Applied Empirical Economics I and II

Course description:

This is a general methods course for students interested in applied micro. The aim of the course is to equip students with hands-on experience and knowledge of the broad range of tools and techniques that are commonly used by empirical economists. To that end students will be asked to hand in hands-on tasks and participate in tutorials.

The first part of the course is devoted to tools. The objective is to learn, through lectures and exercises, to use Stata as an efficient research tool. It will also include an introduction to programming in R and Python. It will cover efficient work organization (work process, folder, file and program structure), programming principles (e.g. version control and documentation) and principles for data management. These skills will then be applied to hands-on problem sets and tasks related to the topics listed below.

The second part of this course will discuss standard approaches and best practices to identify causal effects with observational and experimental data. It will present leading examples of studies that employ panel data methods, instrumental variable estimators, regression discontinuity designs, and matching estimators in observational studies. These studies will serve to identify standard elements of each approach, discuss the advantages and identifying assumptions, and understand the correct interpretation of results. We will also discuss how to conduct correct statistical inference (analytical standard errors, bootstrapped standard errors, randomisation inference, multiple hypothesis testing).

This part will also discuss practical issues: how to access large scale administrative datasets, in particular the Swedish Registry data; how to design and implement social experiments; how to collect data (survey design, validation of survey instruments, piloting); how to manage and implement laboratory experiments; and how to obtain financing.

Finally, we also discuss ethical concerns, how to ensure replicability of results and the perils of forking and pre-registration of projects.

Tentative teachers: Lena Hensvik, David Strömberg, Konrad Burchardi, Tessa Bold, Invild Almås, Jon de Quidt, Anna Dreber.