BAMBERG GRADUATE SCHOOL OF SOCIAL SCIENCES

LIfBi LEIBNIZ INSTITUTE FOR EDUCATIONAL TRAJECTORIES

FURTHER EDUCATION | WORKSHOP

Causal Inference with Observational Data

Instructor: Dr Matthias Collischon, Institute for Employment Research

Date & Time: Monday, November 3, 2025, 09.00 a.m. to 04.00 p.m. and

Friday, November 7, 2025, 09.00 a.m. to 03.00 p.m.

Place: BAGSS, Feldkirchenstraße 21, 96050 Bamberg, Room FG1/00.06

Registration: To register, please send an email to courses.bagss@uni-bamberg.de by Monday, October 13, 2025. Registration is mandatory. The number of participants is limited to 16.

Short Outline

This course will introduce you to the concepts and methods of causal inference and causal modeling in the social sciences. It will highlight the relevance of research design, analytical methods, and their systematic combination to optimize the validity of causal inferences drawn from empirical studies, with a special focus on longitudinal analysis.
Building on existing knowledge concerning linear regression modelling and research design, the course will then cover key methods to estimate causal effects, including fixed effects estimations with various addons, event study analyses, matching, difference-in-differences, regression discontinuity, and instrumental variables. Throughout the course, you will apply these concepts and methods in hands-on sessions to real-world examples in the social sciences. The application will be conducted with the statistical software package Stata. A solid background in Stata is expected.

Before the course starts, participants will complete a survey in which they will be asked to state their preferences regarding what they would like to be covered in the course from a set of potential topics.

Topics (potentially) covered include:

- The counterfactual framework and treatment effects: What are ATE, ATT, and LATE?
- Defining estimands and how they relate to estimation
- Fixed Effects Regressions (with a focus on time-distributed fixed effects/event studies/impact dummies and individual-slope regressions)
- Regression Discontinuity Designs
- Difference-in-Differences estimations
- Instrumental Variable Regressions

Leibniz Association

The course is split between sessions in which the concepts and methods are introduced theoretically and via existing research, and between hands-on sessions in which we will apply the methods in practice using Stata.

The workshop mainly aims at doctoral members of LIfBi and BAGSS. In case of any vacant places, it is open to anyone interested.

Prerequisites

- Knowledge of basic statistical concepts and their formal background, including the principles of linear regression
- Solid background in Stata
- Basic understanding of designing quantitative studies

About the Trainer

Matthias Collischon is a researcher (tenure-track) at the Institute for Employment Research in Nürnberg. He is an IZA-research affiliate and a LASER research fellow. His research interests include gender differences in the labor market, the effects of unemployment on various well-being measures and long-term effects of the COVID-19 pandemic on the labor market. His work has been published in high-ranking journals such as Social Forces, Sociological Science, the Journal of Human Resources, European Sociological Review and Socio-Economic Review, among others.