Do Peers Affect Student Achievement ?
Evidence from Canada Using Group Size Variation†

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Abstract

We provide the first empirical application of a new approach proposed by Lee (2007) to estimate peer effects in a linear-in-means model. The approach allows to control for group-level unobservables and to solve the reflection problem, without imposing *ad hoc* exclusion restrictions or requiring peers to be randomly assigned to groups. We investigate the presence of peer effects in student achievement in mathematics, science, French and history at the end of secondary school in the province of Quebec (Canada). We use an original dataset that covers three fourth of all schools in Quebec and contains test scores to the standardized provincial exam required for graduation. We estimate the model using both maximum likelihood and methods based on instrumental variables. We find evidence of peer effects. The endogenous peer effect is positive, when significant, and some contextual peer effects matter. Issues of weak identification that may be present in our estimates are analyzed using calibrated Monte Carlo simulations. We find that identification is much helped by a high variance in peer group sizes.

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