

## A Comparative Evaluation of Direct Private Costs in Day and Boarding Schools after the introduction of free secondary education in the Kenyan schools

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### Abstract

*The purpose of the study was to evaluate direct private cost of educating day and a boarding student in secondary schools and to establish how the direct private cost of education determine the student choice of admission to day or boarding secondary schools in Kenya after the introduction of free secondary education in Kenya by the government in January 2008. After the introduction there were 1.2 million additional students enrolled in the secondary education sector. The population consisted of five head teachers, 140 form four teachers and 609 form four students, 281 day students and 328 boarding students. Saturated and systematic random samplings were used in the study. The sample size was as follows; all the five head teachers, 43 form four teachers and 93 day students and 103 boarding students. Data was analyzed using descriptive statistics. The study found out that the funds introduced for free secondary education only caters for 40.44% of the total private cost for day student and 28.23% of the cost for boarders and 72.7% of the day students preferred being in boarding schools. They were in day schools since 81.5% lacked boarding fee.*

**Key words;** boarding secondary students, day secondary students, private cost of education, free secondary education.

### 1.0 Introduction

Kenya has a fairly developed educational infrastructure both in terms of coverage and organization (Republic of Kenya, 2003). The system is based on an 8:4:4 structures which provide 8 years in primary education, 4 years of secondary education and a minimum of 4 years of university education. Secondary schools in Kenya fall into three categories; government funded low cost private schools, and high cost private schools. The government schools are divided into national, provincial and district schools. According to Ministry of Education (2005) students with the highest scores gain admission into national schools that are exclusively boarding schools. The second best students are admitted to provincial schools, that are 90% boarding, while the rest are admitted to district schools that are exclusively day.

The majority of day secondary schools in Kenya were originally established for urban students and children of Asian communities. The boarding tradition began at the turn of 20<sup>th</sup> century by Anglican and Roman Catholic Missionaries, with an aim of adopting English public school system to the African race. In Kenya boarding schools are justified on Nation building grounds because they bring together students from different regional and ethnic backgrounds (Republic of Kenya, 2005).

In addition, they may offer economies of scale with regard to teacher utilization and they avoid commuting costs associated with day schools.

The secondary school sub sector consists of over 4,000 public schools and about 600 private schools with a total population of over 850,000 (Ministry of Education, 2005). However, massive increase in enrolment in primary schools following introduction of Free Primary Education (FPE), is already putting pressure on secondary school system to expand access. Enrolment in primary schools shot up from 5.9 million in 2002 to almost 7.4 million in 2008 as a result of FPE introduced in January 2003. The demand for primary education is likely to be affected by the probability of entering secondary schools (Kigotho, 2009).

Secondary education is an immediate priority, as Kenyan education stakeholders consider how to accommodate hundreds of thousands of new primary school students who will seek places in future (Fleshman, 2005). The immediate challenge of secondary education is how to expand access at relatively low cost while improving the quality of education provided.

In order to address those challenges, in January 2008 the Kenyan Government introduced Free Day Secondary Education (FSE) by releasing US\$ 41 million subsidy for the first quarter of FSE (Malenya, 2008). Kenya joins the ranks of a few African countries that have rolled out 12 year universal basic education plan in line with the international protocol signed in 1990 at Jomtien, Thailand and in 2000 in Dakar Senegal (World Bank, 2002). The introduction of FSE targets raising the student enrolment to 1.4 million from 1.2 million in 2007 (Malenya, 2008). It also aims at ensuring that deserving children from poor families do not miss out on secondary education.

One requirement for FSE is that for a school to benefit there has to be a student population of between 40 and 45 per class.

Each student will receive a total of Ksh. 10,265 (\$130) per year. The money is expected to meet the full cost of tuition, repairs, travel and transport, administration, electricity and water bills, activity fees and non teaching staff salaries (Otieno, 2008).

The allocation of shs 10,265 (\$130) per year is supposed to cover all the costs for day student and the parents are supposed to pay for uniform, and boarding fees. The government is experimenting with the use of day schools instead of the traditional boarding schools to make secondary education more accessible (Fleshman, 2005). Parents are worried about the quality of education offered in public day secondary schools, as only few students from those schools obtain the minimum grades required to join public funded universities (Kigotho, 2009).

By introducing FSE in January 2008 the Kenyan Government expected massive enrolment in day secondary schools, making day schools the popular choice for both students and parents, compared to the more expensive boarding schools.

## **2.0 Objectives**

- (i) To evaluate the direct private costs of educating day and boarding secondary students.
- (ii) To establish how the direct private cost of education determine the students choice of admission to day or boarding secondary schools.

## **3.0 Literature Review**

Private cost of education is the cost of education to an individual, households, and the community to support the production of educational services at the school. The costs include direct private costs, private contributions, and indirect private costs (Woodhall, 2004).

Inability to afford the direct cost to secondary education contributes to low performance due to irregular attendance in Kenya (Mbilinyi, 2003). The main sources of funding secondary education in Kenya, include households and governments. Other sources of funds include private sector, religious organizations, NGOs, communities and development partners.

The cost of providing secondary education for most Kenyan households has remained prohibitive at Kshs 25,000 (\$313) for boarding secondary schools and Kshs 10,500 (\$131) for day secondary schools per year (Ayodo, 2006). According to Mualuko (2007) in boarding secondary schools in Kenya, parents pay between Kshs 31,000 (\$388) and 47,000 (\$588), while in day schools parents directly pay between Kshs 14,000 (\$175) and 21,000 (\$263) per year. The household expenditure on various secondary education related items indicated regional variations across the country, with urban households spending a large portion of their incomes on secondary education (approximately Kshs 34,923 (\$437) per child per year) while rural households spend about Kshs 21,170 (\$265) per year per child (Orodho, 2003).

At national level, households spend a total of Kshs 24,370 (\$305) per child per year. About 37.3% was spent on indirect educational costs such as uniform, books, stationary, pocket money, and transport. This suggests that indirect costs constitute a critical element in secondary education financing. Ministry of education should ensure that the bulk of the funds allocated to the secondary school sub sector go to the purchasing of instructional materials. Efficiency utilization, with strict monitoring and auditing of the funds should constitute key features of this process (Orodho, 2003).

A study in Kenya by Noormohamed (1998) has shown that the direct cost of sending a child to secondary school is reflected in expenditure on uniform, textbooks, stationary, building funds.

Other costs include activity fee, tuition fee, personal emoluments, caution money, local traveling, medical, repairs, mock and maintenance fee. According to Mauluku (2007) payment of direct cost of education in Kenya, are made in installments and not all parents complete paying fees by the end of the year. Reasons for the delayed payments include: poverty, parents have many dependence to cater for; HIV/AIDS; and most parents are unemployed, therefore they don not have regular income.

Gogo (2002) indicated that fees paid by secondary students in Kenya accounted for 48.41% of the funds raised by schools. Other contributions came from the government: for teachers' salaries (47.43%), governments' bursaries (0.45%), income generating activities (0.30%) and both local and foreign donors gave money for development projects. The fees paid by the students were used in day to day running of the schools and for development expenditure.

Since the late 1980's household contribution to secondary education has risen considerably. Given that household contribution to physical facilities and instructional materials was meant to be optional, a growing proportion of households are making contribution below what is needed or are opting out of secondary education for their children if they cannot afford the needed levies (Republic of Kenya, 2003). Household burden in financing secondary education is high, whereas households meet only 20% of primary and 8% of university education costs; they shoulder 60% of secondary education costs (Malenya, 2008). According to Njeru and Orodho, (2003) the proportion of household's income expenditures on education varies from 30% to 44% of their annual incomes, while almost two thirds of households spend less than 15% of their annual income on health and housing.

Therefore the Kenyan government introduced Free Day Secondary Education to increase the chances of the poor households registering their children in secondary schools. The biggest challenge to the Free Day Secondary Education is that most parents and students still prefer boarding schools, and the funds provided for the program, may be inadequate.

#### **4.0 Research Methodology**

##### **4.1 Population and Sample**

The total population of head teachers and teachers were 5 and 140 respectively, while the number of students was 281 day students and 328 boarders. Therefore the population of the study was 754. The students were drawn from form four because the researcher believes they will be able to give mature and more accurate responses.

##### **4.2 Sampling**

Saturated and systematic random samplings were used to sample the population. Saturated sampling technique was used to select the schools, because all the five schools were used for the data collection. Saturated sampling technique for selecting the schools was used because the target population was so small that selecting a sample would have been meaningless. One of the schools was used for pilot the collection of data.

The teachers, day and boarding students were selected using systematic random sampling. In a systematic sampling procedure, every K<sup>th</sup> case of the population is selected for inclusion in the sample (Mugenda and Mugenda, 1999).

About 33% of the target population was used in this study, and that was a fair representation (Gall and Borg, 1996). A total of four head teachers, 43 form four teachers, 93 day students and 103 boarding students participated in this study, bringing a total sample to 243 respondents

##### **4.3 Data Analysis**

Data was analyzed using descriptive statistics, the researcher examined all the completed questionnaires, and the information contained therein was tabulated in frequency tables and percentages.

#### **5.0 Results and Discussion**

The direct private cost was divided into two categories of costs by the researcher;

- (i) The first category was the money levied by the individual schools in form of fees and this money was paid directly to the various schools by the parents.
- (ii) The second category was the money given directly to the students by their parents to sustain them in school. Such levies included cost of transport, pocket money etc.

The money paid directly to schools in form of school fees included the following; Tuition fees, activity, local transport, repairs and maintenance, medical, mock and KCSE examination fees, electricity and water, contingencies and caution money. The mentioned levies were standardized by the government, therefore all the schools, charged the same fee.

**Table 1: Standardized School Fees charged in Shillings and US \$ to Boarding and Day Secondary School Students per Year as indicated by Head teachers (N=4)**

Levies	Boarding Student		Day Student	
	Ksh	\$	Ksh	\$
Tuition	3,600	45	3,600	45
Activity	900	11	900	11
Local Transport	1,000	12.5	1,000	12.5
Repairs and Maintenance	800	10	500	10
Medical	400	5	200	5
Mock examination	950	12	950	12
KCSE examination	3,200	40	3,200	40
Electricity and Water	1,000	12.5	500	6.25
Caution Money	500	6.25	500	6.25
Contingencies	700	8.75	400	5
<b>Total</b>	<b>13,050</b>	<b>163</b>	<b>10,650</b>	<b>133</b>

Table 1 shows the levies charged for both the boarding and day students. From the table the total fees charged was \$163 that was 54.5% of the total cost for boarding student, compared to \$133 (44.5%) for the day student. The boarding students paid more money than day students in the following levies; repairs and maintenance, medical, electricity and water, and contingencies.

This was because the boarders were likely to utilize more of these services, after the day student had gone home, at the end of school day. At the end of the fourth year at secondary school level, students are expected to sit for KCSE examination, in October to November every year. The cost of this national examination is paid by the parents, at Kshs 3200 or \$ 40. At district level, the form four students always sit for mock examination, in August every year in order to prepare for the KCSE examination at the end of the year.

**Table 2: Total fees charged in Shillings and \$ by the Schools to Boarding Students per Year According to Head teachers Responses (N=4).**

Charges	Schools			
	Boarding		Day	
	Ksh	\$	Ksh	\$
Standardized Charges	13,050	163	10,650	133
Boarding fee	9,375	117	.....	.....
Building/PTA/Development	2,626	33	2,650	33
Personal emoluments	3,750	47	2,375	30
Science, Math teachers training	200	2.5	200	2.5
Others (Harambee, book donation)	400	5	400	5
<b>Total</b>	<b>29,401</b>	<b>367.5</b>	<b>16,250</b>	<b>203.5</b>

Other direct private levies that were charged by the schools as fees to parents included development funds, building funds, PTA funds, boarding fees, personal emoluments, book donations, and science and mathematics training levy. The training levy was introduced by the government in order to retrain science to teachers, so as to improve performance in science subjects at secondary school level. Other funds such as development, PTA, and building, are part of cost sharing levies, that parents are supposed to pay in order for the schools to put up more educational facilities in order to improve quality of education. As shown in Table 2 the total fees paid directly to the schools by boarding students and day students were Ksh 29,400 ( \$367.5), Ksh 16,250 (\$ 203.5) respectively.

The boarders were paying more than the day students in levies such as standardized charges, personal emoluments and boarding fee that were not levied against the day students. Personal emoluments levy is meant to pay support staff in the secondary schools. Such support staff include, watch men, accounts clerks, typists, cooks, laboratory assistants, and nurses or matrons, who are not paid by the government.

Other direct private costs that were incurred by parents, but not paid directly to schools included money for lunch, pocket money, transport, replacement or repair of school uniforms, supplementary text books and private tuitions.

**Table 3: Costs in Shillings and \$ Incurred by Parents with Students in Boarding Section per Year as Indicated by the Boarding Students (N=103)**

Levies	Schools			
	Boarding		Day	
	Ksh	\$	Ksh	\$
Pocket Money	2,159	27	2,859	35
Transport	1,789	22	1,339	17
Uniform	762	10	552	7
Textbooks	1,456	18	1,423	18
Private tuition	2,075	26	1,100	14
Lunch	...		4,796	60
<b>Total</b>	<b>8,241</b>	<b>103</b>	<b>12,039</b>	<b>151</b>

As shown in Table 3 above other private cost for boarding secondary students was Ksh 8,241 (\$ 103) and Ksh 12,039 (\$151) for day students. The average major cost was pocket money followed by private tuition for boarders. Private tuition was conducted twice a year in the months of April and August. Private tuition is always conducted for the form four students who are candidates for Kenya Certificate of Secondary Education (KCSE).

The KCSE examination is taken very seriously because it determines who will be admitted in both public and private universities, and any other higher learning institutions in Kenya. Since the examination is very competitive, nearly all schools make it mandatory for students to pay for the private tuition, thus increasing the cost of secondary education. The major cost for day scholars was money spent on lunch, followed by pocket money. The cost of private tuition was also high for the day student compared to other levies, as shown in Table 3.

**Table 4: Total Cost of Educating a Boarding and a Day Student per Year in Shillings and \$ and their Percentages as Indicated by the Students and the Head teachers (N=200)**

<b>School</b>	<b>Boarding</b>	<b>%</b>	<b>Day</b>	<b>%</b>
Ksh	37,641	58.96	26,414	42.41
\$	470.5	58.96	330	42.41

As shown in Table 4 above the average cost of educating a form four boarding and a day student was Kshs 37,641(\$470.5) at 57.59% and

Kshs 26,414 (\$330) at 42.41% respectively per year.

**Table 5: The Average Total Cost per Year in Shillings and \$ of Educating a Boarding and Day Student in Form Four according to Students and Head teachers responses (N=200)**

<b>Levies</b>	<b>Boarding</b>	<b>Day</b>
Fees paid to schools		
Ksh	29,400	16,250
\$	367.5	203
%	78.11	57.44
Money given to students		
Ksh	8,241	12,039
\$	103	150.5
%	21.89	42.56
<b>Total</b>		
<b>Ksh</b>	<b>37,641</b>	<b>28,289</b>
<b>\$</b>	<b>470.5</b>	<b>353.5</b>
<b>%</b>	<b>57.10</b>	<b>42.90</b>

As shown in Table 5 money given directly to students by their parents or guardians constitute a higher percentage of the total direct private

cost for a day student (42.56%) compared to that of a boarding student (21.89%).

**Table 6: The Average Direct Private Cost in Shillings and \$ of Educating a Student per Year in various categories as indicated by the Students and Head teachers (N=200)**

<b>Student</b>	<b>Cost</b>	
	<b>Ksh</b>	<b>\$</b>
Day	26,414	330
Boarding	37,641	470.5
Girls day	28,018	350
Boys day	26,020	325
Girls Boarding	36,060	451
Boys Boarding	36,522	465.5
Girls	32,039	400
Boys	31,271	391
<b>Average</b>	<b>32,028</b>	<b>400</b>

As shown in Table 6 the cost of educating a girl in a day secondary school is slightly higher than that of a boy while the cost of educating a girl in a boarding school is almost the same as that of a boy student.

This could be explained by the fact that girls who were day scholars spent more money on transport, they also required more pocket money, and they also spent more money purchasing lunch than the boys. Boys were more likely to walk to school or use a bicycle.

**Table 7: The Cost of Free Secondary Education per Year in Shillings and \$**

Fee	Amount		%
	Ksh	\$	
Tuition	3,600	45	35.07
Repairs and Maintenance	400	5	3.90
Local Transport	400	5	3.90
Administrative Costs	500	6.25	4.87
Electricity, Water and Conservation	500	6.25	4.87
Activity	600	7.5	5.85
Personal Emolument	3,965	50	38.63
Medical	300	3.75	2.92
<b>Total</b>	<b>10,265</b>	<b>128.25</b>	<b>100.00</b>

Source; Ministry of Education 2008

Free secondary education was introduced at the beginning of 2008, when the researcher had collected some data on the private cost of education. As shown in Table 7 the bulk of the money provided by the government was to defray costs of tuition and for personal emoluments. Parents are expected still to pay for

mock and KCSE examinations, caution money, boarding fees, building funds, PTA funds and development funds directly to the schools. Parents are also expected to cater for other costs that are not directly paid to the schools such as transport, pocket money, lunch, uniform, private tuition, and supplementary textbooks.

**Table 8: The Percentage of Government Subsidy in Shillings to the total Cost of Educating a Student in Form Four**

	Day Student	Boarding Student
Cost		
Ksh	26,414	37,641
\$	330	470.5
Government subsidy		
Ksh	10,265	10,265
\$	128	128
<b>% of government subsidy</b>	<b>40.22</b>	<b>28.23</b>

As shown in Table 8 above the government subsidy only caters for 40.22% of the total cost

for a day student, 28.23% of the cost for boarders.



Parents are expected to raise 59.78% of the cost of day secondary school education, which translates to Kshs 16,149 or \$ 202. Since most parents are very poor and they live in less than a \$ per day, they cannot afford to raise that amount of money even after the government introduced Free Day Secondary Education. Boarders must pay 71.77% of the total cost of boarding secondary education, which is Kshs

27,376 or \$ 342.5. The finding concurs with that of Mauluku (2007), Njeru and Orodho, (2003) and Mbilinyi (2003) that indicated that parents were unable to pay for secondary education for their children due to extreme poverty. When the students were asked the type of the school the preferred to attend the majority of both the boarders and day scholars preferred boarding secondary schools.

**Table: 9 Type of school preferred by Day and Boarding Students**

Type of school	Boarding Students		Day students	
	No. of students	% of students	No. of students	% of students
Boarding school	76	75.3	68	72.7
Day school	27	24.7	25	27.3
Total	103	100.0	93	100.0

As shown in Table 9, majority of day students prefer to be in boarding school (72.7%). Majority of boarding students also preferred being boarders at 75.3%. Only 27.3% of the day students were comfortable being in a day school. Most boarding schools in Kenya perform, better in national examination than the

day schools, and that could have been a reason for the day students to prefer those schools. This can be supported by Kinyanjui (2008) who observed that once students have missed a chance in National or Provincial schools, that are exclusively boarding, their chances of success in life is reduced by half.

**Table 10: Reasons for attending Day school by Day students, N= 93**

Reasons	No. of Students	%
Lack of Boarding fee	76	81.5
I was admitted in a Day school	7	8.1
My home is near the school	4	4.0
My parents or guardians want me to be in day school	6	6.4

When the students were asked why they were in day schools despite their preference for boarding secondary schools, the majority of day students (81.5%) were in day school due to lack of boarding fee. It shows that if all parents can

afford the cost of boarding secondary schools, nearly all students will prefer to make boarding schools their preferred school of choice.

## **6.0 Conclusions and Recommendations**

The average direct private cost for educating day and boarding form four student per year was Kshs 26, 414 (\$300) and Kshs 37, 641 (470.5) respectively. On average the fees charged by the schools to the boarders and the day scholars per annum was Kshs 29, 400 (\$367.5) and Kshs 16, 250 (\$203) respectively. The direct fee charged by the schools was 78.11% of the total cost for boarders and 57.44% for the day scholars.

Since the introduction of F S E in January 2008, the government allocates Kshs 10, 265 (\$128) to each secondary student annually. This money was mainly to defray the cost of tuition (35.07%) and personal emolument (38. 63%). This government subsidy only caters for 40.22% of the total cost for a day student, and 28. 23% of the cost of boarders, showing that the amount of the money provided is not adequate. Majority of secondary students in Kenya still prefers boarding schools with 75.3% and 72.7% of boarders and day students respectively.

This is because most boarding schools are Provincial and National schools and they perform better in national examinations. The government should increase the amount of money allocated to each student for FSE from 10,625 (\$128) to Kshs 16,250 (\$203). This is because Kshs 16,250 (\$203) was the average fees paid by the day secondary students.

The Kenyan government should subsidize or lower tax on goods and commodities consumed by boarding students so as to lower the cost of boarding fees. This will enable more students to enroll in boarding schools which are their preferred choice of secondary school. The government, parents and other stakeholders, in the Kenyan education system should improve the educational facilities, hence the quality of education in those institutions in order to make them popular with students and parents, since they are relatively cheaper than the boarding institutions.

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