



## UNIT COST OF UNIVERSITY EDUCATION HOUSEHOLDS INCUR AND ITS ECONOMIC IMPLICATION FOR STUDENTS IN SELECTED PRIVATE UNIVERSITY CAMPUSES IN UASIN GISHU COUNTY, KENYA

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### Abstract

**Introduction:** Education is a very crucial foundation for the advancement of any given nation in social, political and economic terms. This is because of the role played by education in enhancing economic growth, productivity, national development, and social equality. This is the reason why individuals, families and governments of different countries of the world continue to invest so much at all educational stages. The aim of this research work was to determine the influence of unit cost of university education households incur on economic implication of students in selected private university campuses in Uasin Gishu County, Kenya.

**Research Methods:** The study adopted the descriptive survey research design. Target population is 422 respondents who comprise 420 fourth year students and 2 deans of students of 2 private university campuses. Sample size is 205 respondents who are comprised of 203 students and 2 deans of students. The study adopted both stratified random sampling and simple random sampling techniques. Data was collected using questionnaires. Content validity and face validity were assessed using supervisors' opinion while reliability was examined using the Cronbach's alpha co-efficient. The data was analyzed using SPSS and the results presented using descriptive statistics.

**Results & Analysis:** The study found that in an academic year, majority of students spent more than Ksh.100, 000 on tuition fees, more than Ksh.10, 000 on books and other materials, above Ksh. 3, 000 on clothing, more than Ksh.50, 000 on accommodation, more than Ksh. 25, 000 on transport, less than Ksh.25, 000 as pocket money, donations and trips in an academic year.

**Conclusions:** The study concluded that besides amount of tuition paid in private universities, students incurred further expenses on books and other materials, clothing, transport, examination fee, pocket money and other miscellaneous expenses such as donations and trips.

**Recommendations:** The study recommended that private universities should invest in books and other materials so as to reduce the average amount of money spent on financing the education of university students incurred by households.

**Key Words:** Unit Cost, University Education, Economic Implications, Kenya

## 1.0 Introduction

Higher education is a very important instrument for the social and economic development of an individual. Higher education also facilitates economic mobility. An educated labour-force is important to our nation's future economic development (Wandiga, 2006). Kenya as a country requires a highly skilled labour-force in establishments and businesses to address the demands of contemporary increasingly competitive world economy (Owino, 2003). This is in line with one of the objects of Kenya's national goals of education (NGEs), goal number (ii), that is, to enhance economic, technological, social and industrial needs for national development. What we mean by this is that education provision in Kenya should aim at promoting economic development, social development, technological development and industrial development which in turn will translate to national development.

According to economics of education, an investment in education takes a long period of time before the investors reap its returns (Mingat & Tan, 2016; Gropello, 2006). That is why social and economic development is considered to be greatly enhanced by education. Education is the basis upon which any development in a nation is premised. Meyer, Ramirez, Frank, and Schofer (2007) states that education is a valid determinant of well-being in regard to private goods and social goods, which results to rapid development at national levels and that of the entire world. Various countries, communities and individuals have been concerned with how to fund education because it is considered as an investment. Financing education is a very complex process. This is because education financing is done at pre-primary, primary, secondary and at tertiary levels of education. Economists have been trying to find ways of determining the average cost of education per student purposely to minimize the difficulties in financing education.

Owino (2003) opines that some of the factors which determine the amount of financial support, in terms of loan and bursary, a student would get in Kenyan public universities. The factors included: income and expenditure of a family, place residence, place of birth and whether a student has parents or is an orphan. Moreover, the educational attainment of a learner's parents and the number brothers and sisters that a learner has in different institutions of learning. This study did not pay attention to unit cost element and its economic implication. Similarly, Mutegi (2005), set out to find out the average cost of education in public post-primary schools and its implication on students' enrollment rates in Tharaka South Sub-County, Kenya. In his two studies, he failed to pass particular attention to the unit cost of education and its economic implication for public secondary school students. Moreover, no focus was given to unit cost of public and/or private university education and its economic implication. Therefore, this study focused on establishing the elements of education that make up the average cost of university education and its economic implications for private university students in the County of Uasin Gishu, Kenya. The study also focused on finding out the amount of money spent by households on education of students through buying books, transport, pocket money, and clothes. These cost variables were to be assessed in respect to their economic implication for university students in selected private university campuses in Uasin Gishu Devolved Unit. The remainder of

this article paper is organized as follows. Section 2 covers methods; section 3 discussions; section 4 recommendations and section 5 references.

## 2.0 Research Methods

This study was conducted in selected private university campuses in the County of Uasin Gishu, Kenya. The study adopted a descriptive survey research design because it is vital in answering the questions of what, when, where, who, and how associated with a particular research problem (Mugenda & Mugenda, 2003). According to Creswell (2012), target population is a group of people or subjects with some related characteristics or attributes

that the researcher desires to study with the purpose of generalizing the results about is referred to as the target population. This study's target population was 420 fourth year students and two deans of students in two selected private University campuses in Uasin Gishu County. This in turn gave a total of 422 respondents. The two private universities are Mount Kenya University and the University Of Eastern Africa-Baraton. The study sample size is 205 students which is derived using the formula by Yamene (1967). The sampling frame is summarized in Table 1:

**Table 1: Sampling frame**

S/no	University (Campus)	Stratum	Target Population	Sample size	Percentage
1.	1	4 <sup>th</sup> Year students	219	106	51.7%
2.		Dean of students	1	1	0.5%
3.	2	4 <sup>th</sup> Year students	201	97	47.3%
4.		Dean of students	1	1	0.5%
Total			422	205	100

The stratas was set up using stratified random sampling. Thereafter, the respondents were selected from the different stratus using simple random sampling technique. The stratas are 4<sup>th</sup> year students and the deans of students. The tools that were used to collect data are questionnaire and interview schedule. The deans of students were interviewed so as to gather more information about unit cost of University education and its economic implications for university students among selected private Universities in Uasin Gishu County. Questionnaires were used to collect data from the students. Expert judgment was used to assess content validity. Therefore, the supervisors were consulted to assist in ensuring that content validity of the instrument is improved as per the recommendations (Borg & Gall, 2009). The instruments reliability was assessed using the test re-retest method. The cronbach alpha coefficient was 0.728 (72.8%) which was above the minimum required value of 0.7 (70%). This ascertained that the research tools were reliable and hence further analysis could be done. The reliability results are summarized in Table 2:

**Table 2: Reliability Test**

Items	Cronbach's Alpha
Economic implications	.705
Unit cost of university education	.751
Composite	.728

The quantitative data was analyzed using SPSS version 25.0 and the results presented using descriptive statistics which included frequencies, percentages, means and standard deviation. The researcher ensured that there was voluntary participation and informed consent. All respondents participated on their own free will. They were also fully informed as far as the procedures of the research project and any potential risks were concerned. Confidentiality and anonymity of the respondents was equally guaranteed. Creswell (2012) observed that in research, the individuals participating need to know the purposes and aims of a given study. In response to this, the importance of the study was explained to the respondents by researcher as a way of building trust.

### 3.0 Results & Analysis

The study examined a total of 205 respondents, where 205 questionnaires were issued. Of the 205, 197 questionnaires were returned of which 20 were incomplete. This narrowed down to 177 completed questionnaires. This indicated a rate of response of 86.3% as summarized in Table 3:

*Table 3: Response rate*

Questionnaire issued	Questionnaire returned	Incomplete Questionnaires	Complete Questionnaires	Response rate
205	197	20	177	86.3%

### 3.1 Demographic information

The demographic information of the respondents focused mainly on the respondents' gender, age, previous academic qualification, duration at the institution, program, employment status, status of the parents, occupation of the parents, marital status, family monthly income, number of siblings in primary school, secondary school, middle college and university and the students' financial status as presented in Table 4: From the findings, 67 (37.9%) of the students were male while 110 (62.1%) were female. This implies that most of the students in the private universities were female. This is similar to the findings of Chacha (2004) female students form the largest group of the students' population in private universities across the world.

**Table 4: Demographic information of the Respondents**

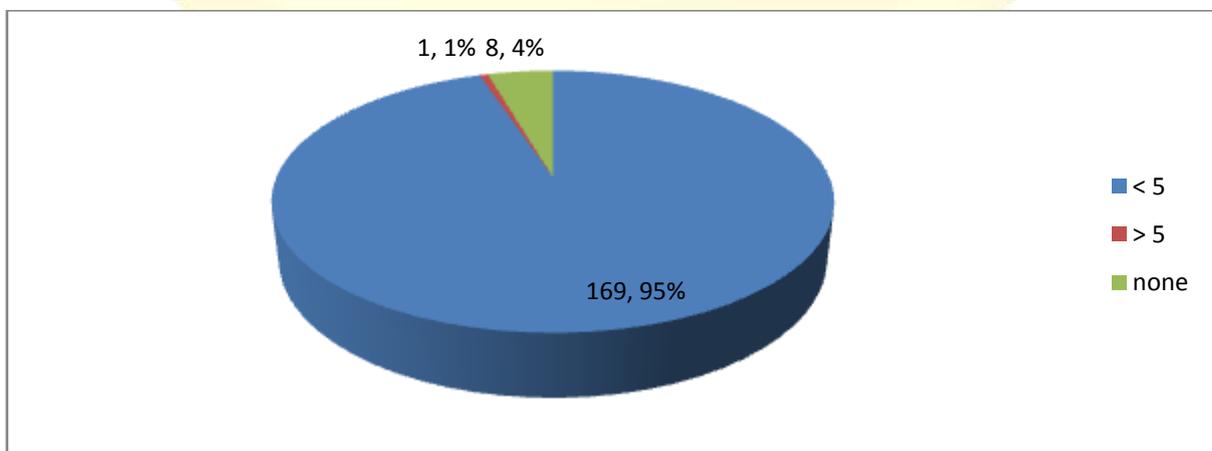
<b>n = 177</b>		<b>Frequency</b>	<b>Percent</b>
<b>Gender</b>	Male	67	37.9
	Female	110	62.1
<b>Age group</b>	18 – 23	82	46.3
	24 – 29	68	38.4
	30 – 35	27	9.6
	>35	10	5.70
<b>Academic Qualification</b>	KCSE Certificate	28	15.8
	Diploma	68	38.4
	University Graduate	81	45.8
<b>Duration</b>	3 - 4 years	82	46.3
	4 - 5 years	40	22.6
	5 - 6 years	28	15.8
	> 6 years	27	15.3
<b>Program enrolled</b>	Bachelor of commerce	66	37.3
	Education	70	39.5
	Any other (Specify)	41	23.2
<b>Employment status</b>	Employed	68	38.4
	Not Employed	109	61.6
<b>Parents status</b>	Both Alive	95	53.6
	One Alive	68	38.4
	Both Dead	4	2.0
	Separated	10	6.0
<b>Fathers occupation</b>	Business Person	28	15.8
	Farmer	67	37.9
	Teacher	28	15.8
	Any other (Specify)	54	30.5
<b>Mothers occupation</b>	Business woman	40	22.6
	Bank manager	28	15.8
	Farmer	28	15.8
	Unemployed	54	30.5
	Any other (Specify)	27	15.3
<b>Marital Status</b>	Married	56	31.6
	Not Married	121	68.4
<b>Family monthly income</b>	0 – 500	0	0.0
	5001 – 10000	40	22.6
	10001 – 15000	55	31.1
	15001 – 20000	28	15.8
	20001 and above	54	30.5

In regards to age group, 38.4% (68) of the respondents were aged between 24 to 29 years, 46.3% (82) of them between 18 to 23 years, 9.6% (27) between 30 to 35 while 5.7% (10) of the respondents were above 35 years. Majority of the students in these institutions are aged between 18 to 23 years. Cheboi (2006) opined that the age bracket for majority of university students is between 18 to 23 years which is similar to the findings of this study. In relation to previous academic qualification, 81 (45.8%) of the respondents had no other academic certificate other than the Kenya certificate for secondary education, 68 (38.4%) had diploma while 28 (15.8%) were university graduates. Majority of the students in these private institutions are those whose previous academic qualification is secondary education. Munene (2013) noted that the largest number of students who enroll for

education at the university was the ones with secondary education. In an effort to determine the duration the student has been in the institution, majority of the students 82 (46.3%) had been in the institution for a period of between 3 to 4 years, 40 (22.6%) of them between 4 to 5 years, 28 (25.8%) between 5 to 6 years and 27 (15.3%) over 6 years. The study period for a degree course is 4 years, therefore since majority of the students had been the institutions for a period between 3 to 4 years then it implies that they were within the 4 academic years prescribe for a normal degree as elucidated by (Nyangau, 2014).

When the students were questioned about the state the program that they undertaking at the institutions, it came out clear that 70 (39.5%) were undertaking a bachelor of education degree, 66 (37.3%) bachelor of commerce while 41 (23.2%) were either undertaking information technology, human resource management among other key disciplines. Similar findings were found by Gudo et al. (2011) that most students in the universities in Kenya are undertaking a degree in education. In regards to employment status, 109 (61.6%) were un-employed while 68 (38.4%) were employed. The implication is that most of the students in these private universities are un-employed. This is in agreement with the findings of Kauffeldt (2010) that most of the students in universities in Kenya are un-employed. In relation to parents status, 95 (53.6%) were both alive, 68 (38.4%) one alive, 4 (2.0%) both dead and 10 (6.0%) separated. Majority of the student's parents are all alive. Besides, 67 (37.9%) of the students revealed that their fathers were farmers, 54 (30.5%) revealed that their father was either unemployed, a doctor, mechanic, engineer, accountants, revenue officers among others, 28 (15.8%) revealed that their father was a business person while 28 (15.8%) teachers. Majority of the respondents fathers were farmers.

In a bid to establish the mother's occupation, 54 (30.5%) were un-employed, 40 (22.6%) business women, 28 (15.8%) farmers, 28 (15.8%) bankers while 27 (2.3%) were either police women, administrators, secretaries, teachers and many more. Furthermore, 121 (68.4%) of the students were not married while 56 (31.6%) of them were married. This implies that most of the students are not married. In regards to family monthly income, 40 (22.6%) of the families earned an income of between Ksh.5, 001 to Ksh.10, 000, 54 (30.5%) earned above Ksh.20001, 28 (15.8%) earned between Ksh.15, 001 to Ksh20, 000, 55 (31.1%) between Ksh10001 to Ksh15000 and none earned between Ksh. 0 to Ksh.500 in a month. The students were asked to give the number of siblings in primary school, 96(54%) of the respondents had less than 5 of their siblings in primary school, 54 (31%) had more than 5 of their siblings in primary school while 27 (15%) had no sibling in primary school.



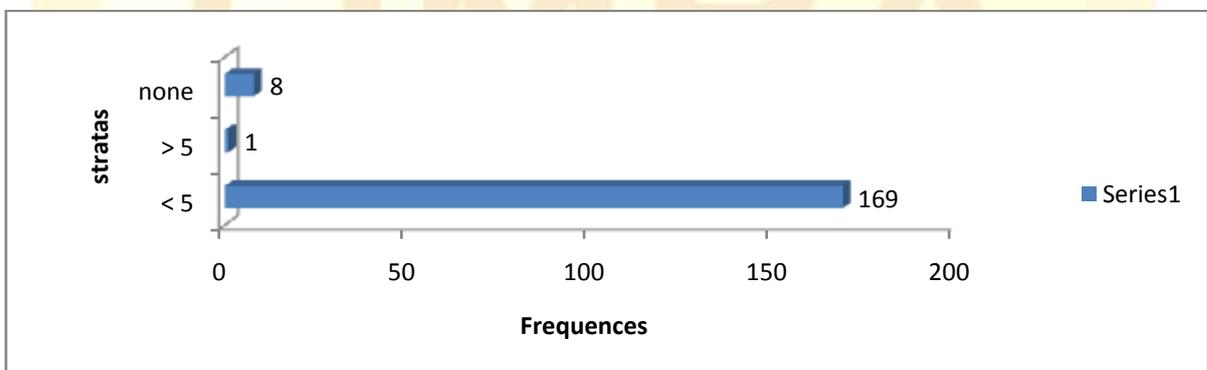
**Figure 1: Number of siblings in primary school**

The researcher also sought to find out the number of siblings the respondents had in secondary school, 141 (80%) of the students revealed that they had less than five siblings who were in secondary school, 27 (15%) had more than five siblings in secondary school while 9 (5%) had no siblings in secondary school as shown in Table 5. The study agrees with the findings of Manda, Mwabu, and Kimenyi (2002) that the number of children a parent can have in secondary school are less five.

**Table 5: Number of siblings in secondary and middle college**

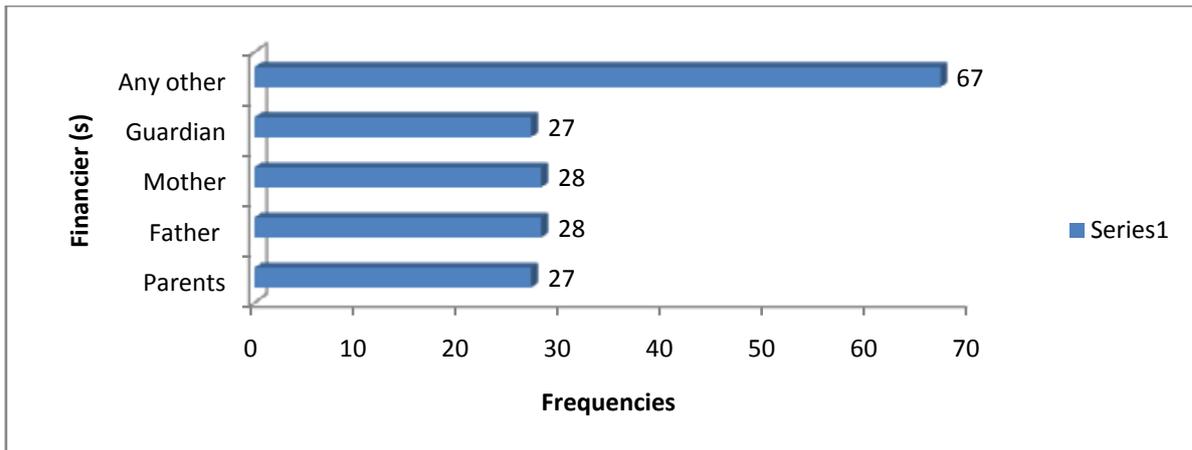
<b>n = 177</b>		<b>Frequency</b>	<b>Percent</b>
Number of siblings in secondary school	< 5	141	8.0
	> 5	27	15.0
	None	9	5.0
Number of siblings in middle college	< 5	67	37.9
	> 5	56	31.6
	None	54	30.5

In a bid to establish the number of siblings in middle college, 67 (38%) of the students had less than 5 siblings in middle college, 56 (32%) had more than 5 siblings in middle college while 54 (30%) had no student in middle college. This implies that majority of the students had less than 5 of their siblings in middle college which is similar to the findings of (Kirchsteiger & Sebalda, 2010). Finally the study sought to find out the number of students in university, 169 (95.5%) had less than 5 of their siblings in university, 1 had more than 5 siblings in university while 8 had none of their siblings in university. Cheboi (2006) also found that on average a student cannot have more than five siblings undertaking a degree programme at the same time he or she is undertaking a degree too. The findings are captured in Figure 2:



**Figure 2: Number of siblings in University**

In relation to the person who finances the students education, 67 (37.9%) were financed by donors, 28 (15.8%) by mothers, 28 (15.8%) by fathers, 27 (15.3%) by both parents and 27 (15.3%) by guardian as shown in Figure 3:



**Figure 3: Financiers of Education**

### 3.2 Unit cost of University Education households incur and its economic implication

The study sought to establish the unit cost of university education households incur and its economic implication on students in selected private universities in Uasin Gishu County, Kenya. Unit cost of university education households incur was operationalized using: amount of tuition paid, amount spent of books, amount spent on clothings, amount spent on accommodation, amount spent of transport, examination fee, pocket money and other expenditures. The study results were summarized in Table 6: The study found that the amount of tuition paid in a year in the private universities, 63 (35.6%) of the student revealed that they spent more than Ksh.100, 000 on tuition fees in academic year, 28 (15.8%) spend between Ksh.40, 000 and Ksh.60, 000, 28 (15.8%) spend between Ksh.20, 000 and Ksh.40, 000 while 4 (2.3%) spend less than Ksh.20, 000. This implies that majority of the students spend over Ksh.10, 000 in an academic year in the private universities. The item realized a mean of 3.3051 and a variation in responses of 1.76700. The study findings are similar to the findings of Chacha (2004) on average a student spends more than Ksh.100, 000 on tuition fees in an academic year in Kenyan Universities.

**Table 6: Unit cost of University education households incur and its economic implication on Students**

	Frequency	Percentage	Mean	Std. Deviation
Amount of tuition paid			3.3051	1.76700
< 20000	4	2.3		
20001 – 40000	28	15.8		
40001 – 60000	28	15.8		
60001 – 80000	27	15.3		
80001 – 100000	27	15.3		
> 100001	63	35.6		
Amount spent on books			2.3051	.72897
< 5000	28	15.8		
5001 – 10000	67	37.9		
> 10000	82	46.3		
Amount spent on clothing's			1.7740	.69479
< 3000	67	37.9		
3001 – 5000	83	46.9		
> 5000	27	15.3		

Amount spent on accommodation			2.3164	.72411
< 30000	27	15.3		
30001 – 50000	67	37.9		
> 50000	83	46.9		
Amount spent on transport			2.3164	.72411
< 20000	27	15.3		
20001 – 25000	67	37.9		
> 25000	83	46.9		
Examination fee			1.7627	.89199
< 30000	96	54.2		
30001 – 40000	27	15.3		
> 40000	54	30.5		
Pocket money			1.6949	.72897
< 25000	82	46.3		
25001 – 30000	67	37.9		
> 30001	28	15.8		
Other expenditures			1.7684	.69700
< 20000	68	38.4		
20001 – 30000	82	46.3		
> 30001	27	15.3		
Composite values			2.1554	.11151

In regards to the amount spent on books and other materials, 82 (46.3%) of the students spent more than Ksh.10, 000 on books and other materials, 67 (37.9%) spent between Ksh.5, 000 and Ksh.10, 000 while 28 (15.8%) spent less than Ksh.5, 000. The itemized mean of the item is 2.3051 and standard deviation is .72897. This implies that majority of the students spend over 5000 shillings on books and other materials. In regards to amount spent on clothing, 83 (46.9%) of the students spent between Ksh3, 000 to Ksh.5, 000, 67(37.9%) spent less than Ksh.3, 000 while 27(15.3%) spent more than Ksh.5, 000 on clothing. This implies that majority of the students in the private institutions spend above Ksh.3, 000 on clothing's. This is explained by a mean of 1.7740 and a standard deviation of .69479. This is similar to the findings of Manda et al. (2002) that expenses that escalates university education is the amount of money parents spend on books and other materials, clothing's etc. The findings of the study were as shown in Table 8. Besides, on amount spent on accommodation, 83(46.9%) of the students spent more than Ksh.50, 000 on accommodation in a year, 67 (37.9%) spent between Ksh.30, 000 to Ksh.50, 000, 27 (15.3%) spent less than Ksh.30, 000 on accommodation. This implies that majority of the students of the students spent more than Ksh.50, 000 on accommodation. The item realized a mean of 2.3164 and a standard deviation of .72411. In relation to amount spent on transport, 83 (46.9%) of the students spent more than Ksh.25, 000 on transport, 67 (37.9%) of the students spent between Ksh.20, 000 to Ksh.25, 000 while 27(15.3%) of them spent less than Ksh.20, 000 on transport. The itemized mean of the item is 2.3164 and the standard deviation .72411.

In a bid to establish the examination fee incurred by the students, 96 (54.2%) of the students incurred a fee of less than Ksh.30, 000 on exams, 54 (30.5%) of the students incurred more than Ksh.40, 000 while 27 (15.3%) of the students incurred between Ksh.30, 000 and Ksh.40, 000. This implies that majority of the students paid an examination fee of less than Ksh30, 000. The mean of the item was 1.7627 and a standard deviation of .89199. In regards to pocket money, 82 (46.3%) of the students spent less than Ksh.25, 000 on pocket market, 67 (37.9%) spent between Ksh.25, 001 to Ksh.30, 000, while 28 (15.8%)

of the students spent more than Ksh.30, 000. The mean of the item was 1.6949 and .72897. This implies that majority of the students used less than Ksh.25000 as pocket money. Meyer et al. (2007) also found that examination fees and pocket money are determinants of the unit cost of university education. In regards to other expenditures, 82 (46.3%) of the students paid between Ksh.20001 to Ksh.30, 000, 68 (38.4%) spent less than Ksh.20, 000 while 27 (15.3%) of the students spent over Ksh.30, 000. Other expenditures included, donations, trips among others. The mean of the item was 1.7684 while the standard deviation was .69700 as shown in Table 8. The composite mean of the unit cost of university education is 2.1554 and the standard deviation is .11151.

The current study agrees with the findings of Richard (2001) that the opportunity cost of education includes the value of students time measured as earnings foregone. The students' time is considered as cost because a student could be earning an income or performing other activities if he or she was not spending time studying. In economic terms, the value of the student's time is called an opportunity cost since it is not a direct, out-of-pocket expense. The study further agrees with Johns et al. (2006) that education has both private and social costs, which may be both direct and indirect. Direct costs are incurred for tuition, fees, books, room and board. Indirect costs of education are embodied in the earnings forgone because roommates are all persons of working age. Forgone earnings are also a cost to society because there is a reduction in the total productivity of a nation.

### 3.3 Economic implications

*The study also assessed the economic implications of unit cost of University education. Its descriptive statistics are as summarized in Table 9: 122 (68.9%) mentioned employment as an economic implication of unit cost of university education, 35 (19.8%) revealed wages and salaries while 20 (11.3%) mentioned status as the other economic implication. Economic implications had a mean of 1.4463 and a standard deviation of .75280. This is in tandem with the findings of Greenstone and Looney (2011) that employment, wages and salaries are economic implication of unit cost of university education as shown in Table 7:*

**Table 7: Economic implications of unit cost of University education**

		Frequency	Percent	Valid Percent	Mean	Std. Deviation
Valid	Employment	122	68.9	68.9	1.4463	.75280
	wages and salaries	35	19.8	19.8		
	Any other (specify)	20	11.3	11.3		
	Total	177	100.0	100.0		

### 4.0 Conclusion

The study concludes that besides amount of tuition fees paid in private universities, students incurred further expenses on books and other materials, clothing, transport, examination fee, pocket money and other miscellaneous expenses such as donations and trips. In an academic year in the private universities, most of the students spent more than Ksh.100, 000 on tuition fees. On books and other materials, most of the students spend more than Ksh.10, 000. On clothing's, most of the students in the private university institutions spend more than Ksh.3, 000 in an academic year. On accommodation, most of

the students spend more than Ksh.50, 000. On transport, majority of the students spends more than Ksh.25, 000 and the amount spent on examination fees is less than Ksh.30, 000. The study recommends that private universities should invest in books and other materials so as to cut on the unit cost of financing university education incurred by households. Since, donations, trips inflates the cost of financing university education, strategies should be put in place to mitigate on the amount contributed by students to fund trips. This will reduce of the unit cost of financing university education.Reduced accommodation expenses can be achieved if Private Universities invest in housing schemes. The housing schemes will result in to the student living in subsidized houses and hence reduced accommodation fees. Reduced housing fees will in turn reduce the unit cost of financing university education.The study suggests that further research to be conducted on the unit cost of university education and its economic implication for university students across all private universities in Kenya.It can be replicated with a larger sample. It is also recommended that this study be replicated on private universities in other counties in Kenya besides Uasin Gishu County.

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