

On the Observability of Unobservables

Rosa L. Matzkin
UCLA

Abstract: When confronting economic models with data, it is usually the case that some critical variables, such as tastes and productivities, are unobservable. This lecture will cover several nonparametric methods that can be used to estimate such unobservable variables. The methods make use of the relationships among the observable and unobservable variables, which are specified in the models. Once recovered, the unobservable variables can be used to analyze counterfactuals that depend on their values. As an empirical example, the methods will be used on cross section data to predict the choices that would be made by a particular individual, characterized by a vector of tastes, when the set of possible choices of such individual changes. Particular focus will be placed on models with multidimensional unobservable variables, such as those encountered in models of consumers with heterogeneous tastes or in equilibrium models of interaction among several heterogeneous agents.

Rosa L. Matzkin is the Charles E. Davidson Professor of Economics in the Department of Economics at UCLA. She is a Fellow of the Econometric Society since 1995. She was Editor of *Quantitative Economics*, Co-Editor of the Econometric Society Monographs Series, Associate Editor of *Econometrica* and *Journal of Econometrics*, and member of the Executive Committees of the Econometric Society and of the American Economic Association. Rosa L. Matzkin received her PhD in Economics from the University of Minnesota. Previously to UCLA, she held faculty positions at Northwestern and Yale Universities, and visiting positions at several universities, including California Institute of Technology, MIT, and the University of Chicago.

In her research, Rosa L Matzkin has aimed at creating a tight connection between econometrics and economic theory, relaxing, at the same time, ad-hoc parametric restrictions on functions and distributions. Among other topics, she has worked on Revealed Preference, Discrete Choice, Shape Restrictions, Hedonic Models, and Simultaneous Equations.