

## SOCIOECONOMIC STATUS AND ACCESS TO HIGHER EDUCATION IN UGANDA

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### ABSTRACT

*In Africa, transition to a more sustainable life cannot occur without the otherwise marginalised. Governments, including Uganda's, have taken steps to better the lot of the disadvantaged by widening access to basic education through programmes like Universal Primary Education; however, access to higher education is still low, in part as a result of selection procedures that favour students of higher socioeconomic status (SES). Measures such as quota system have been introduced for admission to public universities, but there are concerns that not enough has been done. This study was carried out at four universities in Uganda, and aimed at investigating how equitable access to higher education is given existing admission procedures. On one hand, it is well known that national examinations in Uganda disadvantage students of lower SES, and yet performance in these examinations is still the main criterion for selection to university. On the other hand, it is not clear that performance in these national examinations is a significant predictor of success at university, which raises a question about the justifiability of this entry mechanism. Disadvantaging low SES students further, the study found a larger than average school effect operating at entry, where the number of students selected tended to come from a disproportionately small number of high performing secondary schools.*

*Keywords:* Socioeconomic status (SES); African Higher Education; Access; Selection; Uganda.

### Introduction

In recent times, it has become increasingly clear that higher education<sup>1</sup> holds the key to building Africa's competitive edge in the current global economy, as well as providing the human resource needed to advance national social and economic development. Further, with well-directed and funded research, higher education also holds the promise of providing needed solutions to a country's environmental, social and economic challenges. It is also clear that these benefits cannot be sustainable while excluding the underprivileged classes within society from fully participating; as such, the issue of equitable access to African higher education needs to be urgently addressed. Unfortunately, higher education rates on the African continent are still the lowest in the world, averaging at around 7% of the relevant age cohort. Of these, a disproportionate number of students comes from the higher socioeconomic stratum of society – a phenomenon that is not unique to low-income countries (Altbach et. al, 2009).

Over the last two decades, emphasis has been placed on addressing access to basic and secondary education in Uganda, with the introduction of Universal Primary Education<sup>2</sup> (UPE) in 1997 and Universal Secondary Education<sup>3</sup> (USE) in 2007. With the associated rise in enrolments, demand for higher education in Uganda has risen sharply. From just one public university in the early 1990s, there are now more than

<sup>1</sup> Higher education in this paper will refer specifically to university education

<sup>2</sup> UPE is a government programme whereby each family may send up to four children to primary school tuition-free

<sup>3</sup> USE is tuition-free education available at public and participating private schools to students who score certain minimum grades in the primary leaving examinations

thirty private and public universities, twelve of which are fully chartered. However, transition rates through the education system are still low, with just under 60% of the children who complete primary school joining secondary school, and of those, only 35% joining university at the end of high school. Successful transition is dependent on various factors, key among which is passing the national examinations at the end of Primary school, Lower Secondary/Ordinary Level (O'Level) and Upper Secondary/Advanced Level (A'Level) schooling. Studies have shown, however, that educational outcomes at Primary and O'Level are lower for students of low SES, students who attend schools in rural areas, and students who attend schools that run the government free education programmes UPE and USE. (See NAPE 2011(a); NAPE 2011 (b); Zuze, T. L. & Leibbrandt, M, 2011). As such, it is likely that these low SES students also perform poorly in the national examinations at the end of each educational cycle, thus hampering their transition.

Although access to further education for low SES students also depends on other social and economic factors, basing entry into the university on performance in the A'Level examinations also plays a role. Students who have access to free Secondary school education (USE), for example, still perform more poorly than their peers in the non-USE schools, at least at O'Level. Not much is known about their performance at A'Level, but it is likely to follow a similar trend, ensuring that low SES students have lower chances of joining university, and even less chance of accessing the highly competitive tuition subsidies offered at public universities to the best performing students. The research reported in this paper set out to investigate the SES make-up of students enrolled at various universities in Uganda, and in particular at the public universities where students receive government funded tuition subsidies. Additionally, the performance of high and low SES students was compared in order to determine if their entry grades made a difference. In this way, it was hoped that a discussion could be initiated to reconsider these admission procedures so as to make them more equitable.

### **Selection for Higher Education in Uganda**

The minimum entry requirement for university entry in Uganda is two principal passes at the A'Level examinations; that is to say, a score of A, B, C, D or E in at least two subjects. The body responsible for the selection of students entering public universities is the Joint Admissions Board (JAB), and every year this body publishes the entry requirements for each of the study programmes offered at the public universities (JAB 2012/2013). During selection to public universities, the top performing students in the A'Level national examinations are awarded government scholarships, and the rest invited to apply separately for admission as fee-paying students. Private universities also follow a similar procedure, although since no government scholarships are tenable there, all students admitted are fee-paying. Due to the availability of government tuition subsidies at public universities, they are able to attract the best performing students, and so their cut-off grades are much higher than those at private universities.

### **Access to Higher Education**

The most direct route to university in Uganda is by undergoing seven years of primary school, four years of ordinary level/lower secondary school (O'Level) and two years of advanced level/upper secondary school (A'Level). Selection for each succeeding stage is based almost solely on the scores in the national examinations held at the end of each level. With the introduction of UPE and USE, access to primary and secondary schooling has improved considerably, but competition for entrance at higher levels has also stiffened as facilities cannot keep up with enrolments. Unfortunately, national and international assessments show that those who fail to compete are often those enrolled in the schools where the UPE and USE programmes are run (NAPE 2011 (a); NAPE 2011 (b); Byamugisha & Ssenabulya, 2005), and yet these tend to enrol students of lower SES on average. Students enrolled in private primary and secondary schools are also found to perform better in national and international assessments; this higher success has been attributed to the fact that they are better resourced, enrol students of higher SES, and also have a lower proportion of over-age children (who tend to perform more poorly than their younger peers) (Zuze, & Leibbrandt, 2011; Hungu 2011). With the conditions at the lower levels of education as they are, many able and deserving children end up dropping off long before they can get an opportunity to enter university.

### **Objectives of the study**

This study builds on earlier work showing that the students from well-to-do families benefited the most from the government scholarships offered at the public universities in Uganda (Mayanja, 1998). Further, in previous unpublished work by the author, it has been observed that the majority of students entering universities in Uganda attend just a handful of the best performing secondary schools, predominantly private and located in urban and peri-urban areas in the central region of the country, which are inaccessible to most low SES students. In addition to this, the use of examination results as the main basis upon which entry into the university is decided likely discriminates against students of low SES. Further, the best performing students admitted to university in Uganda have access to the government funded tuition subsidies offered at public universities, making the situation even more unjust. In this study, the extent to which student SES contributed to student admission at university was investigated by

- a) determining the SES make-up of students currently enrolled in various universities
- b) determining the extent to which a student's former (A'Level) school contributed to their A'Level grades (differential school effect), and indirectly to them being admitted to university.

Further, the effect of SES on student performance after being enrolled in university was investigated so as to see if the SES factor had a further effect. It was expected that it did not, and that low SES students performed at least as well as medium or high SES students, and that therefore having low SES students left out of university was unjustifiable.

### **Literature Analysis**

#### **SES**

SES is a difficult concept to measure; there is no consensus on what exactly it entails. As a start, SES is usually conceived as concerning the access of an individual to goods that are desired by the people in one's society. These may be material goods, friendship, power, money, or education, among others. SES is relative because the goods deemed desirable by one society may not be the same ones desired by another society. Further, for a SES measure to make sense, it has to be able to differentiate between people in a society to a reasonable extent. SES may be measured using a single proxy such as income or educational attainment, or it can be measured using composite measures. In large international assessments such as PISA and TIMMS, composite measures are utilised through items on parental education and occupation, income, household possessions and so on. In cognisance of the context within which this study was carried out, however, measures for SES were adapted from the international assessment carried out in the East and Southern African region by SACMEQ<sup>4</sup>. In this study, respondents were asked about things like household energy supply, the materials out of which their homes were built, and how many books they owned as a family, among others.

#### **SES and Access to Higher Education**

University admission procedures that depend on standardised tests such as A'Levels and SATs have been shown to consistently disadvantage students of a low SES. Zwick and Himelfarb (2011) suggest that this is partly explained by the fact that low SES students are more likely to attend a high school with fewer resources, which in turn has an impact on their performance; as such, standardised tests may underestimate the ability of such students. Geiser & Santelices (2007) suggest instead that less emphasis should be put on such standardised tests, and more on measures like high school GPA for instance, as these are not only better predictors of student performance at university, but are also consistent for students of both high and low SES. In a study on the interaction of SES and admission to Uganda's largest and oldest university Makerere, Mayanja (1998) found that the practice of admitting students based on their A-Level scores reinforced the social stratification that occurred at lower levels of education, where students with a higher

SES were more likely to attend better primary and secondary schools, and therefore perform well at A-Level. Another study by Liang (2004) found that of the merit-based government scholarships awarded to students at Makerere University, 65% went to students who had previously attended the top twenty elite schools.

### **Predictors of Success at University**

By basing access to university on A'Level grades, the assumption is that those students who perform best are the best suited for university success. However, in a review of the literature on college (or university) success in the United States, Kuh, et al (2006) found that there was a wide range of factors that appeared to make a difference to student success. Some of these were indeed related to a student's pre-university activities including academic and non-academic experiences, but others related to the student's circumstances while at university, such as having to work part time, access to finance, a student's relationship with peers and faculty, and general engagement with academic and co-curricular activities. The idea of "student success" itself could be perceived as merely a student completing their studies, or receiving a certain class of degree, or more holistically, including measures of how well a student is able to adjust to university life and thrive in their new social environment, how well a student negotiates administrative and organisational structures, their personal wellbeing and motivation, cultural awareness and intelligence, and ultimately the economic returns on the cost of their having pursued a university education.

Predictors of success at university in Uganda have not been widely investigated, but at lower educational levels school level factors like ownership and urban location as well as student level factors like SES and gender have been found to play a part in student performance. The investigations in this study involved answering the following question:

*Do the school and student level factors shown to influence a student's academic success at lower levels of education persist to A'Level and beyond to university?*

The main university success measure that was used in this study was the student's Cumulative Grade Point Average (CGPA).

### **Pre-University Academic Experiences and University Success**

The academic experiences that a student undergoes before arriving at the university were conceived as being composed of two factors in this study: the student's previous academic performance (such as A'Levels), and what is known as a *differential schooling effect*. The latter refers to the differences in student performance at one level of education given some characteristics of a previous level of education; for instance, how well students perform at university given that they attended a public or private secondary school (referred to as a "schooling effect" in Ogg, et al. 2009). One study to measure such an effect was carried out at Oxford University by Ogg, et al. (2009), and they found that students who had previously attended a public secondary school performed better than those who had attended a private one. The degree of this effect was such that for students from a private school to have a similar probability of getting a good degree (upper second and higher), they had to score at least one grade higher at A'Level than a student who went to a public school: that is to say, for instance, an average of grade "B" instead of an average of grade "C" for their A'Level subjects. The conclusion that these researchers arrived at was that the teaching effects on the A'Level grades of students in private schools gave a distorted picture of students' university potential. These teaching effects would be of the kind that artificially increases chances of success in the standardised A'Level examinations, such as "teaching to the test" or drilling students to pass these examinations.

The situation in Uganda is similar. There is a high variation between the performances of secondary schools in the national examinations at both O' and A'level, and the differences seem to lie in whether or a not a school is private or public, if it is located in an urban or rural area, and to some extent, whether it is a day or boarding school.

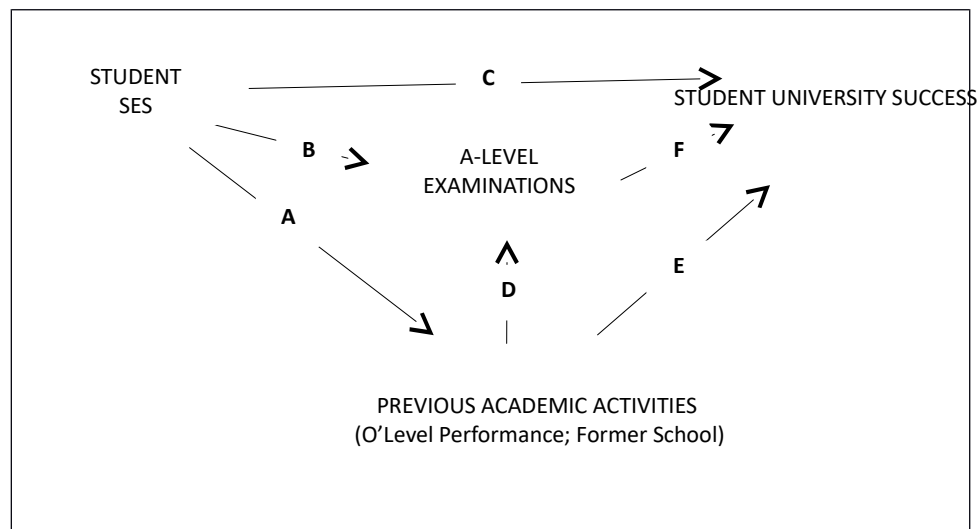
### Research Problem

Entry into the university in Uganda is dependent almost solely on the performance of students in the A'Level examinations. This is based, presumably, on the belief that the performance in the national examinations is a sufficient indicator of the potential of students to successfully carry out their university studies. However, in studies at lower levels of education, student performance has been shown to be partly predicted by student SES and some of the characteristics of the school in which they are enrolled, giving high SES students an unfair advantage in accessing university admission. This study therefore focused on investigating the SES make-up of students actually admitted at university in Uganda, and the effect of student SES in performance both at A'Level (indirectly affecting access to university) and at university. The specific question investigated was:

*To what extent does SES account for student success both at A'Level and at university?*

### Proposed Model:

SES interacts with student success at both pre-university and university in a rather complicated way (represented in fig 1). For a start, SES has a bearing on a student's prior academic experiences, including the likelihood of attending a "good" school (arrow A), but also separately on the student's A'Level performance (arrow B); beyond that, SES may also partly determine the chances of a student's success at university (arrow C). Further, a student's prior academic experiences, such as the school they attend may explain both a student's performance in the A'Levels (arrow D – previously identified as the "differential schooling effect"), but may also persist to separately predict a student's success at university (arrow E). Finally is the relationship assumed by the current admission procedures, that A'Level scores will predict student success at the university (arrow F)



**Fig 1. Investigating the effects of students' previous academic activities, A'Level performance and SES on success at university**

In order to explore this question, the following sub-questions were posed:

- What are the entry grades for students entering the different universities?
- What is the distribution of "Low", "Medium" and "High" SES students at the different universities?
- What are the differences in performance of "Low", "Medium" and "High" SES students at O'Level (effect A), A'Level (effect B) and university (effect C)?

- d) What are the correlations between performance at O'Level, A'Level, and University (effects E & F) for the different SES levels at public and private universities?
- e) What is the magnitude of the A'Level school effect within student A'Level performance (effect D) and university performance (effect E) for the different SES levels?

### Research Methodology

The study involved the collection of information from students currently enrolled at some universities in Uganda on their SES characteristics, A'Level performance, and the schools at which they completed their O' and A'Level studies.

#### Data Collection

Data was collected via questionnaires administered mainly to students currently enrolled in their second year of study. Given that universities do not collect much background information on the students they admit, the information had to be gathered from students themselves. Further, due to confidentiality concerns, universities were not in a position to release information on student performance, so it was necessary to obtain that directly from students as well. To ease administration and reduce non-response, questionnaires were administered to students who came to class on a given day, and collected immediately thereafter.

#### Reliability of Self Reports

The majority of data in this study was collected in the form of student self-reports. Concerns about the reliability of such data centre around the systematic and random error introduced by respondents either not being able to accurately recall the information being requested, or deliberately giving what they perceive as socially acceptable responses. Random error is an accepted part of measurement, and is generally believed to cancel out, but systematic error is of concern because it may attenuate existing relationships due to the error in the self-reported scores, or conversely, lead to spurious relationships (Kuncel, et al., 2005). The main difficulty with systematic error is that patterns vary; over-reporting is much more common than under reporting for instance, so there is a bias towards higher scores being reported; secondly, lower performing students tend to over-report more than higher performing students. Unfortunately, it is not known if these patterns of reporting are associated with gender or other demographic or individual characteristics; nevertheless, self-reported grades appear to predict student outcomes to a similar extent as actual grades would. (Kuncel, et al., 2005).

Other authors believe that the motivation to give false information may stem from a fear of perceived possible consequences, for instance if the information given incriminates the subject in some way, or a desire to project a favourable impression, such as happens with low performing students who report inflated test scores (Cole & Gonyea, 2010). Nevertheless, according to Carini, et al (2006), self-reports are valid and reliable under the following conditions:

- (1) the information requested is known to the respondents,
- (2) the questions are phrased clearly and unambiguously,
- (3) the questions refer to recent activities,
- (4) the respondents think the questions merit a thoughtful response,
- (5) the information requested is potentially verifiable, and
- (6) the question asks for information that is known to those answering the questions and does not threaten, embarrass, or violate their privacy or encourage the respondent to respond in socially desirable ways (p.p. 2)

In the current study, a relationship between prior educational attainment and current university performance was investigated; however, *both* the previous grades and the current grades were self-reported. Cole and Gonyea (2010) found that reports of *summed* scores were generally more reliable than scores for individual subjects, and suggested that researchers favour the former over the latter. Knowing that lower performing students were more likely to over report their scores, Cole and Gonyea (2010) also recommend that researchers be cautious about creating groups based on self-reported scores, as there will

be much more error in the lower performing bands. Finally, they advise researchers to exercise caution when using self-reported scores as covariates to control for prior learning, since covariates are usually assumed to be measured with minimum error and so are used to explain existing variance, not introduce more unexplained variance. On the whole, however, the relationship between self-reported and actual scores is good enough so that if the proper precautions are taken, self-reported scores can still yield dependable results (Cole and Gonyea, 2010)

The particular precautions taken in this study included anonymity of responses so as to discourage socially acceptable behaviour; further, more than one measure of each particular performance was requested where available. For instance, respondents were requested to supply a report of their performance in individual subjects (reported as number or letter grades) as well as a total number score. This is the form in which they receive the grades from the national examination council. The reasoning behind this choice was to have the possibility of checking individual scores to summed scores, and make a choice on which to use. Turned out that the summed and individual scores correlated to the tune of 0,96, so summed scores were eventually used. This was also in line with the advice by Cole and Gonyea (2010) to prefer summed scores over individual ones.

### **Instrument Development and Testing**

The questionnaire developed consisted of three parts:

**Part I: Student Background and Personal Information** - this part of the questionnaire collected information on the following:

- a) Date of Birth
- b) Gender
- c) SES information (Adapted from the SACMEQ international assessments and Mayanja, 1998 – see appendix A)

**Part II: Prior Academic Experience** - the information collected in this section included:

- a) O-Level School and performance
- b) A-Level School, subjects chosen and performance

**Part III: Information on University Studies** - in this part of the questionnaire, information was collected on the following:

- a) University study programme, year of enrolment and year of study
- b) Success Parameters (GPA and the number of supplementary examinations and repeated courses)

### **Sampling**

The full study involved four universities and one university college. Of these, one university and the university college were public, and the remaining three private. Convenience sampling was used because most students do not have fixed addresses to which a questionnaire could be mailed, and while a random sample could be taken from the class lists, experience during the piloting showed that it was not easy to gather students just for the purpose of filling in a questionnaire. As such, with the permission of the teacher and the students, questionnaires were administered during a time interval agreed upon, to *all* the students who came to a given class on a given day. The sampled study programmes were perceived as equally competitive, except for Law, which is much more competitive than the others.

## The Data

Table 1. gives an indication of the respondents in this study.

**Table 1: The Data Set**

Degree Programme	University					TOTAL
	A (Public)	B (Public)	C (For Profit)	D (Catholic)	E (For Profit)	
Business Administration (BBA)	0	144	110	76	97	427
Development Studies (BDS)	54	0	36	51	140	281
Information Technology (BIT)	81	0	98	48	75	302
Law (LLB)	187	0	0	0	46	233
<b>TOTAL</b>	<b>322</b>	<b>144</b>	<b>244</b>	<b>175</b>	<b>358</b>	<b>1243</b>

## 1. Results

The question under investigation was:

### *To what extent does SES account for student success both at A'Level and at university?*

Upon investigation, it turned out that there were differences in student grading between public and private universities, and as such analysis was carried out for public and private universities separately. On the whole, SES data were available for just under 40% of the total respondents, with public and private universities being represented as follows:

**Table 2: Available SES data for public and private universities**

SES DATA	University			
	Public (N)	%	Private (N)	%
Available	311	66.7%	438	56.4%
Not Available	155	33.3%	339	43.6%
<b>TOTAL</b>	<b>466</b>	<b>100%</b>	<b>777</b>	<b>100%</b>

### 1.1. What are the entry grades for students entering the different universities?

It was found that the best performing students at A'Level do indeed enter the public universities, where competition is steeper due to the government funded tuition subsidies on offer. Further, mean entry grades are significantly different between all universities except university D and E, both of which are private.



**Table 3: Entry grades (A'Level scores) of students at public and private universities**

University I	University J	I-J	Std. Error	Sig.
A (Public)	B (Public)	1,313	0,399	009
	C (Private)	6,677	0,366	000
	D (Private/Catholic)	4,574	0,414	000
	E (Private)	5,729	0,318	000
B (Public)	C (Private)	5,362	0,436	000
	D (Private/Catholic)	3,259	0,477	000
	E (Private)	4,415	0,396	000
C (Private)	D (Private/Catholic)	-2,103	0,450	000
	E (Private)	-0,947	0,363	070
D (Private/Catholic)	E (Private)	1,156*	0,412	041

### 1.2. What is the distribution of “Low”, “Medium” and “High” SES students at the different universities?

The three levels of SES were determined by dividing all observed scores into three equal parts. SES Scores ranged from 5 to 46, so low SES students were those whose scores were: 5, 8-19, Medium SES: 20-32, and high SES: 33-46, distributed as shown in table 4. It is worth noting that high SES students make up the largest percentage at public universities.

**Table 4: Distribution of Low, Medium and High SES students at public and private universities**

	University			
	Public (N)	%	Private (N)	%
Low SES	12	3,9	50	11,4
Medium SES	100	32,2	184	42,0
High SES	199	64,0	204	46,6
<b>TOTAL</b>	<b>311</b>	<b>100,0</b>	<b>438</b>	<b>100,0</b>

### 1.3. What are the differences in performance of “Low”, “Medium” and “High” SES students at O'Level (effect A), A'Level (B) and university (C)?

On average, high SES students are the best performing, and low SES the lowest performing at O' and A'Level; however, there is no significant difference in student performance at university, even when differences in grading practices at public and private universities are taken into account. For purposes of interpretation, it ought to be noted that the lowest O'Level score is 72, and the highest 8, while the lowest possible A'level score is 0, and the highest 6. CGPA is scored on a scale of 0 – 5.

**Table 5: Performance of Low, Medium and High SES students at pre-university and university**

	(I)	(J)	Mean Difference (I-J)	Std. Error	Sig.
O'Level Performance	Low SES	Medium SES	4,138	1,427	,011
		High SES	10,365	1,389	,000
	Medium SES	High SES	6,227	0,768	,000
A'Level Performance	Low SES	Medium SES	-2,292	0,686	,003
		High SES	-4,313	0,669	,000
	Medium SES	High SES	-2,021	0,365	,000
CGPA	Low SES	Medium SES	-0,028	0,093	,951
		High SES	0,084	0,091	,630
	Medium SES	High SES	0,112	0,051	,076

#### 1.4. What are the correlations between performance at O'Level, A'Level, and University (effects E & F) for the different SES levels at public and private universities?

Table 6 shows the correlations between pre-university performance and CGPA at public and private universities, for the three levels of SES. O'Level Mathematics and English language performance is also included. Due to the fact that O'Level and A'level scores increase in different directions, correlations are negative. It is worth noting that the pre-university performance of students enrolled at public universities does not correlate with their CGPA scores. If anything, there is a slight positive correlation between O'Level scores and CGPA for the medium SES students at public universities of 0,240, indicating that the worse the performance of the student at O'Level, the better the CGPA at the public university. This result should be evaluated in light of the fact that the best performing students admitted to the public universities have access to the government funded tuition subsidies, and that these are likely to be high SES students since they have higher entry A'Levels on average, and yet they do not seem to fare any better than any of the low SES students.

**Table 6: Correlation between O' and A'Level performance and CGPA at Public and Private universities for LOW, MEDIUM and HIGH SES Students**

	University	SES	N	O'Level Performance	O'Level Math	O'Level English	A'Level Performance
A'Level Performance	Public	Low	9	-0,474	-0,010	-0,574	1,000
		Medium	5	-0,367**	-0,221*	-0,214*	1,000
		High	73	-0,451**	-0,312**	-0,425**	1,000
	Private	Low	6	-0,188	-0,265	-0,301	1,000
		Medium	37	-0,415**	-0,273**	-0,350**	1,000
		High	40	-0,429**	-0,230**	-0,396**	1,000
CGPA	Public	Low	0	0,469	-0,081	0,502	-0,481
		Medium	5	0,240*	0,169	0,099	0,082
		High	76	-0,068	-0,089	0,117	-0,023
	Private	Low	4	-0,037	-0,203	-0,197	0,218
		Medium	31	-0,301**	-0,313**	-0,235**	0,264**
		High	35	-0,128	-0,122	-0,072	0,075

\*\* Correlation is significant at the 0.01 level (2-tailed).

\* Correlation is significant at the 0.05 level (2-tailed).

The previous academic success of medium and high SES students predicts success at A'Level as well, maintaining the chances of transition to higher education. On the other hand, the previous academic

performance of low SES students does not correlate with either their performance at A'level, or at university, meaning the assessment system just does not work for them. Interestingly, both A'Level and O'Level performance was significantly correlated to CGPA for medium SES students. This is a finding that needs further investigation.

**1.5. What is the magnitude of the A'Level school effect within students' A'Level performance (effect D) and university performance (effect E) for the different SES levels?**

A significant school effect within university entry grades would indicate that the school from where students had their A'Levels made a difference in whether or not they performed well enough to be admitted to university; in particular, whether or not they had access to the government funded tuition subsidies offered at public universities. Table 7 shows the results of a multi-level analysis with A'level school as the grouping variable, and students' A'Level scores as the dependent variable. A'Level scores were scaled to run from 0 as the lowest, to 6 as the highest possible.

The first thing that is clear from table 7 is that the intercept (or the average performance) for students entering university is highest for high SES students and lowest for low SES students, which has previously been shown. Secondly, the school effect is highest within low SES students, and is partly explained by whether a student attended an A'Level school where universal secondary education (USE) was run or not (8%). Further, the school effect among the high SES students is more prominent for students at public universities (53,8%) than for those at private universities (40,8%). This is an important finding because it indicates that going to a good school gives even more of an advantage to high SES students in gaining access to the merit-based tuition subsidies available at public universities than to the other students attending the same school. (The school effect in the general A'Level population averages out at about 27%) Thirdly, attending a USE school resulted in a lower average performance in all cases, with the largest effect being on high SES students. This finding generally echoes the situation at lower levels of education. It should be noted that there is no significant difference in school effect for low and medium SES students attending either public or private universities. Finally, no school effect was found within university CGPA for any of the SES levels, meaning that SES only gives advantage in the run-up to university. In addition, contrary to findings at lower levels of education, A'Level school location (urban vs. rural) and school ownership (private vs. public) did not explain any school effects within A'Level or university performance.

**Table 7: A'Level School Effect in student university entry (A'Level) scores**

				HIGH SES		
		LOW SES	MEDIUM SES	All Universities	Public University	Private University
EMPTY MODEL	Intercept	3,421	3,888	4,285	4,802	3,903
	ICC	83,5%	22,9%	49,5%	53,8%	40,8%
	Model Information	154,568	719,020	933,296	406,416	431,620
USE* STATUS *Universal Secondary Education	Intercept	3,673	4,094	4,530	4,904	4,074
	USE School	-0,472	-0,656	-1,144	n.s	-0,743
	ICC (%)	75,5%	n.s	46,5%	57,4%	n.s
	% Explained	8,0%	n.s	3,0%	n.s	n.s
	Model Information	59,769 ↓	309,397 ↓	359,490 ↓	111,631 ↓	206,766 ↓

**Conclusions and Recommendations**

In the broad context of sustainable development, the contribution of higher education is clear; however, the unequal access to higher education in countries like Uganda threaten any gains made by the current continental shift to mass higher education. This paper set out to report on an investigation into the

implications of using A'Level grades as the main criteria for university admission for low SES students. This was against the background of studies which showed that low SES students generally performed poorly at lower levels of education compared to their high SES counterparts. This performance was partly attributed to the fact that high SES students were more likely to attend "good" schools, usually private, located in an urban area and generally better resourced. The current study was also an extension of earlier findings indicating that most of the merit-based government funded tuition subsidies offered at public universities in Uganda went to high SES students (Mayanja, 1998), and that in any case, up to 65% go to students who previously attended the top 20 elite schools in the country (Liang, 2004).

This study set out to challenge the fairness of the current university admission procedure. In the first place, it was necessary to find out the distribution of students at public and private universities by SES, so as to determine if the population of university students was indeed skewed towards the higher SES levels. Secondly, the correlation between university entry grades and performance at university was investigated so as to determine if the current admission procedures indeed chose the most suitable students for university in the first place. Separate attention was paid to this effect for students of different SES enrolled at public and private universities. Finally, the effect on A'Level performance (and potentially admission to university) of the school that the university student attended at A'Level was investigated through a multi-level analysis.

The results were quite telling. First of all, it was found that indeed the population of university students was skewed towards the high SES, especially at the public universities where admission is most competitive. This means that trends have not changed since the 1990s, when Mayanja carried out his study investigating student SES (1998). Secondly, university entry A'Level scores were not correlated with CGPA at the public universities, and only correlated for the medium SES students at private universities. In addition, none of the pre-university performance for low SES students correlated with university performance, nor were their O'level and A'Level performances correlated as was the case for medium and high SES students. This may indicate that the academic potential of low SES students is probably unreliably measured by current assessment procedures at lower and upper secondary, further hampering their forward transition. Finally, a higher than average A'Level school effect was found to be in operation within the entry grades of students at the universities sampled, reflecting the fact that most of the students were enrolled from a few "good" schools. Further, a higher school effect was found within entry grades to public universities than to private universities for the high SES students, indicating that attending a good school benefits high SES students most when it comes to admission to university. Whether or not a school run the government Universal Secondary Education (USE) scheme explained part of the school effect within the A'Level scores of low SES students, but none within the other SES levels. This is similar to findings in other studies at lower levels of education, where attending a USE school was generally associated with poorer average performance in the national examinations.

The findings in this study do support the claim that the current university admission procedures in Uganda make it harder for the less privileged members of society to access higher education. It is true that other social and economic factors may be at play in preventing low SES students from being enrolled at university, but it has been demonstrated that they face a further hurdle through the current admission process. Sadly, they miss out on the government funded tuition subsidies, and yet they are the ones that need them the most. Even with a quota system built into the process of awarding tuition subsidies to students in under-represented parts of the country, the situation is still unacceptable. This paper set out to investigate the state of affairs with regard to low SES students accessing higher education in an effort to reinforce the conversation that is going on about the utility, and in this context, fairness, of current university admission procedures. What the possible solutions are to this problem is still up for discussion.

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