Duke University  
Department of Economics  
Federico A. Bugni  

ECON 883 - Spring 2015  
Topics course in Econometrics: Identification  
M 7:30pm-9:45pm

1 Contact information

Office: Social Sciences 222  
E-mail: federico.bugni@duke.edu  
Homepage: http://www.econ.duke.edu/~fbugni

2 Class time and place

Lectures: Monday 7:30pm-9:45pm in Social Sciences 113.  
Discussions of problems: During the lecture.  
Office hours: After class and by appointment.

3 Course Description

An econometric model describes a mapping between the data generating process and the parameters of interest. A parameter of interest are said to be identified if and only if there are no distinct parameter values in the parameter space that can result in identical data generating process. The identification of the parameter of interest is key to econometric inference, as it is a necessary condition to conduct any meaningful inference of the parameter.

This course defines the concept of identification, explains its key role in econometric inference, and develops this concept in well-known econometric models. These models considered include: binary threshold crossing models, discrete choice models, Tobit models, selection models, duration models, and panel data models. The course concludes by discussing the possibility of conducting inference of parameters that are irregularly identified or not identified.

4 References

This course does not have a main textbook. Each lecture will have separate references (mainly papers and handbook chapters), which I mention in the overview.

5 Grading scheme

- The final grade of the course will be based on problem sets (50%) and presentations in class (50%).  
- The problem sets will be short and have a weekly frequency (at most).  
- The presentations will be short presentations during the last class and will be on a topic related to the course. Ideally, each student should consider a topic of interest and present identification results.
6 Overview of the course

1. Introduction to identification. Definitions and examples.

2. Extremum estimators. The role of identification.
   Selected readings: McFadden and Newey (1994).


5. Other models: Multinomial choice models, Tobit.\(^1\)

6. Irregular identification.

7. Partial identification.

References


\(^1\)The class of models under consideration can change with students preferences, upon request and discussion.


