

# Experimental Approach in Labor and Development Economics

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## Overview:

This course provides a practical introduction to the use of Randomized Control Trials in labor and development economics. The course will describe the main advantages of experimental methodologies to uncover the causal effect of policies. We will discuss technical aspects such as sample size, design of treatment arms, and data analysis. We will also discuss threats to identification and issues of external validity.

**Date:** June 30, 2021

**Hours. Main Lectures:** 15h – 19h (CET, Madrid time)  
(15h – 16:30h 1<sup>st</sup> lecture; 30 min break; 17h – 18:30h 2<sup>nd</sup> lecture; 18:30 – 19h Q&A)

**Instructor:** Monica Martinez-Bravo (Associate Professor, CEMFI)  
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**Format:** The Lectures will be online, live (not pre-recorded).

**Intended Audience:** Researchers, economists, and policy practitioners.

**Level and Prerequisites:** The course aims to provide a toolkit to use state-of-the art modern experimental methods to policy practitioners or researchers. The emphasis will be in applications and practical aspects rather than on developing new methodologies. Some basic knowledge of probability or statistics is desirable. Individuals with undergraduate degrees in Economics, Statistics or related disciplines should be able to follow the course.

## Outline:

### Lecture 1: How to Design and Analyze Randomized Control Trials?

This lecture will provide an introduction to the topic of evaluation of causal effects. We will discuss the notion of causality through a potential outcomes framework. We will present the experimental approach as the canonical methodology to the estimation of causal effects. In the second part of the lecture we will discuss Randomized Control Trials in practice. We will discuss sample size, design of treatment arms, methods of randomization, choice of partner institutions, among others.

### Lecture 2: Threats to Identification and Solutions in Randomized Control Trials

To motivate the benefits of RCTs, we will first exemplify the consequences of omitted variable bias in regression analysis. We will then illustrate key aspects of the design of RCTs. We will cover how to randomize and how to conduct power calculations. Potential limitations of RCTs (e.g. non-random attrition) will also be discussed.

## Recommended Readings and Additional Resources

Angrist, Joshua and Pischke, Jorn-Steffen, 2009, [Mostly Harmless Econometrics: An Empiricist's Companion](#), 1 ed., Princeton University Press.

Angrist, Joshua D. and Jörn-Steffen Pischke, 2014. "[Mastering 'Metrics: The Path from Cause to Effect](#)," Economics Books, Princeton University Press, edition 1, number 10363.

Duflo, Esther, Rachel Glennerster and Michael Kremer, 2008. "[Using Randomization in Development Economics Research: A Toolkit](#)," [Handbook of Development Economics](#), in: T. Paul Schultz & John A. Strauss (ed.), edition 1, volume 4, chapter 61, pages 3895-3962, Elsevier.

Glennerster, Rachel and Kudzai Takavarasha, 2013. "[Running Randomized Evaluations: A Practical Guide](#)," Economics Books, Princeton University Press, edition 1, number 10085.

Jameel-Abdul Latif Poverty Action Lab ([J-PAL](#))

Innovations for Poverty Action ([IPA](#))

Nobel Prize in Economics 2019 Lecture, Abhijit Banerjee, Esther Duflo, Michael Kremer ([link](#))

Social Experiments to Fight Poverty ([Esther Duflo's Ted Talk](#))

Presentation of Monica Martinez-Bravo on the Panel Discussion on the Nobel in Economics 2019 at Fundación Ramón Areces ([link](#)) (In Spanish)