Does Higher Education Loan Amount affect Students' Class Attendance? Evidence from Privately Sponsored Undergraduate Students in Kenyan Public Universities

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ABSTRACT

This study sought to determine the effect of higher education loan amount awarded to privately sponsored undergraduate students on their frequency of class attendance in Kenyan public universities. The research was conducted with the aid of a representative sample of 517 respondents proportionately drawn from the 2012/2013 cohort of privately sponsored higher education loan recipients in three public universities. Logistic regression analysis was used to model the relationship between loan amount awarded to privately sponsored undergraduate students and their frequency of class attendance while controlling for respondent and university characteristics. The study established that majority of the privately sponsored loan recipients missed classes on weekly basis. However, the findings of the study revealed that higher education loan amount had no significant effect on frequency of class attendance. This was attributed to the loan award which was found to be inadequate for sustenance of privately sponsored higher education loan recipients. This study recommends that Higher Education Loans Board should raise the minimum amount of loan awarded to privately sponsored undergraduate students to match with the general cost of private higher education so that they can adequately participate in higher education without much personal sacrifices that would compromise their academics

INTRODUCTION

Class attendance in higher education is a concept that has been highly debated. Students are usually expected to take accountability and to make choices about attending classes. However, studies show that absenteeism is a significant problem at many institution of higher learning which transcends country, university and discipline in spite of existing state and individual institutional policies (Holdforth, 2007; Leon, 2007; Romer 1993).

Studies have shown that daily absenteeism at the universities can be as high as one-third to almost one-half of students in certain disciplines (Friedman, Rodriguez and McComb, 2001; McGuire, 2003; Moore, 2003a; 2003c; 2005). Yet educational practitioners agree that class attendance is an important aspect of student life. This is because it assists student learn differently by bringing theory to life and creating opportunity for discussions, explanation and collaboration on topics.

Moreover, class attendance positively contributes to students' skills in self-management, team work and problem solving. Furthermore, students refine and practice communication and literacy skills with application of numeracy and information technology in class (Braak, n.d). These aspects are crucial in latter students' life and enhance their employability and productivity (Manchester Metropolitan University: Careers & Employability Service, 2012).

In fact, numerous studies across disciplines have indicated a positive correlation between class attendance and performance. For instance, Thatcher, Fridjhon, and Cockcroft (2007) using second year psychology students established that the students who always attended lectures had a better total mark than those who never or seldom attended.

Similar results have also been posted by studies on students in other disciplines other than psychology. For instance, Crede, Roch, and Kieszczynka (2010) in a Meta analysis showed attendance was strongly related to class exam and GPA levels. Other areas include economics and business (Adair & Swinton, 2012; Arulampalam, Naylor, & Smith, 2012; Dobkin, Gil, & Marion, 2010; Paisley & Paisley, 2004), engineering (Nyamapfene, 2010), pharmacy (Landin & Perez, 2015) and health (Cohall & Skete, 2012).

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Be that as it may, studies show that in the case where students encounter hardship due to insufficient aid as is the case in many developing countries (Nyakunga, 2011; Rugambuka, 2008; Tekleselassie and Johnstone, 2004; Mwinzi, 2002; Nafukho, 2001; Standa, 2000), studies show that they tend to be less engaged in their academics. For instance, in a study entitled "Financial decisions among undergraduate students from low-income and working-class social class backgrounds," Soria, et. al (2014) revealed that whereas universities aspire for students to be fully engaged in academics, low income and working social class background students are more likely to feel stressed by their finances and view college period as time they must work. In contrast, students from upper socio-economic backgrounds tend to be more engaged in campus life (Stuber, 2011). These findings demonstrate the link between financial wellbeing of students and their engagement in academic work.

In a related study, Mwinzi (2002) studying the impact of cost-sharing policy on the living conditions of students in Kenyan public universities, show that students who engage in income generating activities as well as study sacrifice part of their study time, since 83.9% of all income generating activities are operated by students for several hours during the semester. The study further revealed that 55.4% spent equal to or more than four hours, while 32.3% used 4-9 hours, 6.9 % devoted 10-14 hours while 5.4% operated their income generating activities between 15-18 hours. It is worth noting that regular programmes have classes and other academic activities running between 8.00am and 7.00 pm, this translates to 12 hours of active studies. The study concludes that there is therefore the possibility that academic performance of the students who engage in income generating activities will be negatively affected due to lack of attention to their studies.

Statement of the Problem

Financial hardship and absenteeism among students have been reported in Kenyan public universities. However, studies show that financial aid significantly increases student engagement in academic work. It is against this backdrop that the government of Kenya expanded the scope of Higher Education Loans Board (HELB) to cover privately sponsored students in public universities so as to enable the students from lower socio-economic backgrounds to participate in an appropriate form of higher education, without unacceptable deprivation, work schedule, or sacrifice (http://www.helb.co.ke).This study therefore sought to determine the effect of higher education loan amount on frequency of class attendance by privately sponsored undergraduate students in public universities in Kenya.

METHOD

Study Sample

This study was conducted with the aid of a sample of 517 respondents proportionately drawn from the 2012/2013 cohort of privately sponsored higher education loan recipients in three public universities in Kenya. The universities selected were: University of Eldoret (UoE); Jaramogi Oginga Odinga University of Science and Technology (JOOUST); and, Masinde Muliro University of Science and Technology (MMUST). In order to ensure sample representativeness of the entire population, the 2012/2013 cohort of privately sponsored undergraduate higher education loan recipients in the three universities were grouped into three broad strata of STEM, Education, Arts & Social Sciences, and Economics & Business related disciplines. Thereafter, the number of respondents from each stratum was determined using stratified proportionate to size procedure as shown in Table1.

Table 1: Sample of Privately Sponsored HELB Recipients

University	STEM		Education, Arts and Social Sciences		Economics and Business		Total Population	Sample size
	Population	Sample	Population	Sample	Population	Sample		
UoE	202	52	288	74	222	57	712	183

JOOUST	29	7	119	31	60	16	208	54
MMUST	151	39	823	211	117	30	1091	280
TOTAL	382	98	1230	316	399	103	2011	517

Source: Population of Privately Sponsored HELB Recipients mapping data, 2015, p. 33

Simple random method was thereafter used to select individual student respondents from among the 2012/2013 cohort of privately sponsored undergraduate higher education loan recipients from the three strata of STEM, Education/Arts/Social Sciences and Business/Economics in the three public universities.

Data Collection Method

This study used self-completing questionnaire to obtain information on the independent, dependent and control variables from the sampled 2012/2013 cohort of privately sponsored higher education loan recipients. In specific, the students were required to respond to array of questions related to the amount of higher education loan awarded per year, level of class attendance in the previous semester, type of program of study, socio-economic status, KCSE performance and name of the university. A total of 455 questionnaires were returned out of the 517 administered. This provided a response rate of 88.008% which was considered adequate for data analysis (Oso and Onen, 2005).

Data Analysis

Logistic regression analysis was used to fit mean amount of higher education loan against class attendance, while controlling for student-level and university characteristics. Consequently, three sequential regression models were developed. The first model fitted the outcome variable, class attendance against the explanatory variable, mean amount of HELB loan. The second model fitted the outcome variable, class attendance against the explanatory variable, mean amount of higher education loan while controlling for individual student respondent's characteristics. The third model fitted the outcome variable, class attendance against the explanatory variable, mean amount of higher education loan while controlling for both individual student respondent's and university characteristics.

However, prior to modelling, pair-wise correlation and chi-square with Cramer's V were used to correlate the outcome variable (frequency of class attendance) with all possible continuous and categorical explanatory variables respectively with the view of determining which plausible interactions to pursue in the regression models. The null hypothesis was rejected at 5% if the significance was less than alpha=.05. Only variables which had significant relationship with the dependent variable were pursued further in the regression analysis.

FINDINGS

Descriptive statistics of higher education loan Amount Award

The mean, median, mode, range, standard deviation, minimum and maximum amount of higher education loan awarded to the sampled privately sponsored recipients were established. The findings are presented in Table 2.

Table 2: Descriptive statistics of higher education loan amount

Amount of higher education loan awarded per year	
Mean	40207.69
Std. Error of Mean	304.908

Median	37000
Mode	35000
Std. Deviation	6503.917
Range	25000
Minimum	35000
Maximum	60000

Data in Table 2 indicate that the students who got the highest amount of higher education loan received Ksh. 60,000, while the ones awarded the least amounts got Ksh. 35,000. However, the mean amount awarded to privately sponsored undergraduate students in the public universities was Ksh. 40,207.69.

Descriptive statistics of Frequency of Class Attendance

The privately sponsored higher education loan recipients' level of class attendance in the previous semester was computed and analysed using frequency distribution. Table 3 presents a summary of the findings.

Table 3. Frequency of class attendance

Levels	Frequency	Percent	Cumulative Percent
Never misses lectures	218	47.9	47.9
Misses between 1 and 2 lectures on weekly basis	235	51.6	99.6
Misses between 3 and 4 lectures on weekly basis	2	0.4	100
Total	455	100	

Data in Table 3 shows that only 47.9% of the sampled privately sponsored higher education loan recipients indicated that they never missed classes at the university. The questionnaire item on class attendance required the sampled students to indicate the number of times they miss classes on weekly basis. This is quite alarming since a number of studies across disciplines have indicated a positive correlation between class attendance and performance (Landin & Perez, 2015; Arulampalam, Naylor, & Smith, 2012; Adair & Swinton, 2012; Cohall & Skete, 2012; Crede, Roch & Kieszczynka, 2010; Nyamapfene, 2010; Thatcher, Fridjhon, and Cockcroft (2007); Dobkin, Gil, & Marion, 2010; Paisley & Paisley, 2004). With such high frequencies of absenteeism, students' academic success could be in jeopardy.

Effect of Higher Education Loan Amount on Frequency of Class Aattendance by Privately Sponsored Undergraduate Students

The purpose of this study was to determine the effect of higher education loan amount on frequency of class attendance by privately sponsored undergraduate students in public universities in Kenya. The results of the three models of logistic regression are presented in Table 4.

Table 4: Logistic Regression Odds for the Association between Student's Class Attendance and HELB Loans (2012/13-2015/16 AYs)

Variable	Variable label	Model 1 (a31)		Model 2 (a31)		Model 3 (a31)	
		OR (Std.Err)		OR (Std.Err)		OR (Std.Err)	
a22	Mean HELB loan allocation 2012/13-2015/16	1.0	(	1.00	(	1.00	(

		0 (0.00)	.523	(0.00)	.959	(0.00)	.76
mcases32	2=Middle SES			1.78 (0.43)	.017	1.84 (0.45)	.012
a21	1= Yes, HELB is main financier=1			1.87 (0.46)	.012	1.68 (0.44)	.045
a311	1=STEM 0=Otherwise			1.30 (0.46)	.456	1.43 (0.51)	.318
a312	1=ED A&SS 0=Otherwise			0.60 (0.17)	.072	0.61 (0.19)	.105
a461	1=Did not attend school 0=Otherwise			0.23 (0.16)	.032	0.19 (0.14)	.024
a463	1=Secondary 0=Otherwise			0.69 (0.19)	.17	0.60 (0.17)	.072
a466	1=Postgraduate 0=Otherwise			1.86 (0.88)	.189	1.79 (0.83)	.212
a43	Number of times student has deferred studies			0.99 (0.22)	.96	1.05 (0.24)	.832
a52	Student has ever engaged in IGAs=1			0.09 (0.03)		0.10 (0.03)	.001
a112	UoE 0=Otherwise					2.71 (1.05)	.01
a113	MMUST 0=Otherwise					1.02 (0.28)	.929
Constant		0.63 (0.37)	.44	1.50 (1.16)	.6	0	
N		455		455		455	
LR chi2(df); Value		(1) 0.40	.523	(10) 116	.001	(12) 124	.001
Pseudo R^2		0.0006		0.1836		0.197	

Note. LR=Likelihood Ratio; df=degrees of freedom; Ays=Academic Years, Source: Stata Output, 2017

In the first model, logical regression was run to determine the effect of the amount of higher education loan (Mean HELB loan allocation 2012/13-2015/16) on class attendance (a41= student never misses classes=1). As shown in Table 4, the study revealed that a one unit increase in mean higher education loan allocation increased the odds of never missed classes by a paltry 0.0006%. Though positive, the increase was negligible. This result was however not statistically significant (p=0.523). The constants for the model was equally insignificant (p=0.440) as was the overall model (p=0.5231).

Further, the mean higher education loan allocation still remained statistically insignificant (p=0.001) when student-level characteristics were controlled for in the second model when student level characteristics were controlled for. However, the overall model was statistically significant p<.001 with a pseudo R^2=0.1836. The R^2=0.1836 implies that the model explained 18.36% of variations in class attendance of privately sponsored higher education loan recipients in public universities in western Kenya.

In the third model, the Mean higher education loan allocation 2012/13-2015/16 remained statistically insignificant (p=0.1970 with a pseudo R^2=0.1970) when both student-level characteristics and university factor were controlled for. However, the overall model was statistically significant p<.001 with a pseudo R2=0.1970. The R^2 of 0.1970 implies that the model explained 19.7% of variations in class attendance of privately sponsored higher education loan recipients in public universities in western Kenya.

In summary, after the three sequential models, post estimation test of hypothesis for logistic regression was undertaken. See *Appendix I.* The findings showed likelihood-ratio for class attendance of chi^2 (1) =0.09, p = 0.7600, which was not statistically significant at alpha 0.05. The researcher therefore failed to reject the hypothesis.

However, the third model shows that the two student characteristics of socio-economic status and mode of financing higher education remained statistically significant in explaining variations in class attendance by privately sponsored undergraduate higher education loan recipients in public universities in western Kenya. For instance, the model shows that the odds of never missed classes increased by 83.62%

(p=0.012) for students in the middle SES category over other socio-economic status categories. This finding suggests that in spite of higher education loan, socio-economic status has an effect on class attendance by the privately sponsored undergraduate students in the public universities.

DISCUSSION, AND SUGGESTIONS

The purpose of this study was to determine the effect of higher education loan amount on frequency of class attendance by privately sponsored undergraduate students in public universities in Kenya. The finding suggests that higher education loan amount had no statistically significant effect on class attendance by privately sponsored higher education loan recipients in public universities in western Kenya. The findings of the current study are not inline with those of Hurtado, et. al (2003), which postulated that recipients of student aid worked for significantly fewer hours per week thus allowing them to focus on engagement in college and other aspects of the transition experience.

The reason for variance in the findings of the two studies could be attributed to the fact that Hurtado, et. al (2003) focused on scholarship which covers nearly all direct cost of higher education. The current study however looked at higher education loan which did not cover the entire cost of the students' higher education. In fact, the study established that most recipients were only awarded Ksh. 35,000. The mean HELB loan award of Ksh. 40,207.69 was only equivalent to 36.56 % of the cost of tuition per annum for the least expensive category of programmes in Education, Arts and Social Sciences in the public universities. The implication is that the students had to look for other sources of financing to bridge the gap between the amount of loan awarded and tuition fees charged. These findings point to the fact that HELB loan is indeed an inadequate mode of financing higher education for the majority poor who do not have reliable alternative financing mechanisms.

This is serious since studies show that in the case where students encounter hardship due to insufficient aid as is the case in many developing countries (Nyakunga, 2011; Rugambuka, 2008; Tekleselassie and Johnstone, 2004; Mwinzi, 2002; Nafukho, 2001; Standa, 2000), they tend to be less engaged in their academics. It is no wonder therefore that only 47.9% of the sampled privately sponsored higher education loan recipients indicated that they never missed classes at the university.

Moreover, an important finding of this study is that socio-economic status still effects class attendance by the privately sponsored undergraduate students in spite of higher education loan. This implies that the higher education loan doesn't promote equal opportunity in education contrary to the expectations of the theoretical paradigm of classical liberal theory. The classical liberal theory states that social mobility will be promoted by equal opportunity of education

The findings of this study are inline with the findings of other previous researches that correlated student's socio-economic status with their engagement in academics activities. One such study is Soria, et. al (2014). In a study entitled "Financial decisions among undergraduate students from low-income and working-class social class backgrounds", Soria, et. al (2014) revealed that low income and working social class background students are more likely to feel stressed by their finances and view college period as time they must work. In contrast, students from upper socio-economic backgrounds tend to be more engaged in academics (Stuber, 2011). This implies that students from low socio-economic status are distracted from focusing on their academics. This may have adverse effects on their academic performance since studies show that class attendance is indeed an important predictor of academic excellence. The studies that have revealed a positive relationship between class attendance and academic performance include: Crede, Roch, & Kieszczynka (2010), Adair & Swinton (2012); Arulampalam, Naylor, & Smith (2012); Dobkin, Gil, & Marion (2010); Paisley & Paisley (2004); Nyamapfene (2010); Landin & Perez (2015), and, Cohall & Skete (2012)

Consequently, Higher Education Loans Board should raise the minimum amount of loan awarded to privately sponsored undergraduate students to match with the general cost of private higher education so that the students can adequately participate in higher education without much personal sacrifices that would compromise their academics.

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