Empirical Techniques for Applied Micro

This course focuses on two important techniques in applied microeconomics: production function estimation and demand estimation. I will focus on applications in Industrial Organization, which is where most of these techniques were developed. However, these techniques have also been and are increasingly applied in labor, macro, trade, public finance, education and development. This emphasis will be on methodology, but I will also discuss several applications in some detail. The next module (395.23) will have more applications of these techniques.

Problem Sets: there will be weekly empirical problem sets which will determine your grade for the course. The problem sets are vital for understanding what is going on, not an optional extra. They will not be too long, so you should do them between the classes, and you should also be ready to talk about the results in class. I am happy for you to work in small groups of two or three people, but each student must submit their own write-up of the results. The empirical work can be done in STATA and/or MATLAB, but feel free to use other languages if you are more familiar with them.

Reading List: the starred papers are of particular importance and you should read the papers we discuss in class. The other papers are listed to guide further reading. Feel free to make suggestions if you find other papers you like and I may well add papers as we go along.

There is no required textbook, but you may want to look at

H. Varian, *Microeconomic Analysis*, Norton, 1992 (chapter 1-13 are a great reference for basic micro theory)


A forthcoming chapter from the Handbook of Econometrics is recommended


1. Production Function Estimation


2. Static Demand: Homogenous Goods

Note: in these papers it is assumed that demand is static but firms may be forward looking (and colluding).


V. Aguirregabiria, “The Dynamics of Markups and Inventories in Retail Firms,” ReStud, April 1999, 275-308.

* G. Ellison, “Theories of Cartel Stability and the Joint Executive Committee,” RJE, Spring 1994, 37-57 (read Porter first)


3. **Static Demand (and Conduct): Differentiated Products**


C. Mela and J. Duan, “The Role of Spatial Demand on Outlet Location and Pricing”, WP, Fuqua

4. Welfare Calculations Using Demand Systems


5. **Price Indices and Hedonics**


6. **Dynamic Demand**

If we have time I will talk about a couple of papers. Here is a list of papers discussed in the reading group over the summer.


