

PART 2B: ACCESS, PARTICIPATION AND RETENTION IN AFRICA

2.5. ACCESS, PARTICIPATION AND RETENTION IN AFRICA: EVIDENCE FROM A SURVEY ON TERTIARY INSTITUTIONS

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Abstract

This article is based on a survey of 32 universities in 16 countries in Africa regarding current problems and existing practice in dealing with access and retention of students and staff. Findings of the study show that there is high correlation between drop-out rates and students from lower socio-economic backgrounds as well as female students. We also found that widening participation did not receive as much attention as increasing participation. Conducted within the context of the Erasmus Mundus funded project, Access to Success: fostering trust and exchange between Europe and Africa (2008-2010), the survey also examines patterns of international cooperation identified by African universities and suggests that higher education partnership between Europe and Africa may be an effective means to tackle some of the challenges facing African higher education (HE), including capacity development, expanding access and retaining students and staff.

Introduction

The benefits of higher education to all-round human development cannot be overstated. Higher education can be considered as an important engine for overall socio-economic advancement. Most importantly, it has been a crucial instrument through which knowledge has been created and disseminated. It goes without saying that higher education plays a vital role for the economic and political advancement of nations. In an increasingly competitive world and knowledge based economy, tertiary education provides the required ingredients to enhance academic and technical competence as well as overall competitiveness at individual, regional, and international levels. The production and dissemination of knowledge have been the major preoccupations of higher educational institutions. The level of advancement witnessed by humanity today could not have been imagined without the contributions of higher education. In Africa in particular, where underdevelopment and poverty continue to remain rampant, higher education is expected to make immense contributions towards the attainment of the Millennium Development Goals (MDGs).

Higher education is understood as including “all types of studies, training, or training for research at the post-secondary level, provided by universities or other educational establishments that are approved as institutions of higher education by the competent State authorities” (UNESCO, 1998). The role of higher education becomes increasingly important in the current age where society has become progressively

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information and knowledge based. Without a properly educated workforce, it would be difficult to integrate into, and get the benefits of, the globalised environment (Bollag, 2003). However, to enable the realisation of its potential benefits, higher education needs to be cultivated, nurtured and supported both in terms of creating a conducive policy environment and committing the right resources to deal with the complexities of issues such as access and massification, brain drain, staff and student retention, and infrastructure.

In an increasingly globalised world, it is only rational to think in terms of viewing tertiary education from an international perspective. Knowledge does not know boundaries and internationalisation of higher education has become more real than ever before. It is not only that what has been discovered in one part of the world needs to reach other parts as soon as possible, but that there is a need to facilitate knowledge creation in all parts of the world in view of its importance for local issues as well as its international ramifications. This amounts to minimising the technical divide that exists in the world today. However, in spite of the large-scale expansion of higher education worldwide, less developed countries in general and African countries in particular cannot keep pace with their developed counterparts. Thus, higher education needs global cooperation that can take different forms including bilateral and multilateral agreements among tertiary institutions, joint research, staff and student exchanges, international funding from development agents and donor organisations, and other similar arrangements.

While underlining the need for international solidarity and cooperation to promote higher education in an increasingly globalised setting, the 2009 World Conference on Higher Education underscored the need for providing special focus to promoting African higher education as an important tool for enhancing development in the continent (UNESCO, 2009). This is in recognition of the fact that, while the overall expansion of higher education witnessed in all parts of the world has been tremendous, much remains to be done in the developing world and particularly in Africa to promote higher education and reap its benefits. On the one hand, the expectations from higher education are wide-ranging, and on the other, the challenges are just as demanding.

The challenges confronting higher education range from ensuring access to dealing with democratisation of knowledge; from student and staff retention to dealing with financial bottlenecks; from increasing to widening participation (Crosling *et al.*, 2009); from ensuring quality of education (Materu, 2007) to enhancing employability of graduates; and from availability of appropriate national policies to promoting international collaboration. Higher educational institutions cannot be left to deal with these challenges alone. One can imagine that with growing emphasis accorded to African universities, the problem of severe neglect and underfunding of African higher education (Brock-Utne, 2003) is expected to change. However, this requires serious attention not only by African governments but also international organisations and development partners.

The longstanding view within the international development and donor community (e.g., the World Bank) that primary education generates a greater contribution towards economic growth and poverty reduction has resulted in the relative neglect and underfunding of higher education in Africa not only by the international community but also by African governments (Bloom *et al.*, 2005; Brock-Utne, 2003; Bollag, 2003). Considering tertiary education as less important compared to primary and secondary schooling seems to have been motivated by economic (i.e., greater return to investment) and equity considerations. However, this view has been effectively challenged (e.g., Brock-Utne, 2003). Bloom *et al.*, (2005) in particular challenged this view and showed that higher education can help Africa raise its level of production higher than its current level of about 23% below its production frontier, such that by “increasing the stock of tertiary education by one year” Africa “could maximize the rate of technological

catch-up at a rate of 0.63 percentage points a year". Findings such as this must have contributed towards the recent improved attention that seems to have been accorded to higher education both internationally and nationally (UNESCO, 2009).

It was indicated earlier that higher education is vital for socio-economic development of nations. The implicit assumption in this statement is that we are talking about quality rather than sub-standard education. Studies indicate that quality education "has a remarkable impact on... economic growth" (Hanushek, 2005). Quality education produces quality graduates. This greatly contributes to the human capital base, which provides the necessary input for growth. The imperatives of ensuring and maintaining quality higher education in Africa need to be viewed in relation to the increasing competitiveness and internationalisation of education. Quality, therefore, has to be interpreted in relation to international measurements and standards. Moreover, higher education, and indeed education at any level, needs to tune itself to the level of dynamism that we see in the world today. Thus, education has to remain relevant to the needs and requirements of the times. With Africa, and particularly sub-Saharan Africa, striving for the attainment of MDGs, higher education has an added responsibility of working towards ensuring these goals.

African higher education has struggled recently to expand and ensure quality at the same time. The main factors that are believed to have contributed to the decline of quality in African higher education include, among others, overcrowded classes and higher per unit costs associated with expanding admissions; lack of qualified academic staff associated with brain drain and HIV/AIDS; lack of infrastructure and equipment as a result of financial shortfalls; and poor governance systems (Materu, 2007). There is a considerable amount of literature on brain drain from Africa to OECD countries, for example, and the ensuing ill effects (Ndulu, 2004). Having recognised the importance of higher education for overall advancement and poverty reduction in particular, instituting a system of quality assurance is increasingly becoming a priority in many African countries (Materu, 2007). Of course, quality improvement means higher costs.

Access and Participation

While underlining that 'Everyone has the right to education', Article 26 of the Universal Declaration of Human Rights goes on to say that '... higher education shall be equally accessible to all on the basis of merit'. Thus, whereas primary education 'shall be compulsory' to all, higher education is expected to disentangle itself from being viewed as a privilege of some sections of society to being equally accessible to every member of the society who has the capacity and who aspires to go the required length.

Access to higher education can be viewed as having two dimensions: increasing participation and widening participation. Increasing participation refers to numerical increment in terms of the number of persons within the higher education age bracket registered at tertiary institutions, irrespective of the composition of participants. It implies that tertiary education has to be designed in such a way that it becomes possible for ever larger numbers of individuals within the age group to enrol. However, it is possible that increased participation only benefits some sections of the society or that the majority of the beneficiaries come from the traditionally more represented sections. It is also possible that the number of individuals who have hitherto been underrepresented in higher education would increase, yet this is not implicit.

Wider participation, on the other hand, points to the breadth or expanse of the mix of participants in terms of the sections of society they represent. This implies that higher education has effectively to

reach the traditionally underrepresented and disadvantaged sections such as students from economically backward regions, students from poor households, female students, first generation students, students with physical or learning disabilities, students from migrant families, and students from socially discriminated castes.

Equal access to higher education would therefore ensure enrolment free from direct and indirect methods of discrimination on the basis of gender, social or economic backgrounds, race, religion, language, or physical disabilities (UNESCO, 1998). It would imply that higher education is equally accessible on the basis of merit, and thus knowledge is democratised. However, ensuring equal access even when a system is technically open to all who are qualified is not obvious. In view of the longstanding socio-economic and political discrimination that has existed for generations in most countries, short term policies and regulations alone cannot ensure access. In recognition of these impediments, innovative methods have been introduced and implemented (Altbach, et al., 2009, p. 42) to enable particularly underrepresented groups have better access to tertiary institutions. These have included affirmative action, quota, reservations, distance learning, and student financing schemes. The underlining assumption in designing these methods is that unequal access to higher education has been prevalent across nations and through history because of differences in age, gender, ethnicity, social status, disability, family background, and distance (e.g., Assie-Lumumba, 1994) and that extraordinary methods and efforts are required to minimise the gap and ultimately ensure equal access. It may be important to realise that however innovative and aggressive the measures might be, the challenges of ensuring equal access are not easily surmountable. Having indicated that 'parental income and education' play influential role for inequalities in higher education, Altbach et al., (2009, p.39) observed that *"Truly providing equal access to higher education means overcoming the social and economic inequalities within each nation and the corresponding disparities that result."* This implies that the job of ensuring equal access cannot be left entirely to higher education establishments or that it is more likely to be beyond the means and resources at their disposal. Mohamedbhai (2008) points to system and policy changes needed, including institutional differentiation, diversification of funding sources, increased autonomy for public institutions with regard to policy implementation and a redefinition of government's role in higher education.

Although much has been done to enhance participation over the last few decades, there exist wider disparities among regions in terms of the rate of enrolments. Not surprisingly, sub-Saharan Africa still remains well behind, although large scale expansion has been witnessed. With only 5% of the age group participating in tertiary education in sub-Saharan Africa currently compared to 26% worldwide, one can easily see the amount of work that lies ahead to address the problem of access to post-secondary education (Altbach *et al.*, 2009, p. 38; Bloom *et al.*, 2005). Compared to the 1% enrolment rate in 1965, the current enrolment rate of 5% can be considered as a worthy improvement, particularly if we take into consideration that population size has more than doubled in many countries, but there is no doubt that sub-Saharan Africa is lagging behind other regions (Bloom *et al.*, 2005). To make the task even more daunting, the problem of limited access is compounded by factors like lack of infrastructure, financial constraints, oversized classes, lack of staff capacity in terms of number and qualification, and poor quality (e.g., Johnstone, 2004).

With demand anticipated to remain high, African higher education establishments are expected to promote increasing and widening participation. However, the capacity of these institutions in terms of physical infrastructure and manpower availability remains seriously constrained. Consequently, the issue of balance between large demand, coupled with large student admissions on the one hand, and limited infrastructure and manpower facilities on the other, pose a serious challenge to African tertiary institutions (Assie-Lumumba, 1994). In addition, policy-related problems including highly centralised

policy making (Bloom et al., 2005) coupled with institutional leadership inefficiencies limit the capacity of higher education institutions to address the challenges effectively.

Student and staff retention

Although access is an important component, it does not automatically guarantee success and completion of studies. Particularly in view of the innovative methods widely adopted to ensure equal access to underrepresented sections of the population, issues related to student success and retention in higher education become more and more imperative. A study conducted at Debub University in Ethiopia, for instance, shows that the larger proportion of student drop-out is made up of female students (Tesfaye, 2005). This signifies that not only are female students underrepresented numerically, but they are also at a higher risk of non-completion.

Student attrition, non-continuation or non-completion of studies, entails costs to the individual, family, society, and economy (Crosling *et al.*, 2009). At individual and family levels, losses can range from financial to disappointments and failed opportunities. At the societal and economy wide level, costs include potential human capital losses in terms of skills and knowledge.

A variety of factors (Crosling *et al.*, 2009) including poor preparation and commitment, mismatch of area of interest and field of placement, poor social integration, lack of appropriately developed instructional and assessment methods can be regarded as the causes of student drop-outs. On the reverse side, this implies that there are various personal and institutional inputs that can positively impact retention. Student related factors that can promote retention include proper preparation and motivation as well as commitment and diligence. The institutional factors point to inputs like information dissemination; designing an appropriate and relevant curriculum along with its suitable delivery methods; appropriate assessment techniques; and fruitful student support mechanisms. Although these factors are important (both student and institutional), it appears that the institution-related factors carry greater weight, not only in terms of directly influencing retention but also indirectly in enhancing the student-related factors.

One can, for instance, make a comparison between teacher-centred and student-centred learning. While in the teacher-centred learning, one-way communication from the instructor to the learner is practiced, in student-centred learning, students play an active role and they are put at the centre of the educational process (Dejene et al., 2007; Crosling et al., 2009). Student-centred education involves problem-based inquiry, hands-on experiential, interactive, and onsite experimental methods, which make it interesting for students to pursue studies for life. It entails designing interactive, flexible, and user-friendly methods of learning based on an understanding of the capabilities, aspirations and limitations of students. By enhancing academic success, student-centred learning ultimately promotes student retention.

Evidence suggests that there is a strong correlation between drop-out rate and students from lower socio-economic backgrounds, students from less economically developed regions, and female students, not only at the level of tertiary education but also below. James (2007), for instance, observes that “Worldwide, people from low socio-economic status are highly underrepresented in higher education, partly because school completion rates and school achievement levels are closely correlated with social class.”

Introducing appropriate methods for maintaining a high degree of student retention is undoubtedly crucial, however, it needs to be complemented by parallel measures to ensure staff retention, as human

capital remains the most important resource of any organisation, and chiefly so in the case of higher institutions. Many higher education establishments in Africa have been struggling with retaining their staff for a variety of reasons. Low academic staff retention is mainly attributable to low salary and low benefit structures as well as other causes of dissatisfaction. In particular, insufficient pay and unfavourable working conditions have been the major reasons why many academic staff members of African universities decide to leave their institutions in search of better pay and working conditions elsewhere (Bollag, 2003). Abandoning one's institution can be regarded as direct and overt evidence of academic staff outflow, which amounts to brain drain if the outflow is towards other countries. Moreover, more latent and less identifiable evidence exists in the form of devoting less attention and time to regular duties while searching for complementary sources of income.

Much has been said of the fact that competent human capital is regarded as a necessary input without which the desirable level of competitiveness and progress cannot be attained. Unfortunately, Africa is losing increasing numbers of its capable academic staff to other countries. A study conducted in five universities of sub-Saharan Africa indicated that universities are losing sizable amounts of their human capital which significantly limits their capability to provide quality training to their students, with some fields affected more than others (Tettey, 2006). Generating additional competent human capital is one thing but retaining existing staff is, at least, of equal importance. Accordingly, staff retention must receive institutional and political attention.

Tuition fees and student loans

Given the current low rate of participation and the ever-expanding number of secondary school graduates, actual and potential demand for tertiary education is expected to increase, particularly in sub-Saharan Africa. Obviously, demand would be beyond the capacity of the existing public and private universities (there are little over 200 public universities in sub-Saharan Africa). Moreover, tertiary education is inherently expensive per student given the high costs associated with infrastructure, manpower, and equipment. However hard governments may try, the financial pressure is more likely to be beyond their budgetary means, considering the myriad of more pressing and competing demands for funds. The most likely and viable other sources of income that can be used to bridge the budgetary gap are contributions from students, private sector partnerships, and international development agencies. Although there are arguments in favour of public financing of higher education and resistance against cost sharing since higher education is seen as a right for all (e.g., see Johnstone, 2004; Brock-Utne, 2003, Barr, 2005), there appears to be a strong case for the fact that students have to bear, at least, part of the cost (Barr, 2005; Johnstone, 2004; Chapman and Ryan, 2003).

It has been clear for quite some time that universities worldwide, and particularly in Africa, are severely underfunded. If one cannot rely on public funds entirely, one needs to look for private financing (students, businesses, or other sources) so as to minimise reliance on the tax payer's money or to supplement public allocations. Accordingly, many African universities are now charging tuition fees, which can take different forms, to their students. However, in line with considerations of access and participation, care needs to be exercised in designing tuition fees that it do not disadvantage poorer students. Maintaining the balance might not be easy, and in practice it may harm disadvantaged students if appropriate measures are not taken to redress whatever ill effects the fees may have. The most usually quoted success story in introducing tuition fees aggressively in Africa is that of Makerere University of Uganda which is believed to have transformed the institution from a state of collapse to one of sound financial viability, although there are differences of opinion on whether its benefits were skewed towards the better off students (Johnstone, 2004; Brock-Utne, 2003). With more than 70% of

students paying tuition fees, the university has been able to raise substantial revenue and expand its admissions.

There are different types of cost-sharing practices applied in African universities (see Johnstone, 2004). In many cases, students are required to cover part of the tuition costs and most or all of the food and accommodation related expenses. The introduction of student loans has the advantage of making admission not too dependent on pre-payment of tuition fees and letting students share educational costs at the same time. In line with this, student loans are made with repayments expected only when students earn income following completion of their studies. The logic behind student loans is that students, after completion of their studies, are expected to secure earnings commensurate with their studies and, therefore, they need to make contributions to cover the costs incurred to enable them obtain these benefits. Loan collection is calculated as a percentage of earnings (in the form of graduate tax) along with income tax. This system is widely known as the income-contingent repayment arrangement. This student loan and repayment scheme enables the borrower to get access to studies, and it also protects the lender from the risk of unsecured loans. In practice, though, and for many reasons, loans extended to students may not be collected fully. A recent study by the Association of African Universities on massification in African higher education outlines several institutional strategies in dealing with increased enrolment and widening participation. Diversifying funding streams and in particular charging student fees, while ensuring the appropriate loans and scholarships to protect disadvantaged students, is one of the main recommendations of the study (Mohamedbhai, 2008).

The study

This study relates to the state of African higher education with particular focus on the following issues:

- i. Access, retention and underrepresented student groups
- ii. Policies and priorities of African higher education institutions in addressing access and retention of students and staff and
- iii. Institutional partnerships between African and European universities towards promoting higher education and its wider socio-economic implications.

The study has been conducted within the framework of the EU funded project 'Access to Success: Fostering Trust and Exchange between Europe and Africa (2008-2010)'. The project aimed to bring universities from Europe and Africa together in a bid to explore issues related to increasing and widening access, ensuring retention of students and staff as well as the role of bi-regional partnerships on overall higher education development. The purpose of the study was not only to map institutional and national good practices and identify case studies, but also to establish a better understanding of how institutions can use international cooperation to respond to the challenges in specific socio-economic contexts and environments.

Analysis is based on data collected online from 32 universities located in different regions of Africa. The aim of the survey was to explore the extent to which increasing participation, equity and access, student diversity, retention of students and degree completion, are being addressed by higher education institutions and national governments across a range of sub-Saharan African countries.

Description of data

Data for this study has been collected from 32 African universities located in 16 countries (see Appendix, Table A1, p. 105). These institutions were the respondents of an open call across the wider membership of the Association of African Universities. In terms of age, sample universities range from the oldest (Stellenbosch University of South Africa), established in 1918, to the youngest (Zambia's University of Lusaka), established in 2007. With most of the bigger African universities publicly owned, the sample reflects this quite closely. 25 of the 32 sample universities are under public ownership while almost all of the remaining are privately owned, most of which are not-for profit. One of the non-public universities in the sample is a distance education based institution and another operates as a virtual university. It may also be interesting to note that most of the universities in the sample charge tuition fees to their domestic students. Of the 30 universities who responded to issues related to tuition fees, 22 charge tuition fees to all their domestic students and five to some domestic students. This clearly confirms the fact that even public universities find it necessary, in view of government budget limitations to finance an ever increasing need for increasing participation, to supplement public funds with student fees.

Some 20 of the 25 public institutions in the sample responded to issues on staff and student statistics (see Appendix, Table A2). Excluding those who did not respond or did not provide sufficient response to student/staff statistics (i.e., University of Kinshasa – CDR, Hawassa University –Ethiopia, University of Fort Hare and University of Limpopo, both from South Africa, and University of Zimbabwe), the average number of students per institution is found to be 18,386 over all categories (including part time). The majority of these students, i.e., 86.6% or 319,618 of a total 367,721, is made up of bachelor degree students (82% full-time and 4.6% part-time), followed by 11.7% master's degree students (10.7% full-time and 1% part-time), and the remaining 1.4% are doctoral students. This shows that by far the largest number of students in African tertiary institutions are students working for their bachelor degrees. It also provides a good indication of the fact that the demand for master's degree programmes will increase over time.

Perhaps more interestingly, the student-to-staff (academic) ratio (SSR) of African public universities stands at 30 to 1 considering full-time academic staff only, and 23 to 1 when we consider all academic staff (including part timers). On the other hand, the student-to-administrative staff ratio is reckoned as 13.4 to 1, showing a large number of administrative staff per institution compared to academic staff. SSR is considered as an important indicator of quality and can, to a certain extent, reflect the resource commitments with higher ratios indicating availability of lower financial resources to staff recruitment. The SSR figure obtained for Africa in this survey is higher than the international standard and can for instance be 9 compared to a SSR of 20.8 to 1 of the UK in 2003/04 (AUT, 2005) and 20.5 to 1 of Australia in 2006 (Massaro, 2009). The drive to ensure access in light of massification of higher education in Africa may further push the SSR upwards if concomitant measures are not taken on staff recruitment and retention. It may also need to be indicated that SSR does not show the actual staff *qualification* levels, and the figures provided are an overall computation. The availability of large number of faculty with the highest qualifications is considered as an important input for quality education. In many African tertiary institutions, a very low proportion of teaching staff are PhD holders with the majority composed of first and second degree holders.

Access, retention, and underrepresented groups: survey results

As indicated earlier, access can be seen in relation to numeric increases and breadth of participation. When asked about the priority each institution accords to enhancing access, 25 of the 30 who responded to this question indicated that they provide 'high' priority to improving access. Of the remaining five

institutions, four indicated a 'medium' priority to enhancing access. One institution provides 'low' priority to improving access. Having seen the priority accorded to access, sample institutions were asked to indicate the objectives or direction they employ to widening and/or increasing participation. With 29 universities responding to this question, the results are summarised in the table below:

Table 1 - Institutional objectives in widening/increasing participation

Options	No. of institutions selecting option (N=29), multiple response allowed
Increasing overall student numbers	22
Increasing students from underrepresented groups	13
Increasing students from disadvantaged groups	19
Reducing barriers to completion and improve retention rates	20
Improve gender imbalance	21

One can learn from the table that, although not in a clear-cut form, institutions are more inclined towards increasing rather than widening access. This shows that while the majority of institutions give importance to access, they appear to be biased towards increasing participation and retaining registered students rather than broadening the mix of students, although the margin does not appear to be wide enough to warrant any definite conclusions as yet, and thus calls for further research. This inclination may spring from the belief that increasing participation implies widening as well, and that dealing with the immediate enrolment demands is considered as a top priority for the moment.

Underrepresented groups

Traditionally, higher education has been the preserve of some sections of society thus leading to the underrepresentation of some sections of the population. As outlined earlier, this trend still exists to a large extent in view of the difficulties involved and the time it requires to redress entirely such an imbalance. Hence, with many student groups still remaining underrepresented, higher education continues to be criticised as being elite-based rather than mass-based in spite of the recent improvements.

With 30 of the 32 universities responding to the question "Which of the following student groups are underrepresented in your institution?", the results are summarised in Table 2. It is quite evident from the summary provided in the table below that students with physical disabilities, students from lower socio-economic backgrounds, students from remote and economically underdeveloped regions, and female students are the most underrepresented groups of students in many African universities. Quite clearly, socio-economic status, disability, and gender appear to have been the major factors that have determined low representation in universities. The second group of underrepresented students seems to have been made up of students with learning disabilities, adult students, first generation students, students from ethnic minorities, and students associated with migration. Note also that there could be exceptions like 'The Seventh of April University (Libya)' where male students are rather underrepresented compared to female students mainly because male students drop-out in search of paid work.

Table 2 - Underrepresented student groups

Underrepresented student groups (options)	Number of universities who indicated that this group is underrepresented (N = 30), multiple response allowed
Students from lower socio-economic backgrounds	17
First generation students	5
Students from ethnic/cultural minority backgrounds	5
Students from migrant families	4
Students from remote or economically under-developed regions	17
Adult students	7
Female students	12
Male students	1
Refugees/asylum seekers	7
Religious minorities	2
Students with physical disabilities	19
Students with learning disabilities	7
Students affected by sickness or illness	8
Others	2

The survey also asked institutions to estimate the drop-out rates of the underrepresented student groups. Based on the response obtained from sample universities, the results are outlined in Table 8.

Table 3 - Estimated drop-out rate of underrepresented groups

Student groups	Average drop-out rate (%)	No of universities
All students	17.68	19
Bachelor students	20.55	15
Masters students	17.04	13
Doctorate students	10.69	7

The average drop-out rate of underrepresented student groups is computed at about 18%. With the majority of students falling within the category of 'Bachelor students', the drop-out rate of 21% associated with this group of students may have to be considered as the more representative one. It was earlier indicated, based on studies, that school and university drop-out rates of underrepresented groups are higher. Respondents in this particular study also attest to the fact that there exists a correlation between drop-out rates and some student groups. Judged from the number of respondents, there appears to be higher correlation between drop-outs and students of lower socio-economic backgrounds as well as female students. This is in line with what was indicated earlier where socio-economic status and gender were closely associated with underrepresentation in tertiary institutions.

Table 4 - Correlation between student groups and drop-out rates

Student groups	Number of institutions responding positively to existence of correlation (N=27)
Students from lower socio-economic backgrounds	20
Students from ethnic/cultural minorities	8
Students from migrant families	5
Students from less economically developed regions	14
Adult students	5
Female students	10
Refugees/asylum seekers	3
Religious minorities	1
Students with physical disabilities	3
Students with learning disabilities	8

The methods employed by institutions to determine who the underrepresented groups are vary from one to another with some using statistical evidence and others using less quantifiable methods like observations made by respondents on the different student groups in their respective institutions. Drop-out rates were also an estimation in many cases. Lack of statistical evidence on student enrolment in African universities is an important factor to consider in future research and subsequent policy responses.

Many factors are believed to have contributed to the lower participation rate of the student groups indicated above as underrepresented. These factors can be grouped into three categories: government related factors; institution related factors; and student/family related factors. Evidently, some or more of the factors under these categories must have contributed their share towards the low participation rate of underrepresented groups. Questions were posed to respondents on the extent of contribution of the factors under these categories to low level representation. Average weights attached to each factor are reckoned taking into account those institutions that identified the factor(s) as a contributor to low representation. Weights assigned to each factor range from 1 to 6 in ascending order in terms of the degree or strength of contribution of each factor to lower participation rate. Table 3 below provides a summary of the responses obtained from 30 of the 32 institutions who addressed this issue particularly in relation to governmental factors.

Table 5 - State-driven factors that contributed to low participation rate of underrepresented groups

Factors	Number of institutions (N=30, multiple response)	Average weight of factor
Lack of government policy and support for these groups	25	4.24
Lack of legislation in support of these groups	23	3.57
Inability on the part of the state to identify these groups	22	3.14
Lack of financial support for these groups	27	4.78
Lack of information on financial support for potential students	24	4.08
Lack of financial support and incentives for universities	26	4.85
Others	3	3.67

One can see from the table that lack of financial support by governments to universities and to the underrepresented groups constitute the major contributing factor towards the low level participation. This factor carries higher value both in terms of number of respondents and in terms of the average weight assigned to it. Next to this comes 'lack of policy support' and 'lack of information on financial support' followed by 'lack of legislation' and 'inability to identify these groups'. The result can also be considered as an indicator of the impression of respondents on the need to address these factors, in terms of their priority of influence, so as to minimise the level of underrepresentation of these groups.

The contribution of the factors related to higher education institutions are summarised in Table 4 in terms of number of respondents and the average weight computed for each factor in a manner similar to Table 3.

Table 6 - Factors on the part of higher education institutions that contribute to low participation

Factors	Number of institutions (N=30, multiple response)	Average weight of factor
Lack of institutional policies in support of these groups	25	4.52
Lack of effective support services in institutions	27	4.89
Lack of institutional financial support for these groups	29	5.24
Lack of outreach /promotion for these groups	24	4.33
Study programmes inadequate for the needs of these groups	24	3.46
Insufficient infrastructure	27	4.63
Lack of student housing	25	4.24
Lack of facilities for students with disabilities	24	5.08
Negative attitude of staff towards these groups	24	2.50
Lack of academic staff	25	3.28
Lack of administrative staff	22	2.55
Too few higher education institutions to meet demand	25	4.28
Institutions not physically accessible to those who live far	25	3.76

The major institution-related factors that seem to have had a higher contribution towards low participation are identified, using a combination of number of respondents and average weight, such as: (1) lack of institutional financial support to the underrepresented groups; (2) lack of effective support services in the institutions; (3) lack of facilities for students with disabilities; and (4) insufficient infrastructure. Other factors which appear to be lesser in terms of their intensity but nevertheless important in terms of their contributions are: (1) lack of institutional policies and support; (2) lack of promotion; (3) lack of student housing; and (4) too few academic institutions compared to demand. Factors like negative staff attitude and inadequate study programmes tuned to the needs of these groups are believed to be less important factors.

Table 7 - Student/family related factors and their contributions to low participation of underrepresented students

Factors	Number of institutions (N=31, multiple response)	Average weight of factor
Personal financial difficulties	31	5.71
Lack of motivation/low aspiration	26	3.69
No cultural/family history of higher education	26	3.65
Lack of parental guidance for potential students	27	4.41
Disease or health issues	26	2.73
Hard to access information on higher education	27	3.74
Physically too far away/cannot get to institution	27	3.15

Considering student and/or family associated factors contributing to underrepresentation, individual financial difficulties and lack of parental guidance appear to have greater share followed by difficulty in accessing information, low motivation/aspiration on the part of students, and lack of higher education history within the family. Minimising the impact of these factors requires conscious intervention on the part of policy makers and higher education institutions.

It would not be difficult to infer from the governmental, institutional, and student/family related factors discussed above that the factors negatively influencing participation are many and interrelated. Hence, addressing these factors from different angles and, preferably, in tandem would bring better results than focusing on a single factor.

In the preceding section, institutional factors that contribute towards low participation rate of some student groups have been demonstrated. The survey also addressed institutional responses for improving participation of underrepresented students. One can imagine that, in recognition of the need to widen access, many higher learning institutions will have devised various structural and administrative ways to deal with the challenge. Accordingly, asked if their respective institution has established a faculty/department/office to support access and participation (increasing and widening), 18 respondents (out of 27 who addressed the question) responded affirmatively while 9 of them replied negatively. And four of the nine institutions, who reacted negatively, have indicated their institution's intention to establish such an office. One can therefore understand that there are a good number of institutions currently without an office or department particularly involved in supporting access and participation.

The offices specifically established by tertiary institutions to support access and participation include, among others, 'Centre for Prospective Students' of Stellenbosch University, 'University Gender Office' of Hawassa University, 'Public Relations and Academic Linkages' of The Catholic University of Eastern Africa, 'Academic Committee and Student Affairs' of University of Zimbabwe, 'Centre for Learning and Teaching' of the National University of Lesotho, and 'Open and distance education unit' of Maseno university.

Different universities use different organisational arrangements to implement policies and programmes. In recognition of this, respondents were asked to indicate the units/offices assigned to implement the policies, if they have one. The results are summarised here below:

Table 8 - Centres used for institutional policy implementation

	Number of institutions					
	Done in research cells/institutions	Done via academic programmes	Done via special academic centres	Done via support and services offices	Done via task forces or working groups	One/ two staff in charge
Development cooperation (N=21)	11	14	6	6	3	8
Distance learning (N=18)	4	13	9	4	4	2
Increasing participation (N=21)	4	11	3	7	3	4
Industry cooperation (N=23)	13	13	7	7	7	2
Innovative approaches to teaching and learning (N=22)	10	15	7	7	7	1
Internationalisation (N=23)	6	7	6	10	4	7
Lifelong learning (N=17)	5	9	7	5	3	1
Retention of staff (N=17)	4	6	5	8	5	3
Retention of students (N=20)	3	9	6	6	7	2
Widening participation (N=20)	8	13	3	11	3	1
Working with local/ regional communities and NGOs (N=22)	14	7	9	8	6	4

This table shows that different centres/units are employed by universities to implement their various policies. Note that multiple answers have been allowed, signifying that more than one centre can be used to handle implementation of a certain policy. We also observe from the table that less institutionalised mechanisms such as implementing policies via ‘task force’ and/or ‘one or two staff’ have been employed by universities. Less institutionalised methods of implementation can show a low level of attention given to a certain policy, or that the organisational set up has not yet fully crystallised.

In terms of specific strategies adopted by institutions towards supporting access and participation, the responses obtained are summarised in Table 6 the containing number of institutions who replied positively to each of the strategies along with their respective average weights.

Table 9 - Institutional response to supporting access and participation (increasing and widening)

Institutional response	Number of institutions (N=28)	Average weight of factor
Adopting flexible admission policy	18	5.06
Recognition of prior learning	19	4.16
Offering flexible learning paths	17	4.41
Offering special programmes	17	4.76
Outreach to schools in deprived areas	17	3.94
Working with employers /industry	18	4.11
Working with NGOs and other organisations	14	4.14
Providing financial support to students	18	4.06
Offering visits to potential students	20	4.30
Offering information visits to students' parents	11	3.55
Adopting non-discrimination policy	20	5.45

Table 6 shows that 'adopting non-discrimination policy', 'adopting flexible admission policy', and 'offering special programmes' are some of the major strategies used to support access and retention by African tertiary institutions. Other strategies adopted by universities include 'visits to potential students', 'offering flexible learning paths', 'recognition of prior learning', 'provision of financial services to students' and others, as outlined in the table, to differing degrees. While adopting and implementing these strategies for ensuring wider access and enhancing retention, institutions will, undoubtedly, encounter difficulties, some of which are external and some, internal. The following table summarises these difficulties, as reported by respondents, most of which are internal to the institution.

Table 10 - Difficulties faced while adopting and implementing access and retention strategies

Difficulties	Number of universities (N=27)	Average weight
Lack of support from senior management	4	2.50
Lack of support from academic staff	12	2.83
Commitment from staff but lack of time/resources	21	5.05
Lack of knowledge and expertise	8	3.50
General resistance to change	16	3.81
Staff not properly trained to deliver	11	4.18
Lack of financial resources	25	5.24

Lack of financial resources and lack of time/resources by staff (in spite of their commitment) are the most important factors that pose difficulties when introducing and implementing access and retention strategies. Lack of finance has been the major hindrance, posing difficulties both on the part of students and institutions. Lack of time/resources of staff or their availability is another important factor that could delay or promote attainment of greater participation rates. In addition to these factors, resistance to change, and lack of proper training for staff are the other factors deserving important consideration. These difficulties (finance, lack of staff time/resources, lack of proper training, and general resistance to change) could be important areas where international collaboration and global support could come in so

as to effectively address the global objective of enhancing access and retention of students, particularly of those coming from underrepresented sections.

Institutional development through international cooperation

In addition to collecting information on access and retention of students and staff, this survey also questioned institutions on their international relationships and collaboration. This has been done to probe whether there may be a correlation between international partnership and institutional development, particularly with respect to facing access and retention problems.

Internationalisation of higher education can take different forms. These include undertaking joint research projects among universities belonging to different countries, staff and student exchange, sharing latest knowledge and technology, development of science, assistance and support, undertaking various scholarly works, short-term training and visits, implementing global initiatives like the attainment of the MDGs involving different partner institutions, and so on. In the context of Africa, internationalisation of education is an issue of strategic significance in developing global research and teaching cooperation and working towards enhanced competence and mutual gain. This collaboration can be fruitful if placed within the framework of policy that appreciates the importance and inevitability of internationalisation. Notwithstanding the fact that internationalisation and global cooperation is vast, this study particularly focuses on the relationship between African universities and Europe/European universities in view of their longstanding history of involvement.

A vast majority of the universities in the sample (25 out of the 30) have already established relationships with Europe and European universities in one form or another. In the meantime, African universities (including those who have already established relationships) have a growing interest in establishing and expanding collaboration with Europe and European universities. The following table summarises the type of relationship that exists between African and Europe/European universities.

Table 11 - Relationships between African universities and Europe/European universities

Type of relationship	Number of universities (N=25), multiple response allowed
Many students go to study in Europe	17
Engagement in development projects with European partners	21
Faculty undertake research in Europe	15
Faculty undertake teaching in Europe	7

As outlined in the table above, the most common type of relationship appears to be the one where African universities undertake development projects along with their European partners. This is followed by students of African universities going to Europe for their studies and then faculty members doing research in Europe. Although faculty members undertake teaching in Europe, it does not seem to be that common.

Some examples of the relationships include Erasmus Mundus supported projects, VLIR-IUC partnerships, EDULINK, IFS, Nuffic, Nufu, EU/ACP, NORAD, DELPHE, DFID, SIDA, and many bilateral and multilateral collaborations. Many European and African universities are part of these collaboration projects and staff and student exchange programmes. Universities in different European countries such as France,

Germany, Spain, Belgium, the Netherlands, Italy, the United Kingdom, Sweden, Finland, and Norway participate in these collaborative ventures involving African universities.

Institutional policies and priorities

There has been a recent trend to frame internationalisation and global cooperation within the framework of institutional policies and priorities. These priorities provide the direction for collaborative work and mutual engagement not only between African and Europe/European universities but also universities located elsewhere and other global players. Developing institutional strategies for internationalisation is a fairly new concept, but has gained considerable ground in the past decade in North America, Europe, and increasingly Asia and Latin America. Africa, with its high reception of donor projects and programmes, has probably the ‘most internationalised higher education system in the world’, but due to many development constraints, it is the ‘least internationally engaged’ (Knight and Teferra, 2008). The priority areas for international cooperation for African universities are summarised in the following table based on the results of the survey.

Table 12 - Issues of institutional priority and availability of policies on the issues

Issues	Number of universities (N=32)	Average weight of issue	Number of universities confirming existence of institutional policies on the issues (N=27)
Environmental issues	29	4.66	NA
Development cooperation	30	5.03	18
Lifelong learning	28	4.79	13
Innovative approaches to teaching/learning	31	5.32	18
Industry cooperation	31	5.39	18
Working with local/regional communities and NGOs	31	4.94	18
Distance learning	28	4.11	12
Internationalisation	30	5.20	18
Widening participation	28	5.21	16
Increasing participation	28	4.96	17
Retention of students	31	4.97	15
Retention of staff	32	5.22	16

Almost all universities seem to have attached higher levels of priority to all items. These issues could, therefore, be used as areas for international collaboration with African universities directly and/or via developmental organisations interested in assisting African higher education and, thus, attaining developmental goals. With regard to availability of institutional policy on these issues, there are some issues where many African universities do not have a policy. For instance, more than half of the institutions do not seem to have a policy on distance education and lifelong learning. However, this does not mean that these areas are not their priorities. It might mean that they have not yet developed appropriate policies and implementation modalities to address these issues, but that they would like to in the future.

Conclusion

While there is no denying that access to higher education has increased, Africa, and in particular sub-Saharan Africa, is far behind the other parts of the world, and, given current trends, the gap does not seem set to narrow significantly any time soon. Moreover, students from lower socio-economic backgrounds, female students, and students from remote and economically underdeveloped regions are underrepresented in African higher education. Though limited to a fairly small, yet geographically diverse sample of African higher education institutions, this study illustrates the importance of looking at the issue of access and retention in higher education scientifically, as it is a key challenge facing the development of a high quality, relevant, and socially responsive sector.

Findings of the study indicate that, by and large, the focus has been on increasing participation. Widening participation did not seem to have attracted the attention it deserves. The assumption appears to be that, once possibilities for increased participation are open, underrepresented groups will be able to grasp the opportunity. However, this may not necessarily hold true and appropriate mechanisms need to be designed to expand higher education to diverse and disadvantaged groups. This has been a lesson in other regions where massification has been prevalent in the past decades. Regarding underrepresented groups, respondents indicated that lack of resources (both in terms of government allocation and the institutions' access to other sources), rather than the will to attract them have impeded access. Furthermore, drop-out is most highly correlated with the students' lack of financial resources. However, the study also showed that there is a lack of accurate statistical information at the institutional level regarding disadvantaged student groups, student background and drop-out rates, which will be crucial for future research and intervention.

In addition to pointing to common institutional challenges in access and retention, the study also draws attention to the wide variety of existing international cooperation that universities have, and to the high priority for internationalisation. The study indicates that African universities have outlined their own areas of institutional priority. International partnerships will be more prolific if based on these areas and for mutual gain. The correlation between addressing overall institutional development challenges (such as access and retention) and strategic international partnership is an important field for further investigation and collaboration.

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Appendix

Table A1

No.	Name of institution	Country	Year established	Ownership	Tuition fees apply to
1	University of Burundi	Burundi	1962	Public	International students only
2	University of Lubumbashi	CDR*	1956	Public	Domestic students
3	Catholic University of Bukavu	CDR	1989	Private non-profit	All domestic and international
4	University of Kinshasa	CDR	1954	Public	All domestic and international
5	National Educational University	CDR	1961	Public	All domestic and international
6	Hawassa University	Ethiopia	1960	Public	
7	University of Ghana, Legon	Ghana	1948	Public	Some domestic and international
8	Kwame Nkrumah University of Science and Technology	Ghana	1952	Public	Some domestic and international
9	African Council for Distance Education	Kenya	2004	Private non-profit	
10	The Catholic University of Eastern Africa	Kenya	1984	Private non-profit	All domestic and international
11	Maseno University	Kenya	1990	Public	All domestic and international
12	The African Virtual University	Kenya/Senegal	1997	Other	All domestic and international
13	National University of Lesotho	Lesotho		Public	All domestic and International
14	The Seventh of April University	Libya	1983	Public	Some domestic and international
15	Islamic University of Niger	Niger	1974	Private non-profit	Domestic students
16	Michael Okpara University of Agriculture, Umudike	Nigeria	1992	Public	International students
17	University of Agriculture, Abeokuta, Ogun State	Nigeria	1988	Public	All domestic and international
18	Benson Idahosa University, Benin City, Nigeria	Nigeria		Private non-profit	All domestic and international
19	Federal University of Technology, Minna	Nigeria	1983	Public	International students only
20	University of Port Harcourt	Nigeria	1977	Public	Some domestic and international
21	Osun State University	Nigeria		Public	All domestic and international
22	National University of Rwanda	Rwanda	1963	Public	All domestic and international
23	Cheikh Anta Diop University of Dakar	Senegal	1957	Public	All domestic and international
24	University of Sierra-Leone	Sierra-Leone	1827	Public	All domestic and international
25	University of Fort Hare	South Africa	1903	Public	All domestic and international
26	University of Johannesburg	South Africa	2005	Public	All domestic and international
27	Stellenbosch University	South Africa	1918	Public	All domestic and international
28	University of Limpopo	South Africa	2005	Public	All domestic and international
29	Makerere University	Uganda	1922	Public	Some domestic and international
30	University of Lusaka	Zambia	2007	Private for-profit	All domestic and international
31	National University of Science and Technology	Zimbabwe	1991	Public	All domestic and international
32	University of Zimbabwe	Zimbabwe	1955	Public	All domestic and international

* CDR = Congo Democratic Republic

Table A2 - Number of academic and non-academic staff

S. No.	Name of institution	Country	Number of students					Number of staff			
			Bachelor		Masters		Doctoral	Academic			Non-academic
			Full time	Part time	Full time	Part time		Total	Full time	Part time	
1	University of Burundi	Burundi	8500		140			519	319	270	600
2	University of Lubumbashi	CDR	12996		8150		238	804	223	68	513
3	Catholic University of Bukavu	CDR	1288		391			152	61	91	47
4	University of Kinshasa	CDR	NA	NA	NA	NA	NA	NA	NA	NA	NA
5	National Educational University	CDR	8889	136	3681	116	1426	187	137	50	532
6	Hawassa University	Ethiopia	NA	NA	NA	NA	NA	1000	1000		
7	University of Ghana, Legon	Ghana	24104	2575	2071	187	134	1062	951	111	4053
8	Kwame Nkrumah University of Science and Technology	Ghana	22155		2540			850	850		2326
9	African Council for Distance Education	Kenya	NA	NA	NA	NA	NA	3			2
10	The Catholic University of Eastern Africa	Kenya	5226		379		109	362			208
11	Maseno University	Kenya	7000		249	229	39	347	347	10	732
12	The African Virtual University	Kenya/ Senegal	NA	NA	NA	NA	NA	NA	NA	NA	10
13	National University of Lesotho	Lesotho	6782	1784	58		1	578	314	264	295
14	The Seventh of April University	Libya	37067		1314			1825	1168	657	2686
15	Islamic University of Niger	Niger	478	195	414	4		58	48	10	47
16	Michael Okpara University of Agriculture, Umudike	Nigeria	4769	1726	595	17	237	300	233	67	921
17	University of Agriculture, Abeokuta, Ogun State	Nigeria	6000		1500	500	100	450	430	20	1200
18	Benson Idahosa University, Benin City, Nigeria	Nigeria	2100	500				209	159	50	168
19	Federal University of Technology, Minna	Nigeria	12150		540		160	541	541		822
20	University of Port Harcourt	Nigeria	17377	3245	365	495	205	1125	1125		3087
21	Osun State University, Nigeria	Nigeria	1728					175	150	25	238
22	National University of Rwanda	Rwanda	9482		466			541			434
23	Cheikh Anta Diop University of Dakar	Senegal	43059	3050	8210	1187	1216	2304	1169	1135	1200
24	University of Sierra-Leone	Sierra-Leone	6500	125	50	30	5	360	260	100	230

S. No.	Name of institution	Country	Number of students					Number of staff			
			Bachelor		Masters		Doctoral	Academic			Non-academic
			Full time	Part time	Full time	Part time		Total	Full time	Part time	
25	University of Fort Hare	South Africa	NA	NA	NA	NA	NA	NA	NA	NA	NA
26	University of Johannesburg	South Africa	22975		1578		444	1156			1360
27	Stellenbosch University	South Africa	16259		4379		828	1270	886	384	2267
28	University of Limpopo	South Africa	NA	NA	NA	NA	NA	NA	NA	NA	NA
29	Makerere University	Uganda	30485	4116	3460		100	1280	1080	200	3500
30	University of Lusaka	Zambia	106	88		172		45	4	41	6
31	National University of Science and Technology	Zimbabwe	4544	40	123	728	12	258	235	23	377
32	University of Zimbabwe	Zimbabwe	10000	200	1500	500	40	NA	NA	NA	NA