# Bounds on Average Effects in
# Discrete Choice Panel Data Models[*]

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## Abstract

Average effects in discrete choice panel data models with individual-specific fixed effects are generally only partially identified in short panels. While consistent estimation of the identified set is possible, it generally requires very large sample sizes, especially when the number of support points of the observed covariates is large, such as when the covariates are continuous. In this paper, we propose estimating outer bounds on the identified set of average effects. Our bounds are easy to construct, converge at the parametric rate, and are computationally simple to obtain even in moderately large samples, independent of whether the covariates are discrete or continuous. We also provide asymptotically valid confidence intervals on the identified set. Simulation studies confirm that our approach works well and is informative in finite samples. We also consider an application to labor force participation.

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