

Tinbergen Institute Economics Lectures 2010

David Card, UC Berkeley and NBER

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Structural Discrete Choice Models in Labor Economics

Reading list

The goal of the course is to provide an introduction to structural discrete choice modeling for applied labor economists. As a starting point for the course I recommend you download the lectures by G. Imbens and J. Wooldridge from the "What's New in Econometrics?" (WNIe) lecture series (especially lectures 6, 11, 9, and 7, in that order), available at the NBER website, <http://www.nber.org/minicourse3.html>.

Lecture 1 – Introduction to Logit and Mixed Logit

Ken Train, *Discrete Choice Methods with Simulation*. Chapters 2, 3, 6. (This provides an excellent review of the basics).

WNIe, lecture 11.

J. Hastings, T. Kane and D. Staiger "Parental Preferences and School Competition: Evidence from a Public School Choice Program" NBER WP 11805, November 2005

Daniel McFadden and Kenneth Train. "Mixed MNL Models for Discrete Response." *Journal of Applied Econometrics* 15 (2000): 447-470

Lecture 2 – "BLP" and Related Approaches to Estimated Consumer Demand with Endogenous Price Setting

S. T. Berry. "Estimating Discrete-Choice Models of Product Differentiation." *Rand Journal of Economics* 25 (Summer 1994): 242-262.

S. Berry, J. Levinsohn, A. Pakes. "Automobile Prices in Market Equilibrium" *ECA* 63 (July 1995): 841-890.

A. Nevo. "A Practitioner's Guide to Estimation of Random Coefficients Logit Models of Demand". *J. of Economics and Management Strategy* 9 (Winter 2000): 513-548

Lecture 3 – Applications of the "BLP" Approach to Neighborhood Choice and Other Problems

Sandra Black. "Do Better Schools Matter? Parental Valuation Of Elementary Education." *QJE* 114(2) (May 1999): 577-599.

Patrick Bayer, Fernando Ferreira, and Robert MacMillan. "A Unified Framework for Measuring Preferences for Schools and Neighborhoods." *JPE* (August 2007).

Ashley Langer. "Demographic Preferences and Price Discrimination in New Vehicle Sales" Unpublished working paper, University of California Berkeley, 2010.

Eugene Choo and Aloysius Siow. "Who Marries Whom and Why" *Journal of Political Economy* (2006) 114(1).

Lecture 4 – Two-Agent Decision Models

Timothy Bresnahan and Peter Reiss. "Empirical Models of Discrete Games." *Journal of Econometrics* 48 (1991), 57-81

Elie Tamer. "Incomplete Bivariate Discrete Response Model with Multiple Equilibria." *Review of Economic Studies* 70 (2003), pp. 147-167

Patrick Bajari, Han Hong, and Stephen Ryan. "Identification and Estimation of a Discrete Game of Complete Information." Unpublished Working Paper, May 2007.

WNIÉ lecture 7.

Lecture 5 – Introduction to Dynamic Discrete Choice

John Rust "Estimation of Dynamic Structural Models, Problems and Prospects: Discrete Decision Processes". In C. Sims, editor. *Advances in Econometrics Sixth World Congress, Volume II*. Cambridge University Press, 1994

Peter Arcidiacono and Robert Miller. "CCP Estimation of Dynamic Discrete Choice Models with Unobserved Heterogeneity". Unpublished Working Paper, December 2007.

Avi Ebenstein. "Estimating a Dynamic Model of Sex Selection in China." Available at Avi's website.

Kevin Stange. "An Empirical Examination of the Option Value of College Enrollment." http://emlab.berkeley.edu/users/webfac/cbrown/e251_f07/Stange.pdf

Lecture 6 – Dynamic Discrete Choice, Continued

John Rust. "Optimal Replacement of GMC Bus Engines: An Empirical Model of Harold Zucker." *Econometrica* 55 (1987): 999-1033.

Joseph Hotz and Robert Miller. "Conditional Choice Probabilities and the Estimation of Dynamic Models." *ReStud* 60 (1993): 497-531.

Victor Aguirregabiria and Pedro Mira. "Dynamic Discrete Choice Structural Models: A Survey". Working Paper, August 2007 (available at [ssrn](http://ssrn.com)).