-10
- The Consequences of Child Soldiering

- Are Co-Ethnics More Effective Counter-Insurgents? Evidence from the Second Chechen War
- Do UN Interventions Cause Peace? Using Matching to Improve Causal Inference
- From Violence to Voting: War and Political Participation in Uganda

Regression, Clustering, Bootstrap (Week 4)

Regression

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Standard Errors (Bootstrap, Clustering)

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Synthetic Controls (Week 6)

- Comparative Politics and the Synthetic Control Method
- Synthetic Control Methods for Comparative Case Studies: Estimating the Effect of California's Tobacco Control Program

Examples

- The Value of Connections In Turbulent Times: Evidence from the United States
- Did the 2007 Legal Arizona Workers Act Reduce the State's Unauthorized Immigrant Population?

Differences-in-Differences (Week 7)

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- How Much Should We Trust Differences-in-Differences Estimates?

- Identification and Inference in Nonlinear Difference in Differences Models

- Inference with Difference in Differences and Other Panel Data

Examples

- Does Indiscriminate Violence Incite Insurgent Attacks? Evidence from Chechnya

- Voting Technology, Political Responsiveness, and Infant Health: Evidence from Brazil

- Minimum Wages and Employment: A Case Study of the Fast-Food Industry in New Jersey and Pennsylvania

- Health and Civil War in Rural Burundi

Panel Data (Week 8)

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- On the Use of Linear Fixed Effects Regression Estimators for Causal Inference

Examples

- Soap Operas and Fertility: Evidence from Brazil

- Exploiting a Rare Communication Shift to Document the Persuasive Power of the News Media

- Are Voters Sensitive to Terrorism? Direct Evidence from the Israeli Electorate

Instrumental Variables

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Identification of Causal Effects Using Instrumental Variables

- Instrumental Variables Estimation in Political Science:
A Readers Guide
- Instruments, Randomization, and Learning About Development
- Comparing IV with structural models: What simple IV
can and cannot identify
- Better LATE than nothing: some comments on Deaton (2009) and Heckman
and Urzua (2009)
- Retrospectives: Who invented Instrumental Variable
Regression?

Examples

- The Colonial Origins of Com-
parative Development: An Empirical Investigation
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Sensitivity Analysis

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- A Selection Bias Approach to Sensitivity Analysis for Causal Effects
- Sensitivity to Exogeneity Assumptions in Program Evaluation

Examples

- Selection on Observed and Unobserved Variables: Assessing the Effectiveness of Catholic Schools
- Application of Sensitivity Analysis in Matched Observational Studies