Short Course in Program Evaluation
Georgetown Center for Econometric Practice (GCEP)
May 2-3, 2018 – Washington, D.C.
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1 Basic Information

Instructors: Matias D. Cattaneo
Associate Professor of Economics and Statistics
University of Michigan
cattaneo@umich.edu · www.umich.edu/~cattaneo

Schedule: Wed 2–May and Thu 3–May, 2018 (2 days)
9.30am–12.30pm & – 2.00pm–5.00pm.

2 Overview

The goal of this short course is to give an introduction to standard and recent methodological
developments in program evaluation, with particular focus on (reduced form) treatment effect
estimation and inference in experimental and observational settings. It focuses on methodology and
empirical practice, and will not discuss much of the statistical and econometric theory underlying
the results. A brief description of the course and references are given below.

3 Background

It is assumed that participants have elementary working knowledge of statistics, econometrics
and policy evaluation. It would be useful, but not required, if participants were familiar with basic
results from the literature on program evaluation and treatment effects; roughly at the level of
(Wooldridge, 2010). This course is meant to be self-contained and hence most underlying statis-
tics/econometrics concepts and results are introduced and explained in class.

There are several review articles, chapters, and books on program evaluation. Broadly defined
representative examples include: Abadie and Cattaneo (2018), Angrist and Pischke (2009), Heck-
man and Vytlacil (2007), Imbens and Rubin (2015), Imbens and Wooldridge (2009), and Pearl,
Glymour, and Jewell (2016), among many others. For RD methodology and empirical practice,
we will employ the following background references: Cattaneo, Titiumuk, and Vazquez-Bare (2017),
Cattaneo, Idrobo, and Titiumik (2018a,b), and Cattaneo and Titiumik (2018).

The course will include several empirical illustrations. Attendees are encouraged to bring their
personal computer to work with these applications in real-time.

4 Software

This short course will employ several empirical illustrations, which will be analyzed using Stata.
Datasets and do-files will be provided in advance.
5 Outline, Schedule & Background References

This section gives a brief overview of the topics covered.

5.1 Day 1: Causal Inference and Analysis of Experiments

Morning Session: Introduction, Identification and Counterfactuals

Afternoon Session: Departures from Canonical Experiments
Imperfect compliance, missing data, measurement error, misclassification. Conditional independence, instrumental variables, and bounds approaches. Sensitivity analysis.

5.2 Day 2: Observational Studies

Morning Session: Conditional Independence and Difference-in-Differences

Afternoon Session: Regression Discontinuity Designs
Identification, estimation and inference.
References


