

Syllabus

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Course: *Applied Microeconometrics I*

Professors:

2018 THIRD QUARTER

PROGRAM

This course is the first part of a sequence of two courses that presents the econometric methods for impact evaluation. It discusses the literature of identification and estimation of treatment effects. The first part discusses the problem of causal inference, the use of randomized experiments, and the methods of selection on observables. It discusses theoretically the methods and presents applications with Brazilian data.

BIBLIOGRAPHY

Textbooks and Reference Surveys

Angrist, Joshua D. and Jörn-Steffen Pischke. 2009. *Mostly Harmless Econometrics*. Princeton University Press.

Blundell, Richard and Monica Costa Dias (2009), "Alternative approaches to evaluation in empirical microeconomics," *Journal of Human Resources*, Vol. 44, No. 3, pp. 565-640.

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Heckman, James J. and Edward J. Vytlacil (2007a), "Econometric evaluation of social programs Part 1: Causal models, structural models, and econometric policy evaluation." Chapter 70 in James J. Heckman and Edward Leamer (eds.) *Handbook of Econometrics*, Volume 6B, pp. 4779-4874.

Heckman, James J. and Edward J. Vytlacil (2007b), "Econometric evaluation of social programs Part 2: Using the marginal treatment effect to organize alternative econometric estimators to evaluate social programs, and to forecast their effects in new environments." Chapter 71 in James J. Heckman and Edward Leamer (eds.) *Handbook of Econometrics*, Volume 6B, pp. 4875-5143.

Imbens, Guido M. and Jeffrey M. Wooldridge (2009), "Recent Developments in the Econometrics of Program Evaluation," *Journal of Economic Literature*, Vol. 47, No. 1, pp. 5-86.

Shadish, W.R., Cook, T.D., e Campbell, D.T. 2002. *Experimental and Quasi-Experimental Designs for Generalized Causal Inference*. Boston: Houghton-Mifflin.

Woodridge, J.M. 2002. *Econometric Analysis of Cross-Section and Panel Data*. Cambridge: MIT Press.

1. Introduction

MHE – Chapter 1

Heckman, J. 2001. Micro Data, Heterogeneity, and the Evaluation of Public Policy. *Journal of Political Economy*, v. 109, n. 4. Primeira Parte.

Ravallion, M.. 2001. "The Mystery of Vanishing Benefits: An Introduction to Impact Evaluation," *World Bank Economic Review*, 15(1), 115-140.

2. The Conditional Expectation Function and OLS Regression

MHE – Chapter 3.1

3. A Behavioral Model: The Roy Model

Roy, A. D. 1951. Some Thoughts on the Distribution of Earnings. *Oxford Economic Papers (New Series)*. 3:135-146.

Heckman, J. e B. Honoré. 1990. The Empirical Content of the Roy Model. *Econometrica*. 58(5): 1121-1149.

4. Causal Inference and Random Experiments

MHE – Chapters 2

Angrist, J. D. and A. B. Krueger (2000), "Empirical Strategies in Labor Economics," in A. Ashenfelter and D. Card eds. *Handbook of Labor Economics*, vol. 3. New York: Elsevier Science. Sections 1 and 2.

Angrist, J., E. Bettinger, E. Bloom, E. King, e M. Kremer. (2002). Vouchers for Private Schooling in Colombia: Evidence from a Randomized Natural Experiment. *American Economic Review*, December.

Bloom, H. S., L. L. Orr, S. H. Bell, G. Cave, F. Doolittle, W. Lin and J. M. Bos (1997), "The Benefits and Costs of JTPA Title II-A Programs," *Journal of Human Resources*, vol. 32, 549-576.

Cox, D. R. (1992), "Causality: Some Statistical Aspects." *Journal of the Royal Statistical Society, Series A*, 155, part 2, 291-301.

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Rubin, D. 1974. Estimating Causal Effects of Treatments in Randomized and Non-randomized Studies. *Journal of Educational Psychology*, 66, 688-701

5. Non-Random Experiments: Selection on Observables

MHE – Chapters 3.2, 3.3, 3.4

Abadie, A., and G. Imbens, (2006), "Large Sample Properties of Matching Estimators for Average Treatment Effects," *Econometrica*, vol. 74-1, 235- 267.

Cochran, W. G., (1968), "The Effectiveness of Adjustment by Subclassification in Removing Bias in Observational Studies," *Biometrics*, vol. 24, 295-313.

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Smith, J. and P. Todd, (2005). "Does matching overcome LaLonde's critique of nonexperimental estimators?," *Journal of Econometrics*, vol. 125(1-2), pages 305-353.

GRADING

Written final exam: 40%
Take home exams: 20%
Presentations: 40%

PROFESSOR - EMAILS