



Bar-Ilan University

מיני קורס 66-950-02

"The theory and practice of policy impact evaluation"

תאריך עדכון: 17.12.12

סוג הקורס: הרצה

היקף שעות: 1 ש"ס

סמסטר: א'

שנת לימודים: תשע"ג

שם המרצה: ד"ר דויד מקנזי

א. מטרת הקורס:

Learning whether or not government policies are having their intended effects requires comparison to a counterfactual of what would have happened in the absence of these policies. Economics has a rich toolkit of ways of forming this counterfactual, including instrumental variables, propensity score matching, difference-in-differences, regression discontinuity designs, and randomized experiments. The purpose of this mini-course is to go beyond the standard textbook descriptions and explanations of these methods to talk through some recent advances in methodology (e.g. understanding what local average treatment effects give us and how to move beyond them, dealing with a small number of units, conducting mechanism experiments and "little IE", improving power by blocking and pairwise matching, etc.) and to work through the design choices faced when designing an impact evaluation of a government policy from scratch, as well as in using the types of data governments produce for ex post evaluation.

There will be a mixture of theory, empirics, and practical discussion. The focus will not be on theory for theory's sake, but rather on understanding these methods and tools, and how to use them. Participants in this mini-course should bring a laptop with STATA on it to class – we will then do some practical exercises implementing some of these methods with real data in the course of going through this content.

ב. תוכן הקורס:

Recap of Evaluation Methods and Discussion of When they can be used

We will start with a recap of different methods for estimating causal effects, discuss recent advances in these methods, and how to convince policymakers, businesses, NGOs and other organizations to work with you to implement these.

- Imbens, Guido and Jeffrey Woolridge (2009) “Recent developments in the econometrics of program evaluation”, *Journal of Economic Literature* 47(1): 5-86
- Crump, Richard K., V. Joseph Hotz, Guido W. Imbens, and Oscar A. Mitnik (2009) “Dealing with limited overlap in estimation of average treatment effects”, *Biometrika* 96(1): 187-199.

Implementing Matching and Difference-in-Differences in Practice

A class exercise with real data on firm registration rates by municipality.

All about LATE

There has been a lot of recent debate about whether the treatment effects measured by instrumental variables and randomized experiments are interesting parameters for policymakers. We will discuss several papers on this theme:

- Angrist, Joshua and Ivan Fernandez-Val (2010) “Extrapolate-ing External Validity and Overidentification in the LATE framework”, NBER Working Paper no. 16566.
- Angrist, Joshua D (2004). “Treatment effect heterogeneity in theory and practice” *Economic Journal* 114(494): C52-C83.
- Imbens, Guido (2010) “Better LATE than nothing: Some comments on Deaton (2009) and Heckman and Urzua (2009)”, *Journal of Economic Literature* 48(2): 399-423.
- Clément de Chaisemartin (2012) “All you need is LATE”, Mimeo. Paris School of Economics

Selective Trials and Mechanism Experiments

New methods to build on the external validity of randomized experiments and to enable investigation of inside the black box of treatments.

- Chassang, Sylvain, Gerard Padro I Miquel and Erik Snowberg (2012) “Selective Trials: A Principal-Agent Approach to Randomized Controlled Experiments”, *American Economic Review* 102(4): 1279–1309
- Jens Ludwig, Jeffrey R. Kling, and Sendhil Mullainathan (2011) “Mechanism Experiments and Policy Evaluations”, *Journal of Economic Perspectives* 25(3): 17-38.

Power Calculations and Improving Power

Discussion of how to calculate the power of a study and strategies to improve power.

- Esther Duflo, Rachel Glennerster and Michael Kremer (2007) “Using randomization in development economics: A toolkit”, *Handbook of Development Economics* Volume 4, pages 3895-3962
- Bruhn, Miriam and David McKenzie (2009) “In pursuit of balance: Randomization in practice in development field experiments”, *American Economic Journal: Applied Economics* 1(4): 200-32.
- McKenzie, David (2012) “Beyond baseline and follow-up: The case for more T in experiments”, *Journal of Development Economics* 99: 210-221.

Implementing Power Calculations in Practice

A class exercise in STATA.

מהלך השיעורים:

- Monday, January 14: 4-7 pm
- Tuesday, January 15: 9-11 (course) and 11 am – 13 pm (seminar)
- Wednesday, January 16: 9-13 pm
- Thursday, January 17: 9-12 pm