Quasi-Experimental Research Methods in Economics

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**Objectives:**

This course will introduce students to econometric techniques and research designs that allow for the identification of treatment effects with observational data. Students will learn and apply quasi-experimental research methods regularly used in economics (IV, RDD, DiD). At the end of the course, students shall be able to develop and implement identification strategies for causal inference. They should also learn about the limitations of quasi-experimental research methods.

**Requirements:**

The course requires some knowledge in econometrics. Some experience in working with Stata would be useful, but is no prerequisite. Most importantly, students should have a strong interest in empirical research.

**Outline:**

1. Why should we care about identification?
2. Econometric Background: Identification by Assumption
3. What’s wrong with OLS?
4. Instrumental Variables and 2SLS
5. Related Concepts
6. Empirical Strategy: Identification by Design
7. How research design and econometrics interrelate
8. Regression Discontinuity Design
9. Related Concepts
10. Identification Strategies in Action
11. How to develop an identification strategy
12. Differences-in-Differences
13. Testing the identifying assumptions
14. Limitations and recent trends

Lectures will be accompanied by practical training in Stata.

**Exam:**

At the end of the course there will be a take-home exam which the students could send by mail for grading.

**Suggested reading:**

Angrist, Joshua D., and Joern-Steffen Pischke (2009). Mostly Harmless Econometrics: An Empiricist's Companion. Princeton University Press.

Cameron, Colin A., and Pravin K. Trivedi (2010). Microeconometrics Using Stata. Stata Press, College Station, Texas.

Wooldridge, Jeffrey (2010) Econometric Analysis of Cross Section and Panel Data. MIT Press.

In our practical training sessions, we will use data from

Falck, Oliver, Gold, Robert, and Stephan Heblich (2014). E-Lections: Voting Behavior and the Internet, *American Economic Review*, 104(7), 2238-2265.

The dataset can be downloaded here:

<https://www.aeaweb.org/articles?id=10.1257/aer.104.7.2238>