



## FURTHER EDUCATION | WORKSHOP

# Modern Causal Analysis

## Causal Inference Based on Non-experimental Data

- Instructor:** Dr. Jonas Voßemer
- Date & Time:** Monday, October 10, 2022, 09:15 a.m. to 5:00 p.m. (s.t.)  
Tuesday, October 11, 2022, 09:15 a.m. to 5:00 p.m. (s.t.)
- Place:** BAGSS, Feldkirchenstraße 21, 96052 Bamberg, Room FG1/00.06 & via Zoom
- Registration:** To register, please send an email to [courses.bagss@uni-bamberg.de](mailto:courses.bagss@uni-bamberg.de) by September 09, 2022. Registration is mandatory. The number of participants is limited to 14.

### Short Outline

Causal inference is a central goal of quantitative empirical social research. In research practice, however, often only non-experimental data are available, which complicates the identification and estimation of causal effects due to non-random selection processes. Current empirical social research therefore increasingly applies methods of causal analysis to non-experimental data that are based on a clear conception of causality and explicitly account for non-random selection processes.

This workshop introduces these methods. Based on the principles of theory-driven empirical social research, it first explains the idea of causal hypotheses and distinguishes the goal of causal inference from alternative goals. The counterfactual model of causality and causal graphs are introduced as the two most important conceptual foundations of various methods of causal inference. Furthermore, regression analysis is considered from a new causal perspective, and recent debates on the selection of control variables and causal model building as well as regression adjustment are discussed. In addition, (propensity score) matching, inverse probability weighting, instrumental variable estimators, and difference-in-differences estimators are presented from an applied research perspective.

Each method is described in terms of the underlying assumptions of causal identification and estimation, and potential trade-offs between internal and external validity. The methods will be practiced using the statistical program Stata on cross-sectional and longitudinal data for practical examples from sociological research.

The workshop is mainly aimed at doctoral candidates. In case of any vacant places, it is open to anyone interested.



BAMBERG  
GRADUATE SCHOOL  
OF SOCIAL SCIENCES



## FURTHER EDUCATION | WORKSHOP

### Prerequisite Knowledge

Participants are expected to be familiar with the basics of statistics and they should be familiar with multiple linear regression analysis. Empirical applications will be implemented in Stata. In support, prepared data sets and full syntax codes will be provided, but a basic knowledge of Stata is needed to run the practical examples independently.

### About the Trainer

Jonas Voßemer is a postdoctoral fellow at the Mannheim Centre for European Social Research (MZES) at the University of Mannheim. He graduated in sociology and economics from the University of Mannheim and received his doctoral degree in sociology from the University of Bamberg. In his research, he studies the interactions between labor markets, families, and health and well-being mostly using longitudinal survey data and applying methods of causal inference. His research is based on a sociological life course perspective and follows an international comparative approach.