INEQUITY IN EDUCATIONAL ATTAINMENT IN UGANDA: IMPLICATIONS FOR GOVERNMENT POLICY

MUGENDAWALA HAMIS

Senior Lecturer-Islamic University in Uganda mughamis@gmail.com

MA. EPEID University of London; MSc Acc & Fin Makerere University

ABSTRACT

This paper undertakes to set out a criterion that can be used to assess inequalities in a given national education system and also uses the prescribed criterion to discuss the extent of educational inequalities in the Ugandan education system. The paper adopts the Berne and Stiefel's (1984) framework to assess educational inequalities in an education system which analyses inequalities from three perspectives-horizontal, vertical and equal opportunity.

Measures of dispersion and the Education Gini Coefficient were used to assess the different perspectives of inequality based on the Demographic Household Survey (DHS) data (2006). The findings reveal that on average, there have been significant improvements in educational equality indicators in the Ugandan education system. Nonetheless, empirical analyses indicate that access to education in Uganda is still dependent on ones sex, location, and asset index. There is therefore need to reengineer the current policy interventions to ensure equal access to education.

INTRODUCTION

The need for universal access to education can no longer be over emphasised. Rather it is equality that has remained elusive to most of the national education systems. Inequity in a system prevails if some individuals in need receive less than others due to conditions beyond their control (Le Grand, 1991). To this end Le Grand views equity as prevailing if individuals have access to the same set of choices from which they are able to make informed choices. To date, there are reported inequalities in education to the extent that the quantity and quality of education consumed by the different societies significantly differ due to constraints like socio-economic status (SES), location, race, religion and age among others.

EQUITY CRITERION

This essay adopts the Berne and Stiefel's (1984) framework to assess educational inequalities in an education system. This framework analyses inequalities from three perspectives—horizontal, vertical and equal opportunity. According to this framework, horizontal equity prevails where students or education units that are equally situated are treated equally in terms of educational inputs and outputs. This criterion assumes a uniform sample which is rarely the case in practice. The horizontal equity criterion is more concerned with uniform distribution to a uniform population. To this end, the metrics that are used to measure horizontal equity mainly estimate the distance (dispersion and spread) between an individual score in a particular equity measure and the group mean. The wider the difference, the stronger the inequality and the reverse is also true.

The vertical criterion judges a system as equal where pupils or education providing- units with different requirements are treated differently in terms of inputs and outputs. This implies unequal treatment to the unequal (Matovu *et al*, 2009). To this end, more resources would be expected to be allocated to pupils or educational units with more dire needs than those with less. This system is being used in some countries. For instance Stiefel and Iatarola (2003) indicate that many states in the United States including New York have adopted this equity criterion to the extent that districts with more immigrants with lower language proficiency and with lower incomes are provided extra funding than those with less of such. Uganda is another country whose school facilities grant (SFG) to public schools is allocated according to indicators that proxy need (Ministry of Finance Planning and Economic Development, 2008).

On the other hand, the equal opportunities criterion looks at equity as neutral if there exists lack of association between the distribution of resources and the characteristics associated with the historically disadvantaged groups (Stiefel and Iatarola, 2003), whereas equality based on affirmative action exists where there is a positive relationship between the two. The latter is consistent with the Marxist notionists who contend that a system can be judged equitable only if the course of distribution of resources is "from each according to ability, to each according to need" (Marx and Engels, 1975). In this case, the basis of equity would be; need, increase in

overall social welfare, and desert (Konow, 2003) across race, ethnicity, gender, economic status, primary language and age. Using this criterion Uganda‟s education system illuminates some equity characteristics. To illustrate, in order to narrow the gap between male and female students at public universities, the latter are accorded one and a half point average over and above their actual „A‟ level scores to enable them meet the cut off points into the public universities. Nonetheless, this criterion has been criticised for trying to create same society than equality.

RATIONALE FOR THE CHOICE OF BERNE AND STIEFEL'S EQUITY CRITERION

The basis for choosing this criterion is partly explained by the previous empirical studies that used the same criterion to assess equity in national education systems. To illustrate, Ducombe and Johnston (2004), in their study used the Berne and Stiefel criterion to assess equity in educational funding in Kansas. The same criterion was applied by Vesely and Crampton (2004) to assess equity in four states in the US. Further, Picus, Odden and Fermanich (2004), and Paquette (2004) also used this criterion to assess equity of Kentucky‟s educational funding and the interdivisional fiscal equity in Saskatchewan respectively. Moreover Hirth and Eiler (2005) applied this equity criterion in their assessment of Indiana‟s equity in educational funding.

The other basis is pegged on the Ugandan context. Access to education in Uganda is heavily differentiated by intrinsic demographic characteristics. To this end, any equity criterion chosen should be in position to capture the multifaceted dimensions in which inequality manifests. For instance while the district quota system was introduced to create horizontal equity in the country‟s education system, some districts continue to lag behind due to the effects of vertical inequalities.

It is imperative to note that the use of horizontal, vertical and equal opportunities criterion to assess equity is not without flaws. The principle of horizontal equity which requires that identical people be treated equally can be violated where there is no universal measure of „equal people‟ (Kakwani, 1986, p. 82). On the other hand, the principle of vertical equity that different people be treated differently may raise unrest as it could be conceived to be inequality. Further, the equal opportunities proponents like Le Grand have also been criticised for being vague on what this actually entails (Monk, 1990).

HOW EQUITABLE IS UGANDA'S EDUCATION SYSTEM?

COUNTRY CONTEXTUAL OVERVIEW

During the colonial era, education provision in Uganda was in the hands of voluntary and faith organizations. Good educational facilities were a preserve for the few elite groups while the masses remained illiterate or poorly educated. Many education commissions and ordinances have been instituted to alleviate these historical distortions. The Castle Commission of 1963 is widely referred to with regard to equity. This is because equality, opportunity to education for all people, expansion of girl‟s education and provision of adult education; were its pillars (Government of Uganda, 1992).

Hitherto, in the face of the acknowledged educational development in Uganda, many studies continue to point at the stark inequalities that continue to mar the country‟s education system. At primary, though enrolment has significantly increased at 87%, gender, regional and socio-economic differences still explain the trend (Kasente, 2003). For instance, more boys than girls are enrolled at primary though recent reports show that the gap has significantly narrowed (Uganda Bureau of Statistics, 2009). This could be due to the introduction of universal primary education (UPE). Regionally, the Eastern region has the highest number of pupils attending primary school (93%) with the northern region having the lowest (82%) (Uganda Bureau of Statistics, 2002). This trend could be attributed to the poverty and war that have persisted in the northern region. Socio-economic factors have also had an impact on equality at the primary level (see Table1).

Table 1: Primary net attendance ratio by wealth

Asset Index	Boys	Girls	Total	Number of Children
Lowest	82.4	79.4	80.9	1,305
Second	89.0	87.0	88.0	1,341
Middle	87.3	86.9	87.1	1,442
Fourth	88.8	89.5	89.1	1,537
Highest	88.8	90.9	89.9	1,341

Source: Kasente (2003, P2)

Stark inequalities have been cited at post primary levels of the Ugandan education system. This is so, given the fact that most of the interventions aimed at creating equality have been focused at primary subsector guided by studies that have indicated that the latter benefits more of the poor than post primary. Girls lag behind boys by approximately 20% in enrolment at secondary level and the gap widens when it comes to tertiary given that the cost factor and gender become significant in determining access (Kasente, 2003; Uganda Bureau of Statistics, 2009).

Vertical equality in the Ugandan education system seems to be more pronounced from the financing perspective. For instance, SFG allocations to regions, districts and schools have mainly been based on learner and school characteristics with those in dire need being allocated more resources than otherwise. To illustrate, regions with least literacy rates, higher gender disparities, more poor have been proportionately compensated with more educational funding than otherwise.

On average, there have been significant improvements in educational equality indicators in the Ugandan education system. This has been attributed to efforts including the introduction of free UPE and Universal Secondary Education (USE) at primary and secondary subsectors respectively. Moreover, the introduction of positive discrimination and the district quota system at post primary subsector have been hinted to have played a part.

Nonetheless, these interventions have fallen short of tackling the most explanatory variables of inequality in Uganda (Kasente, 2003; Kasirye, 2009). To illustrate, society still gives boys" education precedence over that of girls. Further, a large population mostly in rural areas is dependent on subsistence agriculture. This has perpetuated educational inequalities as these communities cannot send their children beyond primary education. This is reinforced by the increasing number of middle class students at higher education. It has also been hinted that poor families heavily rely on child labour for production which makes them hold school age going children back to help in the fields.

This essay furthers the inequality debate in the Ugandan education system by assessing the extent of inequalities in access to education across socio-economic groups.

DATA USED

This paper uses the Demographic Household Survey (2006) data to assess the extent of educational inequality using the socio-economic status (SES) variables—asset index, gender and location. According to Kasente (2003) SES determines the quality and quantity of education consumed by the different socio-economic strata (*see Table 1*).

It is worth noting that while survey data is applauded for having the general capability in describing the characteristics of a large population; it can seldom deal with context. This is due to the fact that data is at times „manipulated and transformed in a way that might lessen the validity of the original research" (Colorado State University, 2010). Moreover some particular variables are just opinions regularly based on the respondent"s honesty, memory and motivation. This is enough to raise caution on the results that this essay has generated.

METHOD OF ANALYSIS

Previous studies have used measures of dispersion to assess equity of an education system (Monk, 1990; Thomas, Wang and Fan, 2001). Statistical measures such as descriptive statistics—range, variance, standard deviation, percentiles among others try to explain equity status of an education system. Nonetheless, given the inherent shortcomings associated with the aforementioned measures, many scholars including Levacic *et al* (2005), Monk (1990), Thomas, Wang and Fan (2001) have proposed the use of the education Gini coefficient as a better measure of educational inequality. This is on the background that the Gini coefficient is a bivariate measure, not affected by outliers, and that it fairly meets the desirable characteristics of the measures of the inequality index.

It is on the above background that this paper also adopts the Gini coefficient methodology to measure inequality in educational outcomes in the Ugandan education system. Using the indirect method approach / the Lorenz curve, the following has been identified on the inequality status of Uganda"s education system:

Table 2:   Gini coefficients and years of schooling by socio-economic status

Background characteristics		Age Groups				Average
		15-19	20-29	30-39	40-49	
FEMALE	Gini Coefficient	0.24	0.37	0.48	0.58	0.42
	Years of school	5.704	4.83	3.742	3	4.32
MALE	Gini Coefficient	0.22	0.25	0.29	0.33	0.27
	Years of school	5.838	6.117	5.618	5.15	5.68
Urban	Gini Coefficient	0.16	0.18	0.25	0.3	0.22
	Years of school	7.18	7.2	6.443	6	6.71
Rural	Gini Coefficient	0.24	0.35	0.4	0.47	0.37
	Years of school	5.487	4.961	4.36	3.77	4.64
Income Quintile1	Gini Coefficient	0.33	0.47	0.53	0.61	0.49
	Years of school	4.223	3.5	3	2.35	3.27
Income Quintile5	Gini Coefficient	0.15	0.16	0.21	0.23	0.19
	Years of school	7.213	7.328	6.807	6.61	6.99
OVERALL	Gini Coefficient	0.23	0.32	0.39	0.46	0.35
	Years of school	5.77	5.4	4.67	4	4.96

Source: Author's calculations based on DHS micro data for Uganda (2006)
Note: The average column represents the total sum of either the Gini or years of schooling averaged across the different age brackets

Table 2 above indicates stark inequalities in the Ugandan education system based on SES. This is further illustrated as below:

GENDER

The average Gini coefficient for females is 0.42 with variations across the different age groups while that for males is 0.27. This implies that there is greater horizontal inequality among the females than in males. From the vertical perspective, the system is still unequal as there are

wider inequalities based on gender and that they are more apparent in educational attainment of females than males. Moreover this is reinforced by the fact that on average, males have approximately 6 years of schooling compared to 4years for females. Based on available statistics, females are a disadvantaged sect in Uganda and therefore it would be fair and just if they had access to schooling for more years than males. To illustrate, 39% of the women aged 15-49 cannot read and write compared to 16% for the males. Also, even though research has it that access to mass media plays a bigger role in causing literacy (Lockheed and Hanushek, 1988; Walberg, 1994; Xin and Wang, 2001), only 11% of the Ugandan women do have access to the same. From the economic perspective, 75% of the women are engaged in subsistence agriculture compared to 68% of men and 81% of the women have some sort of employment compared to 95% of the men aged 15-49. Moreover 30% of employed women are in unpaid employment compared to only 13% of the men in the same age cohort (Uganda Bureau of Statistics, 2006). This state of affairs reinforces the fact that women are more in need of education than men.

However, inequality based on gender is less apparent in the young age group (15-19) and more pronounced in advanced age (*see figures 1 and 2*). This is probably due to the presence of UPE introduced in 1997 to which the older cohorts did not have access. These findings, though consistent with empirical studies done by Zedelashvili (2007), Thomas, Wang and Fan Thomas (2001), should be treated with caution given reports that the dropout rate of girls especially at primary level is increasing.
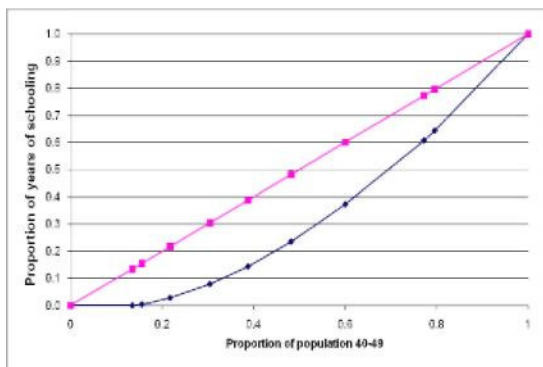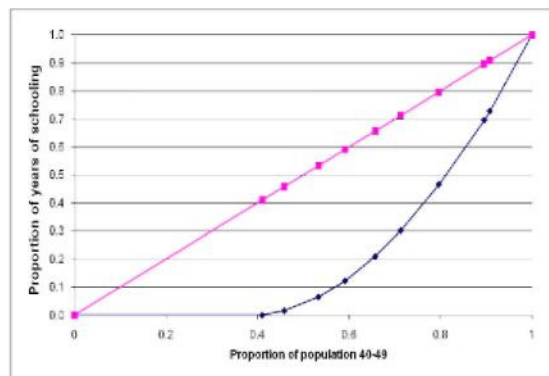
Fig 1: Lorenz curve for males 40-49   *Fig 2: Lorenz curve for females 40-49*

Source: Author's Calculations using DHS microdata on Uganda (2006)

LOCATION

The Gini coefficient for school attainment for the urban cohort is less than that of the rural— 0.16 and 0.24 respectively. This implies that rural areas suffer more inequality than urban areas. This is reinforced by the fact that the urban population have on average 6.7 years of schooling compared to 4.6 for the rural. This disparity is less apparent in the young age group but progresses with age. This indicates that location is still a significant factor in explaining access to education in Uganda. This could be due to the fact that urban dwellers have higher incomes and therefore can afford more education for their children. Moreover the fact that urban areas in Uganda have been cited to have more and better school facilities than rural areas, compounds the vertical inequality problem.

ASSET INDEX

From table 2, the education Gini coefficient for the lowest income quintile is 0.5 which is halfway to perfect inequality with this cohort having access on average to 3 years of schooling compared to the 7 years for the rich quintile which also exhibits less inequality (Gini 0.15). From the horizontal perspective, there is more inequality amongst the poor while more equality prevails in the rich. This could be due to the fact that the rich can afford better private education which assures their children access to higher education than the poor who mainly go to government schools that have been said to have lower standards. Further, the rich are in better position to attract disproportionate educational resource allocation in their favour than the poor.

CONCLUSION AND POLICY IMPLICATIONS

Though there have been significant improvements, the Ugandan education system still manifests inequities based on sex, location and income quintile. Nonetheless, inequality regardless of background is least apparent in the young age group. This is probably due to the free UPE introduced in 1997. The persistence of inequalities in access to education could be a pointer to the need to review the design and implementation of the current policy interventions to make access to education a universal human right. Specifically, there is need to increase the stock of educated adults to make them appreciate the importance of staying their children in school, enforce women rights and safe school projects, set up educationally appropriate facilities for especially the girl child, and special attention should be given to orphans given that they are more vulnerable than any other group. Further, the prioritisation of sciences and technology within education should be reviewed as it seems to act to further exclude female students from the education system. It is imperative to note that these findings are based on survey data which could be valid as and when it was collected. Moreover, it may not be free from transformations that could further affect its proximate validity.

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