Applied Microeconometrics with Stata

Contents: This course introduces various microeconometric methods, which can be applied to analyze a wide range of economic questions. In particular, instrumental variables regressions, discrete choice models, panel data models (including nonlinear and dynamic approaches), methods for durations, quantile regressions, econometric evaluation models, and basic non-parametric methods are discussed. All topics will be applied in computer tutorials using Stata. The aim of the lectures is to enable the participants to understand and apply econometric models in empirical analyses, to decide which model to choose for a given empirical question, and to gain sound experience with the Stata software package.

Time and place:
Lectures: Monday, 8:30 - 10:00, L7, 3-5, room 031
Tutorials: Monday, 12:00 - 13:30, L7, 3-5, room 1.58 (computer lab)

Overview:
1. Introduction: Overview, aims of the models, examples.
2. Instrumental variables regression: Framework and examples, estimators, weak instruments, measurement error.
3. Discrete choice models: Maximum Likelihood estimation and testing, binary, ordered, and multinomial choice models, count data models.
5. Panel data models: Framework, linear panel data models, Generalized Method of Moments estimation, dynamic and nonlinear panel data models, clustered samples.
6. Duration analysis: Basic univariate and regression methods.
7. Quantile regressions: Unconditional quantiles, linear quantile regression, censored quantile regression.

9. Econometric evaluation models: Framework, social and natural experiments, the conditional independence assumption, IV methods, differences-in-differences, the regression discontinuity design, quantile treatment effects.

Literature:
The basic textbook is:


Other textbooks which cover most of the topics of this course are


Some of the basic methods are also described in

R. Winkelmann and S. Boes, *Analysis of Microdata*. Springer, 2006 (available online at [http://dx.doi.org/10.1007/3-540-29607-7](http://dx.doi.org/10.1007/3-540-29607-7)).

A textbook with focus on applying microeconometric methods with Stata is


Efficient use and programming of Stata is described in


All books are on reserve in the economics library (library section Ehrenhof). Additional references will be given in the lecture.