

# Programa do Curso de IEE 854 - Microeconometria

Prof. Romero Rocha

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## Abstract

Este curso tem como objetivos: (i) apresentar aos estudantes técnicas econométricas recentes, concentrando nas técnicas mais utilizadas em aplicações de microeconomia; (ii) capacitar os estudantes na leitura de artigos que utilizam essas técnicas; (iii) capacitar os estudantes com os comandos mais utilizados no uso dessas técnicas nos softwares econométricos Stata ou R, através de exercícios (opcionais).

Horário: Terça dàs 9:20 às 12:50

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## Avaliação

Prova (40% da nota)

Resenhas de artigos ao longo do curso: (20% da nota)

Projeto de Pesquisa + Apresentação do Projeto (40% da nota)

## Principais Referências Bibliográficas e Softwares

Os livros-texto e artigos a seguir são as principais referências do curso, que serão complementadas com notas de aula, capítulos de outros livros e artigos acadêmicos empíricos.

### **BIBLIOGRAFIA (bibliografia obrigatória)**

Angrist, J. & Pischke, J-S. Mostly Harmless Econometrics: An Empiricist's Companion. Princeton University Press, 2008.

Cameron, A. e P. Trivedi. Microeconometrics Using Stata. Stata Press, 2010.

Cunningham, S. Causal Inference: The Mixtape: <https://mixtape.scunning.com/index.html>

Gertler, P.J., Martinez, S., Premand, P., Rawlings, L.B. & Vermeersch, C.M.J. Impact Evaluation in Practice, 2nd Edition. World Bank, Washington, D.C., 2015.

Rubin, D. Estimating causal effects of treatments in randomized and nonrandomized experiments, Journal of Educational Psychology 66, pp. 688-701, 1974.

Wooldridge, J. M. Econometric Analysis of Cross Section and Panel Data, MIT Press, Cambridge, MA, 2010.

## Conteúdo Previsto

### 1. Identificação, inferência causal e experimentos (com aplicações em participação política e corrupção).

-Angrist & Pischke (2008, Caps 1 e 2)

-Cunningham, S (2018). Causal Inference: The Mixtape, cap. 4

-Gerber, A.; Green, D.; e Larimer, C. (2008). Social Pressure and Voter Turnout: Evidence from a Large Scale Field Experiment. *American Political Science Review*, v.102(1), 33-48.

-Ferraz, C. e Finan, F. (2008). Exposing Corrupt Politicians: The Effect of Brazil's Publicly Released Audits on Electoral Outcomes. *Quarterly Journal of Economics*, May 2008, v.123(2): 703-745.

### 2. Modelos para Dados em Panel, diferenças em diferenças e “event-study” (com aplicações em efeitos da TV e efeitos de polícia em crime)

-Wooldridge (2010b) (Caps 13 e 14)

-Angrist & Pischke (2008, Caps 1 e 2)

-Cunningham, S (2018). Causal Inference: The Mixtape, caps. 8 e 9.

-La Ferrara, Eliana, Alberto Chong, and Suzanne Duryea (2012). Soap Operas and Fertility: Evidence from Brazil. *American Economic Journal: Applied Economics*, 4 (4): 1-31.

-Di Tella, R. and Schargrodsky, E. (2004). Do police reduce crime? estimates using the allocation of police forces after a terrorist attack. *American Economic Review*, 94:115?133.

\*Draca, M., Machin, S., and Witt, R. (2011). Panic on the streets of london: Police, crime, and the july 2005 terror attacks. *American Economic Review*, 101:2157?2181.

\* Galiani, S.; Gertler, P.; e Schargrodsky, E. (2005). Water for Life: The Impact of the Privatization of Water Services on Child Mortality. *Journal of Political Economy*, v.113(1) pp.83-120.

\* Miller, G. (2008), Women's Suffrage, Political Responsiveness, and Child Survival in American History. *Quarterly Journal of Economics*, 123(3), pp. 1287-1327.

\* Rocha, R. e R. Soares (2012). Water Scarcity and Birth Outcomes in the Brazilian Semi-arid. IZA Discussion Paper no. 6773.

\* Assunção, J.; Gandour, C.; Rocha, Rudi; Rocha, Romero (2020). The effect of rural credit on deforestation. Evidence from the Brazilian Amazon. *Economic Journal*, Volume 130, Issue 626, Pages 290–330.

\* Assunção, J.; Rocha, Romero (2019). Getting Greener by Going Black: The Effect of Blacklisting Municipalities on Amazon Deforestation. *Environment and Development Economics*, 24(2), pp. 115-137.

\*Rocha, R. e Soares, R. (2010) Evaluating the Impact of Community-Based Health Interventions: Evidence from Brazil's Family Health Program. *Health Economics*, 19, pp. 126-158.

\*Rocha, R. e Silveira, L. M. (2014). O Impacto das Unidades de Pronto-Atendimento (UPA 24hs) sobre Indicadores de Mortalidade: Evidências para o Rio de Janeiro. Mimeo.

\*Duflo, E. (2001). Schooling and Labor Market Consequences of School Construction in Indonesia: Evidence From an Unusual Policy Experiment, *American Economic Review*, Sept 2001

\*Chay, Ken, McEwan, Patrick and Miguel Urquiola (2005): ?The central role of noise in evaluating interventions that use test scores to rank schools,? *American Economic Review*, 95, pp. 1237-58.

### **3. Variáveis Instrumentais (com aplicações em história econômica, meio ambiente e crime).**

Wooldridge (2010) - Cap 15.

Cunningham, S (2018). Causal Inference: The Mixtape, cap 7.

Acemoglu, D., Johnson, S. e J. Robinson (2001). The Colonial Origins of Comparative Development: An Empirical Investigation. *American Economic Review*, Vol.91(5), 1369-1401.

Glaeser, E., LaPorta, R., Silanes, F., e Shleifer, A. (2004). Do Institutions Cause Growth? *Journal of Economic Growth*, v.9(3): 271-303.

\*Assunção, J.; Gandour, C.; Rocha, Romero (2015). DETERring Deforestation in the Amazon: Environmental Monitoring and Law Enforcement CPI Discussion Paper

\*Levitt, Stephen (1997). Using Electoral Cycles in Police Hiring to Estimate the Effect of Police on Crime. *The American Economic Review*, 87, pp. 270-290

\*Rocha, R., Ferraz, C. e R. Soares (2011). Settlement Colonies Across Plantation Fields: Evidence on the Relationship Between Human Capital and Long Term Development (Mimeo).

### **4. Regressão com Descontinuidade - RDD (com aplicações em economia política).**

Angrist & Pischke (Cap 6)

Cunningham, S (2018). Causal Inference: The Mixtape, Cap. 6.

Pettersson-Lidbom (JEEA, 2008). Do Parties Matter for Economic Outcomes: A Regression Discontinuity Approach.

Ferreira e Gyourko (QJE, 2009). Do Political Parties Matter - Evidence From US Cities.

Ferraz e Finan (2010). Motivating Politicians: The Impacts of Monetary Incentives on Quality and Performance.

Fujiwara (Ectra, 2015). Voting Tehcnology, Political Responsiveness and Infant Health.

Cook, T. (2008). Waiting for Life to Arrive: A History of the Regression-Discontinuity Design in Psychology, Statistics, and Economics. *Journal of Econometrics* 142, 636-654.

\* Angrist, J. e V. Lavy (1999). Using Maimonides Rule to Estimate the Effect of Class Size on Scholastic Achievement. *Quarterly Journal of Economics* 114(2) 533-575.

\* Pop-Echelles, C. e O. Malamud (2011). Home Computer Use and the Development of Human Capital. *Quarterly Journal of Economics* 126(2) 987-1027.

\*Barbosa, A.L.N.H. e Corseuil, C.H.L. (2014). Bolsa Família, Escolha Ocupacional e Informalidade no Brasil. Texto para discussão do IPEA, N.1948.

\*Camargo,B.;Camelo, R.; Firpo, S. e Ponczek, V. (2014). Information, Market Incentives, and Student Performance. Discussion Paper IZA, N. 7941.

## **5. Synthetic Control (Com aplicações em desenvolvimento)**

Cunningham, S (2018). *Causal Inference: The Mixtape*, cap. 10.

## **6. Propensity Score Matching e Subclassificação - (Com aplicações em mercado de trabalho)**

Cunningham, S (2018). *Causal Inference: The Mixtape*, Cap. 5.

Gertler, Paul J., Sebastian Martinez, Patrick Premand, Laura B. Rawlings, e Christel M. J. Vermeersch. 2015. *Impact Evaluation in Practice -2nd Edition*. Banco Mundial, Washington, D.C.

## **7. Diferenças em diferenças com timing de entrada escalonado**

Athey, S., Imbens, G.W., 2018. Design-based analysis in difference-in-differences settings with staggered adoption. Working Paper

Borusyak, K., Jaravel, X., 2017. Revisiting event study designs. Working Paper. pp. 1–33.

Callaway e Sant'Anna. Difference-in-Differences with multiple time periods. *Journal of Econometrics*, volume 225, n.2, 200-230.

Cunningham, S (2018). *Causal Inference: The Mixtape*, cap. 9, Seção 9.6.

de Chaisemartin, C., D'Haultfoeuille, X., 2020. Two-way fixed effects estimators with heterogeneous treatment effects. *Amer. Econ. Rev.* 110 (9), 2964–2996.

Goodman-Bacon, A., 2019. Difference-in-differences with variation in treatment timing. NBER Working Paper n. 25018. Working Paper.

Sun, L., Abraham, S., 2020. Estimating dynamic treatment effects in event studies with heterogeneous treatment effects. Working Paper.

## **8. Desenvolvimentos recentes em controle sintético**

Botosaru and Ferman (2019), “On the Role of Covariates in the Synthetic Control Method,” *EJ*

Abadie (2020), “Using Synthetic Controls: Feasibility, Data Requirements, and Methodological Aspects,” *JEL*

Athey, Bayati, Doudchenko, Imbens, and Khosravi (2020), “Matrix Completion Methods for Causal Panel Data Models,” *WP*

Ferman, Pinto, and Possebom (2020), “Cherry Picking with Synthetic Controls,” *JPAM*

Arkhangelsky, Athey, Hirshberg, Imbens, and Wager (2021), “Synthetic Difference in Differences,” AER

Ben-Michael, Feller, and Rothstein (2021a), “Synthetic Controls with Staggered Adoption,” WP

Ben-Michael, Feller, and Rothstein (2021b), “The Augmented Synthetic Control Method,” WP

Ferman and Pinto (2021), “Synthetic Controls with Imperfect Pre-Treatment Fit,” QE

Gunsilius (2022), “Distributional Synthetic Controls,” WP

## **9. Desenvolvimentos recentes em IV (Shift-Share)**

Adao, Kolesar, and Morales (2019), “Shift-Share Designs: Theory and Inference,” QJE

Borusyak and Hull (2021), “Non-Random Exposure to Exogenous Shocks,” WP

Goldsmith-Pinkham, Sorkin, and Swift (2020), “Bartik Instruments: What, When, Why, and How,” AER.

Borusyak, Hull, and Jaravel (2022), “Quasi-Experimental Shift-Share Research Designs,” REStud

## **10. Directed Acyclical Graphs**

Cunningham, S (2018). Causal Inference: The Mixtape, cap. 3.