Manu Navjeevan

CONTACT INFORMATION

UCLA Department of Economics
11282 Portola Plaza
Bunche Hall 8283, Los Angeles, CA 90095

Email: mnavjeevan@gmail.com
Web: https:// navjeevan.dev

RESEARCH INTERESTS

High-Dimensional Econometrics: Orthogonal Learning, Nonparametric Estimation, Post-Selection Inference, High-Dimensional Weak Identification, Effecient Inference

Causal Inference: Instrumental Variables, Identification with Multiple Instruments, Generalized Monotonicity Conditions

EDUCATION

University of California, Los Angeles

Ph.D., Economics, 2018 to present

Adviser: Denis Chetverikov

M.A., Economics, 2019

Carnegie Mellon University

B.S., Economics and Mathematical Sciences, 2018

Graduated with University and College Honors

WORKING PAPERS

[1] Baybutt, A. and Navjeevan, M. (2023). "Doubly-Robust Inference for Conditional Average Treatment Effects with High-Dimensional Controls." (*Submitted*)

Abstract. Plausible identification of conditional average treatment effects (CATEs) may rely on controlling for a large number of variables to account for confounding factors. In these high-dimensional settings, estimation of the CATE requires estimating first-stage models whose consistency relies on correctly specifying their parametric forms. While doubly-robust estimators of the CATE exist, inference procedures based on the second stage CATE estimator are not doubly-robust. Using the popular augmented inverse propensity weighting signal, we propose an estimator for the CATE whose resulting Wald-type confidence intervals are doubly-robust. We assume a logistic model for the propensity score and a linear model for the outcome regression, and estimate the parameters of these models using an ℓ_1 (Lasso) penalty to address the high dimensional covariates. Our proposed estimator remains consistent at the nonparametric rate and our proposed pointwise and uniform confidence intervals remain asymptotically valid even if one of the logistic propensity score or linear outcome regression models are misspecified. These results are obtained under similar conditions to existing analyses in the high-dimensional and nonparametric literatures.

[2] Navjeevan, M. and Pinto, R. (2022) "Ordered, Unordered, and Minimal Monotonicity"

Abstract. This paper performs a comparative analysis between ordered and unordered choice models. We present non-trivial symmetries between ordered and unordered monotonicity conditions. We show that these seemingly unrelated models share a weaker and more general condition called Minimal Monotonicity. This novel condition captures an essential property for the identification analysis of causal parameters while being necessary to ascribe causal interpretation to Two Stage Least Squares estimands. We show that minimal monotonicity naturally arises from revealed preference analysis. The condition is associated with a notion of rationality and can serve as a theoretical foundation for a wide range of economic choice behaviors that do not conform with the narrative imposed by ordered or unordered choice models.

AWARDS AND FELLOWSHIPS

Honors Pass, Econometrics Qualifying Exam, Department of Economics, UCLA, 2019

Honors Pass, Microeconomics Qualifying Exam, Department of Economics, UCLA, 2019

Best Undergraduate Honors Thesis, Department of Economics, Carnegie Mellon University, 2018

Teaching Experience

Instructor at UCLA

Econ 103 (Introduction to Econometrics), B.A in Economics. Summer 2021, 2022.

- My materials from Summer 2021 can be found on GitHub.

Teaching Assistant at UCLA

Econ 41 (Statistics for Economists), B.A. in Economics.

Econ 103 (Introduction to Econometrics), B.A. in Economics.

Econ 203A (Introduction to Econometrics I), Ph.D in Economics.

Econ 412 (Fundamentals of Big Data), M.QE. in Economics

Econ 425 (Machine Learning I), M.QE. in Economics

- My materials from Winter 2021 can be found on Github.

Software

R, Python (advanced); HTML, Stata (intermediate); Scientific Text Editors (LaTeX, Beamer)

Last update

January, 2023