

EVALUATION BY ECONOMETRIC METHODS - 24H

TEACHERS

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COURSE OBJECTIVE

This course aims to provide graduate students with a comprehensive overview of the main empirical methods used in the evaluation of public policies. The course covers key articles from various applied economics literature, including health, education, and active labor policies. Students will engage in practical case studies throughout the course. We will discuss the advantages and limitations of each method and offer guidance on selecting the appropriate method for different scenarios.

COURSE OUTLINE

Introduction

1. The Importance of Evaluation: What and Why?
2. The Potential Outcome Framework and Causal Inference
3. Treatment Effects and Counterfactuals
4. Addressing Selection Bias

Part 1: Randomized Controlled Experiments

1. Random Assignment
2. Identifying Treatment Effects
3. Estimating Treatment Effects
4. Case Study 1
5. Imperfect Compliance
6. Case Study 2
7. Randomized Encouragement Designs
8. Heterogeneity in Program Impacts
9. Externalities (SUTVA)
10. Miscellaneous Issues
11. Key Considerations in Experimental Design
12. Debates and Criticisms

Part 2: Non-Experimental Methods

1. Difference-in-Differences
 - a) Introduction
 - b) The Formal Framework
 - c) Case Study 3
 - d) Extension to Multiple Periods
 - e) Challenges in Design
2. Matching Methods
3. Regression Discontinuity Design
4. Synthetic Control Methods

EVALUATION

- Mid-term Exam: 1/3 of final grade
- Final Exam: 2/3 of final grade

PROFESSIONAL SKILLS

Upon completing this course, students will be able to:

- Master essential technical tools for public policy evaluation;
- Design and implement an evaluation project;
- Apply these skills in both academic research and professional practice outside academia.

BIBLIOGRAPHY AND TEXTBOOKS

Textbooks:

- Angrist, J. and Pischke, J. (2009). *Mostly Harmless Econometrics: An Empiricist's Companion*. Princeton University Press.
- Angrist, J. and Pischke, J. (2015). *Mastering Metrics*. Princeton University Press.
- Cameron, A. and Trivedi, P. (2010). *Microeconometrics Using Stata*. Stata Press.
- Wooldridge, J. (2013). *Introductory Econometrics: A Modern Approach* (4th ed., 2009; 5th ed., 2013). South-Western Cengage Learning.

Academic Articles:

- Abadie, A., Diamond, A., and Hainmueller, J. (2012). "Synthetic Control Methods for Comparative Case Studies: Estimating the Effect of California's Tobacco Control Program." *Journal of American Statistical Association*, 105(490).
- Angrist, J., Bettinger, E., Bloom, E., King, E., and Kremer, M. (2002). "Vouchers for Private Schooling in Colombia: Evidence from a Randomized Natural Experiment." *The American Economic Review*, 95(5), 1535-1558.
- Ashenfelter, O., Ashmore, D., and Deschênes, O. (2005). "Do Unemployment Insurance Recipients Actively Seek Work? Evidence from Randomized Trials in Four US States." *Journal of Econometrics*, 125(1-2), 53-75.
- Athey, S. and Imbens, G.W. (2006). "Identification and Inference in Nonlinear Difference-in-Differences Models." *Econometrica*, 74, 431-497.
- Bertrand, M., Duflo, E., and Mullainathan, S. (2004). "How Much Should We Trust Differences-in-Differences Estimates?" *The Quarterly Journal of Economics*, 119, 249-275.
- Blundell, R., Costa Dias, M., Meghir, C., and Van Reenen, J. (2010). "Evaluating the Employment Impact of a Mandatory Job Search Assistance Program." *Journal of European Economic Association*, 2(4), 569-606.
- Card, D. (1990). "The Impact of the Mariel Boatlift on the Miami Labor Market." *Industrial and Labor Relations Review*, 43(2), 245-257.
- Card, D., and Krueger, A.B. (1994). "Minimum Wages and Employment: A Case Study of the Fast-Food Industry in New Jersey and Pennsylvania." *The American Economic Review*, 84(4), 772-793.
- Card, D., Mas, A., Moretti, E., and Saez, E. (2012). "Inequality at Work: The Effect of Peer Salaries on Job Satisfaction." *The American Economic Review*, 102(6), 2981-3003.
- Duflo, E., Dupas, P., and Kremer, M. (2011). "Peer Effects, Teacher Incentives, and the Impact of Tracking: Evidence from a Randomized Evaluation in Kenya." *The American Economic Review*, 101(5), 1739-1774.
- Duflo, E., Glennerster, R., and Kremer, M. (2006). "Using Randomization in Development Economics Research: A Toolkit." *NBER Working Paper*, T0333.
- Dumont, E., Fortin, B., Jacquemet, N., and Shearer, B. (2008). "Physicians' Multitasking and Incentives: Empirical Evidence from a Natural Experiment." *Journal of Health Economics*, 27(6), 1436-1450.

Heckman, J., Lalonde, R., and Smith, J. (1999). "The Economics and Econometrics of Active Labor Market Programs." In Ashenfelter, O. and Card, D. (eds.), *Handbook of Labor Economics*, Vol. III, North Holland, Amsterdam.

Heckman, J., Pinto, R., and Savelyev, P. (2013). "Understanding the Mechanisms Through Which an Influential Early Childhood Program Boosted Adult Outcomes." *The American Economic Review*, 103(6), 2052-2086.

Qian, N. (2008). "Missing Women and The Price of Tea in China: The Effect of Sex-Specific Income on Sex Imbalance." *The Quarterly Journal of Economics*, 123(3), 1251-1285.

LANGUAGE OF TEACHING

French English

FUNDAMENTAL PREREQUISITES

A strong foundation in graduate-level econometrics (including OLS and basic statistical concepts)..

Updated on January 2024