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Title: Identification and estimation of skill formation models

Abstract: An important class of structural models studies the determinants of skill formation and the optimal timing of interventions. We provide new identification results for these models and investigate the effects of seemingly innocuous scale and location restrictions on parameters of interest. To do so, we first characterize the identified set of all parameters without these additional restrictions and show that important policy-relevant parameters are point identified under weaker assumptions than commonly used in the literature. Moreover, commonly used scale restrictions can be overidentifying and then lead to biased estimators and misleading policy recommendations. We also show that existing estimators use shortcuts to circumvent calculating high-dimensional integrals in the objective function and are therefore inconsistent. We propose a new estimator, which works well in simulations.