
Fundamentals and methods for impact evaluation of public policies

Course programme

14-19 January, 2019

**Department of Sociology and Social Research
Via Verdi, 26 – Trento**

Francesco Billari Guest Speaker Bocconi University	Paolo Pinotti Instructor FBK-IRVAPP Bocconi University	Enrico Rettore Instructor FBK-IRVAPP Trento University	Ugo Trivellato Instructor FBK-IRVAPP Padua University	Sonia Marzadro Instructor FBK-IRVAPP
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MONDAY 14 JANUARY

09.00-12.30 **Ugo Trivellato**

10.30-11.00 coffee break

- Introduction to impact evaluation.
- Potential outcomes and the fundamental problem of causal inference.
- Conditions for learning about the causal effects of a programme.
- Causal parameters and selection bias.

12.30-14.30 lunch and break

14.30-18.00 **Ugo Trivellato**

16.00-16.30 coffee break

- A taxonomy of selection processes and identification strategies: selection bias as a heterogeneity problem; random assignment; selection on observables; selection on unobservables.
- Internal and external validity of an evaluation design.
- Evaluation strategies and data requirements: prospective vs. retrospective evaluation, data requirements.

TUESDAY, 15 JANUARY

09.00-12.30 **Enrico Rettore**

10.30-11.00 coffee break

- Impact evaluation in an experimental setting: design and implementation of randomized experiments; minimum detectable effects.
- Impact evaluation in an observational setting, selection on observables (I): stratification and matching; curse of dimensionality.

12.30-14.30 lunch and break

14.30-18.00 **Enrico Rettore**

16.00-16.30 coffee break

- Impact evaluation in an observational setting, selection on observables (II): propensity score and matching.
- Impact evaluation in an observational setting, selection on observables (III): operationalising matching.

WEDNESDAY, 16 JANUARY

09.00-12.30 **Paolo Pinotti**

10.30-11.00 coffee break

- The linear model: orthogonality condition and omitted variable bias formula
- Instrumental variables: first stage and exclusion restrictions

12.30-14.30 lunch and break

14.30-16.00 **Paolo Pinotti**

- Instrumental variables, continued: over-identifying conditions test; heterogeneity of the causal effect and characterization of compliers

16.00-16.30 coffee break

16.30-18.00 **Sonia Marzadro**

- *Training session* – OLS and IV regression.

THURSDAY, 17 JANUARY

Free morning

15.00-18.00 **Paolo Pinotti**

16.00-16.30 coffee break

- Regression discontinuity designs: Sharp and fuzzy designs, graphical analysis, parametric and non-parametric estimation, the bias-variance trade-off, placebo and falsification tests

FRIDAY, 18 JANUARY

09.00-12.30 **Paolo Pinotti**

10.30-11.00 coffee break

- Exploiting longitudinal variation: panel and difference-in-differences models; parallel trends assumption; standard error issues
- Synthetic control methods: relationship with difference-in-differences, testing through placebos

14.30-18.00 **Keynote speaker: Francesco Billari (Bocconi University)**

16.00-16.30 coffee break

SATURDAY, 19 JANUARY

09.00-12.30 **Sonia Marzadro**

10.30-11.00 coffee break

- *Training session:* RDD, difference-in-differences and synthetic control methods

12.30-14.00 lunch and break

14.00-16.00 **Paolo Pinotti, Enrico Rettore and Ugo Trivellato**

- Questions & Answers session.
- **Closing**