IZA European Summer School in Labor Economics 2005

Frank Vella (European University Institute and IZA)
Course: Semiparametric Estimation of Micro Econometric Models

The focus of this course will be on the use of semi-parametric econometric methods which are potentially of use in the estimation of empirical models in labor economics. Initially we will refer the parametric forms of these models before examining the use of non-parametric methods for density and conditional moment estimation. We will then introduce several semi-parametric procedures and their potential applications. Given the nature of the course there will be additional focus on my own research interests.

Topic 1: Review
  i) Discrete Choice Models
  ii) Multinomial Models
  iii) Censored Regression Models
  iv) Sample selection Models
  v) Models with Censored Endogenous Regressors

G.S.Maddala, (1983), Limited Dependent and Qualitative Variables in Econometrics, Cambridge University


**Topic 2: Non Parametric Density and Conditional Moment Estimation**


**Topic 3: Some Useful Semi-Parametric Procedures**

i) Robinson Procedure

ii) Semi-Parametric Least Squares

iii) Klein/Spady Estimator

iv) Ai Estimator

Ichimura, H. (1993), "Semiparametric least squares (SLS) and weighted SLS estimation of single index models" *Journal of Econometrics*, 58, 71-120.


**Topic 4: Application of Semi-Parametric Procedures**

i) Sample Selection Model

ii) Models with Endogenous Treatments

iii) Models with Non Additive Errors


**Topic 5: Identification via Heteroskedasticity**
