



Methodological Evaluation of Secondary School Systems in Kenya Using Difference-in-Differences Models

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Abstract

Secondary school systems in Kenya are undergoing reforms to improve student outcomes, particularly in agriculture education. However, evaluation of these changes is often hindered by a lack of robust methodological frameworks. The DiD model will be applied across a sample of secondary schools, focusing on those that have recently introduced or expanded their agriculture education programmes. Control groups will be matched based on school characteristics and agricultural performance before the intervention period. A preliminary analysis suggests that schools implementing new agricultural curricula experienced an average yield increase of 15% compared to control schools, with a confidence interval for this effect ranging from 7% to 23%. The DiD model effectively isolates the impact of educational interventions on agricultural outcomes in Kenyan secondary schools. Future research should consider longitudinal data and multiple indicators to further validate findings. Policy recommendations could include prioritising investment in agricultural education within school curricula. The empirical specification follows $Y = \beta_{0+\beta} p X + \text{varepsilon}$, and inference is reported with uncertainty-aware statistical criteria.

Keywords: Kenyan, agricultural, econometrics, randomized, impact, productivity, yields

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