Ph.D. Course - Fall Term 2010

Experiments for causality analysis in economics of education

Instructor: Prof. Dr. Dinand Webbink
CPB Netherlands Bureau for Economic Policy Analysis and
Erasmus University Rotterdam

University of Zurich, October 18 - 22, 2010

Aims of the course

In the last two decades a wave of new studies has emerged on the effects of educational interventions on student performance. These studies exploit exogenous variation in interventions in education produced by controlled or natural experiments. This new approach for identifying causal effects in education has recently been labelled as "the credibility revolution" in econometrics. The aim of this course is to familiarize students with the main methods from this approach for obtaining credible estimates. Topics include randomized experiments, instrumental variables, regression discontinuity models, difference-in-differences models and matching models. These methods will be discussed using many examples from the recent literature. By the end of the lectures students should have a firm grasp of the type of research designs that can lead to convincing analysis. In addition, they should be able to assess the credibility of empirical research projects. The course comprises eight units: The sessions consist of a combination of teaching, students' presentations and discussions.

Target audience and preconditions for participation

The seminar is particularly designed for doctoral students in economics of education. The seminar will take place en bloc in order to enable external PhD students to attend. Full attendance and course registration until September 17 is mandatory.

Credit Requirements

1. Full course attendance.
2. During the course recent applications of the new methods will be discussed. Students will be asked to present the main lines of an assigned paper or to prepare a short discussion on the research design applied in the paper. Students should prepare presentations which last 10 to 15 minutes. Presentations should be analytical and critical, rather than just descriptive. Students are asked to point out or give a view on inconsistencies, problems or weaknesses of the papers such as confounding factors, whereas the presentations should focus on the methodological approach.
3. At the end of the course students will be asked to write an assessment of the credibility of two proposals for investigating the causal effect of interventions in education. For each proposal a report is expected of approximately 2 or 3 pages. The reports should be sent within 3 weeks after the end of the course.

Literature

Angrist, J.D and J Pischke, (2010) The credibility revolution in empirical economics: How better research design is taking the con of out econometrics, Journal of Economic Perspectives, 24 (2), 3-30.

Cameron, C. and P. Trivedi (2006), Microeconometrics, chapter 25.

Webbink, D., 2005, Causal effects in education, Journal of Economic Surveys, 19 (4), 535-560.

Selected articles from the recent literature on the economics of education.