

INFLUENCE OF HIDDEN COSTS ON PARTICIPATION OF STUDENTS IN PUBLIC SECONDARY SCHOOLS IN MANDERA WEST SUB-COUNTY, MANDERA COUNTY, KENYA

Giro Edino Alio¹ & Dr. Mary Mugwe Chui²

¹*Mount Kenya University, Kenya; Email: giroedino44@gmail.com; ORCID ID: <https://orcid.org/0000-0002-9428-810X>; Tel No.:0723666400

²Mount Kenya University, Kenya; Email: mmugwe@mku.ac.ke; ORCID ID: <https://orcid.org/0000-0003-1493-8676>; Tel No.:0722360069

Publication Date: July 2023

ABSTRACT

Statement of the Problem: Hidden costs, as economic dynamics, play a key role in ensuring that students participate in secondary school activities. However, in Mandera West Sub-county, number of students who participate is alarmingly low.

Purpose of the Study: To assess the influence of hidden costs on participation of students in public secondary schools in Mandera West Sub-county, Mandera County, Kenya.

Methodology: This study adopted mixed methodology and thus applied descriptive survey research design. Target population comprised six principals, 209 teachers and 102 parents' representatives totaling 317 respondents from which a sample of 176 respondents was determined using Yamane's Formula. Stratified sampling was used to create two strata based on the number of zones in Mandera West Sub-county. From each zone, three principals and six parents' representatives were selected using purposive sampling while 79 teachers were selected using simple random sampling. This procedure realized a sample of six principals, 12 parents' representatives and 158 teachers. Qualitative data were analyzed thematically based on study objectives and presented in narrative forms. Quantitative data were analyzed descriptively using frequencies and percentages and inferentially using linear regression analysis in Statistical Package for Social Sciences (SPSS Version 23) and presented using tables.

Findings: The study established that students' participation in public secondary schools is still low despite the efforts by the government. Despite increased enrollment, the number of students who complete their secondary education is low with characterized with high dropout rates. This is attributed to hidden costs amidst other economic dynamics.

Recommendations: The study recommends that the Ministry of Education should regulate extra costs which public secondary schools are charging outside the capitation funds.

Keywords: *Hidden costs, students' participation in public secondary schools, economic dynamics.*

INTRODUCTION

Education is recognized globally, not only as the foundation for lifelong learning and human development, but also as an essential ingredient in the fight to reduce poverty and promote development in all aspects of life (Farvardin, 2012). At the individual level, a student who has access to quality secondary education has a better chance in life as the education provides the student with a solid foundation for continued learning throughout life and also equips the him or her with skills to lead a productive life in society (Cramer, 2013). To realize this, students need to be enrolled into schools. According to Hoyt and Winn (2013), participation of students envelops a process of admitting students into schools to undertake academic activities within a given period. However, participation of students in public secondary schools still faces numerous challenges with many schools registering low enrollment and completion rates.

In Kuala Lumpur, only 123, 679 students get enrolled in public secondary schools out of the expected 500, 567 students from primary schools (Levitz, 2014). Similar observations are made in Colombia where students' participation rates dropped from 67.9% to 54.3% in public secondary schools (Marina, 2020). In Mexico, for example, Cisneros-Chernour, Cisneros and Moreno (2013) assert that despite the expansion of education systems geared towards ensuring realization of Education For All, the number of students who enroll and complete their secondary education is still, alarmingly, low at 23.9%. In Austria, rate of flow of students in secondary schools has been on the decline. For example, a report by Woessmann (2013) shows that, in 2015, students' participation rates in secondary schools in Austria stood at 67.9%, in 2016, it dropped to 64.9%, in 2017, it was 59.4%, in 2018, it was 57.8% whereas in 2019, the rate stood at 55.1%. This points to the fact that the issue of internal inefficiency in schools is a global problem confronting the education industry round the world as countries seek to stem inefficiency which leads to wastage. This is largely attributed to hidden costs which schools levy on parents and guardians.

According to Levitz (2014), hidden costs of education entail expenditure on education which is not covered under government subsidies yet parent have to pay for them. These include, but not limited to, meal levies, uniform costs, PTA levies and levies on academic trips. In a study carried out in the Netherlands, Lewin and Calloids (2011) found that these costs have been left in the hands of parents including PTA levies for example infrastructure development, cost of school uniform, cost of school lunch and opportunity cost foregone while the child is at school. Lewin and Calloids (2011) revealed that hidden costs are always associated with free basic

education because they are charges that parents have to pay despite basic education being free. In the Netherlands, Lewin and Calloids (2011) aver that hidden costs in school operation such as PTA levies for infrastructure development, cost of school uniform, cost of school lunch and opportunity cost foregone while the child is at school have had net effect on participation of students to schools. Hidden cost affects participation all over the world. For example, a study conducted in Bangladesh by Ardt (2012) observed that children who could not afford cost of items not offered in free basic education fail to go to school until they can afford. Ardt (2012) indicated that those learners who cannot afford to cater for hidden costs engage in child labour so that they can get enough money to afford such. In Venezuela, Yeung, Linver and Brooks-Gunn (2016) note that hidden costs have a bearing on the extent to which students enroll into secondary schools. For example, in Nicaragua, Perna and Titus (2014) assert that economic dynamics such as schools' hidden costs are the epicenter of any meaningful and successful participation of students in secondary education.

In many countries in Sub-Saharan Africa, government financing of education does not consider hidden costs though the parents incur them in the process and educating their children (Colclough, Rose & Tembon, 2012). For example, in a study carried out in Nigeria, Adepuju and Fabiyi (2017) found that hidden costs are a major obstacle to realization of universal education in developing countries. World Bank (2014) further asserts that many countries in Sub-Saharan Africa have eliminated school fees but other significant costs remain including the cost of providing uniform for a child. A report by Nannyonjo (2015) indicates that, in Ghana, enrollment rates of students in public secondary schools stand at 47.3% out of which 19.3% drop out of school before completing their secondary education. According to Nannyonjo (2015), in Ghana, hidden costs of education have diverse contributions to participation of students to secondary schools and their eventual completion.

In Uganda and Ethiopia, World Bank (2014) avers that parents who could not buy uniform and textbooks retained their children home affecting participation. These assertions point to the fact that, despite the efforts by government agencies to reduce the burden of school fees from parents and caregivers, the element of hidden costs still pose a great challenge to students' participation in school activities. In Kenya, the scenario is the same with secondary education being regarded as the key to economic success in accordance with the international convention on human rights, Education For All and Vision 2030 (Onsomu, Mungai, Oulai, Sankale & Mujidi, 2014).

However, this has not been the case with rates of students’ participation in secondary schools being low. For example, a study carried out by Onyango (2017) in Ndhiwa Sub-county found that students’ participation in secondary schools is low. According to Onyango (2017), of all the students enrolled in secondary school in Ndhiwa Sub-county, only 16.9% complete their secondary school education. In other words, the dropout rates among students in Ndhiwa Sub-county is high at 48.1%. This was supported by the assertions of Adero (2018) that, in 2015, 4567 students were enrolled in secondary schools. However, those who completed their education were only 24.8% with those who completed registering low academic grades in national examination.

This is a similar case in Mandera West Sub-county where public secondary schools has registered a decreasing trend in students’ participation. For example, a report by Bedi, Kimalu, Manda and Nafula (2014) shows that, despite the government efforts by launching 100% transition programme to ensure that all students are enrolled into secondary schools, number of students who participate is still alarmingly low. Another report by the Ministry of Education (2019) shows that students’ participation rates in public secondary schools in Mandera West Sub-county has been on the decline as shown in Table 1;

Table 1: Students’ Participation Rates in Public Secondary Schools in Kenya and Mandera West Sub-county from 2017 to 2020

Year	Students’ Participation Rates (%)	
	Kenya	Mandera West Sub-county
2017	59.3	31.8
2018	61.6	37.3
2019	63.8	40.4
2020	79.2	41.4

Source: Ministry of Education (2023)

Data in Table paint a picture of low participation rates of students in public secondary schools. According to Bedi et al (2014), as a way of attracting high students’ participation in public secondary schools, the government introduced Free Day Secondary Education (FDSE) to cushion parents against fee levies. However, there still exists hidden costs which include; meal levies, school uniforms, PTA levies and levies for academic trips. These costs are unseen and they are not reflected in the Ministry of Education provided fees guidelines which are expected to be followed by all secondary school management and therefore referred to as hidden costs.

Despite this state of affairs, much is yet to be done to interrogate the extent to which hidden costs influence students' participation in public secondary schools, hence the study.

STATEMENT OF THE PROBLEM

Hidden costs are key determinants of the extent to which all students access quality secondary school education. However, in Mandera West Sub-county, despite government efforts by launching 100% transition programme to ensure that all students are enrolled into secondary schools, number of students who participate is alarmingly low. As indicated in Table 1, a report by the Ministry of Education (2021) shows that, in 2017, students' participation rates in Mandera West Sub-county stood at 31.8%, in 2018, it was 37.3%, in 2019, it was 40.4% whereas in 2020, participation rate stood 41.4% against national participation rates which stood at 59.0% in 2015, 61.6% in 2016, 63.8% in 2017 and 79.2% in 2018 respectively. This paints a picture of low participation rates of students in public secondary schools. Efforts to mitigate these challenges have not yielded much progress. Despite this state of affairs, few empirical studies have interrogated the extent to which hidden costs influence participation of students into public secondary schools, hence the study.

OBJECTIVES OF THE STUDY

- i. To assess the status of students' participation in public secondary schools in Mandera West Sub-county.
- ii. To determine the influence of schools' hidden costs on participation of students in public secondary schools in Mandera West Sub-county;

THEORETICAL FRAMEWORK

This study was guided by the Educational Production Function (EPF) Theory (Hanushek, 2000). One of the premises of this theory is that students' participation in schools is impacted by changes in schools and economic dynamics. Proponents of EPF theory compare students' participation rates in school academic activities with a firm's production process (Hanushek, 2000). The theory associates diverse inputs affecting a student's enrollment in schools such as economic dynamics and learning environments. This theory further holds that human capital is an input in education which is expected to bring change in behavior, knowledge and skills as an output. The central idea is that education is an investment which increases earning by providing long-term benefits such as social and economic development. An increase in human capital can follow technological progress as knowledgeable employees are in demand due to the need for their skills, that is, their ability to understand the production process. Parents invest heavily in secondary school education and taking this investment as inputs, it is important that there are equally related outputs which can account for the investment.

Thus, the rationale of using this theory in this study is that public secondary schools, like any other firm or company, use resources to achieve set goals. This theory was represented as: $E=f(X)$ whereby: E-is the number of students who participate in schools and X represents hidden cost. Therefore, the relevance of this theory is that it highlights the contribution of hidden costs to students' participation in secondary schools. This study was also guided by theory of student participation by Tinto and Cullen (1973) and central idea to it is that of integration. It claims that whether a student persists or drops out is quite strongly predicted by their degree of academic integration and social integration. These evolve over time, as integration and commitment interact, with dropouts depending on commitment at the time of the decision. Tinto and Cullen (1973) have categorized students' participation theories into three types: psychological, environmental, and interactional. In the context of this study, students' access to educational opportunities and eventual retention in schools depend largely on a myriad of economic dynamics such as hidden costs.

RESEARCH METHODOLOGY

This study adopted mixed methodology and thus applied descriptive survey research design. Target population comprised six principals, 209 teachers and 102 parents' representatives totaling 317 respondents from which a sample of 176 respondents was determined using Yamane's Formula. Stratified sampling was used to create two strata based on the number of zones in Mandera West Sub-county. From each zone, three principals and six parents' representatives were selected using purposive sampling. However, from each zone, 79 teachers were selected using simple random sampling. This procedure realized a sample of six principals, 12 parents' representatives and 158 teachers. A questionnaire was used to collect data from teachers and interview guides from principals and parents' representatives. Qualitative data were analyzed thematically based on study objectives and presented in narrative forms. Quantitative data were analyzed descriptively using frequencies and percentages and inferentially using linear regression analysis in Statistical Package for Social Sciences (SPSS Version 23) and presented using tables.

RESULTS AND DISCUSSIONS

This section presents the findings of the study based on the objective. It also outlines the methods of presentation of the study findings and discussions.

RESPONSE RATES

In this study, 158 questionnaires were administered to teachers and, in return, 145 questionnaires were filled and returned. The researcher also interviewed 5 principals and 10 parents’ representatives. This yielded response rates shown in Table 2;

Table 2: Response Rates

Respondents	Sampled Respondents	Those Who Participated	Achieved Return Rate (%)
Principals	6	5	83.3
Teachers	158	145	91.8
Parents’ Representatives	12	10	83.3
Total	176	160	90.9

Source: Field Data (2023)

Table 2 shows that principals registered a response rate of 83.3%, teachers registered 91.8% whereas parents’ representatives registered a response rate of 83.3%. This yielded an average response rate of 90.9%, which is consistent with the assertions of Creswell (2014) that a response rate above 75.0% is adequate. This information was important since it allowed the researcher to generalize the study outcomes to the target population.

Status of Students’ Participation in Public Secondary Schools

The study sought to assess the status of students’ participation in public secondary schools in Mandera West Sub-county. This was measured by taking stock of the number of students who were enrolled between 2018 and 2022, those who dropped out and those who were retained to complete their secondary education. Results are shown in Table 3;

Table 3: Status of Students’ Participation in Public Secondary Schools

Academic Year	Status of Students’ Participation in Public Secondary Schools		
	Number of Students Enrolled	Number of Students who Complete their Education	No. of Student Dropouts
2018	1302	803	499 (38.3%)
2019	1489	891	598 (40.2%)
2020	1703	907	796 (46.7%)
2021	1934	1099	835 (43.2%)
2022	2177	1401	776 (35.6%)
Totals	8605	5101 (59.3%)	3504 (40.7%)

Source: Field Data (2023)

Table 3 shows that the number of students enrolled in public secondary schools has been on the increase since 2018 to 2022 due to the 100.0% transition policy by the government. However, after four years upon enrollment, the number of students who complete their

secondary education is low with dropout rates standing at 40.7% compared to the national dropout rates which has gone down to 23.7%. These findings corroborate the findings of a report by the Ministry of Education (2021) shows that, in 2017, students’ participation rates in Mandera West Sub-county stood at 31.8%, in 2018, it was 37.3%, in 2019, it was 40.4% whereas in 2020, participation rate stood 41.4% against national participation rates which stood at 59.0% in 2015, 61.6% in 2016, 63.8% in 2017 and 79.2% in 2018 respectively. These findings underscore the fact that students are enrolled into secondary schools, however, not all complete their secondary education. This affirms the fact that the noble expectations of education have not been achieved in situations where the students’ participation have been low and thus, leads to wastage. In other words, students’ participation in secondary schools have been and continues to be a critical issue confronting education system in most developing countries.

Hidden Costs and Students’ Participation in Public Secondary Schools

The study sought to examine how hidden costs influences students’ participation in public secondary schools. Descriptive data were collected and results are shown in Table 4;

Table 4: Teachers’ Views on the Influence of Hidden Costs on Students’ Participation in Public Secondary Schools

Test Items	Ratings				
	SA %	A %	U %	D %	SD %
In public schools, students are required to pay for their meals which has not attracted many students	51.7	11.4	5.4	5.4	26.1
In public secondary schools, cost of uniform is shouldered by parents and guardians which make it difficult to enroll their children	53.6	14.6	5.4	11.3	15.1
Public secondary schools often require students to pay for academic trips which has scared many students enrolling into public secondary schools	57.3	9.2	7.5	9.2	16.8
Hidden costs charged have made it difficult for students to enroll into public secondary schools	59.3	8.4	5.5	20.9	14.3
In public secondary schools, hidden costs are too much which has not attracted many students	66.5	11.3	3.3	5.4	13.5

Table 4 shows that majority (51.7%) of teachers strongly agreed with the view that, in public secondary schools, students are required to pay for their meals which has not attracted many students as did 11.4% who agreed.

However, 5.4% were undecided, 5.4% disagreed whereas 26.1% strongly disagreed. Most (53.6%) of the teachers strongly agreed with the view that, in public secondary schools, cost of uniform is shouldered by parents and guardians which make it difficult to enroll their children while 14.6% agreed. However, 5.4% were undecided, 11.3% disagreed whereas 15.1% strongly disagreed. The study also revealed that 57.3% of the teachers strongly agreed with the view that public secondary schools often require students to pay for academic trips which has scared many students enrolling into public secondary schools while 9.2% were in agreement. However, 7.5% were undecided, 9.2% disagreed whereas 16.8% strongly disagreed.

The study found that 59.3% of the teachers strongly agreed with the view that hidden costs charged in public secondary schools have made it difficult for students to enroll into public secondary schools whereas 8.4% agreed. At the same time, 5.5% were undecided, 20.9% disagreed whereas 14.3% strongly disagreed. Majority (66.5%) of the teachers strongly agreed with the view that, in public secondary schools, hidden costs are not too much which has attracted many students with 11.3% in agreement. At the same time, 3.3% were undecided, 5.4% disagreed whereas 13.5%) strongly disagreed. These findings corroborate the findings of a study conducted in Bangladesh by Ardt (2012) which revealed that children who could not afford cost of items not offered in free basic education fail to go to school until they can afford. Ardt (2012) found that those learners who cannot afford to cater for hidden costs engage in child labour so that they can get enough money to afford such. This further lends credence to the assertions of World Bank (2014) that, in many countries in Sub-Saharan Africa, despite eliminating school fees, other significant costs remain including the cost of providing uniform for a child.

According to World Bank (2014), in Uganda and Ethiopia, parents who could not buy uniform and textbooks retained their children home affecting participation. These findings are indicative of the fact that, despite the efforts by government agencies to reduce the burden of school fees from parents and caregivers, the element of hidden costs still pose a great challenge to students' participation in school activities. These include meal levies, school uniforms, PTA levies and levies for academic trips.

Inferential Analysis

To verify the influence of hidden costs on students' participation in public secondary schools, data were collected on the average hidden costs charged in the five (5) sampled public

secondary schools and the number of students who dropped out of public secondary schools between 2018 and 2022. The results are shown in Table 5:

Table 5: Number of Cases of Hidden costs and the Number of Students who dropped Out of Public Secondary Schools (2018-2022)

Average Hidden Costs	Number of Students who Dropped Out of Public Secondary Schools (2018-2022)
4500	73
8700	101
10500	133
11200	139
13500	129

Source: Field Data (2023)

Table 5 shows that, despite the efforts by the government, public secondary schools still charge extra levies, though numbers differ from one school to another. This has had an influence on the number of students who drop out. It is evident that that the dropout rates are higher in public secondary schools which charge higher hidden costs. The results in Table 5 were subjected to linear regression analysis and results are shown in Table 6:

Table 6: Relationship between Hidden Costs and Students’ Participation in Public Secondary Schools

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	43.309	20.702		2.092	.128
Average Hidden Costs	.007	.002	.902	3.627	.036

a. Dependent Variable: Number of Students who Drop out of Public Secondary Schools

Table 6 shows linear regression analysis which generated a linear model of the form; **Number of students who drop out of public secondary schools = 43.309 + 0.902Average hidden costs**. These results from the linear regression equation indicates that the coefficient for number of students who drop out of public secondary schools attributed to the average hidden costs is 0.902. This implies that for every increase in the hidden levies which schools charge, the number of students who drop out of public secondary schools is expected to decrease by a factor of 0.902 (positive coefficient). The value 43.309 indicates that the number of students who drop out of public secondary schools is not only dependent on hidden costs, but a multiplicity of other inherent factors such as students’ attitude and poverty levels. In other words, hidden costs are just, but, an additional factor to already existing cases of dropout among students.

Similarly, from the results in Table 6, the p-value, 0.036 is less than 0.05, that is, a low p-value ($0.036 < 0.05$). In summary, these results indicate that there is significant influence of hidden costs on students' participation in public secondary schools.

Thematic Analysis

During the interviews, the principals and parents' representatives also responded in favour of the view that students are required to pay for their meals which the capitation funds do not cater for. Principal, P1, observed;

In my secondary school, I charge little levies to cater for other operations such as meals, PTA, uniform and academic trips among others. These are not catered for by the Ministry of Education but are very important in facilitating students' participation in academic activities at school

These views were supported by the parents' representatives who stated that, though the government, though the Ministry of Education disburses capitation funds to cater for academic programmes, such funds are never enough. Parents' representative, PR1, noted;

We know that secondary education is free under FDSE but there are basic levies which we must provide. These include money for meals, academic trips, PTA, uniforms etc. and differs from one school to another. This has sometimes scared parents from enrolling their children in schools which charge much hidden costs.

These mixed findings point to the fact that hidden costs charged in public secondary schools still pose a great challenge to students' participation in school activities.

SUMMARY OF FINDINGS AND CONCLUSIONS

From the study findings, it is evident that, it is evident that the number of students who participate in public secondary schools has been on the increase since 2018 to 2022 due to the 100.0% transition policy by the government. However, after four years upon enrollment, the number of students who complete their secondary education is low. This is attributed to hidden costs charged in secondary schools without clear guidelines from the Ministry of Education.

RECOMMENDATIONS

The study recommends that Ministry of Education should regulate extra costs which public secondary schools are charging outside the capitation funds. This will go a long way in ensuring the secondary schools have standard hidden costs to meet to avoid overcharging parents and guardians.

REFERENCES

- Adepuju, A.& Fabiyi, A. (2017). *Universal Basic Education in Nigeria. Challenges and Prospects*. Lagos, University of Lagos.
- Adero, S. A. (2018). *Factors influencing the implementation of adult education literacy curriculum in Ndhwa Sub-county, Homabay County, Kenya*. Unpublished Med Thesis, University of Nairobi.
- Ardit, P. (2012). *Report on Primary Education in Bangladesh. Challenges and Successes*. Dhaka South Asia Society for Regional Cooperation.
- Bedi, A. S., Kimalu, P. K., Manda, D. K. & Nafula, N. N. (2014). The decline in primary school enrolment in Kenya”. *Journal of Africa Economies*, 13(1): 1-43.
- Cisneros-Chernour, E. J., Cisneros, A. A. & Moreno, R. P. (2013). *Curriculum reform in Mexico: teachers’ challenges and dilemmas*. Paper presented at the Lilian Katz Symposium, Illinois: Champaign.
- Colclough C., Rose P. & Tembon, M. (2012). Gender Inequalities in Primary Schooling; the roles of Poverty and Adverse Cultural Practice. *International Journal of Education Development*, 20: 5-23.
- Cramer, E. (2013). *Developing Lifelong Readers*. Newark: DE: International Reading Association.
- Farvardin, N. (2012). Retaining Students-and Their Hopes and Dreams. *ASEE Prism*, 16(7), 64-65.
- Hanushek, E. A. (2000). Conceptual and empirical issues in the estimation of educational production function. *The Journal of Human Resources*, 14(3), 351- 388.
- Levitz, R. (2014). *What’s Working Right Now in Student Retention! Building Blocks for Retention Success, the Basis for Recruiting Success*. Unpublished report prepared for the National Conference for Student Retention.
- Lewin, K. & Calloids, F. (2011). *Financing Secondary Education in Developing Countries. Strategies for Sustainable Growth*. France: UNESCO.
- Marina, P. (2020). Number of students by academic level 2016-2019. *Statistics and market data on Education & Science*. 5(1): 1-23.
- Ministry of Education (2021). *Status of students’ participation in Mandera County*. Nairobi: KIPPRA.
- Nannyonjo, M. (2015). *Parents’ Education and Secondary Students’ Excellence*. Ghana. Kumasi publishers.
- Onsomu, E. N., Muthaka, D., Ngware, M. & Kosimbei, G. (2015). *Financing of Secondary Education in Kenya: Costs and Options*. Kenya Institute for Public Policy, Research and Analysis. Nairobi.

- Onyango, O. T. (2017). *School Based Factors Affecting Implementation of Kiswahili Curriculum in Primary Schools in Homabay County, Kenya*. Med Thesis, Kenyatta University.
- Perna, L. & Titus, M. (2014). The Relationship between Parents Involvement as Social Capital and enrolment: An Examination of Racial/ Ethnic Group Differences. *The Journal of Higher Education*, 2(11): 12-23.
- Tinto, V. & Cullen, J. (1973). *Student participation and dropout in higher education. A review and theoretical synthesis of recent research*. New York: Teachers College.
- Woessmann, L. (2013). Families, Schools, and Secondary-School Learning: Evidence for Mexico, Argentina and Colombia in an International Perspective. *World Bank Policy Research Paper* 3537.
- Yeung, W., Linver, M. R., & Brooks-Gunn, J. (2013). *How money matters for young children's development: Parental investment and family processes*. Child Development.