



B0343

FIELD EXPERIMENTS

FOR POLICY EVALUATION

Academic Year: 2022-2023

**Curriculum: Economics and
Economic Policy**

Period: semester 1, 1ST sub-cycle

Professor: Denni Tommasi

ECONOMICS AND ECONOMIC POLICY

OBJECTIVES

We will build the statistical foundations for field experiments from the ground up. We will discuss the logic of randomized control trials (RCTs) conducted in real-world settings, their strengths and weaknesses compared to other methodologies, and the ways in which experimentation has been, and could be, used to investigate social phenomena. Students will learn how to interpret, design, and execute experiments.

TARGET STUDENTS

Students interested in understanding policy evaluations (i.e., public, health, labor, or development policies) as well as more business-oriented students interested in understanding business evaluations and A/B testing (i.e., useful for understanding user engagement and satisfaction of online features like a new feature or product).

PRIOR KNOWLEDGE

Students should have taken at least one or two semesters of statistics and econometrics. Understanding of probability, hypothesis testing, and regression are assumed. Familiarity with STATA is recommended. We will be working with data in class throughout the term.

TEACHING STAFF

Prof. Denni Tommasi. Email: denni.tommasi@unibo.it.

Web Page: <https://www.unibo.it/sitoweb/denni.tommasi/teachings>

Office hours: On Fridays, 4-5pm, in office.

TEACHING PRACTICE

The course consists of 9 classes of 3 hours.

SCHEDULING

Please check exact location of the lectures at [this](#) link.

Unit	time	Date	Location
L1	14.00 – 17.00	Monday, 19 September, 2022	Aula VIII Pichat 6-6/2
L2	11.00 – 14.00	Friday, 23 September 2022	Aula VIII Pichat 6-6/2
L3	14.00 – 17.00	Monday, 26 September 2022	Aula VIII Pichat 6-6/2
L4	15.00 – 18.00	Wednesday, 28 September 2022	Aula Via Filopanti 5
L5	15.00 – 18.00	Wednesday, 5 October 2022	Aula Via Filopanti 5
L6	14.00 – 17.00	Monday, 10 October 2022	Aula VIII Pichat 6-6/2
L7	11.00 – 14.00	Friday, 14 October 2022	Aula VIII Pichat 6-6/2
L8	14.00 – 17.00	Monday, 17 October 2022	Aula VIII Pichat 6-6/2
L9	11.00 – 14.00	Friday, 21 October 2022	Aula VIII Pichat 6-6/2

LITERATURE: TEXTBOOK

Main textbook (mandatory): *Field Experiments: Design, Analysis and Interpretation*, Gerber and Green (2012).

Companion book (free pdf on Virtuale): *Impact Evaluation in Practice*, World Bank, 2nd edition (2016).

Other suggested books:

“Running Randomized Evaluations: A Practical Guide”, Glennerster, Rachel and Kudzai Takavarasha (2013).

“Failing in the Field “, Karlan, Dean and Jacob Appel (2016).

E-LEARNING PLATFORM and TEACHING MATERIAL

To download slides, syllabus, assignments, and other teaching material please access: <https://iol.unibo.it/>. The website is accessible using your institutional credentials: username and password. Lectures will not be recorded.

EXAMINATION and GRADING

The final grade depends on:

1. In-class participation (6 points, 20% of the final grade)
2. Presentations (6 points, 20% of the final grade).
3. Take-home exam (18 points, 60% of the final grade)

Important:

1. In-class participation and presentations are **mandatory** for all students.
2. The points obtained from the participation and presentations are **only valid for the 1st exam take**.
3. From the 2nd exam take onwards, your final grade will depend 100% on the take-home exam only.
4. You can refuse your final grade **only once**.

COURSE OUTLINE

L1 Identification and estimation of the ATE

- Gerber and Green, chapter 2

L2 Randomization inference

- Gerber and Green, chapter 3

L3 Covariates and multiple periods

- Gerber and Green, chapter 4
- McKenzie (2012)

L4 Power and design

- Duflo, Banerjee, and Glennerster (2008), section 4

L5 Noncompliance

- Gerber and Green, chapter 5 and 6

L6 Interference

- Gerber and Green, chapter 8
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L7 Design and challenges

- Duflo, Banerjee, and Glennerster (2008), section 3 and 5

L8 Students presentations

- Papers from the list

L9 Students presentations

- Papers from the list

REFERENCES

(*): These papers are mandatory

(**): These papers are for students' presentation

METHODOLOGY

A. Why do field experiments?

Bandiera, Oriana, Iwan Barankay and Imran Rasul. 2011. "Field Experiments with Firms." *Journal of Economic Perspectives*, 25 (3): 63–82.

Card, David, Stefano Della Vigna and Ulrike Malmendier. 2011. "The Role of Theory in Experiments." *Journal of Economic Perspectives*, 25(3): 39 – 62.

Harrison, Glenn and John A. List. 2004. "Field Experiments." *Journal of Economic Literature*, XLII: 1013-1059.

Holland, Paul W. 1986. "Statistics and Causal Inference." *Journal of the American Statistical Association* Vol. 81, No. 396, pp. 945-960.

Levitt, Steve and John List. 2009. "Field Experiments in Economics: the Past, the Present and the Future." *European Economic Review*, 53(1): 1- 18.

List, John A., Sally Sadoff, and Mathis Wagner, "So you want to run an experiment, now what? Some Simple Rules of Thumb for Optimal Experimental Design," *Experimental Economics*, (2010), forthcoming.

List, John A. 2011. "Why Economists Should Conduct Field Experiments and 14 Tips for Pulling One Off." *Journal of Economic Perspectives*, 25(3): 3 – 16.

B. Power, Sample Size, Randomization, and Noncompliance

Bruhn, Miriam and David McKenzie. 2009. "In Pursuit of Balance." *American Economic Journal: Applied Economics*, 1(4): 200 – 232.

(*) Duflo, Esther, Abhijit Banerjee, Rachel Glennerster, and Michael Kremer. 2007. "Randomization in Development Economics: A Toolkit." *Handbook of Development Economics* 4: 3895-3962.

Imbens, Guido W and Angrist, Joshua D, 1994. "Identification and Estimation of Local Average Treatment Effects," *Econometrica*, vol. 62(2), pages 467-475

(*) McKenzie, David. 2012. "Beyond baseline and follow-up: The case for more T in experiments," *Journal of Development Economics*, Elsevier, vol. 99(2), pages 210-221.

C. Spillover Effects

(*) Angelucci, Manuela and Vincenzo Di Maro. 2016. "Program Evaluation and Spillover Effects." *Journal of Development Effectiveness* Volume 8, Issue 1.

Baird, Sarah, J. Aislinn Bohren, Craig McIntosh, Berk Ozler. 2018. "Optimal Design of Experiments in the Presence of Interference," *The Review of Economics and Statistics*, vol. 100(5), pages 844-860

D. External Validity

Ludwig, Jens, Jeffrey R. Kling, and Sendhil Mullainathan. 2011. "Mechanism Experiments and Policy Evaluations." *Journal of Economic Perspectives*, 25(3): 17-38.

APPLICATIONS

A. Development Economics: Policies for disadvantaged individuals

(**) Ashraf, Nava, Dean Karlan, and Wesley Yin. 2006. "Tying Odysseus to the Mast: Evidence from a Commitment Savings Product in the Philippines." *Quarterly Journal of Economics*, 121(2): 635-672.

(**) Ashraf, Nava, James Berry, and Jesse M. Shapiro. 2010. "Can Higher Prices Stimulate Product Use? Evidence from a Field Experiment in Zambia." *American Economic Review*, 100(5): 2383-2413.

(**) Cohen, Jessica and Pascaline Dupas. 2010. "Free Distribution or Cost-Sharing? Evidence from a Randomized Malaria Prevention Experiment." *Quarterly Journal of Economics*, 125(1): 1 – 45.

Loyalka, Prashant, Popova, Anna, Li, Guirong and Zhaolei Shi. 2019. "Does Teacher Training Actually Work? Evidence from a Large-Scale Randomized Evaluation of a National Teacher Training Program," *American Economic Journal: Applied Economics*, vol. 11(3), pages 128-154.

Miguel, Edward and Michael Kremer. 2004. "Worms: Identifying Impacts on Education and Health in the Presence of Treatment Externalities." *Econometrica*, 72 (1): 159-217.

Muralidharan, Karthik, Paul Niehaus, and Sandip Sukhtankar. 2021. "General equilibrium effects of (improving) public employment programs: experimental evidence from India," *Econometrica*.

B. Labor Economics: Reducing search barriers for job seekers

Abebe, Girum, Stefano Caria, and Esteban Ortiz-Ospina. 2021. "The Selection of Talent: Experimental and Structural Evidence from Ethiopia." *American Economic Review* 111, no. 6 (June): 1757–1806.

(**) Abebe, Girum, Stefano Caria, Marcel Fafchamps, Paolo Falco, Simon Franklin, and Simon Quinn, 2021. "Anonymity or Distance? Job Search and Labour Market Exclusion in a Growing African City," *The Review of Economic Studies*, Volume 88, Issue 3, May 2021, Pages 1279–1310.

Abel, Martin, Rulof Burger, and Patrizio Piraino. 2021. "The Value of Reference Letters: Experimental Evidence from South Africa," *American Economic Journal: Applied Economics*, Vol. 12, No. 3.

(**) Altmann, Steffen, Armin Falk, Simon Jäger, and Florian Zimmermann. 2018. "Learning About Job Search: A Field Experiment with Job Seekers in Germany." *Journal of Public Economics* 64 (June): 33–49.

(**) Attanasio, Orazio, Arlen Guarín, Carlos Medina, and Costas Meghir. 2017. "Vocational Training for Disadvantaged Youth in Colombia: A Long-Term Follow-Up." *American Economic Journal: Applied Economics* 9, no. 2 (April): 131-43.

(**) Belot, Michèle, Philipp Kircher and Paul Muller. 2019. "Providing Advice to Job Seekers at Low Cost: An Experimental Study on On-Line Advice." *Review of Economic Studies*, 2019 86(4): 1411-1447.

(**) Caria, Stefano, and Paolo Falco. 2022. "Skeptical Employers: Experimental Evidence on Biased Beliefs Constraining Firm Growth." *The Review of Economics and Statistics* 1–45.

(**) Crépon, Bruno, Esther Duflo, Marc Gurgand, Roland Rathelot, and Philippe Zamora. 2013. "Do Labor Market Policies have Displacement Effects? Evidence from a Clustered Randomized Experiment," *The Quarterly Journal of Economics*, vol. 128(2), pages 531-580.

Verho, Jouko, Kari Hämäläinen, and Ohto Kanninen. 2022. "Removing Welfare Traps: Employment Responses in the Finnish Basic Income Experiment." *American Economic Journal: Economic Policy*, 14 (1): 501-22.

Wheeler, Laurel, Robert Garlick, Eric Johnson, Patrick Shaw, and Marissa Gargano. 2022. "LinkedIn(to) Job Opportunities: Experimental Evidence from Job Readiness Training." *American Economic Journal: Applied Economics*, 14 (2): 101-25.

C. Labor Economics: Job flexibility

Chen, Kuan-Ming, Min Ding, John List, and Magne Mogstad, 2020. "Reservation Wages and Workers' Valuation of Job Flexibility: Evidence from a Natural Field Experiment," *Natural Field Experiments* 00715, The Field Experiments Website.

He, Haoran David Neumark, and Qian Weng. 2021. "Do Workers Value Flexible Jobs? A Field Experiment." *Journal of Labor Economics*, 39:3, 709-738.