

# Métodos de Evaluación de Impacto de Políticas Públicas

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## Objetivo del curso

Este curso tiene como objetivo estudiar las técnicas microeconómicas más comúnmente utilizadas para la evaluación de impacto de políticas públicas, con énfasis en programas sociales. Se estudiarán las distintas técnicas para evaluar programas con diseños experimentales y no experimentales, enfatizando los supuestos necesarios para la validez de cada técnica. Las principales metodologías de evaluación de impacto serán ilustradas con ejemplos tanto argentinos como internacionales.

**Evaluación:** examen domiciliario a ser entregado en la última clase del curso. Para aprobar el curso también es necesario asistir como mínimo al 75% de las clases dictadas.

Fecha de entrega: 10 de septiembre

## Textos sugeridos:

Angrist, Joshua and Jorn-Steffen Pischke. (2008) Mostly Harmless Econometrics: An Empiricists' s Companion. Princeton University Press.

Cameron and P. Trivedi (2007): Microeconometrics: Methods and Applications, Cambridge University Press.

Lee, Myoung-Jae (2005): Microeconometrics for Policy, Program, and Treatment Effects. Oxford University Press.

Shadish, W., Cook, T., y Campbell, D. (2002). Experimental and quasi-experimental designs for generalized causal inference. Hoghton Mifflin.

Wooldridge, Jeffrey.(2002) Econometric Analysis of Cross Section and Panel Data. Cambridge, MA: MIT Press.

### 1) A. Introducción:

Ayres, Ian. Super Crunchers.(2007) Bantam Books: New York. Capítulos 1 y 2.

### B. El ideal experimental

Angrist, Joshua and Jorn-Steffen Pischke. Mostly Harmless Econometrics, Chapter 2, Sections 2.1 and 2.2.

Angrist, Joshua and Alan Krueger. 1999. "Empirical Strategies in Labor Economics," in Orley Ashenfelter and David Card, eds., Handbook of Labor Economics, Vol.3. Amsterdam: Elsevier Science.

### **C. Análisis de Regresión**

Angrist, Joshua and Jorn-Steffen Pischke. Mostly Harmless Econometrics, Chapter 3, Sections 3.1, 3.2 and 3.4.

### **D. El problema fundamental de la evaluación.**

Angrist, J.D, and Alan B. Krueger, (2001), “Instrumental Variables and the Search for Identification: From Supply and Demand to Natural Experiments”, *Journal of Economic Perspectives*—15 (4) – 69-85.

Blundell, R y M. Costa Dias,(2008) “Alternative approaches to evaluation in empirical microeconomics”, The Institute for Fiscal Studies Department of Economics, UCL, cemmap working paper CWP26/08

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McCloskey, D.N.and S. T. Ziliak, (1996), “The Standard Error of Regressions”, *Journal of Economic Literature*, 34,(1) pp. 97-114.

Ravallion, Martin, (1999) “The Mystery of the Vanishing Benefits: Ms. Speedy Analyst's Introduction to Evaluation”, World Bank Policy Research Working Paper No. 2153

## **2) Experimentos Aleatorios**

Shadish, W., Cook, T., y Campbell, D. (2002). *Experimental and quasi-experimental designs for generalized causal inference*. Houghton Mifflin.

Duflo, Esther, Rachel Glennerster y Michael Kremer (2006). *Using Randomization in Development Economics Research: A Toolkit*, BREAD Working Paper No. 136, December

### **Aplicaciones:**

Angelucci, M and G. De Giorgi, (2009), “Indirect Effects of an Aid Program: How Do Cash Transfers Affect Ineligibles’ Consumption?”, *American Economic Review*, 99:1, 486–508.

Angrist, J. Bettinger, E. Bloom, E. King, E. and Kremer, M. (2002): *Vouchers for Private Schooling in Colombia: Evidence from a Randomized Natural Experiment*. *American Economic Review*, 92.

Bertrand, M. and S. Mullainathan (2004), “Are Emily and Brendan More Employable than Latoya and Tyrone? Evidence on Racial Discrimination in the Labor Market from a Large Randomized Experiment,”, *American Economic Review*.

Gertler, P. (2004): Do conditional cash transfers improve child health? Evidence from PROGRESA's control randomized experiment. *American Economic Review*, 94.

Kremer, Michael y Eduardo Miguel, (2004) "Worms: Education and Health Externalities in Kenya", *Econometrica*, 72, (1) 159-217

Parker, S. and Skoufias, E. (2000): "The impact of PROGRESA on work, leisure, and time allocation", mimeo, International Food Policy Research Institute. Parker and Skoufias

### 3) Estimador de Diferencias en Diferencias y métodos longitudinales

#### **DID Lineal:**

Angrist, Joshua and Jorn-Steffen Pischke. *Mostly Harmless Econometrics*, Chapter 5, Section 5.2.

Bertrand, M., Duflo, E., and Mullainathan, S. (2004): "How Much Should We Trust Differences in differences Estimates?", *The Quarterly Journal of Economics*, 119(1), pp.249-275.

Cameron, A.C., Gelbach, J.B. and Miller, D.L., (2008): "Bootstrap-Based Improvements for Inference with Clustered Errors", *The Review of Economics and Statistics*, 90 (3), 414-427.

Donald, S., and Lang, K. (2007): "Inference with Differences in Differences and Other Panel Data". *The Review of Economics and Statistics*, 89(2), pp.221-233.

#### **DID no lineales:**

Athey, Susan and Guido Imbens, (2006), "Identification and Inference in Nonlinear Difference-in-Differences Models", *Econometrica*, 74 (2), pp. 431-497.

#### **Aplicaciones**

Donohue, J, III and S, Levitt, (2001) "The Impact of Legalized Abortion on Crime." *Quarterly Journal of Economics*, 116(2), pp. 379-420

Duflo, E. (2001): Schooling and labor market consequences of school construction in Indonesia: evidence from an unusual policy experiment, *American Economic Review* 91.

Galiani, S., Gertler, P y Schargrodsky, E. (2005). Water for Life: The Impact of the Privatization of Water Services on Child Mortality. *Journal of Political Economy*

Jensen, R. and E. Oster, (2008), "The Power of TV: Cable Television and Women's Status in India, *Quarterly Journal of Economics*, forthcoming

### 3) Estimadores de apareamiento

Angrist, Joshua and Jorn-Steffen Pischke. *Mostly Harmless Econometrics*, Chapter 3, Section 3.3.

Angrist, J. and J. Hahn (2004). "When to Control for Covariates? Panel-Asymptotic Results for Estimates of Treatment Effects" *Review of Economics and Statistics* (February)

Blundell, R y M. Costa Dias, (2008) "Alternative approaches to evaluation in empirical microeconomics", The Institute for Fiscal Studies Department of Economics, UCL, cemmap working paper CWP26/08

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Hirano, K., G. Imbens and G. Ridder (2003). "Efficient Estimation of Average Treatment Effects Using the Estimated Propensity Score", *Econometrica* 71 (4): 1161-1189.

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Imbens, G., (2004). "Nonparametric Estimation of Average Treatment Effects under Exogeneity: A Review", *Review of Economics and Statistics* 86 (1): 4-30

Imbens, Guido W. and Jeffrey M. Wooldridge, (2009) "Recent Developments in the Econometrics of Program Evaluation", *Journal of Economic Literature*, 47:1, 5–86

Lalonde, Robert. (1986). "Evaluating the Econometric Evaluations of Training Programs Using Experimental Data," *American Economic Review*, 76(4): 604- 620.

Rosenbaum, P. and D. Rubin (1983). "The Central Role of the Propensity Score in Observational Studies for Causal Effects, *Biometrika* 70 (1): 41-55

Rosenbaum, P. and R. Rubin (1984). "Reducing Bias in Observational Studies Using Subclassification on the Propensity Score " *Journal of the American Statistical Association* 79 (387): 516-524

Rosenbaum, Paul and Donald Rubin. (1983). "Reducing Bias in Observational Studies Using Subclassification on the Propensity Score," *Journal of the American Statical Association*, 79(487): 516-525.

Smith, Jeffrey and Petra Todd. (2001). "Reconciling Conflicting Evidence on the Performance of Propensity Score Matching Methods," *American Economic Review*, 91(2): 112-118.

## **Aplicaciones**

Abadie, A. and Javier Gardeazabal (2003). "The Economic Costs of Conflict: A Case Study of the Basque Country", *American Economic Review* 93 (1): 113-132.

Angrist, Joshua D. (1998), "Estimating the Labor Market Impact of Voluntary Military Service Using Social Security Data on Military Applicants" *Econometrica*, 66 (2) 249-288

Dehejia, R. (2005). "Practical Propensity Score Matching (Response to Smith and Todd)", *Journal of Econometrics* 1-2

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Heckman, J. and J. Hotz (1989). "Choosing Among Alternative Nonexperimental Methods for Estimating the Impact of Social Programs: The Case of Manpower Training", *Journal of the American Statistical Association* 84: 862-8.

Lalonde, R. (1986). "Evaluating the Econometric Evaluations of Training Programs with Experimental Data", *American Economic Review* 76: 604-620

Smith, J. and P. Todd (2001), "Reconciling Conflicting Evidence on the Performance of Propensity Score Matching Methods", *American Economic Review* 91

Smith, J. and P. Todd (2005). Does Matching Overcome Lalonde's Critique of Non-experimental Estimators? , *Journal of Econometrics* 1-2

#### **4) Variables Instrumentales**

Angrist, Joshua and Jorn-Steffen Pischke. *Mostly Harmless Econometrics*, Chapter 6.

Blundell, R y M. Costa Dias, (2008) "Alternative approaches to evaluation in empirical microeconomics", The Institute for Fiscal Studies Department of Economics, UCL, cemmap working paper CWP26/08

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#### **Aplicaciones**

Alzua, M.L, C. Rodríguez y E. Villa, (2009) *The Quality of Life in Prisons: does education reduce in jail conflict?*, CEDLAS, Working paper

Angrist, Joshua, Guido Imbens, and Donald Rubin. (1996). "Identification of Causal Effects Using Instrumental Variables," *Journal of the American Statistical Association*, 91: 444-455.

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Heckman, James. (1997) "Instrumental Variables: A Study of Implicit Behavioral Assumptions Used in Making Program Evaluations," *Journal of Human Resources*, 32(3): 441-462.

Oreopoulos, P. (2006). Estimating average and local average treatment effect of education when compulsory schooling laws really matter. *American Economic Review*.

## **5) Regresión Discontinua**

Angrist, Joshua and Jorn-Steffen Pischke. *Mostly Harmless Econometrics*, Chapter 6.

Hahn, Jinyoung, Petra Todd and Wilbert van der Klaauw. (2001). "Identification and Estimation of Treatment Effects with a Regression- Discontinuity Design," *Econometrica*, 69(1): 201-209.

Imbens, Guido & Lemieux, Thomas,(2008) "The regression discontinuity design-- Theory and applications", *Journal of Econometrics*, Special Issue on Regression Discontinuity Design, 142 (2).

Miguel, Edward, Marco Manacorda, and Andrea Vigorito, (2009) "Government Transfers and Political Support"  
[http://www.econ.berkeley.edu/~emiguel/pdfs/miguel\\_uruguay.pdf](http://www.econ.berkeley.edu/~emiguel/pdfs/miguel_uruguay.pdf)

### **Aplicaciones**

Angrist, Joshua and Victor Lavy. (1999). "Using Maimonides' Rule to Estimate the Effect of Class Size on Scholastic Achievement," *Quarterly Journal of Economics*, 114(2): 533-575.

Kugler, Adriana and Robert Sauer. (2005). "Doctors without Borders? Relicensing Requirements and Negative Selection in the Market for Physicians," *Journal of Labor Economics*, 23(3): 437-466.

van der Klaauw, W and S. Chen (2007) "The Effect of Disability Insurance on Labor Supply of Older Individuals in the 1990s" *Journal of Econometrics*.

Verhoogen, E and M. Urquiola, (2009) "Class-Size Caps, Sorting, and the Regression Discontinuity Design." *American Economic Review*, v. 99 no. 1, pp. 179-215.

## **6) Interacciones y Equilibrio General**

Heckman, James, Lance Lochner and Christopher Taber, (1999): "General Equilibrium Cost Benefit Analysis of Education and Tax Policies," NBER Working Paper No. 6881.

Hirano, Keisuke and Jinyong Hahn, (2010), "Design of Randomized Experiments to Measure Social Interaction Effects," *Economics Letters* 106(1): 51-53.

Lalive, Rafael and Alejandra Cattaneo, (2009), "Social Interactions and Schooling Decisions", *Review of Economics and Statistics*, 2009, 91(3):457-477.

## **7) Control Function**

Blundell, R y M. Costa Dias, (2008) "Alternative approaches to evaluation in empirical microeconomics", The Institute for Fiscal Studies Department of Economics, UCL, cemmap working paper CWP26/08

Heckman, James. (1976). "The common structure of statistical models of truncation, sample selection and limited dependent variables, and a simple estimator for such methods." *Annals of Economic and Social Measurement* 5, 475-492.

Vytlacil, Edward. (2002). "Independence, Monotonicity, and Latent Index Models: An Equivalence Result." *Econometrica* 70(1): 331-341.

## **8) Evaluaciones ex ante**

Heckman, James J. (2000): "Causal Parameters and Policy Analysis in Economics: A Twentieth Century Retrospective," in *Quarterly Journal of Economics*, Vol. 115(1), p.45- 97.

Todd, Petra E. y Kenneth I. Wolpin (2005): "Ex Ante Evaluation of Social Programs," working paper, <http://pier.econ.upenn.edu/Archive/06-022.pdf>

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## **9) Modelos estructurales**

Attanasio, Orazio, Costas Meghir and Ana Santiago, (2004): "Education choices in Mexico: using a structural model and a randomized experiment to evaluate PROGRESA," IFS Working Papers, EWP04/04.

Calmfors, Lars, (1994): "Active Labour Market Policy and Unemployment--A Framework for the Analysis of Crucial Design Features," OECD Economic Studies, 22: 7-47.

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(<http://www.tau.ac.il/~eckstein/pdf/femJOE%20full%20180508.pdf>)

Heckman, James, Lance Lochner and Christopher Taber, (1999): "General Equilibrium Cost Benefit Analysis of Education and Tax Policies," NBER Working Paper No. 6881.

McCrary, Justin and David S. Lee (2009), " The Deterrence Effect of Prison: Dynamic Theory and Evidence, a previous version of this paper circulated as Crime, Punishment, and Myopia, NBER Working Paper 11491

Lise, Jeremy, Shannon Seitz and Jeffrey Smith, (2004): "Equilibrium Policy Experiments and the Evaluation of Social Programs." NBER Working Paper No. 10283.

Meghir, Costas, (2006): "Dynamic models for policy evaluation", IFS Working Paper WP0608.

## 10) Misceláneas

Banerjee, A. and E. Duflo, (2008) "The Experimental Approach to Development Economics", Working Paper NBER, w14467

Browning, E.K, (1971) "Incentive and Disincentive Experimentation for Income Maintenance Policy Purposes", American Economic Review, Vol. 61, No. 4.

Deaton, A., (2009) "Instruments of development: Randomization in the tropics, and the search for the elusive keys to economic development", Working Paper NBER, w14690

Heckman, J. (1995), "Randomization as an Instrumental Variable", NBER Technical Working Paper Nro. 184

Heckman, J and Urzua, S, (2009) "Comparing IV with Structural Models: What Simple IV Can and Cannot Identify? NBER Working Paper 14706

Imbens, G., "Better LATE Than Nothing: Some Comments on Deaton (2009) and Heckman and Urzua (2009)", (2009)Harvard University, unpublished manuscript

Ravallion, M. (2009) "Should the Randomistas Rule?," The Economists' Voice: Vol. 6 : Issue. 2, Article 6.

Rodrik, D., (2008) "The New Development Economics: We Shall Experiment, But How Shall We Learn? Unpublished manuscript, John F. Kennedy School of Government Harvard University

<b>Cronograma de clases</b>			
<b>Clase</b>	<b>Día</b>	<b>Horario</b>	<b>Tema</b>
1	22-Junio	10-13hs	Introducción: Problema Fundamental de la Evaluación
2	29-Junio	10-13hs	Experimentos Sociales (I)
3	<b>2-Julio</b>	14-17hs	Experimentos Sociales (II)
4	6-Julio	10-13hs	Diferencias en Diferencias (I)
5	13-Julio	10-13hs	Diferencias en Diferencias (II)
6	<b>16-Julio</b>	14-17hs	Matching
7	20-Julio	10-13hs	Variables Instrumentales (I)
8	27-Julio	10-13hs	Variables Instrumentales (II)
9	3-Agosto	10-13hs	Regresión Discontinua (I)
10	10-Agosto	10-13hs	Regresión Discontinua (II)
11	17-Agosto	10-13hs	Evaluaciones Ex-ante
12	24-Agosto	10-13hs	Modelos Estructurales