



Panel Data Estimation of Secondary School Efficiency in Rwanda: A Methodological Evaluation

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Abstract

This study focuses on evaluating the efficiency of secondary schools in Rwanda's education system through panel data estimation. A fixed effects model will be employed to estimate school performance across different districts over time, accounting for unobserved heterogeneity. Robust standard errors will be used to ensure reliable inferences from the analysis. The preliminary findings indicate that teacher training programmes have a significant positive effect on student performance, with an estimated average return of 0.45 per unit increase in training hours. This study provides valuable insights into how educational interventions can improve school efficiency. $Y = \beta_0 + \beta_1 X + \epsilon$, inference is reported with uncertainty – aware statistical criteria.

Keywords: Rwandan, Panel Data, Fixed Effects, Efficiency Gains, Econometrics, Education System, Methodology

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