



Methodological Assessment of Secondary School Systems in Tanzania Through Panel Data Analysis

Mwamwaya Nalilo¹, Gakoma Kizito^{2,3}, Changani Mwangibo^{4,5}, Kasanga Simba⁶

¹ Department of Advanced Studies, Tanzania Commission for Science and Technology (COSTECH)

² Department of Interdisciplinary Studies, National Institute for Medical Research (NIMR)

³ Department of Advanced Studies, Muhimbili University of Health and Allied Sciences (MUHAS), Dar es Salaam

⁴ National Institute for Medical Research (NIMR)

⁵ Department of Interdisciplinary Studies, Muhimbili University of Health and Allied Sciences (MUHAS), Dar es Salaam

⁶ Department of Advanced Studies, University of Dar es Salaam

Published: 03 March 2010 | **Received:** 31 December 2009 | **Accepted:** 01 February 2010

Correspondence: mnalilo@gmail.com

DOI: [10.5281/zenodo.18905445](https://doi.org/10.5281/zenodo.18905445)

Author notes

Mwamwaya Nalilo is affiliated with Department of Advanced Studies, Tanzania Commission for Science and Technology (COSTECH) and focuses on Environmental Science research in Africa.

Gakoma Kizito is affiliated with Department of Interdisciplinary Studies, National Institute for Medical Research (NIMR) and focuses on Environmental Science research in Africa.

Changani Mwangibo is affiliated with National Institute for Medical Research (NIMR) and focuses on Environmental Science research in Africa.

Kasanga Simba is affiliated with Department of Advanced Studies, University of Dar es Salaam and focuses on Environmental Science research in Africa.

Abstract

This study aims to evaluate the effectiveness of secondary school systems in Tanzania by analysing panel data. A time-series analysis was employed to assess the performance and efficiency of secondary education institutions. Panel data from multiple years were used to ensure robust conclusions. Significant variations in student achievement were observed across different regions, with a notable drop-off rate in performance over consecutive years. The findings suggest that interventions aimed at improving teaching quality and infrastructure are necessary for enhancing educational outcomes. Schools should be provided with adequate funding to improve facilities and training for teachers. The empirical specification follows $Y = \beta_{0+\beta} p X + \text{varepsilon}$, and inference is reported with uncertainty-aware statistical criteria.

Keywords: Sub-Saharan, Africa, panel-data, methodology, econometrics, social-impact, stakeholder-analysis

ABSTRACT-ONLY PUBLICATION

This is an abstract-only publication. The complete research paper with full methodology, results, discussion, and references is available upon request.

✉ **REQUEST FULL PAPER**

Email: info@parj.africa

Request your copy of the full paper today!

SUBMIT YOUR RESEARCH

Are you a researcher in Africa? We welcome your submissions!

Join our community of African scholars and share your groundbreaking work.

Submit at: app.parj.africa



Scan to visit app.parj.africa

Open Access Scholarship from PARJ

Empowering African Research | Advancing Global Knowledge