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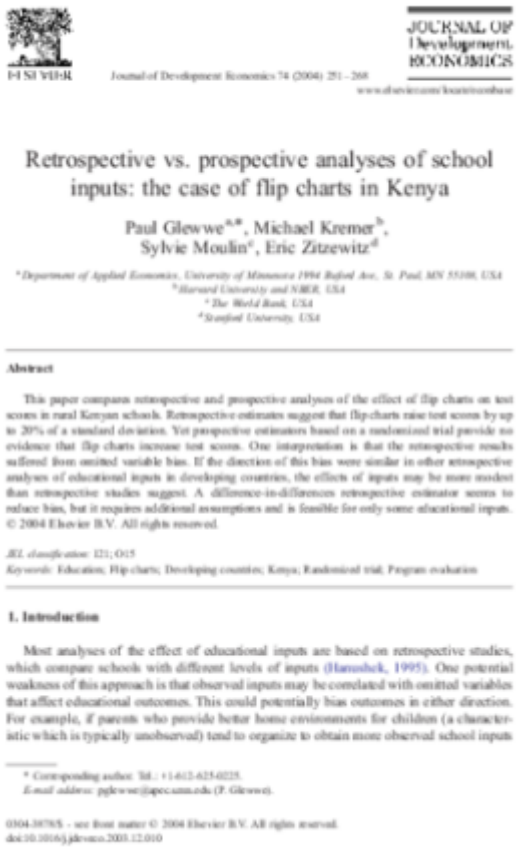

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Retrospective vs. prospective analyses of school inputs: the case of flip charts in Kenya

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Abstract

This paper compares retrospective and prospective analyses of the effect of flip charts on test scores in rural Kenyan schools. Retrospective estimates suggest that flip charts raise test scores by up to 20% of a standard deviation. Yet prospective estimators based on a randomized trial provide no evidence that flip charts increase test scores. One interpretation is that the retrospective results suffered from omitted variable bias. If the direction of this bias were similar in other retrospective analyses of educational inputs in developing countries, the effects of inputs may be more modest than retrospective studies suggest. A difference-in-differences retrospective estimator seems to reduce bias, but it requires additional assumptions and is feasible for only some educational inputs.

JEL classification: I21; O15
Keywords: Education; Flip charts; Developing countries; Kenya; Randomized trial; Program evaluation

1. Introduction

Most analyses of the effect of educational inputs are based on retrospective studies, which compare schools with different levels of inputs (Hanushek, 1995). One potential weakness of this approach is that observed inputs may be correlated with omitted variables that affect educational outcomes. This could potentially bias outcomes in either direction. For example, if parents who provide better home environments for children (a characteristic which is typically unobserved) tend to organize to obtain more observed school inputs

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Retrospective vs. Prospective Analyses of School Inputs: The Case of Flip Charts in Kenya

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is that the retrospective results suffered from omitted variable bias. If the direction of this bias were similar in other retrospective analyses of educational inputs in developing countries, the effects of inputs may be more modest than retrospective studies suggest. A difference-in-differences retrospective estimator seems to reduce bias, but it requires additional assumptions and is feasible for only some educational inputs.

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