STAFF RETENTION IN AFRICAN UNIVERSITIES: ELEMENTS OF A SUSTAINABLE STRATEGY

Wisdom J. Tettey
Faculty of Communication and Culture
University of Calgary
Calgary, Alberta
Canada

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EXECUTIVE SUMMARY

The purpose of this study is to identify mechanisms for university staff retention that are feasible in Africa under currently severe financial constraints, and to gauge their effectiveness in offsetting the risk of staff loss commonly associated with capacity building efforts in Africa. The recommendations are based on case studies of five Anglophone universities in sub-Saharan Africa. The case study institutions are: University of Botswana; University of Ghana; University of Ibadan (Nigeria); University of Kwazulu-Natal (South Africa); and Makerere University (Uganda).

The study is motivated by the fact that that Africa is losing, in significant numbers, a fundamental resource in socio-economic and political development – i.e., its intellectual capital. As the processes of globalization take shape, it is becoming abundantly clear that full, effective, and beneficial participation in the world that is emerging will depend, in no small measure, on the ability of societies to build and take advantage of their human resource capabilities. In the absence of such capabilities, African countries cannot expect to compete at any appreciable level with their counterparts, not only in the industrialized world, but also from other developing areas which have made the investment and developed the relevant capacities. A well-developed human capacity base is not only an asset that enables countries to promote forward-looking ideas, initiate and guide action, and build on successes; it also makes those countries attractive destinations for investment and intellectual collaboration, both of which, if managed appropriately, will lead to positive returns. A solid higher education base is crucial for such transformation to take place.

Unfortunately, much of the expertise base of African universities has been eroded to the extent that there is not enough capacity to provide quality training for new generations of citizens. This is due to a variety of factors, including inadequate and non-competitive salaries vis-à-vis local and international organizations, and lack of job satisfaction due to non-monetary reasons. In this report, we seek to understand these factors, analyze what the case study institutions are doing to address them, and suggest feasible responses to the problem. The study focuses on particular fields of expertise. These are health sciences, engineering, business, economics, and computer/ information science. Previous research suggests that these are the areas most affected by, and vulnerable to, the brain drain and high turn-over in African institutions.

In all the institutions, clear evidence was found that various units are operating far below their capacities. The situation in all the target units and disciplines reflected the institutional picture. They all indicated that they have difficulty recruiting staff at the same time as some of them are losing those they have. In those departments where there is no significant attrition, the problem of recruitment is nevertheless a reality. They cannot compete with other institutions because of relatively poorer conditions of service. Even the University of Botswana, which has been quite successful in attracting and retaining staff, is beginning to see its attractiveness as an employer eroded, and is looking at a future which could be more challenging. The recruitment problem, in all cases, is compounded at senior levels, because the services of individuals at those ranks, in the target disciplines, are in high demand in a competitive job market. A corollary to the recruitment problem is the fact that all the units studied have to contend with the reality of an aging professoriate. The findings also show that the appointment process in some institutions is unnecessarily cumbersome, tedious, and time-consuming, leading to the loss of potential employees.

Across all the institutions, a small number of respondents indicated that they had thought about leaving their institutions in the past five years. But the number that had actually sought other jobs,

or received offers, was very negligible. This suggests that most academic staff believe that they have chosen the right professions and will remain

The situation in the case study institutions showed variations in professional development efforts, but respondents were, generally, dissatisfied with support for research in their institutions. The University of Botswana's Staff Development Fellowships and Makerere University's Staff Development Fund, which is supported from internally generated income, are examples of initiatives which have helped staff to obtain advanced training. The Leadership and Equity Advancement Program (LEAP) at the University of Kwazulu-Natal, is a commendable formal mentoring effort aimed at staff recruitment and development.

Our findings indicate that dissatisfaction with salaries is a key factor undermining the commitment of academics to their institutions and careers, and consequently their decision or intent to leave. Some institutions offer various allowances which supplement staff member's base salaries. While acknowledging that allowances do help supplement staff income, it is important not to construe the difference between the base salary and the consolidated remuneration to mean that staff members are necessarily well catered for. Some of the allowances are specifically for research and the purchase of books. So if staff channel the allowances toward their intended purposes, instead of personal needs, their situation does not get much better. Furthermore, the cost of living erodes much of the cushion provided by the allowances. Some institutions have devised h5situ(.098 ort arn[(th /MCIDific

Institutional Governance and Workplace Climate

- *Strike search committees for the purpose of selecting unit heads. Provision should also be made for mid-term reviews of administrative heads of units.*

- *Offer training programs for newly appointed administrators to acquaint them with different skills needed to accomplish the demands of their role. All heads must also be provided with continuous professional development.*

- *Address concerns around governance, at unit and institution-wide levels, through the establishment of representative committee structures, transparency in decision making, genuine consultative processes, and open channels of multi-directional communication. Staff members should also be willing to participate in these structures and processes, and have a responsibility to keep themselves informed about various guidelines, regulations, and procedures.*

Teaching, Research and Professional Development

- *Universities should insist on an optimum level of student intake, under current circumstances, to address workload problems; Provide institutional support for mentoring programs; institute starter grants and ' Innovation Grants for Junior Scholars'; increase research and conference grants; forge research linkages with other institutions in Africa and abroad, as well as with governments and the private sector*

Salaries and Benefits

- *Institutions should work towards a reasonable improvement in the working conditions (salary and non-salary) of staff, because this is likely to result in more than proportionate levels of job satisfaction.*

- *It is necessary to implement some system of differential rewards. This is inevitable, if certain academic fields are to attract and retain staff.*

- *Universities should maintain, or institute, non-salary benefits such as tuition waivers/remissions, preferential admission for staff and their families, and access to childcare and primary school facilities provided by their institutions.*

Role of Governments, the Private Sector, and International Partners

- *Governments should increase financial support to universities; International and private sector efforts at strengthening the research infrastructure in African countries should be mobilized; African universities should continue to cooperate among themselves in ways which give them the ability to share resources and draw from the synergies that collaboration among scholars brings; the large number of graduates, from African universities, living abroad should be mobilized, through alumni and other networks, to support library acquisitions for their home institutions.*

Staff Retention in African Universities:
Elements of a Sustainable Strategy

INTRODUCTION

The African continent faces a huge challenge in terms of skilled human resource capacity, which has a debilitating effect on its ability to make strides in the areas of socio-economic and political development. While various efforts have been made to address the problem, there seems to be little progress, due to a variety of reasons, particularly, the inadequate investment in education and other training programs. Thus, while the World Bank, for example, made significant investments in capacity building initiatives in several countries during the 1990s, these initiatives have not generated sustained human capital benefits for the countries. To make matters worse, even the narrow high skill base that exists is being eroded at a very fast due d1 Tw [(0.re.9 atedu seversor eitical)]TJ0.0007

significantly towards reducing poverty and building stable, less dependent, and self-sustaining societies. There is no question that higher education has a tremendous role to play in the attainment of all eight Millennium Development Goals (MDGs). Tertiary educational institutions are the key for 21st century-appropriate capacity building within countries. Without the necessary attention and resources devoted to making them viable contributors to human development, all the other MDGs will just be mirages (see Nunn, 2005, p. 5).

It is encouraging that the World Bank has come to the realization, albeit late, that the neglect of higher education spells doom not only for other levels in the educational structure, but for meaningful human development. In all societies, developed and developing, any compromise of the higher education system is positively correlated with the level of other dimensions of human development (Ndulu, 2004, p. 5). As Jozef Ritzen (2002, pp. 2-3), Vice-President of the Human Development Network of the World Bank, acknowledges:

> Good quality tertiary education is an important avenue towards nurturing the teachers needed for universal primary education, the experienced doctors, nurses and community workers needed for better water and health facilities, the accountants, economists, and journalists required for better private business and better governance.

In order for higher education to develop the above capacities, it must ensure that its own capacity is well-developed. Bowen and Schuster (1986, p. 1) correctly point out that "the excellence of higher education is a function of the people it is able to enlist and retain on its faculties." This fact, combined with the benefits, discussed below, which can be gained from very good tertiary institutions makes it imperative that African universities are well staffed in order to generate the quality needed for socio-economic and political development. Clearly, unless something is done to enhance the ability of these institutions to attract and to retain the requisite levels of academic staff, the situation can only get worse. Unsatisfactory working conditions of academics will only continue to push them towards the attractive lifestyles that they can enjoy in other countries or establishments outside of higher education.

The purpose of this study is to identify mechanisms for university staff retention that are feasible in Africa under currently severe financial constraints, and to gauge their effectiveness in offsetting the risk of staff loss commonly associated with capacity building efforts in Africa. It is also worth mentioning that the primary mandate of this study is to seek non-salary solutions to staff retention problems. There is a tendency to assume that problems with recruitment and retention can be solved only through salary-based interventions. As Provencal (2002) notes, "the leading assumption that lies behind proposing salary-based solutions to the problems of recruitment and retention is that since the problems are market-driven, they are also salary-based." But evidence suggests that non-salary-based solutions can, in many cases, make up for concerns that are generated by inadequate salaries (Provencal, 2002). Thus, our main purpose in this study is to come up with measures that can be implemented within the tight economic context of African countries. Consequently, we hope to make recommendations that are feasible and action-oriented. The recommendations will outline what has to be done and how it needs to be done. This does not mean, however, that we will shy away from salary-based solutions where they are necessary. In sum, the study seeks to:

- identify worldwide good practices for mitigating brain drain in higher education institutions that are relevant to the African context;

- identify mechanisms established by African universities to confront this problem and analyze their effectiveness; and

- recommend cost-effective policies, measures or actions that are likely to improve university staff retention in Sub-Saharan Africa. The outcome is expected to be a menu of affordable measures that universities (and similar public institutions) can draw upon in their efforts to boost staff recruitment and retention.

Although the objective of this study is to understand factors that militate against academic staff retention and to find feasible mechanisms for addressing the problem, it should not be assumed that turnover is necessarily a bad thing or that retention for its own sake is inevitably positive. As Dee (2004, p. 593) points out, "some degree of turnover is inevitable and perhaps desirable, [although] high rates of faculty turnover can be costly to the reputation of an institution and to the quality of instruction." Our focus here is on what Park et al. (1994) define as dysfunctional, as distinct from functional, turnover. In this definition, dysfunctional turnover occurs when an organization loses good performing employees, whereas functional turnover results from the loss of poor performing employees. Whereas the former is generally inimical to the organization if appropriate replacements cannot be found, the latter might, in fact, be a positive development which gives the organization an opportunity to invigorate itself by finding a more capable substitute.

It is also important to recognize the relationship between recruitment and retention. Whilst this report focuses on retention, it is clear that whatever steps are taken to address it will, *ipso facto*, have a significant effect on the universities' ability to recruit new academic staff. Prospective staff will get a sense of whether they want to spend their careers at these institutions based on their assessment of the conditions under which current staff works. The extent to which the recommendations are implemented will also determine, to a large extent, the quality of the professoriate that will be replacing extant staff. If remedial measures are not appropriately applied, the best and brightest will likely seek better environments where their potentials will not only be recognized and appropriately rewarded, but be fully harnessed. Should this happen, the universities would be left with a relatively mediocre group of full-time academics and or part-time instructors, a situation that will erode their ability to serve as centers of academic excellence and an important factor in their countries' socio-economic development (see Imenda, et al., 2004).

The report is organized as follows. It starts with an analysis of the brain drain and its impact on human capacity building. This provides a context for larger issues pertaining to the loss of skilled professionals of which academic staff loss is a sub-category. The discussion helps to demonstrate the similarities in the forces driving these phenomena, and hence the applicability of the recommendations to other organizations, both public and private. This is followed by a discussion of the global problem of academic staff retention and its African manifestations, as we explore the extent of the problem in, and its impact on, the continent. The next section reviews the literature on employee retention in order to provide a framework for analyzing the issue of retention in the case study institutions. The report then provides an explanation of the research methodology, findings and discussion, and concludes with some recommendations, examples of good practice, and closing remarks.

BRAIN DRAIN AND ITS IMPACT ON HUMAN CAPACITY BUILDING

Socio-economic and political developments, in combination with processes of globalization, and the space-time compression that has come with developments in the area of information and communication technologies, have contributed towards the flow of highly skilled individuals from one end of the world to the other. Our purpose in this section is not to delve too deeply into the

causes of the brain drain, since that has been extensively covered elsewhere. Rather what we propose to do here is to provide a context that shows the relationship between the phenomenon and capacity building efforts in sending countries.

The burgeoning literature on brain drain categorizes its causes mostly into push and pull factors. The former is driven by such concerns as economic constraints, political turmoil or intolerance, as well as social and psychological pressures (see Nunn, 2005; Tettey, 2002). In addition to these push factors, industrialized countries are attractive to many professionals from poorer countries for a variety of reasons which constitute the pull factors. These include the promise of economic success or political sanctuary. These pull factors have been facilitated by the increasing shortage of skilled labor in the North.

> A 1998 report by the Information Technology Association of America estimated …
> 190,000 unfilled core information technology positions. Just two years later, however, that
> same organization predicted that there would be demand for 1.6 million general (as
> opposed to core) IT workers in the United States in the year 2000 and that half of those
> positions would go unfilled. This study estimates the gap at 843,328 unfilled information
> technology positions (Demers, 2002, p.1).

Notwithstanding recent economic downturns which proved these predictions to have been a little overstated, the fact remains that a huge gap exists between demand for IT professionals and their availability in the US and other industrialized countries. Similar deficits in skilled labor are noticeable vis-à-vis other professions. It is expected, for example, that the shortage of nurses in the United States will top 800,000 by 2020 (Department of Health and Human Services, 2002), while in the United Kingdom it is expected that the numbers will be 78,000 by 2010 (Physicians for Human Rights, 2004, p. 52).

In the face of skilled labor shortages, developed countries are devising subtle strategies to address the problem with commensurate injections of professionals from other parts of the world. Consequently, "while the world export/GDP ratio has increased by 51 percentage points between 1990 and 2000 …, the total number of foreign-born individuals residing in OECD countries has increased in the same proportion (51%) over that period, a figure that jumps to 70% for highly-skilled migrants against only about 28% for low-skilled migrants" (Docquier and Rapoport, 2005, p. 3). Among countries that have put in place incentive policies that specifically target such professionals are Canada, Australia and, more recently, the United Kingdom (see Tremblay, 2005). In 2000, Germany launched a program aimed at recruiting about 20,000 foreign professionals in the area of information technology (Solimano, 2002, p. 5).

As these policies take hold, two very interrelated processes are manifesting themselves: 1) sieving, and picking, the best skilled individuals from the developing world, by industrialized countries; and 2) the loss of skilled professionals from the former group of countries. Thus, "in all OECD countries, the proportion of skilled immigrants originating from low-income countries has increased, especially in North America, with a notable increase of highly-skilled immigration from Asian countries" (Docquier and Rapoport, 2005, p. 7). A large number of African professionals constitute part of this flow (see Buchan and Dovlo, 2004; Oyowe, 1996). The combination of skilled labor shortages and aggressive recruiting on the part of OECD countries has aggravated the African brain drain which had already been set into motion by a variety of push and pull factors (see Tettey, 2002; Tettey, 2003). According to the Global Commission on International Migration (2005, p. 24),

> Since 2000, … 16,000 African nurses have registered to work in the UK alone. Only 50 out of 600 doctors trained since Independence are still practising in Zambia. And it is estimated that there are currently more Malawian doctors practising in the northern English city of Manchester than in the whole of Malawi.

Docquier and Rapoport (2005) provide a list of the top 30 countries in the world that were most affected by the loss of their professionals to emigration in 2000. The list looked at these emigrés as a percentage of the total educated labor force in their countries of origin. Out of the total number of countries analyzed, nearly half (i.e., 14) were African, with the proportion for Somalia and Ghana standing at 58.6% and 42.9%, respectively (Docquier and Rapoport 2005, p. 9). In 1998, South Africans composed the largest group of foreign dentists in the United Kingdom. In 1995, degrees from the University of Witwatersrand were the most represented qualification in London's financial districts and on the boards of the London Stock Exchange's top 100 companies, after those from Oxford and Cambridge (Bhorat et al., 2002, p. 19). In a 1998 study by the Southern African Migration Project (SAMP), over two-thirds of a sample of skilled workers indicated that they had considered emigrating, citing "general dissatisfaction with the cost of living, the level of taxation, safety and security, and the standard of public and commercial services in South Africa" (Bhorat et al., 2002, p. 2). It is estimated that 41,496 professionals might have left the country between 1989 and 1997 (Bhorat et al., 2002, p. 13), with South African doctors comprising 9.7% of foreign-trained doctors practising in Canada (Ndulu, 2004, p. 2; see also Grant, 2004). In 1997 alone, about 1,000 management staff left Zimbabwe (cited in Tettey, 2002).

Based on the average ratio of expenditure on tertiary education per student in Africa in 1995, which was about five times the global average of 77 percent of GNP per capita (Lucas, 2005, p. 127), it is obvious that the financial cost of emigration to these countries is enormous (see also Carrington and Detragiache, 1999). Furthermore, these migration patterns are occurring in the context of already severe shortages of human capital in Africa, thereby depriving the continent of essential resources needed for socio-economic development. It is estimated, for example, that

> [a]bout 38 of approximately 47 countries in sub-Saharan African countries do not meet the WHO recommended minimum of 20 physicians per 100,000 population. WHO recommends at least 100 nurses per 100,000 for the least developed countries; about 17 sub-Saharan countries have 50 or fewer. According to the latest data, which ranges from the 1990s through 2002, 13 sub-Saharan countries have five or fewer physicians per 100,000 population (Physicians for Human Rights, 2004, p. 17).

In Ghana, the vacancy rates for doctors increased from 43% to 47%, between 1998 and 2002, while the rates for registered nurses catapulted from 26% to 57% during the same period, mainly due to emigration (Dovlo, 2003, p. 2).

It is clear from the foregoing discussion that Africa is losing, in significant numbers, a fundamental factor in socio-economic and political development – i.e., its intellectual capital. Even though there are "no systematically collected, consistent and verifiable statistics about the monetary cost of the brain drain to Africa ... [p]roxy measures have … been adopted to give us a sense of the value of human capital that developed countries, in particular, are gaining at the expense of Africa and the repercussions for the continent" (Tettey, 2002; see also Odunsi, 1996).

Drawing from the US Congressional Service's 1971-72 assessment that the United States gained $20,000 a year on each skilled immigrant from the developing world, Oyowe (1996) extrapolates conservatively that Africa lost more than $1.2 billion of investment on the 60,000 professionals who left the continent between 1985 and 1990. He believes that UNCTAD's valuation of each

African professional migrant at $184,000 is probably closer to the loss that the continent makes per individual, taking into account the investment that went into their training and the spin-offs that that investment could have generated. In addition to directly contributing to socio-economic development, skilled labor injects other multiplier effects or externalities that are critical to the overall progress of their societies. These include paying taxes, the synergies that are derived from working with each other, providing significant complements to the productivity of low skilled workers particularly in the context of developing countries, and attracting foreign direct investment (See Docquier and Rapoport, 2005, p. 3). In South Africa, the emigration of professionals is estimated to have cost the country about 8.4 billion rand in tax earnings between 1994 and 1997 (Tettey, 2002).

The New Partnership for Africa's Development (NEPAD) – the most comprehensive initiative aimed at facilitating the region's socio-economic and political progress – explicitly mentions a need to "reverse the brain drain" in its framework document. This recognition among African leaders underscores the magnitude of the problem and why addressing it is crucial to the continent's development. Putting in place mechanisms that ensure the nurturing of intellectual potentials, and providing the environment that sustains them, are vital to the development and maintenance of a competitive edge in the global market place of ideas. The offshoots of such ideas are socio-economic and political development.

As the processes of globalization take shape, it is becoming abundantly clear that full, effective, and beneficial participation in the world economy that is emerging will depend, in no small measure, on the ability of societies to build and take advantage of their human resource capabilities. In the absence of such capabilities, African countries cannot expect to compete at any appreciable level with their counterparts, not only in the industrialized world, but also from other developing areas which have made the investment and developed the relevant capacities. A well-developed human capacity base is not only an asset that enables countries to promote forward-looking ideas, initiate and guide action, and build on successes; it also makes those countries attractive destinations for investment and intellectual collaboration, both of which, if managed appropriately, will lead to positive returns. A solid higher education base is crucial for such transformation to take place. As Bloom (2002, p. 3) points out:

> If developing countries aspire to catch up, higher education can be a fundamental instrument for speeding that process. Learning how to access ideas and technologies developed elsewhere and put them into practice – skills that higher education is uniquely well-suited to build – can enable developing countries to garner the benefits of globalization without the laborious and costly process of discovery.

The almost cliché case of India and its software engineering industry is still an apposite exemplar of what a well-developed, -resourced, and -managed tertiary education sector can provide, as well as the multiplier effects that can emanate from it. "Over 80,000 people work in Bangalore's high-tech industry – many of them products of the city's 100 research universities and technical colleges. IBM, Intel, Microsoft, Oracle and Sun Microsystems have all either set up software development centers or established links with local firms so that they can take advantage of India's supply of well-trained computer graduates" (Bloom, 2002, p. 3).

While the literature on brain drain from the developing world tends to point to the industrialized world as the beneficiaries, it is important not to lose sight of the nodes of attraction within the developing world as well. This is illustrated in the Southern African context, where Lesotho had only 1,839 nurses listed in its medical and dental register in mid-1998, while many of them flocked to South Africa to take up positions because of better salaries and working conditions (Bhorat et

al., 2002, p. 18). Another dimension of the brain drain that is not discussed much, but which is very relevant to the sustainability of academic institutions, in particular, is the internal brain drain. This refers to movements of highly skilled professionals away from institutions of higher education to other sectors within the same country. The reasons for these outflows from academia are varied, but largely economic. In fact,

> [a]cademic staff are also lured away by a variety of government agencies, where salaries are often better and the working environment more comfortable. In many cases, the salaries and benefits in universities are lower than comparative positions in and outside of the civil service. For instance, a comparative salary analysis in Ghana in 1993 revealed that salary levels in sectors such as energy, finance, revenue collection, and the media were all higher than those of the universities (Teferra and Altbach, 2004, p. 42; see also Scientific and Industrial Research and Development Centre, n.d.; Effah 2003; Tettey and Puplampu, 2000, p. 84).

These realities erode the capability of academic institutions to build the human capacity needed for socio-economic and political development in other areas of society. While individuals who move to other organizations may contribute to the specific activities of that organization, their departure from academe means that the synergies that come with a group of academics working together is diminished, and the impact and scope of knowledge production and dissemination is lessened.

The distinction between the internal and external brain drains helps to explain why the literature on the African brain drain to the industrialized world is very skewed towards the exodus of professionals in medicine and nursing. Mainly because of the quality of training that nurses and doctors receive, it is relatively easier for them to get accreditation and be absorbed into the health systems of the industrialized countries, than it is for their counterparts in other fields who are currently domiciled in Africa. Furthermore, the host countries' need for African health professionals is higher than their need for professionals in the other fields, such as engineering, computer science, and management. This is partly because of questions, and skepticism, about the quality of training in these fields. Professionals in the non-medical fields, therefore, tend to gravitate more to the more lucrative opportunities within their countries or sub-regions.

Having assessed the relationship between brain drain, in general, and capacity building, we now turn to the specific case of how the brain drain affects the ability of academic institutions to retain their staff and to sustain their intellectual activities. The next section looks at the issue in a global context and then focuses on the situation within African institutions of higher learning.

GLOBAL PROBLEM WITH ACADEMIC STAFF RETENTION

The problem of academic staff retention is a global one which affects both developing and industrialized countries. The difficulties within OECD countries are well documented. In the United States, for example, about 7.7% of all full-time academic staff left their institutions for other places within one academic year – from Fall 1997 to Fall 1998. Of these, only 29% were retirees; the remaining 71% left for a variety of reasons (National Center for Educational Statistics, 2001). A 2000 survey of full-time faculty members in the US showed that more than 40% of them had contemplated changing careers (Sanderson et al., 2000). In Canada, it has been argued that one of the challenges that universities will face over the next decade or so is academic recruitment and retention (Carleton University, 2000; The Laurier Institution, 2000). Similarly, "it has been suggested that early in the 21st century there will be a crisis in Australian higher education with an estimated academic labour shortage of 20,000 if this trend is not addressed" (Mathews, 2003, p. 313).

Professional education in the health sciences has been particularly hard hit. Laskin (2000) laments the problems of recruitment and retention facing oral and maxillofacial surgical departments in the United States, and attributes the reasons to lack of adequate remuneration, frustrating red tape, and long working hours. He argues that the situation has degenerated to the point where there is the possibility of the "inability of some programs to comply with the faculty requirements for accreditation, the risk of residents being inadequately trained, and the failure of our specialty to maintain its record of significant contributions to the surgical knowledge base" (Laskin, 2000, p. 129). Similar concerns have been expressed regarding academic radiology departments, as well as medical and dental schools in the United States (US) and the European Union (Trotman et al., 2002; Vydareny, 2004; van Assche, 1999). According to Trotman et al. (2002, p. 2), the vacancy for academic staff in US dental programs had reached about 300 by 2002, leading to a declaration of a crisis situation by the American Dental Education Association and the American Association of Orthodontists.

Less specialized fields are also struggling to retain academic staff. In a study of accountancy and finance faculty in the UK, Brinn et al. (2001) notice reluctance on the part of professional staff to enter academia, because of the steady decline in academic salaries, compared to salaries in business and other professional jobs. Partly because of this trend, a gap has emerged between professional and academic accounting, which "may lead to the content of university accounting education being seen of less and less relevance

In Malawi, a shortage of teachers in nursing colleges was one reason for these colleges' low student uptake in the early 2000s. The University of Zimbabwe reportedly stopped admitting new pharmacy students because of a lack of lecturers, many of whom had left the country (Physicians for Human Rights, 2004, p. 66).

Ghanaian universities and polytechnics have staff vacancy rates of 40% and 60% respectively (Effah, 2003). In Nigeria, two-thirds of its 36,134 academic staff positions remain unfilled (Jibril, 2003). Tettey (2003) points out that "by 2000 the University of Ghana's medical school had lost about half of its teaching staff. Not only is the country's health care system suffering from a lack of skilled physicians, but the diminished faculty is also unable to train sufficient numbers of future medical officers" (see also Ghanaweb, 2001). In the case of Nigeria, all but one federal university have just half of their teaching staff complement at post, with some registering understaffing rates of 70 per cent (Obasi, 2001; see also Chikuna and Madungwe, 2000).The size of university faculty in Cote d'Ivoire dwindled from 828 in 1995 to 412 in 2000 (Houenou and Agbo, 2003). Evidence from South Africa suggests that many departures from higher educational institutions are caused by emigration, which accounts for 22% of such losses (Human Resources Research Council, 2003). In fact, the country's Human Sciences Research Council (2004) estimates that 17,000 professionals in the fields of science and technology emigrated between 1994 and 2001.

The impact of staff shortages on graduate training, which is the principal mechanism of replenishing the professoriate, is worrisome. The sustainability of the graduate program in agriculture at Ethiopia's Alemaya University is dependent on expatriate staff, because it is difficult to attract experienced and qualified nationals. In fact, "since the early 1990s, the University has been employing expatriate instructors through funds obtained from the World Bank and the UNDP. This situation has forced students to work with expatriate research advisors who have experience in undertaking research under conditions different from those in Ethiopia and concerned often with non-Ethiopian agricultural problems" (Belay, 2004, p. 63).

Another disconcerting trend is the small number of graduate students being produced by African institutions. Part of the reason for this is the lack of resources to maintain significant graduate programs, but the unattractiveness of academic jobs, because of unappealing salaries is another factor that does not excite students to enter the existing programs. At the University of Ghana, the graduate student population stands at 5.25% (Ayee, 2005). According to Budree (2005), postgraduates accounted for 37% of total graduates from South African institutions in 2002; "however, only 1% of these graduates were at the doctoral level and 9% at Masters." This means that most graduate students are not choosing an academic career, which implies that the existing stock of academics are not being replenished at a rate that is capable of sustaining their operations at optimal levels. It is not surprising, therefore, that in South Africa, only 15% of research is being produced by academics under 40 years of age (Human Sciences Research Council, 2004).

In the absence of strong graduate programs, the main option for many students is to pursue graduate training abroad. Whilst senior administrators see the value in sending these individuals abroad to gain skills that are not available in their countries, promote technology transfer, and build intellectual networks, they are also concerned about the reality that they may not return after all the investment that has been made in them. As Tremblay (2005, p. 197) notes,

> several OECD countries relaxed their immigration laws to attract qualified and highly qualified foreigners, including students, to sectors where there were labour shortages. From a host country's perspective, student mobility appears as a potential flow of qualified workers, either in the course of their studies or through subsequent

recruitment. As a matter of fact, study abroad can be a part of a deliberate immigration strategy from the perspective of students.

Many institutions are negatively affected by the fact that some African students, who are studying abroad, or current faculty members, who are sent abroad to pursue further education, do not return because of the pull and push factors outlined above (see Kupfer, et al., 2004; Belay, 2004). A study by Pires et al. (1999), for example, revealed that the return rate among African doctoral students in the health sciences, at Canadian and US schools, was 44%. Teferra (2000, p. 3) also asserts that none of the 20 academic staff of the Physics Department at the University of Addis Ababa, who left for further studies, mainly in the US, have returned.

It is becoming common for staff members, who go on other kinds of leave (not just study leave), not to return to their posts or delay doing so for as long as they can. The University of Ghana's Acting Director of Human Resources revealed the extent of this phenomenon in the following words:

> 'Leave of Absence,' 'Study Leave' and 'Sabbatical Leave' have become the exit routes for many of the lecturers. The school's records show that there are currently, 59 senior lecturers either on leave of absence or sabbatical, while 69 are on study leave ranging from two to five years. This brings the total to 128 lecturers absent from the classrooms. University sources told Public Agenda that, study leave or sabbatical leave has become the best excuse for lecturers quitting the classrooms for good. The sources say evidence of lecturers returning from leave of absence is nothing to write home about (Ghanaweb, 2005)

The human resource problems of African universities are made worse by the fact that the existing complement of academic staff is overwhelmed by the huge expansion in student enrolments that has occurred over the last few years. In South Africa, enrolment in tertiary institutions went up by 200,000 between 1995 and 2002, while the number of permanent academic staff went down from 36,847 in1995 to 32,061 in 2002 (Department of Education, 2002). Obviously, if significant numbers of the 'best brains' are leaving their countries of origin, without commensurate or appreciable levels of replacement, the quality of education, training and, consequently, service delivery will inevitably deteriorate.

Beyond the regular push and full factors discussed in the literature, concern is growing about the impact of health-related issues on the capacity of African institutions, a development which warrants attention. Teferra and Altbach (2004, p. 44) note that

> The challenges to capacity building in African institutions also emanate from health-related problems. Recent studies indicate that the impact of HIV/AIDS has taken its toll on the academics and students, and the scourge of this disease on African academic institutions is massive. The levels of sickness and death among faculty members from this disease have added to the teaching, financial, and administrative burdens already facing the rest of the academic community (Teferra and Altbach, 2004, p. 44; Kelly 2001; Partnership for Higher Education in Africa, 2005, p. 12).

Before we examine these retention issues in the specific context of the case study institutions, and learn what is being done to address them, the next section will discuss some of the relevant conceptual and analytical approaches which have been used to analyze staff retention, in general, as well as in the specific context of academic institutions. An understanding of these approaches and frameworks is helpful in guiding the design of our research instrument and providing us with the appropriate tools for analyzing the data.

EMPLOYEE RETENTION – CONCEPTS AND ANALYTICAL FRAMEWORK

In a study that examined the work life of three sets of probationary faculty in one university, Johnsrud and Heck (1998) emphasized three variables that shape the lives of academics, and subsequently compel them to leave their institutions. These are: attacks on their professional priorities; lack of confidence that their institutions will support and defend their personal and professional interests; and deterioration in their quality of life. According to the authors, it is important to use these variables as a basis for assessing, and following, trends in employee work life, if one is to create the right environment for academics to function.

In a related study, Johnsrud and Rosser (2002) focus on the relationship between faculty members' perceptions of their work life and retention, and conclude that those perceptions affect morale which, in turn, has an impact on the decision to quit their careers or institutions. Drawing from Johnsrud and Rosser's framework, Rosser (2004) explores the link between perceptions of work life and satisfaction, instead of morale, and its effect on intentions to leave. She operationalizes work life, in the context of her study, to include issues such as professional development, administrative support, committee and service work, and technical support.

Vanderberg and Nelson (1999) suggest that most turnovers in organizations emanate from a lack of satisfaction. Dissatisfaction could be due to a lack of psychological fulfillment in the job, perceptions and realities of non-commensurate remuneration, and an unwelcoming climate within the organization. This dissatisfaction, and the resulting decision to leave, can come at a significant cost to the organization, which includes the loss of skilled individuals and their expertise, disruption in the operations of the organization until appropriate replacements can be found, and difficulty in attracting new employees if the reasons for the departure of former employees are such as make others unwilling to work for the organization (Cascio, 1991; Trevor, Cerhart, and Boudreau, 1997; Murray and Murray, 1998). Retention issues are also influenced by pull-factors which derive from the larger environment within which the current organization operates. These factors can take a variety of forms, including offers of better remuneration and working conditions from similar organizations or others which need the skills of the individuals concerned (see Caplow and McGee, 1958).

Other models for explaining employee decision to stay in, or leave, an organization derive from expectancy theory (Lawler, 1994). The foundational premise of this framework is that employees "enter work organizations with expectations and values, and if these expectations and values are met, they will likely remain a member of the organization" (Kim et al., 1996, p. 949). The framework has both a structural and a psychological dimension. Among structural expectations are autonomy, support for innovation, and appropriate levels and forms of communication. Various authors have highlighted the importance of autonomy as a determining variable in employee turnover (see Lawler, 1994). Autonomy is valued because it means that employees have latitude in deciding how they do their work, are able to provide independent input into decision making within the organization, and are unencumbered by bureaucratic impediments.

Support for innovation is characterized by an environment that enhances professional development and is receptive to new ideas, insights, and ways of doing things. Appropriate levels and forms of communication among the network of employees who constitute the organization is crucial in providing a sense of belonging, appreciation, involvement and, hence, commitment on the part of those employees. In the absence of the right communication framework, there is likely to be an information deficit and a gap in participatory interaction, both of which could compel employees to become dissatisfied and, hence, leave (Scott et al., 1999, p. 404). "Mechanistically skewed

organizational designs and rational-legal authority relationships may produce demoralization among professionals who expect to have a voice in organizational decision making" (Dee, 2004, p. 597). An apposite summary of the importance of the right structural framework for employee satisfaction and retention is provided by Stockard and Lehman (2004, pp. 744-745) in the following statement:

Studies of minority faculty satisfaction also show that while the majority group may be content with structures and processes, minority groups may not because the status quo is not responsive to their needs and experiences (see Weems, 2003; Potgieter, 2002). Inattention to the human side of organizational development (e.g., emotions and aspirations) has been known to create trauma, feelings of betrayal and mistrust, long after structural transformation has taken place (Becker et al., 2004; Hay and Fourie, 2002).

What can be determined from the above discussion is the fact that there can be no mono-causal explanation of worker (dis)satisfaction and measures that promote or hamper staff retention. Any analytical framework should recognize that each variable is "part of a larger organizational culture and dynamic that involves the cumulative and joint influence of a wide variety of variables" (Stockard and Lehman, 2004, p. 763) that may be internal to the organization or external to it. In our study, therefore, we adopt Rosser's (2004) structural equation modeling which simultaneously defines multidimensional constructs such as work life, satisfaction, and intent to leave and their interrelationships. Our research instrument is designed to allow us to probe work life issues such as appointment and promotion; governance and organizational climate; research and teaching expectations; remuneration; respondents' levels of satisfaction with these; and the overall interrelationships among these variables and staff retention.

METHODOLOGY

Five African universities were selected for case-study analysis, and each case study was carried out by a staff member from the selected institution under the supervision of the Study Coordinator. In consultation with the campus researchers, a common data collection instrument was developed for use in these case studies. The study is largely qualitative in order to capture the nuances, subjectivities, and explanatory basis for subjects' responses. Quantitative measures are used where necessary, such as to determine pay scales, number of individuals at each rank who are at post, etc.

In the study, we focus on particular fields of expertise. These are health sciences, engineering, business, economics, and computer/ information science. Research on the brain drain suggests that these are the areas most affected by, and vulnerable to, the brain drain in Africa. In South Africa, for example, natural scientists/engineers, information technology specialists, and health professionals constitute a large portion of skilled workers who are lost to other countries (Bhorat et al., 2002). Those in the fields of business and economics are also attracted to non-academic jobs by the relatively higher salaries and other benefits that they enjoy either by working in-country with other institutions outside academia or by going abroad. Notably, Blair and Jordan's (1993) study of several African universities, undertaken a decade ago, disclosed that these fields register relatively higher vacancy rates than others. Whenever possible, it will be useful to compare current trends with that benchmark study to see why the situation does not seem to have changed over the ensuing period. The solutions that emerge out of this study can then be applied, in appropriate ways, to other fields of expertise within universities and public institutions.

While this report focuses on particular fields of study in assessing the issue of academic staff retention in African universities, it is important to point out that this is not meant to devalue the relevance of other fields to intellectual endeavor and human capacity building for development. We do acknowledge that education cannot be reduced to occupational training, but should rather be seen as a synthesis of experiences and knowledge acquisition which emphasizes critical thinking, communication competence, a broad spatio-temporal, comparative, and interdisciplinary approach to issue conceptualization and problem-solving. This means that administrators and policy makers should not limit interventions seeking academic staff retention to only those fields of study which

are defined as high-demand within current competitive global markets. Such an approach will erode the core intellectual, ethical, moral, and critical compass that shape the extent to which current high-demand fields can ensure the development of human society that is ethically sound, sustainable, and caring.

Criteria and Rationale for Choice of Case Study Institutions

Our choice of institutions was guided by a several considerations. First, we wanted universities which had programs in, at least, three of the areas of academic focus that we have identified (health sciences; engineering; economics and business; information/computer science). This would make the study logistically convenient in terms of time, costs, and consolidation of research efforts. Secondly, we chose institutions that had achieved some success in staff retention or made a commitment to staff retention over the last few years. Their experience was expected to be useful in providing guidance about feasible interventions as well as indications of challenges that need to be addressed.

Furthermore, we wanted to ensure regional balance in the case studies, as well as diversity in the socio-economic status of the countries selected. This is helpful in order to avoid a skewed sample, and hence an uncritical homogenization of policy interventions in a situation where we are looking for appropriate and workable solutions. The variation in socio-economic status is very important in retention. How that factor plays out in the appropriateness of different policy interventions will, therefore, be useful to note. Finding out about the efficacy of retention strategies, across this range of countries/institutions, will be useful in devising feasible mechanisms for the broad range of settings inhabited by African universities.

To ensure a representative sample of institutions, we selected three institutions from low income countries and two from upper middle income countries (as classified by the World Bank). Since majority of sub-Saharan African countries fall into the low income category, a larger representation for institutions in this category seemed appropriate to capture as much variety as possible, so that the study results can be extrapolated, and made relevant, to a larger and diverse number of countries. Comparison with the middle income countries enables us to determine the extent to which staff retention policies are influenced by socio-economic status of countries and helps to identify common 'good practices' that may not be based on economic factors *per se* (eg., salaries), thereby making them appropriate for the circumstances of many institutions that are operating under significant financial constraints.

We then selected institutions across the above two groups which represented two types of institutional sizes – medium and large. This is important because student populations have an impact on the environment in which academics work and, depending on how they combine with other factors, may affect the level of staff satisfaction, as well as turnover decisions and trends. Medium and large-size universities are operationalized, respectively, to mean ones with student populations between 10,000, and 30,000, and those with populations over 30,000. Finally, as much as possible, we selected institutions that meet all of the above criteria and were part of the 1993 study by Blair and Jordan entitled *Staff Loss and Retention at Selected African Universities*. Using those institutions allows us to compare trends over the last decade.

Based on the preceding criteria, the following institutions were selected for the case studies:

1) University of Botswana :
- - It is located in an upper middle income country
- - It is a medium-size institution with a student population of about 15,000

- It offers programs in all the areas of academic focus identified for the study
- It was part of the Blair and Jordan study referred to above

2) University of Kwazulu-Natal (UKZN)

- It is located in an upper middle income country
- It is a large-size institution with a student population of over 42,000
- It offers programs in all the areas of academic focus identified for the study
- Even though it was not one of the institutions in the Blair and Jordan (1993) study, it is interesting to study for various reasons, including the following:
  o In the context of South Africa's apartheid past, efforts by this university toward inclusiveness could provide a basis from which other institutions could draw lessons regarding fair, equitable, and inclusive policies that have implications for their ability to retain members of groups that have traditionally been marginalized (eg. women, people with disabilities, etc).
  o The relationship between its staff retention practices and its ranking as one of a handful of African universities ranked among the top 500 universities in the world is worth exploring
  o The processes that led to the January 2004 merger of the former University of Natal and the University of Durban-Westville into the University of Kwazulu-Natal provided a good opportunity to give fresh thought to issues surrounding staff retention which will be useful to learn from.

3) Makerere University

- It is located in a low income country
- It is a large-size institution with a student population of over 35,000
- It offers programs in all the areas of academic focus identified for the study
- It was part of the Blair and Jordan study referred to above

4) University of Ghana

- It is located in a low income country
- It is a medium-size institution with a student population of over 27,000
- It offers programs in all the areas of academic focus identified for the study
- It was part of the Blair and Jordan study referred to above

5) University of Ibadan

- It is located in a low income country
- It is medium-size institution with a student population of about 20,000
- It offers programs in all the areas of academic focus identified for the study
- It was part of the Blair and Jordan study referred to above

Data Collection Methods

Self-administered survey questionnaires were distributed to all academic staff in the targeted disciplines, at each of the selected universities, who did not hold administrative positions (i.e., were not heads of department, deans, provosts, pro-Vice Chancellors). They were anonymously completed. In all cases, except UKZN, the local researchers distributed hard copy questionnaires to respondents. The UKZN used a web-based electronic format, to which research subjects were directed. Even though the questionnaires were, by and large, the same in terms of the issues to which views were sought, we allowed some flexibility in their construction to ensure that they

made sense in the specific context of particular institutions, and that inapplicable questions were not included.

In fact, one of the advantages of involving local researchers, who are conversant with realities on the ground, in the design of the instrument, was to ensure that the study resonates appropriately within the case study institutions while maintaining coherence with the larger study. For example, if they thought that some of the information sought in the standard instrument, was so obvious as to make it ridiculous, they had the option to remove them, in order not to make the instrument unnecessarily long and irritating! We employed other means to get that information. Thus, while it may sound ridiculous to ask someone at UKZN, whether he/she has access to a phone in his/her office (because it is a standard provision), we tried to capture that information from another source so that we are still able to compare situations across the various institutions in order to see what impact such a facility might have on staff satisfaction, especially in those institutions where access to such facilities is not the norm. The part of the standard questionnaire that deals with job classifications and units were also appropriately adapted to the nomenclature in each individual institution in order to make sense to research subjects.

In addition to the surveys, personal interviews were conducted with some department heads, deans, and provosts in charge of the units representing the targeted fields of expertise, as well as pro-/deputy Vice-Chancellors, Vice-Chancellors, and presidents of faculty associations. The focus, as far as this group is concerned, was to understand the basis for university policies pertaining to academic staff; the reasons for any disconnect between policies and the realities/concerns of academic staff; what icies(t5(w))6(were ar.126 i0.0007pI90011 Tc 0..0937 of etiontionti.aitiese oherence wci

requests for interviews was very poor, and so we decided to use the workshop as an opportunity to get a second chance at incorporating their views.

Response Rates and Demographic Structure of Respondents

The survey response rate at the University of Ghana was 20.14%, with 29 people returning the completed questionnaires, out of the total of 144 that were distributed. At the University of Botswana, the response rate was 16.2%, with majority of respondents being expatriate staff. At UKZN, 221 people responded out of a potential target of 1,170, giving a response rate of 19%. The return rate at the University of Ibadan was the highest, at 62%, representing 85 respondents out of a potential 137.

Majority of respondents across all institutions were male. This reflects the general picture in all institutions where there are more male than female staff. For example, of the 766 full-time staff at the University of Ghana, only 150 are female. The distribution in the case study units, among full-time staff, was as follows: College of Health Sciences – 29 out of 192; Business School – 3 out of 39; Economics – 1 out of 20; Computer Science – no female. It is useful to note that in all institutions the response rate varied by unit. For example, at UKZN, only 4% of potential respondents in Engineering returned their questionnaire, compared to 25% in Health Sciences. By and large, however, the responses were similar. This may be due, mainly, to the fact that all the disciplines selected for the study share certain common attributes; i.e., they are high demand fields with relatively better potential for absorption by other employers in the public and private sectors, at home or abroad. In those cases where disciplinary or demographic background affects responses significantly, they are noted in the report.

Limitations of the Study

Many respondents thought the research instrument was too long, and that its highly qualitative nature made completion tedious. Some potential respondents were, therefore, discouraged from completing it, in view of other pressures. It must be noted, though, that they had several weeks within which to complete and return the instrument. While we acknowledge that the instrument is long, it is important to point out that all participants at the workshops agreed that the questions contained in it were relevant for the purposes of achieving the research objectives. While an overly quantitative focus may have made it easier for research subjects to complete the questionnaire, we did not want to lose some of the nuances, subjectivities, and explanatory basis for the quantitative data. Other academic staff refused to respond because of skepticism that the findings will not lead to any substantive improvements in their lives.

The survey at UKZN coincided with annual salary negotiations which, at the time the study was conducted, were not proceeding smoothly. The parties had reached a stalemate and industrial action was being contemplated. Emotions were running very high and there was a lot of unhappiness over the issue which could have influenced the responses. Also, responses may have been affected by the fact the University of KwaZulu-Natal (UKZN) is in effect, a University that was only 18 months old at the time of the survey, as a result of the 2004 merger of the former University of Natal and the former University of Durban-Westville. Many of the problems and staff confusions about university policies have a direct correlation with the changes introduced by the merger.

At the University of Botswana, majority of respondents were expatriate staff who, as will be pointed out below, are dissatisfied with the impact of the university's localization policy and its impact on their status. The high representation of this group, may therefore skew the responses in a direction that is more unfavorable than will have been the case if the respondents were representative of the make-up of the total academic staff body. We, however, made up for this

limitation by triangulating the research methods to include interviews with some administrators, as well as analyses of relevant policies and documents. The campus workshop also helped situate the responses from expatriate staff appropriately.

The relatively low response rate at the University of Ghana, in absolute terms, could be attributed, in part, to the fact that the University had been hit by an examination leakage scandal around the time the survey was conducted. The scandal had implicated some highly-placed officials, thereby diverting the attention of many academic staff and, indeed, senior administrators from much else.

The above limitations notwithstanding, the demographic characteristics of respondents from the four of the five institutions were fairly representative to the extent that various ranks, genders, and age groups were reflected in the sample. The only exception was the University of Botswana where survey responses were skewed in favor of expatriates. As noted above, our goal was to get an overall picture of retention issues in the institutions and efforts aimed at addressing them. Thus, even though larger sample sizes would have been preferred, we do not think that the essential elements captured through the responses that we had access to are undermined by the size of the sample that we worked with. Furthermore, the response rates, relative to the target population, are statistically acceptable. Apart from the University of Botswana, there is no consistent pattern in terms of differences between those who responded and those who chose not to which will suggest that the results would have been dissimilar from those obtained. Even in the case of the University of Botswana, the campus workshops allowed us to incorporate the views of indigenous staff in a way that complemented the survey responses. By and large, the opinions expressed by expatriate staff were shared by their indigenous colleagues, with the exception of those relating to employment status and benefits. It is worth noting, as illustrated in Table 1, that the number of expatriate staff in three of the four fields targeted for this study is significant enough to accord their views an important place in discussions about that institution.

Table 1: Number of Expatriate and Indigenous Staff – University of Botswana

Field	Expatriate Staff	Indigenous Staff	Total
Business/Economics	23	26	49
Health	0	13	13
Computer/Information Science	16	25	41
Engineering	34	48	82

A caveat is, however, in order. While appropriate measures have been taken to ensure the credibility of the findings contained in this report, it is important to understand that the results reflect the views of those who responded. Therefore, extrapolations from, and generalization of the findings to other contexts have to be done with caution and recognition of the scope of the study.

At all the institutions, it was difficult to obtain reliable data on such issues as position allocations, vacancy rates, average salaries per rank, and resignations and retirements. This was because such information does not seem to be consistently and systematically compiled. The absence of dependable data which track staff retention trends made it difficult to correlate some of the measures taken to curb staff attrition and their impact on attrition. Resource and time constraints also limited exploration of some other pertinent issues. These include comparative salary scales across universities and other institutions in the public and private sector; the absorptive capacity of the countries' economies to take in those who wish to leave the universities; and their implications for staff retention. It will be useful for future studies to delve into these areas.

FINDINGS AND DISCUSSION

In order to design appropriate interventions for stemming the brain drain in universities and to promote higher recruitment and retention rates among academic staff, it is necessary to understand the current situation within the institutions, in terms of staff concerns, measures that have been instituted to address retention problems, and how successful they have been. This context will help identify specific, and continuing, areas of concern as well as good practices which will help us come up with suggestions for targeted interventions which are responsive, appropriate and feasible.

Recruitment Challenges and Retention Problems

In all the institutions, clear evidence was found that various units were operating far below their capacities. The extent of the problem is captured in the following statement by the Acting Director of Human Resources and Organizational Development (HROD) at the University of Ghana:

> the university currently has 734 [full time] lecturers supervising over 27,000 students. The university's minimum standards require a teaching staff of 1,800 to adequately meet the needs of its ever growing student population. This leaves the university with a staff deficit of 1066. The teaching staff shortage is so frightening that currently, one lecturer supervises 37 students, instead of 15. What it means is that out of the 734 lecturers, 238 [sic] (comprising those on leave of absence, sabbatical and those recalled) are not effectively teaching. Realistically, there are only 606 lecturers in the classrooms (Ghanaweb, 2005).

The situation in each of the target units and disciplines reflected the institutional picture. They all indicated that they have difficulty recruiting staff at the same time as some of them are losing those they have. Ten members of staff in the Economics department at the University of Ghana, most of whom were of the rank of senior lecturer have, for example, resigned in the last three years, mostly to take up positions with local and international organizations outside of academia. In those departments where there is no significant attrition, the problem of recruitment is nevertheless a reality. They cannot compete with other institutions because, as one senior lecturer intimated, "compared with our colleagues in other public institutions in the country, what lecturers receive as salaries are peanuts" (Ghanaweb, 2005). The University of Botswana, which has been quite successful in attracting and retaining staff, is beginning to see its attractiveness as an employer eroded, and is looking at a future which could be more challenging. This is a departure from the past where "at the lecturer level salaries are very high, and markedly better than those available in both the public and private sectors" (Blair and Jordan, 1993, p. 53). The Engineering Faculty at UKZN depends largely on expatriate staff, because South African nationals with the requisite qualification prefer to work in other organizations where they earn significantly more. The recruitment problem, in all cases, is compounded at senior levels, because the services of individuals at the rank of Associate Professor and Full Professor, in the target disciplines, are in high demand in a competitive job market. The University of Botswana, for example, has been unable to fill the position of Professor of Accounting and Finance for almost a decade.

In other cases, the academic units have to depend on large numbers of part-time staff. The targeted disciplines at the University of Ghana, for example, altogether had 267 full-time and 128 part-time staff. In the College of Health Sciences, about a third (91) of the staff members at post (283) were part-time appointments. The high number of part-time staff provides an interesting insight into the recruitment and retention problems at the institutions. The part-time appointees are largely people who would have qualified for full-time appointment anyway, and so the situation goes to buttress the point that people are choosing positions outside of academia because of the better conditions of

service. However, the fact that they are still interested in academic jobs, albeit on a part-time basis, might suggest that better employment conditions in universities might attract these individuals to take up full-time employment. In addition to the general trend where recruitment has stalled because scholars are not attracted to the universities, the situation at the University of Ibadan is compounded by demand-side problems. Because of funding difficulties, its Council placed an embargo on academic staff recruitment a while ago, so that the University could afford to pay the salaries and allowances of existing staff. Even though the embargo has been lifted, recruitment is still restricted to a few critical areas.

Notably, the appointment process in some institutions is unnecessarily cumbersome, tedious, and time-consuming. Thus, applicants may end up taking up appointments elsewhere, before the process is over, and so may turn down offers by the university. The process at the University of Ghana, which seems to be the most tedious, vividly illustrates what is described above:

> For one to apply for appointment one needs to fill an application form, which is not online, but collected from the Registrar's Office. The applicant fills the form and submits 12 copies along with the 12 copies of curriculum vitae and certificates to the Registrar's Office. On receipt of the application, the Registrar forwards it to the appropriate Dean's Office for consideration by the Faculty Appointments and Promotions Review Committee (FAPRC). The Dean also sends the application to the appropriate head of department and writes to the three referees for reference on the applicant. The head of department circulates it among staff for comments. This circulation of the application can take not less than four weeks especially when staff do not respond to the floated document early enough. The head of department then forwards the department's view on the application to the Dean who puts it before a meeting of the FAPRC made up of the Dean as chairman, a representative of the cognate faculty and one representative each from various grades with the head of the applicant's department in attendance. After the FAPRC meeting, the application is sent to the Registrar's Office who prepares it for the Appointments Board consisting of the Vice-Chancellor, Pro-Vice-Chancellor, the relevant and cognate Deans, relevant and cognate department and two assessors, one each from the Humanities and Science. Some of the respondents indicated that the composition of the Appointments Board can be intimidating as one is not informed ahead of its composition. While the application is being processed by the Registrar's Office, the applicant gives a seminar or demonstration teaching before the faculty. The comments for the presentation are forwarded to the Appointments Boards before the interview of the candidate. The candidate is also required to call on the Dean of the Faculty for interaction and the views of the Dean are sent to the Appointments Board. After the interview of the applicant a letter is sent to him/her offering [or refusing] him/her the job (Ayee, 2005)

This is an overly cumbersome and needlessly time-consuming process, which sometimes takes close to a year to complete, with significant potential for losing prospective staff members.

A corollary to the recruitment problem is the fact that all the units studied have to contend with the reality of an aging professoriate. In fact, in a number of cases, units are being sustained by retired academics. At the University of Ghana, for example, 110 of the 734 academic staff (15%) are on post-retirement contracts. In fact, 50.3% of full-time staff members are over 50 years of age, while only about 15.01% of them are below 41 years old (University of Ghana, 2005, pp. 16-17). The situation among respondents at UKZN is illustrated in Table 2.

It is noteworthy that, across all the institutions, the number of academic staff that had actually sought other jobs, or received offers, across all institutions, was very negligible. This suggests that most of the academic staff think that they have chosen the right professions and will remain in it, unless conditions were unbearable.

Findings from the case studies point to the fact that academic staff at the junior ranks (i.e., assistant lecturers and lecturers) are more likely to leave than their more senior counterparts. This corroborates findings by Caplow and McGee (1958), which attributes this pattern to the fact that mobility is maximized by the potential for promotion among the junior ranks and minimized for the senior ranks because of the protection provided by tenure. The findings also reflect studies in the United States where assistant professors, instructors, and lecturers were more likely to leave their positions for jobs outside of academia than were full professors (see also Dee, 2004, p. 602; Stockard and Lehman, 2004; Hansen and Huggins, 2001). Since conditions across all the public universities in Africa are similar, except in South African where they are highly differentiated (Kubler and Roberts, 2005, p. 11), moving to another institution is not much of an option. Furthermore, specialization among institutions means that there may not be many programs in one's area of specialization at other universities. While the emergence of private universities is providing new opportunities, many academics from the public institutions prefer the security and reputation of the established universities, even as they undertake part-time work at the private ones. Moreover, most senior academics, who are approaching retirement, have already invested time and resources in their current positions (e.g., pensionable years), and are not willing to start all over again somewhere else.

Although the data suggest that universities are finding it difficult to attract younger academics and that those academics in this demographic group are the most likely to leave their posts, another interesting dimension to the data is worth highlighting. Evidence indicates that some academic staff, approaching the decade prior to retirement, get very anxious about the financial trepidations that tend to accompany retirement. As noted by respondents at Makerere, "what happens to people when they retire has not been a good testimony to people who may want to stay longer in this University." They, therefore, make decisions about quitting academia in good enough time and taking up positions that are better paying and are more likely to enable them to accumulate enough to ensure a more comfortable retirement, even if they do not get a large pension (see also, Blair and Jordan, 1993, p. 55). According to Budree (2005)

> There was concern that many mobile academics (good teachers and researchers) aged 50-60, worried about their future prospects and financial situation were seeking employment locally and internationally at universities which could guarantee them a later retirement or a retirement date at their option. In the period between 2000 and 2003 a total of 70 academics resigned from the University of Natal. Of these 13 were professors, 5 Associate Professors, 26 Senior Lecturers and 26 Lecturers.… In 2004, post merger, a total of 73 academics (permanent or on contracts of longer than 2 years) resigned. This represents 4% of the total academic staff.

Overall, there is no gainsaying that academic staff retention is a very serious concern. It appears, though, that recruitment is an even bigger challenge.

Promotion and Permanent Appointment/Tenure

Variations in requirements for promotion were documented among staff across the five universities. But in each case, the majority of respondents thought these requirements were unreasonable. At UKZN, for example, the norm seems to be one recognized peer-reviewed journal

article per year. The University of Ghana appears to have settled on six peer-reviewed articles, as a minimum benchmark for promotion from one rank to the next. Some respondents were of the view that research output was recognized, for purposes of promotion, but was not sufficiently rewarded between promotions or after one attains the rank of full professor. According to them, this is a disincentive to publish beyond what is necessary to get promoted.

Some institutions require that those seeking promotion beyond the position of a lecturer should possess a doctorate. UKZN, for example, has decided that promotion to the rank of senior lecturer and above requires, without exception, a doctorate degree. Makerere also requires that those teaching in the Medical School must have a PhD in order to be appointed. A number of faculty members, particularly those in professional fields such as medicine and management, are dissatisfied with these requirements. They argue that a doctorate is not necessary for them to deliver the quality of instruction and research that is required in their fields of expertise. In their view, this requirement will only discourage people from coming into academia or remaining in it, particularly since they could earn more outside of universities without the extra years of schooling needed for a doctorate, and the pressures to publish that come with academic positions.

There were widely-held views amongst respondents that the criteria and procedures for promotion and permanent appointment were long, stressful and cumbersome. For example, some complained that their appointments are held up for inordinately long periods of time because external assessors delay in submitting their evaluations. Several respondents further opined that information about changes to the procedures is not well communicated to staff. Consequently, applicants for promotion are compelled to deal with new rules at the last moment. Furthermore, frustration was expressed concerning inconsistencies and rigidity in the application of the criteria. According to some respondents, even though teaching is said to be an important consideration in promotion decisions, the reality tends to be that research gets weighed much more heavily. The views expressed by staff at UKZN, in Figure 2, reflect the overall assessment of the value accorded teaching in the case study institutions.

Figure 2: (Dis)Agreement with Statement that Efforts in Teaching are Recognized and Rewarded at UKZN
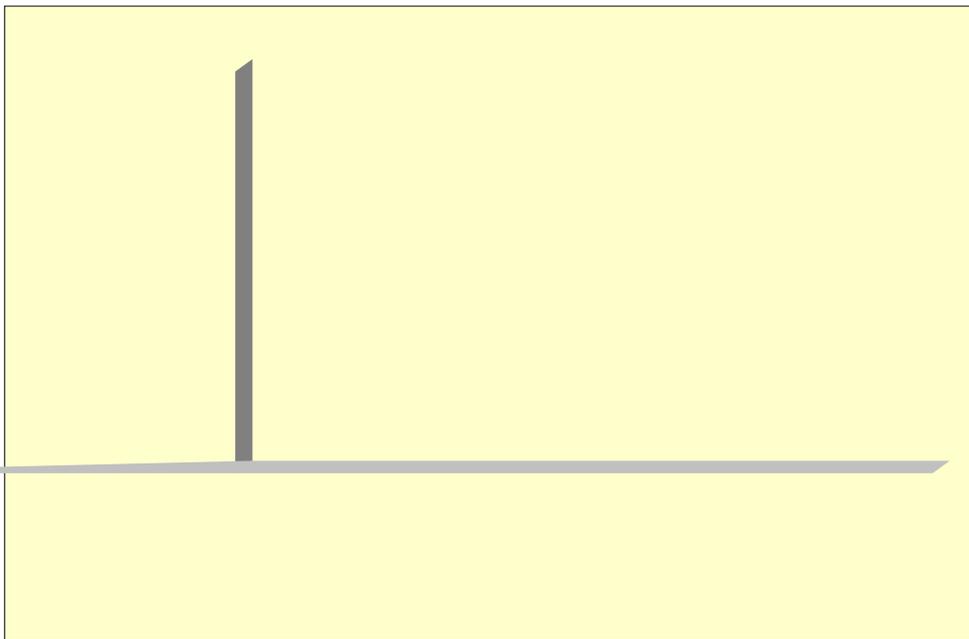
A respondent at UKZN complained that "undergrad teaching is our primary objective; it keeps UKZN running financially; yet academics are not rewarded sufficiently for this." At the UKZN Medical School, over 81% of respondents said that even though their job requires a lot of service work, with little time for research, that fact did not seem to be taken into account, thereby disadvantaging them when it comes to promotion. It is instructive to note that while a majority of respondents below the rank of senior lecturers tend to think that the criteria for promotion are not reasonable, most of those at those at professorial levels thought otherwise. Obviously those who have made it successfully through the selection process are more likely to evaluate it positively.

Generally, academic staff complained about the inordinate bureaucratic red-tape that tends to surround promotion and appointment processes, without enough attention given to guiding them through this maze. Many respondents at UKZN felt that the Heads of Schools themselves did not know the criteria and procedures and that they misinformed applicants. Nevertheless, there seemed to be a general view that the criteria were clear and evenly applied. Allegations of favoritism were, however, leveled against some heads of department/school, who were thought to wield too much power regarding promotions. The foregoing allegations corroborate an earlier study where Tettey and Puplampu (2000, p. 91) disclosed that some

> faculty intimated that even though they had published enough scholarly work to make them eligible for promotion, they have not been given the due recognition. When we brought this complaint to the attention of the Dean, he remarked that these young lecturers were rushing to get promoted, when it took some senior faculty, like himself, over twenty years to get to the level of Associate Professor. His advice to the junior faculty, therefore, was that they should exercise patience ... [thereby creating] a structure of academic gerontocracy.

It was clear across all the case study institutions that Human Resource Units could play a more constructive role in efforts at enhancing academic staff satisfaction and retention (see Teferra and Albach, 2004, p. 31). It appears that access to definitive information on promotion is a problem for many academic staff which leads to frustration, stress, a feeling that no one cares about their situation, and dissatisfaction with their institutions. Furthermore, delays in providing feedback or taking action on a variety of matters produce similar effects.

Whilst some of the concerns expressed above are genuine, it also appears that misperceptions may arise regarding promotion and tenure processes which come from a lack of effort on the part of academic staff to consult the relevant guidelines. For example, the University of Ibadan went through an elaborate process of revising its appointment and promotion guidelines, which was widely publicized. Nevertheless, some of the respondents seemed unaware of the changes. The University of Ghana also published and distributed university statutes regarding appointment, promotion and tenure to all of its academic staff in 2004, but some respondents did not seem to know the relevant processes and procedures.

Institutional Governance and Workplace Climate

The nature of governance within an institution goes a long way in influencing satisfaction or lack thereof among academics, and could trigger a decision to leave (Bowen and Schuster, 1986; Clark, 1987; Task Force on Higher Education and Society, 2000; Fourie, 1999). Consultation with, and participation by, academics in decision-making help them feel part of the organization and give them a sense of ownership in the outcomes of those decisions. Generally, academics are likely to leave an institution where they feel that their autonomy is compromised, their desire for innovation is not supported, and collegiality a mirage (see Barnes et al., 1998; Johnsrud and Rosser, 2002). In effect, the nature of the institutional climate within which these academics work will strongly influence the extent to which they are willing to remain at an institution.

Respondents voiced grievances about structures and processes of governance within their institutions. The criticisms were mostly directed at university-level administrators and systems of authority and control. The findings are similar to those by Onwunli and Agho (2004, p. 413) who observe that 74% of academic staff in Nigeria's federal universities were dissatisfied with the way their institutions were governed. Some unit heads were accused of being dictatorial, insensitive and unresponsive to the needs of their colleagues. While participants from some institutions said they have opportunities to contribute to initiatives such as Strategic Plans, about half of those at UKZN felt that their input was perfunctory, and did not affect what for them was a *fait accompli*. In some units, such as the UKZN Medical School, respondents claimed that their input into curriculum matters was minimal, at best, and mostly ignored by management.

In some institutions, respondents were unhappy about the fact that they have no hand in the appointment of heads of department. This was the case at the University of Ghana, where heads are appointed by the Vice-Chancellor on the recommendation of the Dean, and the position tends to rotate among the professorial cohort or the next senior group of academic staff. On the other hand, a significant majority of respondents at the University of Botswana and Makerere were content with the appointment process and believed that they played an important role in the selection of their heads of department.

The findings reveal that benefits can be generated by devolving some decision-making authority to units, instead of centralizing everything at the top. Devolution helps expedite action on issues and gives the units the latitude to be innovative in ways that are germane to their particular circumstances. The introduction of the College system at the University of Ghana, for example, has helped to improve on bureaucratic tardiness. The College of Health Sciences and the College of Agriculture and Consumer Sciences have their own finance and appointment and promotion committees, as well as Academic Boards which can make decisions in these areas without reference to the central structures. The College of Health Sciences now has authority to appoint lecturers without reference to the university's Appointments Board. Consequently, appointments and promotions are easier and faster, thereby reducing the frustrations that attend the centralized system. At Makerere, the limited devolution of authority on academic matters (e.g., developing new programs) has allowed units to be creative in generating revenue, and building mutually beneficial linkages with the private sector, the community, and civil society groups.

As pointed out above, collegiality is an imperative condition for building mutually sustaining networks of academics within an institution, thereby promoting productivity, efficiency and effectiveness (Coates, 2000). In the words of Bowen and Schuster (1986, p. 55), it is characterized by a "congenial and sympathetic company of scholars in which friendships, good conversation, and mutual aid can flourish." The absence of such an atmosphere might reflect authoritarianism on the part of leaders, and can easily foment distrust among colleagues, leading to a lack of confidence in institutional structures, procedures and processes, all of which do not augur well for retaining staff. Respondents from one unit at the University of Ghana, for example, disclosed that they are compelled by their head of department to be in their offices throughout the day, even when they are not teaching or having office hours. This makes it difficult for them to pursue their research which, in that unit, requires being in the field. According to them, the restriction, largely explains the low level of research productivity in the unit. The perceived heavy-handedness of the unit head has, therefore, bred anger, resentment, tension, and a drop in morale.

It appears that smaller departments in the sample tend to exhibit a lot more collegiality that their larger counterparts for reasons such as higher levels of familiarity and more regular interaction. Evidence was also adduced to the effect that collegiality tends to be common in areas where the head of the unit makes a concerted effort to promote a congenial and convivial atmosphere. When units heads are seen as uncaring and unapproachable, and where perceptions of favoritism exist, collegiality suffers. At UKZN, racial differences continue to strain relations among colleagues. The situation in South Africa is, not surprisingly, always complicated by the racial factor. Some minority staff at UKZN felt discriminated against because of their race, while white staff alleged reverse discrimination in the context of affirmative action and transformation processes taking place at their institution (see Fourie, 1999, p. 287; Bhorat et al., 2002, p. 3). Tensions are also observable at the University of Botswana between expatriate and citizen staff. As the university's localization policy takes hold, expatriate members of staff who have contributed significantly towards the development and consolidation of staff capacity at the institution, feel that they are being increasingly sidelined or dispensed with, and their benefits eroded. They are not happy with the fact that they cannot be offered permanent appointments and have to live with the anxiety and instability of two-year or five-year contracts for lecturers/senior lecturers and Associate Professors/Professors, respectively. The university is, thus, losing some of them to institutions in Namibia and South Africa which are willing to offer them more permanent appointments. It is refreshing that, by and large, in all institutions, respondents of both sexes did not think that they or their colleagues were discriminated against because of their gender. There was only minimal reference to such instances, mainly by female faculty.

Teaching, Research and Professional Development

Workload

McGee and Ford (1987) found a negative correlation between teaching loads and academic staff retention. In Africa, demand for higher education has increased tremendously, with implications for staff workload and satisfaction. From an estimated 600,000 students in 1980, the number of students enrolled in Africa's universities had increased to 1,750,000 by 1995 (Sawyerr, 2002, p. 13). Université Marien N'gouabi in the Republic of Congo saw its enrolments soar from 3,785 in 1976 to 19,000 by 1997, while Nigerian institutions recorded a significant jump from 176,000 in 1989/90 to 376,000 by 2000 (Sawyerr, 2002, p. 14).

In the case study institutions, expanded enrolments, without a commensurate increase in the staffing capacity of universities to handle them, have resulted in an atmosphere that is not conducive to learning on these campuses, and to deterioration in the quality of instruction. The complaints about workload seem to center not so much on the number of courses that staff members teach, but more on the burden that is imposed by teaching large classes. Responses in Figure 3, which measured the extent to which staff at UKZN thought class sizes were reasonable, illustrate the point.

Figure 3: (Dis)Agreement with Statement that Class Sizes at UKZN are Reasonable
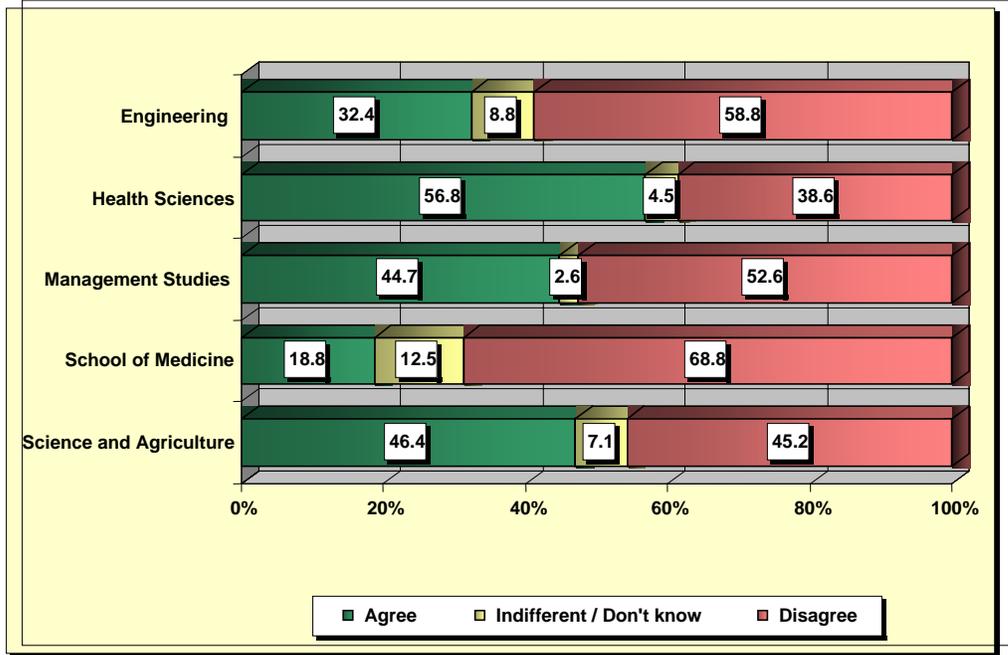
NB: UKZN collected additional data from academic staff in the fields of Science and Agriculture

At the University of Ghana, some instructors have over 500 students in several of the courses that they teach, including senior undergraduate seminars. It is worth stressing that Ghana's National Council on Tertiary Education has set lecturer to student ratios at 1:18, 1:10, and 1:8, respectively, for the Humanities, Sciences and Medicine. The reality is, however, way out of proportion to those ratios, with 734 full-time and 215 part-time instructors handling 27,414 students during the 2005/2006 academic year. With an overall staff : student ratio of 1:33, this makes marking, grading, supervision, and regular consultations with students, huge challenges indeed.

Ayee (2005) observes, in relation to the University of Ghana, that "in the Departments of Economics and Information Studies," which are considered to have some of the most popular courses, "most lecturers have 1,200 scripts of mainly essay questions to grade." They are expected to mark and submit the grades within four weeks of the completion of the examination, which turns out to be an onerous task, if at all possible (This works out to 43 scripts per day for 28 successive days). Some respondents at that institution complained that the time line for submitting grades has not changed from what it has been for decades, in spite of the astronomical rise in student numbers. The university has tried to compensate staff for the extra work, defined as scripts in excess of 140, by paying them 5,000 cedis (55 US cents) per additional script. However, the compensation policy, though well-intentioned, misses the point. Staff members' concern is not mainly, if at all, about compensation, but rather the heavy toll that the work load is having on them. At the University of Botswana, most respondents said that, until very recently, grades were due a week after examinations, a time frame that they considered unreasonable, with the significant rise in student numbers that they have had to deal with. Pressure from staff has led to an extension of the time frame by an extra week, and it remains to be seen if this will be considered adequate. The Computer Science department at UKZN has had to cut down on the number of courses that are taught, as a way of addressing staff work-overload. Staff members acknowledge, however, that this affects the quality of their academic program.

These concerns, from the case study institutions, are shared by colleagues in other institutions across Africa. Describing the situation at one Ethiopian university, Belay (2004, p. 58), remarks that there is a "shortage of experienced and qualified professionals who could serve as research advisors, resulting in some instructors supervising the M.Sc. thesis research work of large number of students." The Medical School at the University of Zimbabwe, which wanted to reduce its enrolment from 120 to 70 students, because of the fact that only 50% of the needed academic staff was available, is being compelled by the Ministry of Health to increase enrolment significantly above the pre-existing numbers (Physicians for Human Rights, 2004, p. 66). The use of political fiat, in these circumstances, fails to appreciate the impact of oversubscribed programs on quality of the educational experience for students, the quality of the graduates, the morale of academic staff, and ultimately on staff retention.

Respondents were very assertive in expressing concern about the impact of work load on their health and that of their colleagues. According to one respondent from UKZN, "the work load drove me to depression and I was booked off work." At Makerere University, several participants at the campus workshop linked the sudden deaths of several colleagues over the last few years to work-related stress. These scenarios are disheartening for academic staff. Their morale does not only plummet; the situation serves as a disincentive to stay in academia.

Teaching Resources and Facilities

Disenchantment was voiced in some institutions about inadequate facilities for teaching, which result in some students standing outside or sitting on stairs during lectures. As has been noted elsewhere,

> teaching and residential facilities now cater for multiples of the number of students for which they were built. For instance, the Université Chiekh Anta Diop (UCAD), built for up to 13,000 students, now hosts over 23,000, while Makerere University at 21,000 now has more than six times the number it had only 10 years ago. Not surprisingly, there are reports of students having to take lessons standing, for lack of seating space in the classroom, while in other instances, some students have to listen from *outside the classroom!* Libraries are … overcrowded (Sawyerr, 2002, p. 24; see also Afemikhe et al., 2002; El Badawy et al., 2002.

Respondents at some institutions, such as the Universities of Ghana and Ibadan, complained about their inability to have access to resources that they need for their work such as clerical/secretarial assistance, telephone service, personal computers, and the poor maintenance of facilities. Their colleagues at the University of Botswana, on the other hand, said that they received computers, printers, phones and, and free calls within the Gaborone area, as standard facilities. At the Computer Science Department of the University of Ghana, staff disclosed the lack of up-to-date computers and software needed for teaching. In fact, the situation is so bad that the Vice-Chancellor made a commitment to personally champion efforts to resource it so as to help it produce graduates who can compete with their counterparts anywhere in the world (Ghana News Agency, 2005). In contrast to the above situation, which makes it difficult to attract or retain staff, respondents from the Faculty of Science, at the University of Botswana, indicated that "it was generally easier for them to recruit at all levels because of the excellent teaching and research facilities and equipment they have" (Mokopakgosi, 2005).

One of the ways that institutions, such as the University of Ghana, are addressing the concerns expressed is through the levying of Academic Facilities User Fees on students. The proceeds are disbursed to departments to help them improve facilities such as staff offices, the purchase of

computers, and sliding blackboards and markers. Makerere has used its internally-generated funds to ease space problems by constructing new administrative and classroom structures. Institutions, however, need to be cautious in their enthusiasm to generate funds to the point where the business ethos overshadows their core academic mission of critical thinking, knowledge creation, and dissemination. It seems that in their zeal to become financially sustaining, some institutions might be commodifying knowledge to the point where instructors are exploited, and/or the quality of instruction and the learning environment are compromised to the detriment of students (see Puplampu, 2004). The following observation from Makerere, whose revenue-generating activities have been highly touted, is worthy of reflection:

> Without a doubt the explosion in student numbers has necessitated recruitment of more academic staff than never before. Yet many of the junior academic staff are paid by their respective Faculties where they are employed on a part-time basis. It has therefore become more difficult to retain these young and promising scholars when they have no security in the institution. Many of these younger staff complained that the university policy of tying recruitment to the establishment is very restrictive and forces Faculties to take up staff that they have no persuasion to retain. For example, there are 8 part-time staff in the Faculty of Computing and Information Technology, which is a very small number compared to the large student numbers in the various programmes. These few members of staff admit that they do not put in much effort due to job insecurity and should they get better offers in the job market, they would not hesitate to leave (Musisi and Ngobi, 2005).

Quality of Students

Beyond ballooning student numbers and inadequate facilities, respondents were frustrated by what they view as the relatively low caliber of undergraduate students entering their institutions (see Figure 4).

Figure 4: (Dis)Agreement with Statement that the Quality of Students Entering UKZN has Deteriorated
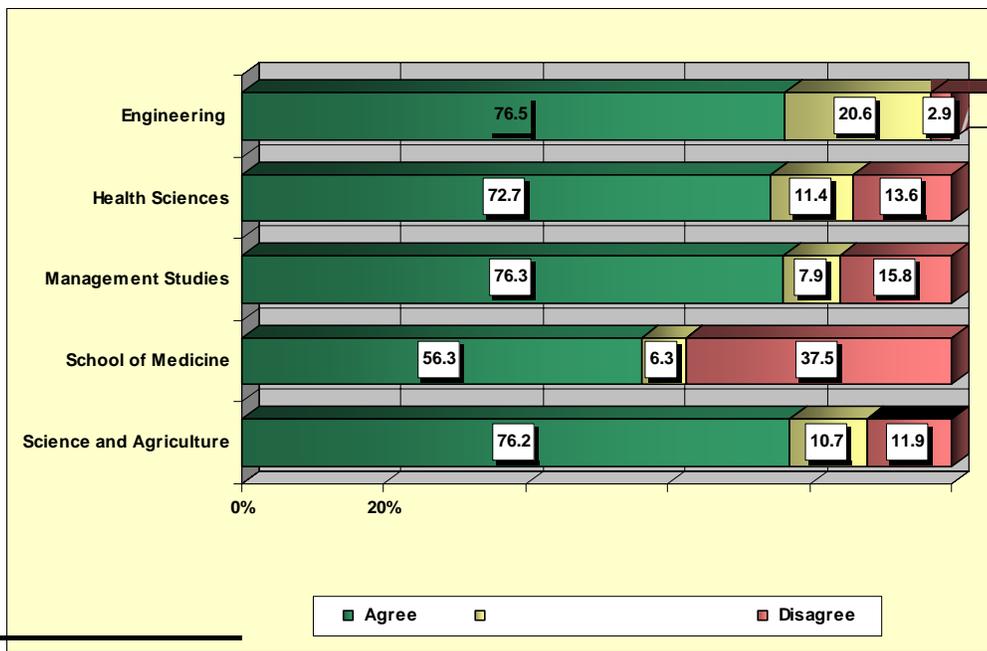
Some students who come into the universities with excellent high school grades end up not performing well, thereby raising questions about pre-tertiary assessment processes, and demoralizing their instructors at the university. Respondents at the University of Ibadan questioned the assessment procedures administered by the Joint Admissions and Matriculation Board (JAMB), and called for "a second assessment test as a significant number of students who were admitted with high JAMB scores were found unable to cope with academic work and were asked to withdraw after one year in the University" (Osasona, 2005). Employers are also beginning to question the poor quality of graduates coming out of the universities, a query which stains the reputation of the institutions, and, by extension, the standing of the academics in them (see Guardian, 2005; see also Saint et al. 2003).

Research

At UKZN, respondents were almost split as to whether research expectations were reasonable. Those who did not think they were, pointed to the huge teaching loads that they have to carry; the limited time they have to devote to research; and insufficient resources in terms of library holdings, limited internet access, dilapidated laboratory equipment, etc. (see also WHO-WFME Task Force for Accreditation, 2005, p. 2). According to the Vice-Chancellor at Makerere, "people who have trained abroad and have been working in good, well-equipped laboratories, find it hard to conduct research in our poor laboratories and working under stressful conditions." Respondents at the University of Botswana, on the other hand, were, overwhelmingly content with library resources and their ability to access data bases, journals, etc.

In response to some of the concerns reflected in the UKZN responses, several of the institutions are making efforts to improve research facilities for staff. Among these are the automation of the University of Ghana Library system and improved access to ICT by students and staff, through a US$1.67 million grant from the Carnegie Corporation of New York. Furthermore, a computer levy of 300,000 cedis (US$33) per student during the 2004/2005 academic year enabled the university to purchase an additional 600 computers for student use. Through the Makerere Library Information System (Mak.LIBIS), staff and students can now access over 7,000 electronic Journals. These are significant strides because, as Groves and Zemel (2000) argue, one of the most challenging tasks confronting academics is that of integrating information technology into their research and teaching.

Some academic staff were of the view that they were unappreciated by the larger society and their contributions unrecognized. These perceptions are demoralizing, as exemplified by the following statement from one of the respondents at Makerere, who lamented that:

> For many of us, it may not be the pay but recognition of achievement. For example I got a prestigious award by the American Biographical Institute (ABI) for professional contribution to society and was subsequently included in the contemporary world "Who is Who 2004", which is a significant reference volume published by ABI. But there was no recognition from Makerere University. Why?

Some of the case study institutions have teaching and research excellence award programs, but these are limited, in that only one is awarded across the university each year, or they are rotated among faculties each year, so that it takes a while for members of staff to have even a chance at winning them.

The University of Ibadan is trying to deal with the problem of unsatisfactory laboratory space and equipment by consolidating facilities. It has, therefore, commissioned a US$400,000 multi-disciplinary laboratory, with support from the MacArthur Foundation, which will be shared by various disciplines. Some governments have instituted innovative schemes that are directed

specifically towards supporting infrastructure development and research capacity in universities. One such scheme is the Ghana Education Trust Fund (GET Fund). It supports education at all levels, and is aimed at

> the development and maintenance of essential academic facilities and infrastructure in public educational institutions particularly, in tertiary institutions. … [and provides], through the National Council on Tertiary Education, grants to tertiary institutions, (i) to train brilliant students as members of faculties; (ii) to undertake research and other academic programs of relevance to national development; and (iii) to provide monies to support such other educational activities and programs for the promotion of education as the Minister in consultation with the Board may determine (GET Fund, n.d.).

Support to the Fund comes from an allocation that constitutes 2.5% of monies raised from the prevailing Value Added Tax in the country, but also from investments made by the Fund, and any other funds specifically allocated to the Fund by parliament. A similar scheme, the Education Tax Fund, operates in Nigeria. But in this case the fund is supported from a 2% tax imposed on companies operating in the country. These schemes are worthy of emulation by other governments.

Professional Development

Professional development is the engine that keeps universities true to their mandate as centers of ideas and innovation (UNESCO, 1998; Plater, 1995). Without efforts in this direction, intellectual capital can stagnate and the relevance of universities to society may diminish. It is, therefore, necessary for universities to support professional development by providing the necessary resources. For example, "[f]aculty members thrive on the intellectual and collegial stimulation from their peers when they attend professional activities and national [and international] research meetings" (Rosser, 2004, p. 287). Analyses of the literature regarding African institutions, however, suggest that insufficient resources are devoted to this important aspect of intellectual engagement and replenishment. A study of 17 South African universities and technikons, for instance, revealed the absence of a centralized strategy for academic staff development (Fourie, 2004, p. 287).

The situation in the case study institutions showed variations in professional development efforts. In general, respondents were dissatisfied with levels of support for research in their institutions. Among the complaints raised at most institutions were lack of assistance with grant proposal writing to both internal and external competitions; very limited internal research and conference funding; and scarcity of information about funding opportunities and deadlines. At the University of Ghana, 76% of respondents indicated that they do not have access to conference travel funds or external grants, and criticized the delay in getting conference funding, as well as the lack of clarity regarding criteria for awarding grants. They were also not satisfied with the US$500 maximum awarded for conference travel and the 25 million cedis (USD 2,700) maximum research grants received by successful research applicants. At Ibadan, a significant majority of respondents (over 65.9%) said grants were not easily accessible while 60% claimed that they were not fairly administered. It seems that concerns about access are due to the fact that the overall budget for grants is so small that it is thinly spread over a small number of recipients. Effah (2003) discloses that the US$1.4 million allocated to the University of Ghana to fund its ten research institutes in 2000 fell far short of what was adequate. The entire research budget at Makerere University for 1999-2000 was only US$80,000 (Musisi, 2003), a far cry from what is required to maintain an excellent research university. In contrast to their counterparts at the Universities of Ibadan and Ghana, 93 percent of respondents at the University of Botswana indicated that they had access to

conference grants although funding was not adequate. All of them also indicated that they had access to internal grants, and a significant number of them said that they had received them and that they were satisfactorily administered.

Some institutions have formal mechanisms in place which help with professional development among staff. UKZN's Center for Higher Education Studies offers short courses and workshops directed at enhancing professional development, as well as programs that provide opportunities for staff to pursue advanced degrees. The university is intent on appointing Staff Development Consultants who are located within particular faculties. The consultants, who will be retired researchers and teachers with a solid track record, will assist new staff to identify their needs and develop a career plan which will help them navigate promotion processes, strengthen research profiles, enhance teaching skills, and achieve proficiency in grant writing.

The University of Botswana has established a Center for Academic Development, which provides training programs in the use of technology in course delivery. It devotes a significant amount of resources towards training new academics and enhancing the professional development of existing staff. It does this through its Staff Development program, under which Staff Development Fellows are appointed and supported to pursue graduate degrees up to the PhD level at universities across the world. Not only does the program pay the fellows tuition and living expenses, but it also assists them with funding for conferences. Once they complete their programs, they are (re)absorbed into the university. The staff development program has been very successful in achieving the university's goal of localization, i.e. replacing expatriate staff with citizens, which has reached an overall mark of 50%, with some units exceeding the institution's targe ovs been vegenall m-8(arccessf)Tul,ith citlo ⊂

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and overall efficiency. Furthermore, Mathews (2002, p. 331) states that mentoring provides "an ongoing opportunity for more experienced academics to contribute to the development of future academic staff; giving something back to the university and the discipline. Involvement in a mentoring role could also provide experienced or 'jaded' academics with the challenge they need to increase their motivation" (see also Ehrich et al., 2004, p. 520). In places like South Africa, where the legacy of apartheid can be seen in the lower number of blacks in academic positions, mentoring can provide a very useful mechanism by which members of such an underrepresented group can be attracted to academia and encouraged to stay. The same goes for female academics.

While most respondents in the case studies were supportive of mentoring programs, they were less interested in participating as mentors, because it can be time-consuming without proportionate benefits. Some female respondents at the University of Ghana complained that "where mentoring has taken place at all, it has tended to give more preference to their male colleagues" (Ayee, 2005). This does not seem to be a conscious pattern of discrimination, but rather reflects the tendency within the larger society for mutual support to be generated more within, rather than across, genders. Consequently, in a situation where there are fewer female academics than males, junior female scholars tend not to have many female mentors to guide them in the informal relationships that drive the mentoring process within the institution.

The Leadership and Equity Advancement Program (LEAP) at the University of Kwazulu-Natal, is a commendable formal mentoring effort aimed at staff recruitment and development. It is designed to encourage "appointment to supernumerary posts on an initial three-year contract of suitably qualified, meritorious black and female lecturers" (Budree, 2005). These individuals are only placed in schools and departments which have upcoming openings, thereby ensuring that they can graduate to the permanent staff of the relevant unit. As LEAP fellows, the graduate students are supported by mentors, from their units, to develop their teaching and research careers, while they work toward their graduate degrees. Once they go through the program successfully, they are absorbed into the unit as permanent staff. Evidence in the case studies suggests that those who benefit from mentoring relationships and programs are more inclined to mentor others. Mentoring programs can, therefore, create a self-sustaining pool of mentors over time.

Salaries and Benefits

It has been established that salaries are a very important ingredient in ensuring employee commitment to an organization, particularly in times of economic distress and market competition

Figure 5: (Dis)Agreement with Statement "I am happy with the salary I receive" at UKZN
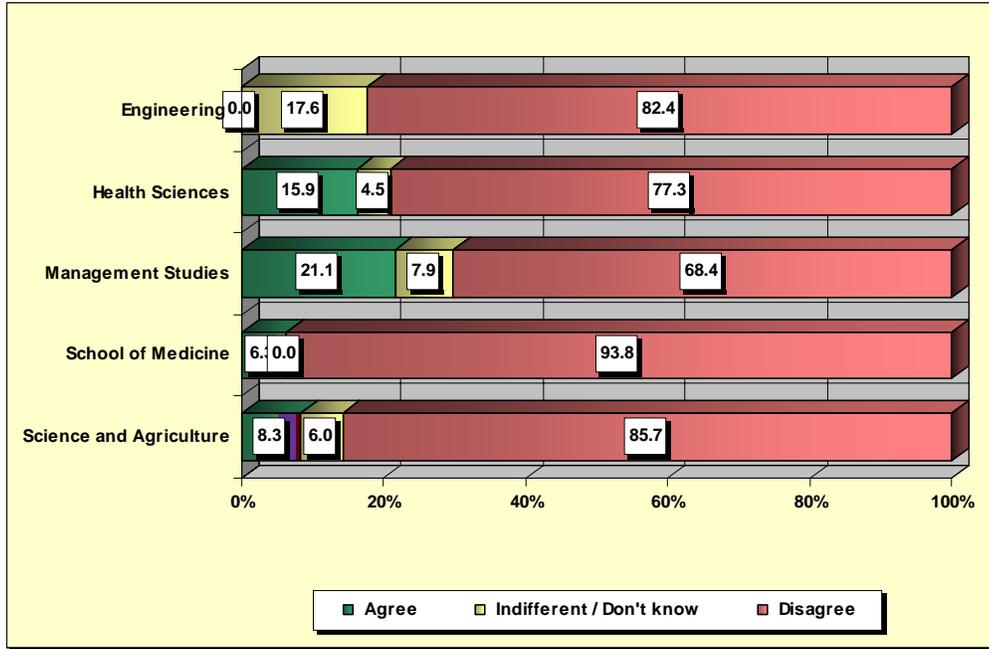
Across all institutions, most staff members considered their salaries to be inadequate, relative to the cost of living. At Makerere, the value of the basic salary eroded by 33% between 1996 and 2004. Even at the University of Botswana, where 76% of respondents said they were satisfied with their salaries, 53% of them said it was inadequate. They are obviously making a subtle distinction between what the institutions can afford to pay, under current economic circumstances, and the distortions imposed by market externalities. A comparison of academic salaries by rank in 1993 and 2005 is presented in Table 3 below.

Some institutions offer various allowances which supplement staff member's base salaries. At the University of Ghana, for example, staff members, irrespective of rank, get a book allowance of US$1,000 per annum; a research allowance of US$1,000 per annum; a monthly vehicle maintenance allowance of about US$17; a monthly off-campus allowance of US$28 for those who do not live on campus; a monthly professional allowance which is equivalent to 50% of the base salary. Those who live in university accommodation pay a relatively minimal monthly rent of about US$12, while their counterparts who do not live in university housing are paid an allowance of about US$80 a month. Thus, while the base monthly salary of a newly appointed lecturer and a full professor who are not accommodated in university housing are 3,043,371.80 cedis (US$338) and 4,606,592.00 cedis (US$512) respectively, their total remuneration per month, before tax, comes to 6,949,833.50 cedis (approx. US$772) and 9,294,661.3 cedis (approx. US$1032), respectively. The average total annual remuneration for academic staff members at three universities, for which data were available for this study, is provided in Table 4 below.

Table 3. Comparison of Pre-Tax Average Basic Salaries for Academic Staff by Rank, Year, and Institution (1993 and 2005)

Rank	Currency	Lecturer		Senior Lecturer		Associate Prof/Reader		Professor	
		1993	2005	1993	2005	1993	2005	1993	2005
Botswana	Pula Current	49,511	150,172	69,337	231,411	---	253,878	90,985	257,700
	Dollars Dollars	19,884	27,962	27,846	43,088	---	47,272	36,540	47,983
	PPP	30,185	57,470	42,272	88,559	---	97,158	55,470	98,619
Ghana	Cedi Current	1,674,987	38,239,451	1,969,477	44,272,807	---	49,608,890	2,459,292	54,330,336
	Dollars Dollars	2,787	4,249	3,277	4,919	---	5,512	4,092	6,037
	PPP	10,060	25,494	11,829	29,514	---	33,072	14,771	36,222
Ibadan (Nigeria)	Naira	20,625	390,527	26,125	532,794	---	569,806	37,725	653,236
	Current Dollars Dollars	825	2,789	1,125	3,806	---	4,070	1,509	4,666
	PPP	2,441	6,651	3,328	9,076	---	9,705	4,464	11,127
Makerere (Uganda)	Shilling	1,224,000	11,420,172	1,483,200	13,737,984	---	15,147,480	1,972,800	17,414,124
	Current Dollars Dollars	1,020	5,875	1,236	7,067	---	7,792	1,644	8,958
	PPP	4,647	33,074	5,631	39,785	---	43,866	7,489	50,430

Sources: Blair and Jordan, p. 30, for 1993 data; World Bank for purchasing power parity (PPP) data.

Table 4: Comparison of Average Pre-Tax Basic Salary and Pre-Tax Total Annual Remuneration by Rank, Year and Institution (2005)

Rank	UNIVERSITY OF GHANA		UNIVERSITY OF IBADAN		MAKERERE UNIVERSITY	
	Basic Annual	Total Annual (Including Allowances)	Basic Annual	Total Annual (Including Allowances)	Basic Annual	Total Annual (Including Allowances)
Lecturer	C38,239,451 (USD 4,249)	C83,397,996 (USD9,266)	N390,527 (USD 2,789)	N434,335 (USD 3102)	Sh11,420,172 (USD 5,875)	Sh18,306,252 (USD 9,417)
Senior Lecturer	C44,272,807 (USD 4,919)	C94,609,210 (USD 10,512)	N532,794 (USD 3,806)	N707,008 (USD 5050)	Sh13,737,984 (USD 7,067)	Sh22,635,816 (USD 11,944)
Associate Professor/ Reader	C49,608,890 (USD 5,512)	C102,613,335 (USD 11,401)	N569,806 (USD 4,070)	N885,382 (USD 6324)	Sh15,147,480 (USD 7,792)	Sh27,475,140 (USD 14,133)
Professor	C54,330,336 (USD 6,037)	C 111,535,932 (USD 12,393)	N653,236 (USD 4,666)	N974,010 (USD 6957)	Sh17,414,124 (USD 8,958)	Sh30,824,784 (USD 15,856)

Although we acknowledge that allowances do provide useful supplements to staff income, it is important not to construe the difference between the base salary and the consolidated remuneration to mean that staff members are necessarily well catered for. Some of the allowances are specifically for research and the purchase of books. So if staff channel these allowances toward their intended purposes, instead of personal needs, their situation is only modestly improved.. Furthermore, inflation in the the cost of living erodes much of the cushion provided by the allowances. At Makerere University, for example, the housing allowance provided is not enough to enable a full professor rent a decent one-bedroom house in Kampala. The gross monthly housing allowance for a professor, in 2003/2004, was Ushs150,000, but with the university's 'pay as you earn' (PAYE) tax of 30%, the net allowance came to Ushs105,000 (US$54). A one-bedroom house in Kampala ranges between Ushs150,000 (US$77) and Ushs200,000 (US$103). Clearly, in order for a professor who did not live in university housing to afford such a house, he/she would have to supplement the university allowance with other sources.

Some institutions have devised creative ways of rewarding their academic staff, such as salary 'top-ups' which come from student fees. Funds raised from fee-paying programs, such as the Executive MBA and MPA programs at the University of Ghana Business School, create additional income for the unit, some of which goes to providing additional remuneration for staff involved in those programs. The following excerpt from Musisi and Ngobi (2005) about Makerere, is instructive in terms not only of the benefits that are derived from such activities, but also the conflicts that they can engender, and how they might be managed:

> Faculties retain more than 50% of income generated from privately sponsored students. This contribution has grown from 12.7% of the total University budget in 1994/95 to about 52% in 2003/04 … This has enabled the University to improve staff welfare as well as administrative processes, carry out the badly needed rehabilitation and expand space through construction of new buildings. Initially, the generation of income was not uniform across all faculties and it therefore created disparities, especially in terms of staff salaries and benefits. To reduce the gap between the strong revenue-generating Faculties and the weak ones, the percentage that is retained or sent to central administration is allocated to activities that benefit all staff across faculties. These included: i) a Staff Development Fund centrally managed; ii) salary top-up to the government wage bill from Ushs 15bn to Ushs 21bn, and; iii) an in-house retirement benefit scheme for all.

The efforts of institutions in generating extra 'top-up' income should be commended, and encouraged. However, they should not be been as a substitute for providing academics with 'livable' salaries. This is because revenue-generating schemes are not always guaranteed to yield consistent and desired levels of funding to support the needs of institutions. They can, therefore, be ephemeral and, at best, supplementary.

Generally, all the case study universities allow their staff to engage in Outside Professional Activity (OPA), which helps to supplement their incomes. Respondents were concerned, however, that some institutions do not have clear guidelines governing these activities. Even in cases where there are, they are subject to abuse since there are no mechanisms for monitoring them, thereby having deleterious effects on staff members' duties and responsibilities at the university. For example, while UKZN has guidelines that say that staff should not spend more than 20% of their time on OPA, some respondents felt that there were colleagues who far exceeded that limit. Some observed that, "senior staff spent too much time on consulting/private practice and dumped their work on junior staff, thus undermining standards."

Despite the fact that salaries tend to feature significantly in discussions with respondents, it was clear that they are willing to subordinate higher salaries to very good benefit packages that will enable them to live relatively comfortably during their working lives as well as after retirement. They, therefore, put a high premium on benefits such as good health care coverage, car and housing loan schemes, support for children's education, and a reasonable pension. The University of Ghana provides medical coverage for staff, their spouses, and children under 21 years of age, and is a member of the Ghana Universities Superannuation Scheme to which the staff member and the university contribute 5% of his/her salary respectively. On retirement, a member must opt for either full pension or reduced pension plus gratuity. The scheme guarantees pension payment to a retired member for a minimum period of 20 years. If the retiree dies before the expiration of 20 years, pension for the remaining years is paid in lump sum to the surviving spouse or children or into the estate of the deceased (see University of Ghana, n.d.). The university cancelled its car loan scheme five years ago because the amount given (seven million cedis) was found to be grossly inadequate and the university was incapable of increasing it. On the other hand, the University of Botswana still maintains a motor vehicle purchase guarantee scheme, which allows staff to avail themselves of a loan to purchase a vehicle. All the institutions provide some form of tuition remission, waiver, or preferential access to staff and their dependents, which is very much appreciated by all the respondents.

It is worth noting that when the University of Botswana decided to stop providing subsidized furnished accommodation to its staff in 2002, due to financial difficulties. This benefit was replaced with a house purchase scheme for citizen staff, under which the university negotiates loans with commercial banks which it then guarantees. The scheme has allowed many citizen staff to own their own homes. Unfortunately, expatriate staff, who are not entitled to this benefit, have had to contend with the high cost of accommodation and are discontent about the lack of housing support for them.

While respondents were, generally, appreciative of the benefits provided by their institutions, they expressed dissatisfaction with them for a variety of reasons. These included the fact that the monetary value of benefits was far below the cost that staff members incurred in accessing the services that the benefits are supposed to cover. For example, survey respondents and workshop participants at Makerere said the real cost of medical care for certain ailments far exceeds what the university provides for in terms of reimbursable expenses. Academic staff at Makerere and elsewhere (Ibadan and Ghana) also pointed to long delays in processing reimbursements and paying benefits such as pensions/gratuities.

A vast majority of respondents in the surveys, and of participants in the workshops, did not consider the provision of childcare facilities to be an important priority for their institutions. This response appears to be counter-intuitive, but closer examination of the data makes it less surprising. This is because majority of the subjects were male, who did not have responsibility for child care in their homes, and so did not appreciate the extent to which this activity has an impact on work life. Furthermore, as observed above, an aging professoriate means that most of the respondents no longer have young children and do not have the need for childcare. As universities strive to attract young scholars, in general, and female staff, in particular, provision of childcare facilities will become a significant incentive. This is because, for these groups, childcare is likely to be an important part of life, which must be balanced with careers. Any relief provided by their employers will definitely be appreciated.

In spite of the generally low remuneration, a significant number of respondents remain in academia because it is a field that they have a strong passion for. This reflects Erhun and Babalola's (2002, p. 216) findings among academic pharmac

that their reason for remaining in their professions, in spite of the unsatisfactory incentive structures, was their interest in the job. The following comment in the context of Acadia University, in Canada, holds true for many academics in Africa.

> Universities cannot compete with the salary offers made by corporations; but neither can corporations compete with the job offers made by universities to faculty. Acadia offers a faculty position – with opportunities for teaching and research – as well as academic freedom and tenure. The implication is not only that Acadia's marketplace is limited to other universities, but that the academic marketplace is not driven by the same financial incentives as the corporate world (Provencal, 2002, pp. 3-4; see also Amey, 1996, p. 24).

This position is confirmed by case study respondents who said they choose to stay with their institutions, despite the poor conditions of service, because of job security, professional satisfaction from doing what they enjoy, the benefit of sabbatical leave, and a relaxed working environment (see also Egbule, 2003, pp. 162-163; Erhun and Babalola, 2002, p. 220).

The idea of merit pay and market supplements for academics has met with a lot of controversy and resistance in various universities around the world. Because of the politically charged reaction that they evoke, all of the case study universities shy away from them, certainly in explicit ways. According to the Vice-Chancellor of Makerere University, he had to drop the idea of market supplements, right at its incipient stage, because staff in units which were not likely to qualify for them, resisted any attempt to open discussions on the issue. Similar sentiments were expressed across the other campuses, by those who thought that their fields of expertise would not attract such supplements. There was, however, overwhelming support for the idea in the disciplines that were the target of this study, because they were likely to benefit from the policy.

Arguments against differential remuneration, particularly market supplements, are encapsulated in the following position which suggests that

> it engenders a factitious spirit dangerous to collegiality and works against the principles of collective bargaining. Furthermore, universities, unlike corporations, are society's stronghold for impartial and disinterested research that is not necessarily marketable or financially feasible. Academic integrity depends on independence from the corporate marketplace and merit pay will, one way or the other, tie us to it; for instance, it would enable the administration to set strategic initiatives based on financial rather than academic considerations (Provencal, 2002, p. 4; see also Morris et al., 2004, p. 140).

Those who support merit pay structures and market supplements contend, on the other hand, that the 'one size fits all' mentality is not feasible in the contemporary setting of universities. They argue that it has helped arrest, to some extent, the loss of professionals in high-demand areas. As the Chairman of the Makerere University Staff Association (MUASA) points out:

> You cannot retain staff if you do not address that matter seriously. …   I mean identifying rare or competitive skills and rewarding them appropriately. If you fail to do so, you will simply be making way for some of these people to go because you are not doing enough to keep them.

Market supplements are being used in Nigeria where the government has created a Medical Special Scale for physicians within the public service, and in Zambia where the government has established

autonomous health boards which are able to hire physicians on contract, presumably at market rates. An example of market supplements in the case study institutions is provided by the University of Ghana where staff of the College of Health Sciences (CHS) enjoyed, until recently,

> a special additional duty hour allowance (ADHA), which was introduced in 2000. The ADHA is about twice the salary of the staff. Consequently, a staff on 4.5 million cedis takes an ADHA of 9 million cedis. … [M]ost staff of the CHS interviewed and in their survey questionnaires were unanimous in indicating that the ADHA was somehow effective in retaining staff (Ayee, 2005; see also Physicians for Human Rights, 2004).

It must be noted that, under pressure from the World Bank, which argues that the allowance is not sustainable, the government has initiated plans to cancel it. The University of Botswana, on its part, "has approved a policy on salary supplementation for positions that are difficult to fill, and a policy on scarce skills which provides for salary top-up for skills that are not readily available in the Botswana labour market, including IT and some professional qualifications" (Mokopakgosi, 2005).

SUGGESTIONS FOR REMEDIAL ACTION AND EXAMPLES OF GOOD PRACTICE

In this section, we draw from good practices from around the world, in general, and African countries, in particular, to discuss various mechanisms that can be adopted for enhancing recruitment and retention within African institutions of higher education. These suggestions are highlighted in the document. They provide guidelines only, and so their implementation will vary across institutions, based on size; number of academic staff; organizational structure; institutional nomenclature that defines various positions, and their attendant roles and responsibilities. We provide an attachment which gives estimates of what it might cost to implement these suggestions as well as who should be responsible for specific actions. The suggestions, nonetheless, present a framework for action that can be appropriately tailored to the specific circumstances of individual institutions, because the principles behind them are relevant to all institutions on the continent.

- **Recruitment and Retention**

To avoid the tedium, frustration and delays of the recruitment process, the following procedures can be useful. All applications, whether in response to ads or self-initiated, should be sent directly to the relevant department. The department, having received approval from the Pro-Vice Chancellor (Academic) to appoint, can then **constitute a hiring committee, made up of elected members from the department and appointed members from cognate units, with both genders represented.** The Committee will review the application(s), interview the candidate(s), and organize seminar presentation(s). It can then make a recommendation to the head of department, who forwards it to the Dean. In the case of small departments, the committee may be constituted at the faculty level.

The Dean then makes a decision as to whether the individual should be hired. If the Dean's decision is affirmative, he/she informs and negotiates with the candidate. Once negotiations are finalized at this stage, the Dean communicates the appointment to the Pro-Vice Chancellor responsible for academic affairs, who makes the formal offer of appointment to the candidate and informs relevant units such as Human Resources and Financial Services, or their equivalents. There is no convincing reason to justify the single university-wide Appointment Committee described earlier above, or to rationalize the participation of the Vice-Chancellor, Pro-Vice-Chancellor and other Deans in the hiring of academics to the extent that obtains at the University of Ghana. These senior administrators could use their time and energies in more productive ways.

One of the ways to deal with the loss of academic staff who are on study leave in institutions abroad, and indeed of graduate students who travel abroad to study, is to consider expanding current sandwich programs through institutional arrangements with other universities, both in Africa and outside. One program that employs this strategy is the AIDS International Training and Research Program (AITRP). The program, which is funded by the Fogarty International Center, at the National Institutes of Health in the US, works with American universities to train scientist from developing countries in the area of HIV/AIDS and tuberculosis. Principal investigators, who are funded under the program, liaise with their counterparts in a developing country to select a project relevant to that country. Students selected for graduate training in the US institution, therefore, focus on research that is considered important in their home country, and so are likely to find support for their work when they return home. A useful aspect of the program is the fact that it tries to maximize the amount of training that takes place in the student's home country. The logic behind this is as follows:

> By maximizing the amount of research training conducted in the home country, AITRP minimizes the time a trainee spends abroad. This is sometimes called "sandwich training" – the beginning and end of the training period take place in the host country institution whereas the middle third takes place at an institution in the home country. Carrying out the research at home, near family, friends and colleagues, places the trainee in a better position to find a job and funding after completion of the training (Kupfer et al. 2004, p. 617).

Another variant of the sandwich program is one in which students undertake the first and last thirds of the degree in their home institution and the middle third at a foreign university. In view of the earlier discussion that only a small number of African students who graduate abroad tend to return home, this approach has a higher chance of lessening the number of potential academics who are lost to foreign countries. **To support home-based graduate and research efforts, African universities should build institutional linkages which incorporate elements of equipment support, networking among scholars, and access to library resources in the partner institutions.** The AITRP provides assistance to trainees in the form of equipment and grants necessary for their research, access to journals and data bases through their host institution after their program, and integration into a network of researchers made up of former fellows of the program and mentors. Blackburn and Habighurst's (1979) findings indicate that those academics who valued, and were engaged in, research are more likely to remain at their institutions.

> A unique aspect of the [Papua New Guinea Institute of Medical Research's] international collaborations is that the benefit of partnership extends beyond simple twinning arrangements. The many different groups with long term research interests in Papua New Guinea have formed a "buttressing coalition" that crosses the boundaries of national or scientific interests. These include the Walter and Eliza Hall Institute, the Wellcome Trust Centre for Epidemiology of Infectious Diseases and Case Western University. Under the coordination of the Papua New Guinea Institute of Medical Research, the members communicate with each other to provide collective support for the development of the institute's general research infrastructure. It is certainly a refreshing experience to see scientists trying this alternate model of working, and benefiting as individuals from their contribution to a collective goal (Reeder, 2000, p. 816)

One short term measure that can be employed by universities to ensure that the institutions are staffed by qualified personnel until long term solutions are found, is to reconsider the retirement age for academics. It is understandable that retirement ages are set, partly, to ensure

Institutions must develop a culture of reasonable, clearly articulated, and enforced deadlines for processing applications for promotion and tenure. There should, for example, be set time lines by which 1) applications for promotion for a particular year must be filed – preferably at the start of the academic year; 2) heads must get back to applications with their assessment; 3) applicants may appeal, if necessary; 4) FARC must make decisions; 5) FARC decisions must be appealed to the relevant university body; 7) decisions must be communicated to the pro-Vice Chancellor/ Vice-Chancellor; and 8) the official decision on the application must be communicated to the applicant. All these processes should not take more than nine months to complete, so that applicants have knowledge of outcomes, at least, three months before the start of the new academic year. If the culture of deadlines is effectively implemented, it will take root, thereby putting the onus on each actor in the process to do what is required of him/her, and removing the uncertainty and frustration that characterizes the process in several institutions. As one senior administrator at the University of Botswana commented, these are simple things, which require nothing more than doing what is right and proper.

Human Resources units have a role to play in the promotion and tenure process as well. **Access to information about the promotion and tenure process can be enhanced by revamping the websites for some of the institutions which are not really helpful in this respect**. Relevant documents (e.g., conditions of service, appointment and promotion guidelines, benefits) can then be made accessible via institutional websites in a very organized manner than is currently the case in many universities.

Instead of the current system in several institutions where permanent staff are assessed yearly, with extreme pressure to 'publish or perish' each year, it may be a good alternative to explore two-year assessment cycles. This approach will dove-tail better with publication cycles. As a number of respondents noted, it sometimes takes more than a year for articles to move from submission to publication. A two-year cycle gives staff a better opportunity to produce work that is of high quality, rather than be forced to turn out material that satisfies standardized quantitative requirements, but is weak on quality. The merit-increment cycle, to be discussed below, could also be adjusted to fit this model. Furthermore, institutions have to **give serious consideration to the weighting of teaching, vis-à-vis research, in promotion, merit increment, and tenure decision**s. It may be time to give teaching, research, and service weights of 40, 40, and 20. This is particularly important at a time when faculty members are being inundated with large teaching responsibilities.

Faculty associations have a role in helping their members with the promotion and tenure processes. They could hire experienced professional officers, who are knowledgeable about regulations, procedures, and processes, so that they can assist staff prepare better. These officers could **organize yearly workshops for staff members who are due for tenure, or contemplating promotion**, so that they could become familiar with expectations, get advice on what they need to be successful, and get a sense of their chances. Having a dedicated individual who is hired by the faculty association, and hence autonomous from the institution's direct control, ensures that he/she channels his/her energies towards serving the interest of academic staff, and support them through any grievance that might emerge from the tenure/promotion process. The position can be supported by the faculty association itself, if it is capable of raising funds from its own sources, or the institution can allocate guaranteed funds to enable the association sustain the post, without interfering with the work of the appointee. **Individual faculties may also organize annual seminars which are tailored specifically to the expectations within their units**. These efforts can be spearheaded by Deans, working in concert with heads of department (Sorcinelli, 2000, p. 4). The workshops are helpful in removing the uncertainty, mystery, and mixed messages that tend to surround promotion and tenure processes (Chait, 1999, p. 4; Olmstead, 1993).

In order to address the frustration and anxiety that contract staff members go through, because of the uncertainty that characterizes their re-appointment, the faculty associations and the institutions should agree on terms which allow such individuals who have served a defined minimum number of years, to be guaranteed contracts of a longer duration, subject to acceptable performance (eg. five years, instead of two). This will address the concerns expressed by expatriate staff at the University of Botswana, for example. Of course, in the case of expatriate contract staff, these agreements have to be welded appropriately to the goals of localization or indigenization of staff, while being sensitive to the concerns of those foreigners who take up appointments in African universities. Institutions, therefore, need to have medium-to-long term plans which allow recruitment of indigenes to fit into the recommended cycles for bridging appointments. Such planning allows the goals of localization to be achieved, while reducing the anxieties produced by short, uncertain contracts for expatriate staff, and curbing feelings, among them, that their host institutions are ungrateful, and inclined to dispose of them without much sensitivity to their plight and contribution, once an indigene is available.

In those situations, like at Makerere, **where contract staff members have not obtained advanced degrees which qualify them for regular appointment, the faculty associations should bargain for an agreement which assures regular professional development opportunities for them. The agreement must also include provisions which ensure that those who serve a stipulated minimum number of years can be sponsored for further studies and be absorbed into the regular professoriate once they obtain the requisite qualifications.** These policies help to avoid not only the constant stress of not knowing what the future holds, in terms of employment and planning one's life, but also to curtail the exploitation that comes with the use of some vulnerable contract staff, such as the instructors referred to in the Makerere context. The knowledge that they can get permanent status, after investing a certain number of years, will encourage such staff members to work towards that goal, instead of the current situation where there is no commitment to an institution that is perceived as uncaring, and a high likelihood that these individuals will seek opportunities elsewhere.

Institutions requiring a PhD or appointment to, or promotion within, the professional disciplines should exercise some flexibility. The key consideration for appointment could be the applicants' demonstration of their ability to perform at the standards required of them and the possession of an appropriate professional qualification. Promotion can then be based on their research, teaching and service records. In fact, several universities around the world, including some which were part of this study, do have more flexibility regarding the PhD requirement for appointment into professional programs, without compromising quality. At the University of Ghana, for example,

> The staff of the College of Health Sciences have professional qualifications such as Fellow of the Royal Institute, Member of the Royal Institute and Fellow of the West African College of the various branches of medicine, for example, surgery and gynaecology. They do not therefore necessarily have to obtain PhD because of their professional qualifications. Similarly, in the Business School those who have professional qualifications such as ACCA or CA (Ghana) do not need an M.Phil degree (the minimum research degree for appointment as a lecturer in the University of Ghana) before they become lecturers (Ayee, 2005).

- **Institutional Governance and Workplace Climate**

The selection process for heads of department needs to be more open and participatory than is the practice in most institutions. Currently, in some institutions, they are appointed by the Dean

their responsibilities, it is imperative that they are not only given a thorough orientation to the job; **they must also be provided with continuous professional development, so that they can avail themselves of relevant training and appropriate skills, at least once a year**. The University of Ghana has started organizing management training workshops for new heads of units.

It appears that **most of the concerns around governance, at unit and institution-wide levels, could be addressed through the establishment of representative committee structures, transparency in decision making, genuine consultative processes, and open channels of multi-**

publications, establishing collaborative linkages, and getting research grants which tend to keep them attached to their institutions and careers. **Similar concessions can be extended to those academics who are undertaking further studies within their own institutions while maintaining full time positions.**

Considerations that go into teaching assignments must not be limited to the number of courses that a new academic staff teaches. **They should also ensure that the courses that a new staff member teaches over the course of the first two years of his/her appointment are not varied in such a way that he/she is perpetually engaged in mounting and preparing for new courses.** Teaching many new courses in the first few years could overwhelm new staff, affect their morale, and take them away from establishing a firm program of research, thereby having negative implications for their job satisfaction, career development, and desire to remain at an institution.

Part of the work overload that academic staff complain about stems from attrition within the ranks of support staff, largely as a result of budget cuts. Academic staff increasingly take on some of the administrative responsibilities that support staff used to handle (e.g., student registration, advising students on regulations and procedures, etc.). **In order to alleviate academic staff workload, it is necessary to shore up support staff numbers in ways that are informed by efficiency, value-for-money, and need – not just uncritical pressure to make the bureaucracy leaner.**

Mentoring

Mentoring is an important ingredient in the nurturing of junior scholars, in general, and underrepresented groups, in particular, for successful academic careers. In view of the low proportion of female staff in African universities, it will be useful to direct mentoring efforts towards increasing their numbers. Mentoring can be both formal and informal. While some have lauded the flexibility of informal formats, others have argued that they are less successful in achieving results (Orpen, 1997, p. 53). Proponents of formal schemes, point to structured formats of interaction, such as clear expectations, set meeting times, and transmission of organizational culture, as advantages over the uncoordinated, non-committal characteristics of informal types. In most instances, informal mentoring relationships tend to develop anyway. A structured format just adds to those, as well as provides options for those who might not be able to cultivate informal relationships. Moreover, it is easier to track formal mentoring for purposes of recognition, as referred to above.

All academic staff members have roles to play in the mentoring process (Deans, heads of departments, senior colleagues, and junior staff vis-à-vis grad students). As Sorcinelli (2000, p. 1) points out, "given the turnover among chairs, and the lasting influence of a department's senior faculty, supporting early-career faculty members is everyone's work." Mentors need to be more than sources of information for protégés; they must also be advocates for them as they navigate through various processes and stages in their careers. For example,

> [a]s a supplement to practices inside individual departments, the teaching center at Colorado College assigns each new tenure-track faculty member to a senior or retired faculty member who is outside the new hire's own department; pairs get together over lunch or dinner once each month to discuss career-development issues.

> One college at Temple University offers every tenure-track faculty member a senior mentoring service, which links the newcomer with a recently retired faculty member noted for his or her teaching effectiveness as well as broad knowledge of the campus culture (Sorcinelli, 2000, p. 7).

In order for mentoring relationships to work, they should be mutually beneficial. **It is thus important that mentors avoid exploiting the enthusiasm and vulnerability of their mentees**. As notttafrom the case studies, it seems to be the case that some senior staff exploit their junior colleagues under the pretext of involving them in collaborative work. A positive example was, however, sharttaby respondentsafrom the Economics department at the University of Ibadan who said that when senior colleagues receive research grants, they involved their junior colleagues in a manner that is respectful and equitable. Clutterbuck outlines the following as critical qualities for a mentor: **M**anage the mentoring relationship; be an **E**ncourpe0gg,**N**urtur0gg,**T**e∤Atr; **O**ffer respect; and be **R**esponsive to the needs of the mentee (citttain Mathews, 2003, p. 316). It must be nottt, though, that no matter the extent to which the mentor displays the above qualities, **no mentoring program can achieve success without a committtttaand responsible mentte** .

Understandably, a number of senior academic staff may not have an interestain serving as mentors if they gain nothing from such endeavors. **It is imperative, therefore, that systems of recognition and rewards art put in place to makt particip ation in mentorship programs worthwhilt for senior staff**. At UKZN, one of the conditions for engae0gg someone on a post-retirement contract is an obligation to mentor and develop younger colleagues. Kent University in the UnitttaStates appointsamentors who are named Presidential Te∤A 0gg Scholars for a three-year term. Some survey respondentsasuggested that recognition could be asasimple, but as visible, as having a plaque in e∤A faculty whi/A showcases ment ors, with the names of colleagues they have mentorttabeside them.

Two of the mostafrequently citttareasons offere d for the failure of mentoring programs, in educational settings, art lack of time and persona lity/expertise mismat/A (Ehri/A et al., 2004, pp. 525). It is imperative, therefore, that a lot of diligence is put in the assignment of mentees to mentors to avoid overburdening mentors and incongruence in expertise, ideology, or personality. Gender and racial considerations will also need to be taktn into account in certain circumstances. **Instead of assigning mentors to mentees *a priori*, it may, therefore, be useful to create a database of mentors which mentees can consult in choosing their mentors.** Thisamaintains the formality of the process while giving the mentee ownership of the arrangement (see Weems, 2003, p. 108). Support for graduate studies and for graduate studentsaart key to nurturing the pool of future academics and enhancing resear/A excellence at universities. Thisahas a relationship to mentoring programs, whereby academic staff will identify and mentor studentsawith potentials to become part of the next generation of academics. UKZN's LEAP program, described above, is a model worth emulating.

Mentoring cannot deliver retention goals without the relevant institutional support. It is, for example, going to be difficult for mentors to encourage their mentees to stay on if the latter cannot get the basic resources they need to develop their careers. Furthermore, **the mentoring program itself needs support at the highest institutional levels to be effective**. It, therefore, has to be incorporatttainto the various universities' strattgic plans and, more importantly, be provided with the necessary financial and human resources. In effect, mentoring needs to go hand-in-hand with other career development opportunities in the areas of teaching and resear/A.

more people and disciplines to be recognized for their work. The **communication units of the universities (e.g. Offices of External and Internal Relations) can also raise the profile, and hence the morale, of academics by giving publicity to their accomplishments within the larger society**. Such actions will not only signal the valuable contributions that the institutions are making to socio-economic development, but will also help mobilize public support for tertiary education, particularly in a climate made delicate and volatile by the politics of resource distribution.

Institutions should establish research offices, such as the University of Botswana's Office of Research and Development, which will help staff organize workshops on grant writing, communicate information on internal and external research and grant opportunities, keep staff apprised of deadlines for these, and forge research linkages with other institutions and the private sector. A well-maintained website can help with the communication of such information. Those offices can also help address the issue of 'intellectual isolationism', which Sitthi-amorn and Somrongthong (2000) see as one of the biggest impediments to job satisfaction in many developing countries. **It is, therefore, critical that university support for conferences/research grants be increased and expanded to cover a larger number of staff than is currently the case, so that staff members are able to attend, at least, one national/regional/international conference every other year and to engage in feasible research projects. Awards need to be disbursed on time as well. Academic staff members can use their research allowances and or support from their faculties/departments to finance participation in local and national conferences every year**.

There should be two rounds of conference and research grant applications at the university level, each with a set deadline, so that staff members who have conferences/research proposals after one deadline will still have an opportunity to get support during the same academic year. Set deadlines, that are consistent across the years, have other advantages over the current system in which applications are received throughout the year. First, they establish firm time lines for staff, during which they have an equal chance of getting funding, instead of submitting an application when there are no funds available. Secondly, all applications can be evaluated at the same time, thereby increasing the chances of very good proposals being funded. Finally, there is a more efficient use of research/conference grant committees, because they could consolidate their efforts twice a year comparing and evaluating various applications, instead of engaging in more frequent, piecemeal assessments throughout the year.

Preference must be given, in any particular year, to those who did not receive funding the previous year. In view of the limited research funding available to all institutions, providing support for national/regional/international conferences every other year ensures that more staff members are able to access funding and that it is not monopolized by a few. There is also **the need for African institutions to build linkage agreements with other institutions, in the developing and industrialized worlds, whose missions are supportive of the kinds of intellectual engagements that are relevant to their countries** (see Solimano, 2002, p. 23). In their analysis of health research capacity in developing countries, Sitthi-amorn and Somrongthong (2000) observed that the migration of health professionals and over-dependence on foreign sources to support research have produced, at least, two debilitating consequences. These are the erosion of these countries' ability to undertake and implement research, and a focus on research that may not necessarily dove-tail with national priorities and needs.

- **Salaries and Benefits**

What the findings about salaries suggest is that there is a strong likelihood that most African academics will prefer to remain in the universities, rather than change jobs. This likelihood should,

however, not be misconstrued to mean that they will remain loyal to their interests under any circumstances. What should be garnered from this picture is rather the fact **a reasonable improvement in their working conditions (salary and non-salary) is likely to result in more than proportionate levels of job satisfaction**. As van Assche (1999, p. 351) points out, in the context of the European Union, "financial satisfaction is not the only motivation for academic staff but, when income for academics is only a fraction of the income of non-academic institutions, academic motivation does not always compensate." Allowances (e.g. housing and transportation) and benefits (e.g. health and pension) should be at levels that make the services that they are supposed to cover affordable to staff.

The case for merit pay is premised on the need to reward people according to their performance, thereby providing an incentive to those who do well in their jobs as well as to motivate others. With the internal and external brain drains eroding expertise at African universities, **the need to implement some system of differential rewards is inevitable, if certain academic fields are to attract and retain staff**. In Malaysia, the government introduced the New Remuneration Scheme (NRS) in 1992 to prevent the brain drain among civil servants, including academics. The scheme was aimed at enhancing performance at the personal and organizational levels by building a culture in which promotion and remuneration are based on individual's output on the job.

> Pay is based on length of service and performance. The latter is measured by attainment of specific criteria. In the case of academics these include student evaluation, the dean's report and writing and research output. This rewards output rather than input, and judges the qualitative rather than quantitative aspect of performance. Thus the NRS is intended to reflect a move towards a more positive assessment of individual performance. The NRS system is essentially a matrix pay scheme. As a result of annual assessment employees can either stay at the same pay point, move vertically within a job scale (as was always the case), move horizontally to a higher job scale (thus gaining a pay increase and promotion) or move diagonally to a higher job scale (promotion) but not necessarily with a pay increase (Morris et al., 2004, p. 141; see also Arulkumaran, 1999, p.364).

Each faculty can be allocated an increment pool from which its members are rewarded. The pool can be calculated based on a set increment value per rank, which is negotiated in a collective agreement, and multiplied by the number of academic staff at each rank in the faculty. A point-based system could then be worked out so that the value of the merit increment would be on a sliding scale whereby each increment point is worth more, the lower the rank. A sliding scale seems appropriate because the expectations of performance should be higher as one goes up in rank. Furthermore, other studies have shown that those in the senior ranks tend to be more satisfied because of the premium already attached to their positions (Morris, et al., 2004; Onwunli and Agho, 2004). The standard for what constitutes satisfactory performance can be established at the faculty level for each rank, so that staff members are compared to their colleagues within the same rank. Merit increments will then vary proportionally to one's performance relative to that standard. The system does not have to be a based on a zero-sum calculus, where one individual's increment necessarily takes away from another's, if everyone is performing at a satisfactory level. To avoid a 'beggar-thy-neighbor' scenario, each faculty's merit pool should have a cushion which allows 'high flyers' to be rewarded without punishing those whose performance meets the set standard.

In order to ensure fairness and collegiality in merit pay decisions, it is important that the assessment process be devolved to a committee of peers at the faculty level, instead of being centralized or left solely to the discretion of the head of department. The initial assessment should be done by the head of department, which sends his/her recommendations to the faculty

committee. The faculty committee makes a recommendation to the Dean, who communicates a decision to the Pro-Vice Chancellor responsible for academic affairs. The head of department's recommendation should be communicated to the individual staff members in a timely fashion, prior to the meeting of the faculty committee, so that they may be able to appeal the head's recommendation to that committee. There should also be structures and processes in place which allow aggrieved individuals to take their case to a higher committee at the University level. Such procedures will help avoid the circumstances that led to the suspension of the merit increment process at the University of Botswana because of accusations of abuse.

The suggestion of merit pay is not a substitute for good salaries and benefits for academic staff. It is just meant to take away the traditional across-the-board salary increments which do not tend to take into account performance within and across ranks. In fact, it has been suggested, in discussions of market supplements, that

> increasing salaries directly … rather than instituting special allowances, may be the preferable approach, when circumstances are such that it is not feasible or desirable to increase salaries for all. … [C]reating special allowances might prevent the additional pay from being taxable or counting towards pension, and could create unnecessary complications (Physicians for Human Rights, 2004, p. 40).

The necessity for an increase in general pay levels should, however, not diminish the value of retaining some market- and merit-based system of rewards. There is no reason why the merit increments cannot be taxable and counted towards pension, if the overall emoluments, and standard of living, that academics enjoy are reasonable in relation to the cost of living. Indeed, in the absence of a reasonable base salary structure, merit pay will not address the problem of the brain drain. **A reasonable base salary structure, combined with merit-based increments, and supplemented with market responsive 'top-ups' for high-demand fields, will help to minimize the chances of universities subordinating their core mandate as academic institutions to the vagaries of the market place, thereby commodifying the academy and devaluing those who contribute to that mandate but may not be in high demand on the external market.** There is clearly "the need to develop new models for organising work and rewards within the state and quasi-state sectors, models that balance the need for effective service provision with financial sustainability; and that reconcile wider social needs with "best practices" of human resource management" (Morris et al., 2004, p. 149). It should be pointed out that market-supplements, once instituted are not irreversible. They need to be periodically reviewed, in collaboration with faculty associations, to make sure that they are necessary under particular circumstances.

It is necessary that universities continue to encourage Outside Professional Activity because of the benefits that it provides. However, it is important that such activities be streamlined, with appropriate conditions and guidelines that are enforceable. This will ensure that staff members derive the necessary benefits without undermining their commitment to their institutions. Furthermore, such mechanisms can be such as bring benefits to the institution in terms of returns on overhead that can be put in a research fund, for example, to support the work of its staff. The University of Botswana, for example, receives 20% of consultancy fees paid to staff.

Just as the University of Botswana has done, other **institutions can negotiate with banks to offer housing and car loans to academic staff**, at reasonable interest rates. These facilities, which will be guaranteed by the university, have a good chance of tying staff to their institutions, and will demonstrate corporate social responsibility on the part of the banks. There is no gainsaying the value that staff members attach to such **non-salary benefits such as tuition waivers/remissions, preferential admission for staff and their families, and access to childcare, primary and**

secondary school facilities provided by their institutions. Universities should provide these benefits, where they are not available, or improve them in ways which engender satisfaction among staff. Finally, it is absolutely necessary that the human resource departments restructure their operations in such a manner as to **remove the bottlenecks that academic staff encounter in processing reimbursements and receiving benefits such as gratuities and pensions**.

- **Role of Governments, the Private Sector, and International Partners**

The discussion so far has focused on what universities themselves can do to alleviate the problem of staff turnover and to enhance the attractiveness of academe. It is apparent, however, that while these institutions can take the lead in some of the suggestions put forward, they will need the support of governments and international actors to accomplish others. As the Commission for Africa (2005, p. 34) observes:

> Africa needs higher education and research institutes that attract students, researchers and teachers to study and work in Africa – at present there are more African scientists and engineers working in the USA than in Africa. A long term programme of investment is needed, both to revitalise African universities and to support the development of centres of excellence in science, engineering and technology, including African institutes of technology.

The current situation whereby Africa devotes only 0.3% of its GDP to research and development (R&D) and its share of the world's R&D expenditure stands at 0.5% (Solimano, 2002, pp. 9-10) does not stand it in good stead to attract or retain the kinds and levels of expertise needed to transform its societies for the better. As *Africa's Science and Technology Consolidated Plan of Action* admits, the continent's

> low investment in science and technology is also manifested in declining quality of science and engineering education at all levels of educational systems. Student enrolment in science and engineering subjects at primary, secondary and tertiary levels is falling. The continent is also losing some of its best scientific and technical expertise to other regions of the world. In many countries infrastructure for R&D has been neglected and is decaying. Institutions of higher education, particularly universities and technical colleges, are in urgent need of renewal after years of neglect and disorientation from local and national priorities (NEPAD, 2005, p. 7)

A main reason why South East Asian countries made significant strides in global scientific competitiveness was because of the extensive resources that governments in the region devoted to the development of relevant disciplines (Thailand Research Fund, 2000; Mervis and Normile, 1998). A similar commitment is demonstrated by the government of Papua New Guinea which provides

> substantial core funding [for medical research] …, an act of foresight in a country that struggles to afford curative care. This is an important moral anchor, compelling the institute to deliver value, in terms of evidence to inform health policy. The use of this support to maintain a strong infrastructure means that the value of the research programme is multiplied through securement of external project funding. Much of this funding flows through collaboration with colleagues overseas, and a network extending through Australia, Europe, and North America allows the institute to benefit from project funding by such agencies as National Institutes of Health, the European Union, and the Wellcome Trust (Reeder, 2000, p. 816).

There is no denying the economic predicament of many African countries, and the constraints that governments face in their ability to support higher education. Constraints are, however, not coterminous with impossibilities. One of the ways to deal with the impediments facing higher education is not to conjure resources out of nowhere, but rather to **redefine national investment and spending priorities in such a way as to support the institutions that have the most capacity to serve as catalysts of growth and development in various social and economic sectors**. The cost of another luxury car for state functionaries could support a research laboratory in one university, for example, or the work of several graduate students. Programs such as the GET Fund in Ghana, and the Education Tax Fund in Nigeria, are efforts in the right direction. A percentage of the money from these funds can be channeled toward the creation of, and support for, interdisciplinary research granting agencies in the humanities and social sciences; science and engineering; and health. The agencies will then be mandated to organize annual, peer-reviewed competitions for grants to support research projects/programs by academic staff, as well as doctoral and post-doctoral fellowships. Out of our case study countries, only South African has such well-established granting agencies, and it can serve as a model for the other countries. Through demonstrable acts, as shown in the above examples, African countries can then take advantage of facilities such as the World Bank's Millenium Science Initiative, which require beneficiary countries to provide matching funds and support for the establishment of 'centers of excellence' in science. In fact, Uganda has already done so.

It is encouraging that African governments, at their September 2005 Ministerial meeting on Science and Technology, in Dakar, agreed to increase their R&D expenditure to one percent of GDP, and put forward a plan aimed at boosting the development of this sector. The success of this 5-year, $157 million initiative, will depend on a variety of factors, including the ability of the African Union to raise the needed funds, the appropriate disbursement of the funds, equitable application of resources and benefits across the continent, and a commitment to sustainability of the initiative.

African governments should be assertive in defending the intellectual foundations of their countries, not only at the rhetorical level, but in concrete terms as well, by providing adequate compensation to academics. As pointed out above, the ADHA has helped stem the tide of emigration in Ghana (Physicians for Human Rights, 2004, p. 38), but the pressure on the Ghana Government by the International Financial Institutions to cancel these allowances means that the situation is likely to get worse again. As the failed experiments with Structural Adjustment Programs and the related financial anemia of tertiary institutions on the continent show, some of the interventions proposed by the International Financial Institutions do not serve the long-term interests of African countries. There is no doubt that institutions that face financial difficulties tend to suffer a high attrition rate among their academic staff (Cameron and Zammuto, 1986; Cameron et al., 1987).

Admittedly, current economic circumstances in African countries make it difficult to raise the resources needed to ensure adequate salaries for academic staff. The answer, however, is not to cancel incentive packages, but for the international community and multilateral agencies to help sustain them in the short to medium terms. These incentives will help recruit and retain top researchers and teachers, which enhances the capacity for socio-economic development, and subsequently the capacity of African countries to fully support good packages on their own. As the Africa Commission (2005, p. 139) suggests, "for the next five to seven years, donors working closely with African governments, should shift technical assistance funding towards salary enhancement programs particularly in priority skills which are difficult to recruit and retain." This will help reverse the paradox of over 70,000 skilled Africans leaving the continent every year,

largely because of poor working conditions, while governments spend about US$4 billion annually engaging the services of 100,000 expatriate workers (Tettey, 2002; Africa Commission, 2005).

Governments can work with the universities and the private sector to establish chairs in particular fields. The prestige that comes with these chairs, the research support that they will come with, and the additional remuneration that they will provide will encourage some leading scholars to stay with their institutions, and to attract some of those in the Diaspora to return home. The Canada Research Chairs program is worth close examination by African governments as a model that can be adapted to the needs of their universities and the capabilities of their countries (Government of Canada; see also Ogunniyi, 2000). Universities will nominate candidates who will then be assessed by a nationally-constituted panel of peers. The number of chairs per institution will be based on the performance of these institutions in grant competitions such as those run by the granting councils proposed in this document. The private sector could channel resources into endowed chairs and institutes/centers, etc., which could improve teaching and research, and thus spawn benefits for society as a whole, beyond what is produced by investments into beauty pageants, for example. Companies should follow the lead of organizations such as Unilever which has established chairs in three Ghanaian universities. According to the company it, "developed university chairs at the University of Ghana (Business Studies), Kwame Nkrumah University of Science and Technology (Chemistry) and the University of Cape Coast (Teacher Education), to enhance research and tuition in those fields at these institutions" (Unilever, 2005). In Nigeria, Shell Petroleum Development Company constructed a US$1 million Information and Communication Technology Center at the University of Port Harcourt, while Elf Petroleum (Nigeria) Ltd supported the university's Institute for Petroleum Studies with substantial funding (Partnership for Higher Education in Africa, 2005, p. 14).

Building and supporting excellent indigenous centers of research in African countries has no substitute if the academic profession is to be attractive, relevant, and contribute to a truly global effort at addressing the needs of the majority of their populations. Furthermore, **African institutions are likely to attract more collaborative partnerships from abroad if they have the necessary resources to make such partnerships mutually beneficial**. These include equipment and expertise. Currently, almost all African countries are scientifically lagging, with the exception of South Africa which is considered the "single scientifically proficient country in Africa" (Wagner et al., 2001, p. 29). In fact, "in 2000, over 60% of Africa's total expenditure on research was in South Africa" (Africa Commission, 2005, p. 138). This picture does not make most African universities attractive as potential research partners in the fields of science and technology. Recent research shows that

> scientifically advanced countries have little interaction with scientifically lagging countries. Moreover, we observed a drop in the number of papers resulting from collaborations between scientifically advanced and lagging countries compared with those of proficient and developing countries. However, our research shows that, at least for the United States, as much as $50 million per year is being spent by the U.S. government on research about conditions and resources in scientifically lagging countries. The fact that collaborations have not emerged around these studies indicate that local scientists are not able or available to work on these subjects (Wagner et al., 2001, p. xiii).

It does not take much time for a pathogen, for example, to move from one part of the world to another (Harris and Tanner, 2000, p. 817). Hence, **international efforts at strengthening the research infrastructure in African countries should be seen as a mutually beneficial priority for the global community as a whole**. As the Africa Commission (2005, p. 50) suggests, such

efforts should be channeled through African universities and research centers. More institutions in the North must emulate what the Massachusetts Institute of Technology (MIT) is doing, in association with the Partnership for Higher Education in Africa, to enable students and researchers from three African universities access its innovative online laboratories (MITiLab). This collaborative initiative will support Makerere University, Obafemi Awolowo University (Nigeria) and the University of Dar-es-Salaam (Tanzania) in "restoring capacity for teaching and research in science and technology" (Partnership for Higher Education in Africa, 2005, p. 7; see also p. 10).

Governments can take advantage of resources such as the Global Fund for AIDS, Tuberculosis, and Malaria, which is willing to provide funding that can be directed towards "salaries, wages and related costs (pensions, incentives and other employee benefits, etc.) relating to all staff (including field personnel)" (Global Fund for AIDS, Tuberculosis and Malaria, 2004, p. 17). Some examples of collaborative work which can serve as models for transnational collaboration are: the special programs of tropical disease research (TDR) and human reproduction (HRP) which are supported by various UN agencies and managed by the World Health Organization. The contribution of these programs to the training of local researchers and implementation of research results have been noted (see Sitthi-amorn and Somrongthong, 2000, p. 814). Also,

> [r]ecent initiatives such as providing electronic full text access to medical journals in developing countries are welcome and may be coupled with innovative projects such as the Ptolemy project, which links surgeons in Africa with information services at an academic centre in Canada (Bhutta, 2003, p. 1001).

It will also be useful for African universities to continue to cooperate among themselves in ways which give them the ability to share resources and draw from the synergies that collaboration among scholars brings. Under current economic conditions, most African countries cannot, for example, sustain Centers of Research Excellence by themselves. It will, therefore, be useful for them to collaborate toward the establishment of Regional Centers of Excellence which will serve as hubs for various institutions in each of the continent's sub-regions. Ndulu (2004, p. 14) argues, that regional "networks provide a cost effective means for specialized training and skill formation often not available at the national level … The collective ability of participants to garner reputation augurs well for enhancing professional credibility to attract more opportunities for professional engagements and providing credible inputs from African into the global learning systems." Some current African-generated and -oriented models include the African Economic Research Consortium (AERC) and the Africa Capacity Building Foundation's (ACBF) funded Economic Policy Management Program (EPMP). The ACBF, for example, recently agreed to give US$3 million to the Ghana Institute of Management and Public Administration (GIMPA) "for the implementation of a public sector Management Training Program for Anglophone West African countries" (Africa Capacity Building Founation, 2005a). It also committed US$3 million to Africa University, in Zimbabwe, to help train public sector managers in Eastern and Southern Africa (Africa Capacity Building Foundation, 2005b). Also worthy of note is the

> African Virtual Open Initiatives and Resources (AVOIR) initiative that currently comprises software innovation nodes in African universities in Kenya, Mozambique, Senegal, South Africa, Tanzania and Uganda with project leadership and management based at the University of the Western Cape (NEPAD, 2005, p. 35).

A well-endowed library infrastructure is crucial to the intellectual sustenance of universities. It is very important, therefore, that **African governments, international partners, and the private sector work together to shore up and preserve the library holdings of Africa's university libraries, expand their connectivity to the internet, and link them to databases, electronic**

journals, and other documents necessary for research and teaching. Efforts in this direction by foundations such as the McArthur, Ford and Rockefeller and the Carnegie Corporation are exemplary. The foundations are, for example, supporting the 'Bandwidth Initiative' which is meant to expand connectivity by an initial coalition of eleven African universities and two higher education organizations.

> The contract with Intelsat will provide access to 93,000 kilobytes per second of bandwidth each month. As recently as two years ago, the total bandwidth available to them was 12,000 Kbps. The unit cost per Kbps will drop from an average of $7.30 per Kbps per month for the African universities to $2.33. As more institutions participate, the cost may drop further. … Bandwidth is a major expense for African universities, with service currently provided by a patchwork of providers. According to a report prepared by the Bandwidth Consortium of the Partnership for Higher Education in Africa, consumers in Europe and North America typically pay $100 a month for far more bandwidth than African universities obtain for $10,000 per month (Rockefeller Foundation, 2005).

The African Diaspora has a vital role in this respect as well. **A large number of Africans living abroad are products of their countries' institutions of higher education, and can be mobilized, though alumni and other networks, to support library acquisitions for their alma mater**. The support of the countries' missions abroad is necessary to facilitate some of these initiatives. In the past, some groups of Africans have managed to coordinate the collection of books and journals, but have been unable to send them home because of funding problems. Appeals to their embassies and high commissions to facilitate the transport of the material have not yielded the needed support, because the missions claim that they have no funding for such purposes. Governments should allocate some funding to these missions to enable them provide such support. **Universities in the industrialized world should also give their alumni, working in African tertiary institutions and research facilities, access to their library systems.** This will help these graduates to keep abreast with knowledge production in their various fields.

CONCLUSION AND RECOMMENDATIONS FOR FUTURE RESEARCH

Based on the foregoing evidence, it is clear that tertiary educational institutions in Africa are confronted with a challenging task, as far as recruitment and retention of academic staff is concerned. While the challenge is not new (see Blair and Jordan, 1993), and there have been moderate improvements in some institutions such as Makerere, the overall picture is still troubling. Institutions have to contend with more competitive conditions of service in the private sector and some public sector organizations, and the lure of better employment opportunities in other countries, mostly in the industrialized North. Furthermore, cuts in funding and as well as the explosion of student numbers over the last decade have led to extreme pressure on human and physical resources in ways that make it difficult for the institutions to maintain a respectable level of performance vis-à-vis their core mandates of teaching and research.

All these developments lead to despondency among existing staff, the inability to attract potential employees, particularly to those fields that were the focus of this study, and a diminished capacity of universities to contribute to the national human resource capacity, innovation, and overall development of their societies. Related to these challenges is the reality of an aging professoriate. It is important that these trends are arrested by instituting sustainable strategies that will help rejuvenate staffing capabilities and, thereby, enhance the role of universities in socio-economic development.

It is instructive to note that the situation described above is not peculiar to African universities, but has resonance, albeit at different degrees of resolution, across tertiary educational institutions around the world. There is, however, a difference in that the former has suffered a higher degree of resource deprivation than its counterparts in many other regions. It also has a more challenging task of recruiting than is the case in the industrialized world, for example. While individual institutions, and particular fields, in the industrialized world may be experiencing recruitment and retention difficulties, the overall picture has not reached crisis proportions. Furthermore, these institutions and their governments are engaged in concerted efforts to address the problem, before it reaches debilitating levels.

African universities should take the initiative in addressing some of the problems identified above, which are within their ability to solve. These include decentralizing authority, promoting communication among different groups, fostering transparency in decision-making, and rewarding excellence. Universities also have a responsibility to ensure that their academic integrity is not compromised by pressures to increase enrolments for political reasons or commodify knowledge solely for pecuniary gain. They must nevertheless adopt some of the creative ideas discussed above to mobilize resources from the public and private sectors, as well as international partners, which enhance their core mandate. It must be noted that the responsibility for revitalizing higher education, in general, and promoting recruitment and retention, in particular, does not lie exclusively with universities. African governments have an obligation to support these institutions with the necessary investment that will shore up their human and other capacities. So do the private sector and the international community, because they all stand to gain from a solid research infrastructure, and an adequate complement of excellent teachers and researchers within African institutions of higher education.

Most of the measures suggested above are intrinsically political and should be treated as such. It is important that academic staff retention not be seen as just requiring an administrative process of tinkering with structures and processes. An effective process will require confronting the politics of tertiary education both within universities and outside of them, and undertaking bold initiatives which ensure that these institutions fulfill their mandates and meet their obligations to society. As the Laurier Institution (2000, p. 10) opines:

> The most intangible cost, and one that is most difficult to estimate, however, is that of losing future leaders. If …. universities fail to recruit the best academic minds, that loss of talent will not only negatively affect students in the post-secondary system, but will also translate into a cost borne by all individuals in current and future generations.

As pointed out earlier, this study was constrained by a number of limitations which should be addressed by future studies on academic staff recruitment and retention. There is a responsibility on the part of African institutions and academic staff to be more responsive in follow-up or related studies. They can do this by participating in surveys, interviews, focus groups, etc., and strengthening their information management capabilities, and making available relevant and reliable data. These contributions will provide a solid and accurate picture of their situation, thereby helping to formulate policy measures that are appropriate and feasible in their specific contexts. Future studies should also analyze the relative impact of specific staff retention measures adopted by African institutions in order to establish, very concretely, their efficacy. It will also be useful to devote attention to determining, in more detail within specific institutional types, the cost of implementing the suggestions for action contained in this report. Future work should also include the tracking of staff who have left the institutions, in order to collect personal accounts

explaining their departures. This will assist us in understanding staff attrition from the perspective of those who have actually left the universities.

Another useful focus for further work is a comparison of conditions of services between academic staff and their counterparts, with similar qualifications and experience, who are employed outside of universities. This will help determine, with substantive evidence, whether the views expressed by respondents in this study are indeed supported by the facts. The extent to which academics' articulation of their intent to leave can be actualized, and hence serve as an indication of universities' vulnerability to further erosion of their staff base, is also important to interrogate. This can be done by investigating the degree to which relevant employment opportunities are available to absorb not only current academic staff but those who have the potential to become future academics. Finally, a comparative study across a larger pool of institutions in Africa, representing various sizes as well as linguistic, regional, and socio-economic characteristics will be a significant step forward in exploring recruitment and retention issues that are simultaneously general and specific enough to engender institutional, national, regional, and continent-wide interventions that are feasible and sustainable.

COST ESTIMATES AND RESPONSIBILITY FOR SUGGESTED ACTIONS

In this attachment, we provide estimates of how much it will cost to implement the suggestions outlined in the above analyses or mechanisms for arriving at those costs, since variations across countries in Africa make it inadvisable to provide uniform solutions in all cases. It is important to keep certain caveats in mind as we look at the suggestions that are offered here. For example, what is 'reasonable' or good should be determined in the context of specific institutions, with relevant stakeholders, based on data on conditions of service across comparable organizations and positions, cost of living, an appreciation of the value of universities to society, etc. Moreover, even though we indicate which actors should take responsibility for implementing specific actions outlined in the suggestions, these should be seen as suggestions, based on the organizational structure of most of the institutions which were studied. We recognize that the appropriate positions with responsibility for the actions suggested may differ across institutions.

In view of the fact that some of the suggestions can be rolled out in the short-term while others require long-term planning and huge financial outlays, we have identified three phases for their implementation. These are: (1) short-term measures that can be implemented relatively quickly (between now and the next three years) and at minimal to low cost; (2) medium-term interventions that will take between three and five years to effect and involve modest funding – these might be candidates for donor assistance; and (3) long-term actions which can be accomplished in the next ten years with significant financial investments – these might be pursued by national governments using earmarked tax revenues such as the GET Fund in Ghana or the Education Tax Fund in Nigeria, or by applying for multilateral financing from the African Development Bank or the World Bank.

SHORT-TERM MEASURES

Recruitment and Retention

- *To avoid the frustration and tardiness of the recruitment process, universities must constitute hiring committees, made up of elected members from the relevant department and appointed members from cognate units*
  - **Cost**: No additional costs are involved. It can be administered through existing structures and or service contributions by academic staff
  - **Who is Responsible?**: Heads of Department; Deans; Pro/Deputy Vice-Chancellor (Academic)
- *One short term measure that can be employed by universities to ensure that the institutions are staffed by qualified personnel until long term solutions are found, is to reconsider the retirement age for academics*
  - **Cost**: Possible costs will be the difference between what these individuals earn and what it will cost to replace them with junior scholars. However, since there is a problem recruiting academic staff, at least in the short to medium term, and the older scholars will be hired on contract anyway, additions to the salary budget will be minimal, at most.
  - **Who is Responsible**?: University Council; government

Promotion and Permanent Appointment/Tenure

- *In view of the questions raised in the findings about favoritism and inconsistency with regard to promotion and tenure, it will be useful for universities to ensure that each of these processes is anchored in a committee system at every level – i.e., the departmental, faculty/college, and university - which is made up of peers and has representation from both genders*
    - o **Cost**: No additional costs are involved. It can be administered through existing structures and or service contributions by academic staff
    - o **Who is Responsible**?: Pro/Deputy Vice-Chancellor (Academic); Provosts; Deans; Heads of department

- *Institutions must develop a culture of reasonable, clearly articulated, and enforced deadlines for processing applications for promotion and tenure*
    - o **Cost**: No additional costs involved, beyond publicizing deadlines on relevant website
    - o **Who is Responsible**?: Human Resource departments; Pro/Deputy Vice-Chancellor (Academic); Provosts; Deans; Heads of department; Academic Staff

- *Access to information about the promotion and tenure process can be enhanced by revamping the websites for some of the institutions which are not really helpful in this respect. Relevant documents (e.g., conditions of service, appointment and promotion guidelines, benefits) can then be made accessible via institutional websites in a very organized manner than is currently the case in many universities*
    - o **Cost**: Minimal additional costs in setting up and maintaining sites since most of the institutions already have Information Technology units which can take additional responsibility for the website. They must work with relevant units to ensure that information is current and accurate.
    - o **Who is Responsible**?: Pro/Deputy Vice-Chancellor (Academic); Pro/Deputy Vice-Chancellor (Administration); Human Resource department; Information Technology unit

- *Give serious consideration to the weighting of teaching, vis-à-vis research, in promotion, merit increment, and tenure decisions*
    - o **Cost**: No additional costs
    - o **Who is Responsible**? University Council; Academic Review Board; Vice-Chancellor; Pro/Deputy Vice-Chancellor (Academic); Provosts; Deans; Faculty Promotion and Appointment Review Boards; Heads of department

- *Organize yearly workshops for staff members who are due for tenure, or contemplating promotion*
    - o **Cost**: No additional costs, since these workshops will be run by professional officer with support from relevant officers of the university
    - o **Who is Responsible**?: Faculty Association; Pro/Deputy Vice-Chancellor (Academic); Pro/Deputy Vice-Chancellor (Administration)

- *Individual faculties may also organize annual seminars which are tailored specifically to the expectations within their unit*
    - o **Cost**: No additional costs, since these workshops will be facilitated by senior colleagues in the faculty/department
    - o **Who is Responsible**? Deans; Heads of Department

- *Institutions requiring a PhD or appointment to, or promotion within, the professional disciplines should exercise some flexibility*
  - o **Cos**t: No additional costs
  - o **Who is Responsible**?: University Council; Appointments and Academic Review Boards

Institutional Governance and Workplace Climate

- *A search committee, chaired by the Dean, and comprising elected members from the unit and appointed members from cognate units, could then be struck for the purposes of selecting the head*
  - o **Cost**: No additional, or minimal, cost
  - o **Who is Responsible**? University Council; Vice-Chancellor; Pro/Deputy Vice-Chancellor (Administration); Pro/Deputy Vice-Chancellor (Academic); Deans; Provosts

- *Provision should also be made for mid-term reviews of administrative heads of units*
  - o **Cost**: No additional, or minimal, cost
  - o **Who is Responsible**?: Vice-Chancellor; Pro/Deputy Vice-Chancellors (Academic and Administration); and Deans/Provosts, when they are not the ones being reviewed

- *Offer training programs for newly appointed administrators to acquaint them with different skills needed to accomplish the demands of their role. All heads must also be provided with continuous professional development, so that they can avail themselves of relevant training and appropriate skills, at least once a year.*
  - o **Costs**: Cost of a day's retreat, manuals, and services of experts external to the university, if required
  - o **Who is Responsible**?: Vice-Chancellor; Pro/Deputy Vice-Chancellors; Deans/Provosts; Human Resource departments

- *Most of the concerns around governance, at unit and institution-wide levels, could be addressed through the establishment of representative committee structures, transparency in decision making, genuine consultative processes, and open channels of multi-directional communication. Staff members should also be willing to participate in these structures and processes, and have a responsibility to keep themselves informed about various guidelines, regulations, and procedures*
  - o **Costs**: No additional costs
  - o **Who is Responsible**?: University Council; Vice-Chancellor; Pro/Deputy Vice-Chancellors; Deans; Heads of department; staff representatives on committees; staff members; Internal Relations units

- *Institutions need to address reality-perception gaps, that tend to characterize the views of a significant number of academic staff, through better, regular, and accessible flows of information*
  - o **Cost**: No additional costs
  - o **Who is Responsible**?: University Council; Vice-Chancellor; Pro/Deputy Vice-Chancellors; Deans; Heads of department; staff representatives on committees; staff members; Internal Relations units

Mentoring

- *Mentoring is an important ingredient in the nurturing of junior scholars, in general, and underrepresented groups, in particular, for successful academic careers. In view of the low*

proportion of female staff in African universities, it will be useful to direct mentoring efforts towards increasing their numbers
- o **Cost**: No additional costs, beyond what is budgeted for the mentoring program in general (see below)
- o **Who is Responsible**?: Vice-Chancellor; Pro-Vice Chancellors; Deans/Provosts; Heads of department; senior colleagues

- *All academic staff members have roles to play in the mentoring process**.** It is important that mentors avoid exploiting the enthusiasm and vulnerability of their mentees, and no mentoring program can achieve success without a committed and responsible mentee*
  - o **Costs**: no additional costs
  - o **Who is Responsible**?: Vice-Chancellor; Pro-Vice Chancellors; Deans/Provosts; Heads of department; senior colleagues; junior colleagues

Teaching and Research

- *Communication units of the universities (eg. Offices of External and Internal Relations) can also raise the profile, and hence the morale, of academics by giving publicity to their accomplishments within the larger society*
  - o **Cost**: Minimal cost to send out information to the university and wider public through press releases and on the institution's website, and arranging for scholars to be profiled in the media and other forums
  - o **Who is Responsible**?: Office of Research Services; Information Technology unit; Offices of Internal and External Relations; Deans/Provosts; Heads of department

- *Academic staff members can use their research allowances and or support from their faculties/departments to finance participation in local and national conferences every year.*
  - o **Cost**: No additional costs
  - o **Who is Responsible**? Unit heads and academic staff

- *There should be, at least, two rounds of conference and research grant applications at the university level, each with a set deadline, so that staff members who have conferences/research proposals after one deadline will still have an opportunity to get support during the same academic year*
  - o **Cost**: No additional costs
  - o **Who is Responsible**?: Pro/Deputy Vice Chancellor (Research); Office of Research Services

- *Preference must be given, in any particular year, to those who did not receive funding the previous year.*
  - o **Cost**: No additional cost

be determined by need, enrollment demands, and maintenance costs, which will have to be worked out with Faculty Associations and the Ministry of Education
  - o **Who is Responsible**?: University Council; Ministry of Education; Faculty Association

- *Institutions should remove the bottlenecks that academic staff encounter in processing reimbursements and receiving benefits such as gratuities and pensions.*
  - o **Costs**: Where the problem is due to staff shortages, additional staff in the Human Resource department and Financial Services will need to be hired and or investment made in the relevant technologies to ensure efficiency. The cost of this investment will depend on institutional needs. If the problem is not one of personnel shortage, then processes will need to be streamlined and accountability mechanisms put in place to ensure that there is a culture that promotes expeditious handling of processes.
  - o **Who is Responsible**?: Human Resource Department and Financial Services

MEDIUM-TERM MEASURES

Recruitment and Retention

- *Human Resource departments should put in place mechanisms that enable them to track faculty members' reasons for leaving, such as exit surveys/interviews.*
  - o **Cost:** The number of turnovers per year is not excessively large, and so this can be managed with existing staff in Human Resource units. In cases where the current staff complement in the units is already thin, then hiring a junior level employee to conduct the surveys and interviews will be helpful.
  - o **Who is Responsible**?: Heads of department; Human Resource department

Promotion and Permanent Appointment/Tenure

- *The Human Resource department should have a database that tracks the career path of all academic staff, and notify all appointees who are coming up for tenure*
  - o **Cost**: Current management information systems in a number of institutions have the capacity to accommodate this. Where existing systems cannot do the tracking, institutions will have to upgrade them. With such systems in place additional employee costs are likely to be minimal.
  - o **Who is Responsible**?: Human Resource Department

- *Instead of the current system in several institutions where permanent staff are assessed yearly, with extreme pressure to 'publish or perish' each year, it may be a good alternative to explore two-year assessment cycles*
  - o **Cost**: No additional cost; it may, in fact, cut down on cost
  - o **Who is Responsible**?: University Council; Pro/Deputy Vice-Chancellor (Academic); Appointment Review Board; Provosts; Deans; Heads of Department

- *Faculty associations have a role in helping their members with the promotion and tenure processes. They could hire experienced professional officers, who are knowledgeable about regulations, procedures, and processes, so that they can assist staff prepare better*
  - o **Cost**: Salary of a professional officer, who will be at middle management level
  - o **Who is Responsible**?: Faculty Association; University Council

- *Ensure that the courses that a new staff member teaches over the course of the first two years of his/her appointment are not varied in such a way that he/she is perpetually engaged in mounting and preparing for new courses*
    - o **Cos**t: No additional cost
    - o **Who is Responsible**?: Deans/Provosts; Heads of department

- *In order to alleviate academic staff workload, it is necessary to shore up support staff numbers in ways that are informed by efficiency, value-for-money, and need – not just uncritical pressure to make the bureaucracy leaner.*

Mentoring

- *It is imperative that systems of recognition and rewards are put in place to make participation in mentorship programs worthwhile for senior staff*
    - o **Cos**t: A monetary award (e.g. US$200); the cost of a plaque; the cost of organizing an annual awards/recognition dinner for mentors
    - o **Who is Responsible**?: Vice-Chancellor; Pro/Deputy Vice-Chancellors; Deans/Provosts; Heads of department

- *Instead of assigning mentors to mentees a priori, it may, therefore, be useful to create a database of mentors which mentees can consult in choosing their mentors.*
    - o **Cost**: Minimal cost of integrating this database into existing management information systems and posting them on the institution's website
    - o **Who is Responsible**?: Human Resource Department; Pro/Deputy Vice-Chancellor (Academic)

- *The mentoring program itself needs support at the highest institutional levels to be effective*
    - o **Cost**: Invest about US$50,000 a year to support program administration, facilitation, awards, and training for mentors. Additional funding will be required if UKZN's LEAP model is incorporated into the mentoring program, instead of being considered part of the professional development budget
    - o **Who is Responsible**?: University Council; Vice-Chancellor; Pro/Deputy Vice-Chancellors; Deans/Provosts

Teaching and Research

- *Universities can set aside some of the funds which come from revenue-generating activities for the innovation and starter grants, research grants for all academic staff, as well as for teaching and research facilities*
    - o **Cost**: No additional cost
    - o **Who is Responsible**?: University Councils; Vice-Chancellor; Pro/Deputy Vice-Chancellors (Academic and Administration); Deans/Provosts; Heads of department; Financial Services

- *Universities which do not have teaching and research excellence awards should endeavor to institute them. Furthermore, instead of having one or two awards for teaching excellence across the university, for example, each faculty in the institution could be assigned one*
    - o **Cost**: A cash award of US$200 per recipient; the cost of a plaque; and the cost of an award/recognition dinner
    - o **Who is Responsible**?: Vice-Chancellor; Pro/Deputy Vice-Chancellor (Academic); Deans/Provosts

- *Institutions should establish research offices, such as the University of Botswana's Office of Research and Development, which will help staff organize workshops on grant writing, communicate information on internal and external research and grant opportunities, keep staff apprised of deadlines for these, and forge research linkages with other institutions and the private sector.*
    - **Cost**: Where these do not already exist, institutions will have to budget for the salary of a director, at least three senior staff members (responsible for internal grants and external grants, and ethics), and a reasonable number of junior staff, depending on the size of the institution. This will be in addition to the administrative costs of running the office
    - **Who is Responsible**?: Governments, University Council; Vice-Chancellor; Pro/Deputy Vice-Chancellor (Research)

Salaries and Benefits

- *Institutions should work towards reasonable improvements in the working conditions (salary and non-salary) of staff, because this is likely to result in more than proportionate levels of job satisfaction.*
    - **Cost**: In view of the variation in economic development and costs of living across countries, it is difficult to suggest specific figures *a priori*. The salaries have to be worked out through collective bargaining agreements with Faculty Associations, taking into account the cost of living, the cost of training, qualification of staff members, and their market value outside of academe. The exact salary budget will depend on number of academic staff required to perform the academic functions of the institutions.
    - **Who is Responsible**?: Governments; University Councils; Faculty Associations
- *It is necessary to implement some system of differential rewards. This is inevitable, if certain academic fields are to attract and retain staff.*
    - **Cost**: The exact cost will have to be worked out based on staff numbers, units which require market supplements, and the value of the merit increment pool which should be negotiated through the collective bargaining process taking into account the cost of living
    - **Who is Responsible**?: Governments; University Councils; Faculty Associations
- *In order to ensure fairness and collegiality in merit pay decisions, it is important that the assessment process be devolved to a committee of peers at the faculty level, instead of being centralized or left solely to the discretion of the head of department*
    - **Cost**: No additional costs
    - **Who is Responsible**?: Vice-Chancellors; Pro/Deputy Vice-Chancellor (Academic); Deans/Provosts; Head of department; Merit Committees
- *Institutions can negotiate with banks to offer housing and car loans to academic staff*
    - **Cost**: minimal cost. Arrangements have to be put in place to ensure that universities are not overly burdened by the costs imposed by staff members who default on their loans or leave the institution pre-maturely
    - **Who is Responsible**?: University Council; Financial Services; Human Resource department; academic staff

Role of Governments, the Private Sector and International Partners

- *African governments should be assertive in defending the intellectual foundations of their countries, not only at the rhetorical level, but in concrete terms as well, by providing adequate compensation to academics*
  - **Cos**t: Governments should work with University Councils and Faculty Association, taking into account the factors mentioned above, regarding the salary budget
  - **Who is Responsible**?: Government

- *A large number of Africans living abroad are products of their countries' institutions of higher education, and can be mobilized, through alumni and other networks, to support library acquisitions for their alma mater*
  - **Cost**: This will vary across countries and Diaspora networks, but email can be used.
  - **Who is Responsible**?: Africans in the Diaspora; Networks of Scholars and professionals abroad; Country associations abroad

- *Universities in the industrialized world should also give their alumni, working in African tertiary institutions and research facilities, access to their library systems*
  - **Cost**: Minimal cost to universities in industrialized world, largely for meeting time to work out the details and for information technology assistance, if needed, in configuring the university computer system to allow such access.
  - **Who is Responsible**? African alumni should raise the matter with university management through their respective university alumni associations.

LONG TERM MEASURES

- *One of the ways to deal with the loss of academic staff who are on study leave in institutions abroad, and indeed of graduate students who travel abroad to study, is to consider expanding current sandwich programs through institutional arrangements with other universities, both in African and outside*
  - **Cost**: Some of this function could be supported by existing structures within institutions which deal with partnership/linkage agreements; tuition and subsistence for programs can be supported by the host institution and international partners; home institutions can bear the cost of passage (appprox. US$10,000 per person); current faculty should still enjoy their current salaries while on study leave.
  - **Who is Responsible**?: University Council; Vice-Chancellor; Pro/Deputy Vice-Chancellor (Academic); Office of Research Services [see below]

- *To support home-based graduate and research efforts, African universities should build institutional linkages which incorporate elements of equipment support, networking among scholars, and access to library resources in the partner institutions*
  - **Cost**: Administrative support for networking within existing structures, such as Office of Research Services; travel fund for institutional visits; cost of extending access to journal subscriptions, on the part of partner institutions; cost of accessing databases in partner institutions
  - **Who is Responsible**?: University Councils; Vice-Chancellors

Teaching and Research

- *It will be useful for institutions to establish a New Faculty Research Fund from which new hires can access starter grants that help to facilitate their career development*
    - o **Cos**t: Between US$5,000-US$10,000 can be set aside for each new hire. The amount involved will vary by fields of expertise and the relative cost involved in setting up
    - o **Who is Responsible**?: University Councils; Vice-Chancellor; Pro/Deputy Vice-Chancellors (Academic and Administration); Deans/Provosts; Heads of department

- *'Innovation Grants for Junior Scholars' will also provide support for young scholars to pursue original and novel research*
    - o **Cost**: Set up a fund that will disburse grants to support these awards. This can support up to a maximum of twenty junior scholars a year for large institutions, with the value of the grant varying according to the program of research, and up to US$20,000 per person
    - o **Who is Responsible**?: University Councils; Vice-Chancellor; Pro/Deputy Vice-Chancellors (Academic and Administration); Deans/Provosts; Heads of department; Office of Research Services

- *It is critical that university support for conferences/research grants be increased and expanded to cover a larger number of staff than is currently the case, so that staff members are able to attend, at least, one national/regional/international conference every other year and to engage in feasible research projects. Awards need to be disbursed on time as well*
    - o **Cost**: Budget US$1,000, every other year, per staff member (at the university level) for conferences. This is additional to whatever support can be provided by sub-units. Also set aside research grants worth, at least, US$5,000 to cover about 20% of staff each year.
    - o **Who is Responsible**?: University Council; Vice-Chancellor

- *There is also the need for African institutions to build linkage agreements with other institutions, in the developing and industrialized worlds, whose missions are supportive of the kinds of intellectual engagements that are relevant to their countries*
    - o **Cost**: Work out travel and administrative budget for pursuing research and academic partnerships
    - o **Who is Responsible**?: University Council; Vice Chancellor; Pro/Deputy Vice-Chancellors (Academic and Research); Office of Research Services

Role of Governments, the Private Sector, and International Partners

- *Governments should redefine national investment and spending priorities in such a way as to support the institutions that have the most capacity to serve as catalysts of growth and development in various social and economic sectors.*
    - o **Cos**t: No additional, or minimal, cost (different use of existing funds)
    - o **Who is Responsible**?: Government (Ministries of Finance and Education)

- *Governments can work with the universities and the private sector to establish chairs in particular fields*
    - o **Cost**: Provide chair holders with 'top-up' salaries of about 50% of the salary earned by colleagues at the same rank and a research grant of about US$20,000 a year.
    - o **Who is Responsible**?: Government and the private sector

- *International efforts at strengthening the research infrastructure in African countries should be seen as a mutually beneficial priority for the global community as a whole. It will also be useful for African universities to continue to cooperate among themselves in ways which give them the ability to share resources and draw from the synergies that collaboration among scholars brings.*

- *African governments, international partners, and the private sector work together to shore up and preserve the library holdings of Africa's university libraries, expand their connectivity to the internet, and link them to databases, electronic journals, and other documents necessary for research and teaching*
    - o **Cos**t: These efforts need to feed into some of the initiatives by NEPAD; for example, the US$157 million science and technology initiative mentioned above. We concur with the Africa Commission's (2005, p. 138) call for the commitment of US$500 million a year over ten years to revitalize Africa's institutions of higher education. We also agree with the Africa Commission's (2005, p. 138) suggestion that the international community should commit up to US$3 billion over the next decade to support the establishment of centers of excellence in Africa.
    - o **Who is Responsible**?:   Donor countries; multilateral agencies; private foundations; African governments; University Councils and Vice-Chancellors; Institutions of Higher Education in industrialized countries

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