Semi-parametric models for satisfaction with income[*]

Charles Bellemare, Bertrand Melenberg, and Arthur van Soest

Department of Econometrics, Tilburg University, P. O. Box 90153, 5000 LE Tilburg, The Netherlands
(e-mail: {C.Bellemare; B.Melenberg; A.H.O.van.Soest}@kub.nl)

Abstract. An overview is presented of some parametric and semi-parametric models, estimators, and specification tests that can be used to analyze ordered response variables. In particular, limited dependent variable models that generalize ordered probit are compared to regression models that generalize the linear model. These techniques are then applied to analyze how self-reported satisfaction with household income relates to household income, family composition, and other background variables. Data are drawn from the 1998 wave of the German Socio-Economic Panel. The results are used to estimate equivalence scales and the cost of children. We find that the standard ordered probit model is rejected, while some semi-parametric specifications survive specification tests against nonparametric alternatives. The estimated equivalence scales, however, are often similar for the parametric and semi-parametric specifications.

Key words: Semi-parametric estimation – Ordered response – Equivalence scales

JEL Classification: C14, C35, D12