



# Methodological Evaluation of Secondary Schools Systems in Tanzania Using Difference-in-Differences Models for Cost-Effectiveness Assessment

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## Abstract

The secondary education system in Tanzania faces significant challenges related to cost-effectiveness and resource allocation. A systematic review was conducted to identify relevant studies published between and . Eligible studies were selected based on predefined inclusion criteria, including use of difference-in-differences (DiD) models for cost-effectiveness assessment. The analysis revealed a predominance of DiD models in the reviewed literature, with several studies reporting significant reductions in costs and improvements in educational outcomes compared to control groups. Despite the widespread use of DiD models, there is variability in study design and data collection methods that could impact the robustness of cost-effectiveness estimates. Future research should consider methodological consistency across studies and explore alternative econometric approaches for enhancing the reliability of cost-effectiveness assessments. secondary education, Tanzania, difference-in-differences, cost-effectiveness, systematic review The empirical specification follows  $Y = \beta_{0+\beta} X + \text{varepsilon}$ , and inference is reported with uncertainty-aware statistical criteria.

**Keywords:** Tanzania, Sub-Saharan Africa, Secondary Education, Cost-Effectiveness, Difference-in-Differences, Econometrics, Impact Evaluation

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