
Failed or Self-Hindering Prophecies? Employment Experiences of African Graduates in the 1990s

Alexis-Michel Mugabushaka,¹ Ulrich Teichler,² and Harald Schomburg³

Abstract

The 1980s brought about sweeping and far-reaching structural changes in many African countries, which greatly affected the higher education sector. Though, the task of training the professional and political elite had been achieved in the previous decades, early reforms now faced new challenges. Concerns were raised that, without substantial new reforms, there may be a mismatch between higher education and the labor market, leading to massive unemployment among graduates, a tedious transition process from higher education to the labour market, and the underemployment of highly skilled laborers in low-skill jobs. This article uses survey data, conducted in Ghana, Kenya, Malawi, Nigeria, Tanzania, and Uganda to examine the basis of such concerns.

Résumé

L'Afrique a subi dans les années 80 des vastes et profonds changements structurels qui ont affecté entre autre le secteur de l'éducation supérieure. Les institutions de l'enseignement supérieur ayant accompli leur mission initiale de former une élite professionnelle et une génération de dirigeants, des nouveaux défis se faisaient sentir. Les observateurs remarquaient que sans de reformes majeurs, il pouvait y avoir un déséquilibre dans les relations entre l'éducation supérieur et le marché du travail, avec les risques du chômage pour les diplômés ainsi qu'une période transitoire (entre l'éducation supérieure au marché du travail) difficile et une sous-utilisation

1 Alexis-Michel Mugabushaka is a Research Associate at the Center for Research on Higher Education and Work, University of Kassel, Germany. E-mail: mugabo@hochschulforschung.uni-kassel.de.

2 Ulrich Teichler is Professor of Sociology and Director of the Center for Research on Higher Education and Work, University of Kassel, Germany. E-mail: teichler@hochschulforschung.uni-kassel.de.

3 Harald Schomburg is a Senior Researcher at the Center for Research on Higher Education and Work, University of Kassel, Germany. Email: schomburg@hochschulforschung.uni-kassel.de.

des connaissances et compétences acquises. Cet article analyse les résultats d'une des enquêtes réalisées au *Ghana, Kenya, Malawi, Nigeria, Tanzanie, et Uganda* pour examiner les bases de ces inquiétudes.

Introduction

At the climax of African independence, a broad consensus held that the most urgent task faced by the newly independent countries was to provide economic development and bring about "social modernization." All sectors of society and state were legitimated, and the resources devoted to them justified, by the role that they could (and should) play in national development. The educational sector was seen as the cornerstone in this process.

The overriding idea about higher education was that it had to be a lever of national development, both by contributing to it and shaping it. This idea can be summed up as the idea of the "developmental university," which was pervasive in the 1960s and 1970s. This approach, found scattered throughout writings of political thinkers (Nyerere, 1968; Nkrumah, 1985) and scholars (Yesufu, 1973), follows two basic principles.

First, higher education institutions (HEIs) were expected to train the professional and political elite needed to replace the colonial civil servants and to take up the administration posts in the growing number of public and parastatal organizations. Secondly, HEIs were to play a crucial role in shaping national development. The African university had to "decolonize" its contents and be relevant in addressing the genuine needs and solving the real-life problems of the newly independent nations.

In the mid-80s, the justifications set forth to legitimate the "developmental university" were being re-examined. Educational economists submitted the idea that higher education was too expensive and its return rate too low (Psacharopoulos, 1985). Development theories also criticized higher education as being too "elitist," and the resources committed to it were seen as not being spent on a broader education from which the majority of people in developing countries could profit. An appeal for a reorientation of the focus towards basic and mid-level vocational education developed from these concerns. At the same time, the higher education sector was feeling the effects of the economic decline of the "lost decade." The financial endowments of HEIs across Africa fell dramatically, resulting in the deterioration of the student welfare system and a decrease in quality standards (World Bank 1984).

In this context, the basic tenet of investing in higher education in order to support professional preparation was called into question. HEIs have been credited with achieving the goal of training the professional elite needed to run the country. According to the World Bank's William Saint "the initial task of pro-

ducing professionals to lead and manage the institutions of governments has been largely accomplished” (Saint, 1992, p. 4). But, it was feared that the higher education systems may no longer be suitable to face the emerging challenges. Concerns were expressed that “... in a context of general economic crisis, with the civil service no longer providing jobs for graduates of Higher Education and the private sector offering very little prospect of employment for those completing classical university courses, a serious problem arose concerning the relevance of higher education and training, in relation to the needs” (Toure, 1998, p. 165).

The empirical basis for the articulated fears and the pessimistic scenarios being drawn is arguably thin. Graduate surveys—the instrument par excellence for scrutinizing such issues—were rarely conducted in the mid-1980s. The findings of the surveys conducted in the late 1970s and early 1980s by the International Institute for Educational Planning concerning the relationships between higher education and work change at that time (Sanyal, 1987) had to be updated.

A comparative analysis of 10 graduate surveys, conducted between 1996 and 1997 in Ghana, Kenya, Malawi, Nigeria, Tanzania, and Uganda can help to examine the substance of those concerns. This analysis attempts to answer the following two major questions:

- Did the massive unemployment among graduates and the predicted tedious transition process from higher education into the world of work actually materialize?
- Were graduates led to accept positions not suitable for the highly skilled?

Methodology of the Study

The present analysis is based on graduate surveys conducted under the auspices of the Association of African Universities (AAU) in its Study Programme on Higher Education Management in Africa (Sawyer, 2000). The AAU provided financial support to 10 research teams to conduct the surveys in Ghana, Kenya, Malawi, Nigeria, Tanzania, and Uganda. The research reports of the individual studies are in the process of being published by the AAU.

The Single Studies

In Nigeria, four surveys were conducted. Omoifo (1999) studied the early achievements of the graduates of all faculties of the University of Benin, who had graduated with a Bachelor’s degree between 1981 and 1991. Omotosho (2000) surveyed the graduates from the University of Ilorin of all study levels, from Bachelor’s degree to Ph.D. Anyanwu (2000) set the focus of her study on the transition of arts, agriculture, and education graduates of the University of

Nigeria from higher education into employment. Ugwuonah's study (2000) differs from the others in that its focus is not on graduates of a single institution but includes graduates of HEIs in both Enugu and Anambra, two states in the southern Nigeria.

The Ghanaian Study conducted by Djangmah (1999) deals with graduates of the University of Ghana, the University of Science and Technology, and the University of Cape. In Uganda, the study carried out by Mayanja (1999) compares the professional situations of the graduates of the Faculty of Arts with the Faculty of Sciences of Makerere University. Kaijage (2000) studied the knowledge and skills in the job market of graduates of the Faculty of Commerce and Management of the University of Dar es Salaam. Zembere (2000) examined the career patterns of the graduates of the University of Malawi. In Kenya, two studies conducted in two different universities were confined to the graduates of the Education Department: Kimani (2001) at Nairobi University and Karugu (2000) at Moi University.

Sampling and Tracing Strategies

Among these studies, there are differences in the way the graduates were sampled and traced. In three of the studies, no specific sampling was made. Omotosho (2000), Zembere (2000), and Kimani (2001) targeted their surveys on all of the graduates of the chosen faculties. In the remaining seven studies, the researchers used the stratified sampling method. This sampling strategy, widely held to be as reliable and as accurate as the non-stratified random sampling, consists of dividing the study candidates into groups according to a specific characteristic (for example, the year of graduation) and then randomly sampling the graduates in the particular "strata."

Tracing the graduates was done using a combination of strategies including: using university records of alumni, employer records, snowball techniques, and advertisements in the mass media. The university records, which were very helpful in sampling the respondents, proved to be of little use for tracing the graduates. Though they included regular addresses and the contact information of the students at the time of enrolment at the institution, generally such information was no longer valid a few years after graduation. In some cases, however, the researchers were able to rely on the university administration. At some institutions, the university supports the alumni associations and works closely with them. In this way, Anyanwu, Omoifo, Omotosho, and Zembere were able to get access to lists of alumni with their current addresses. And, while those lists are supposed to be updated during the regular meetings of the alumni, this is often not the case, and the researchers found that the lists were only reliable when the time of graduation was not far in the past.

Another strategy used to trace the graduates was to contact employers. The two Kenyan studies, which targeted graduates of the Faculty of Education, contacted the public service commission, the central employer of teachers in Kenya. Ugwuonah, in her survey of the graduates of the HEIs in the Nigerian states of Enugu and Anambra, established contact with the graduates through enterprises at which they were likely to be employed. This strategy is subject to yielding a biased sample. Non-employed graduates were not likely to be in the sample, and those graduates working in other sectors or other regions may have fallen out of the range. To lessen the risk of bias attached to this method, the researcher asked the traced graduates for help in locating other graduates (the so-called snowball technique). In three of the 10 studies, researchers placed newspaper and radio advertisement in mass media, asking the graduates of their respective institutions to contact them.

After having successfully traced the graduates, the next step was to get into contact with them in order to send them the questionnaires and collect the filled-in. Here the poor post and telecommunications in the countries posed a major challenge to the researchers. In order to increase the participation rate, in some cases, they had to travel miles to collect the completed questionnaires.

Table 1: Key Design Elements of the Single Surveys

Researcher	Country	Faculty/Department	Target Sample	Completed Questionnaires	% Return Rate
Djangmah	Ghana	All, except Medicine	1,500	979	65.3
Karugu	Kenya	Education	2,500	466	18.6
Kimani	Kenya	Education	1,170	547	46.8
Zembere	Malawi	All	1,975	487	24.7
Omoifo	Nigeria	All	4,200	1,047	24.9
Omosho	Nigeria	All	2,800	979	35.0
Anyanwu	Nigeria	Agriculture, Home Economics, Arts, Education	800	579	72.4
Ugwuonah	Nigeria	Engineering, Management, Science, Social Science	500	266	53.2
Kaijage	Tanzania	Commerce and Management	650	331	50.9
Mayanja	Uganda	Arts and Science	1,000	430	43.0

Without disaggregated data about the graduates in the countries and the HEIs included in the study, no assessment can be made of the extent to which the sample can be reliably extended to the entire pool of graduates being studied. The return rates of the studies, varying from 24.7% to 72.4% (Table 1), are also not reliable measures of the accuracy of the sample. Thus, it should be noted that biases in the sample cannot be ruled out in the subsequent analysis of the data.

The Comparative Database

The focus of the 10 surveys varies thematically, and, to some extent, different design approaches have been adopted. The surveys are based on a common “core questionnaire,” however, derived from the standard instrument for conducting graduate surveys developed by Schomburg (1995). The questionnaire, which has been used in different countries and continents, covers various aspects of higher education study and the world of work. The themes taken into account are, among others: the course of study, the field of study, and the higher education institution; the retrospective assessment of the study conditions and provision; the factors influencing the choice of a particular institution; the strategies and course of employment search; the current employment status and the characteristics of the position held; the perception of the use of skills and qualifications gained during the study; and the assessment of the satisfaction with the jobs tasks assigned, the position held, and the status achieved. The “core questionnaire” served as a basis for merging the data of the 10 surveys into a single file with 6086 graduates. The resulting comparative study and the methodological background are described in detail in Teichler et al. (2002). This volume also includes several comparative analysis studies of the data set.

The comparison covering the key dimensions (country, fields of study, gender, and year of graduation) may also be jeopardized by the heterogeneous designs of the studies. A description of the sample—provided below—may help to assess the validity and the limitations of the undertaken comparisons.

Description of the Sample

The description of the sample may help to assess the differences and similarities found in the comparisons covering some key dimensions (country, fields of study, gender, year of graduation, etc.). Almost half of the respondents (47%) in the sample graduated in Nigeria. Kenyan and Ghanaian graduates make up 17% and 15%, respectively, of the sample. A relatively low number of respondents are from Malawi (8%), Uganda (7%), and Tanzania (6%).

With regards to the fields of study chosen by the respondents, education accounts for 30% of the sample. Health science graduates are the least represented, at only 2% of the sample. Graduates of business, law, and social sci-

ences are the most strongly represented, each making up 16% of the entire sample. The representation rates of the remaining areas under examination include humanities and arts (12%), natural sciences (11%), engineering (6%), and agricultural sciences (7%).

Women make up 27% of the respondents across the countries. This is largely due to the choice of faculties from which the research teams selected graduates. In the past few decades, the number of women attending higher institutions has risen consistently, but there remains an imbalance in the gender distribution across different fields of study. For example, humanities and arts and education show graduation rates for women above the overall rate, at 35% for humanities and arts and 36% for education.

The origins of these disparities can be found in the choice of core courses at secondary school levels. In some countries, with separate schools for women and men, scientific courses are rarely offered at the schools that enrol women (Rathegeber, 1991). Even when female students have the opportunity to access a wide range of subjects at the higher education level, their preference is often to enrol in courses that appear to offer flexible career opportunities, which would accommodate the combination of career and family needs.

Though the surveys were carried out between 1996 and 1997, the various studies targeted graduates who had finished their studies between 1980 and 1996. 8% of the sample had graduated in the years from 1980 to 1984, 27% in the years from 1985 to 1989, and the vast majority (65%) finished their studies in the 1990s. For this analysis, we differentiated between the graduates from the beginning of the decade (1990–92) and those who had graduated shortly before the surveys took place. The respective proportions for those groups are 34% and 31%.

Regarding the age of the respondents at the time of the survey, the youngest (up to 29 years old) account for 30% of the sample. 33% were between 30 and 34 and 25% between 35 and 39 years old. The oldest group (40 and up) makes up 15% of the total.

The questionnaire also includes a question on the educational background of the graduates' parents. 24% reported that their fathers had not completed compulsory primary school. 54% had fathers with a level of education between primary school and secondary school, and 18% of the graduates' fathers had at least one college degree. The corresponding figures for the level of education of the respondents' mothers are 38%, 52%, and 8%, respectively.

Findings

Employment Rate

Graduate surveys are not the best medium for measuring the rate of employment, because the non-response units may not be random. It is often argued that such surveys are inherently biased against non-employment, since “successful graduates” are more prone to participating in the studies than graduates who feel less successful. In the cases represented here, this bias may be exacerbated by the graduate tracing strategies used by the researchers. Nevertheless, in countries where reliable and exhaustive official statistics are rare, graduate surveys are invaluable in providing an overall, though imprecise, picture of the employment rate (Teichler et al., 2002).

The analysis of the survey data unveils a less dramatic picture than the scenarios presented above would indicate. A comparison of the countries shows that altogether, 5% of the respondents reported not being employed. The non-employment rate appears to vary between 1% in Kenya and 10% in Uganda, while it is 3% in Malawi, 5% in Tanzania, and 7% in Nigeria. A look at the distribution of the non-employment rate by years of graduation shows that the most recent graduates were more likely to be unemployed than graduates from the earliest cohorts. Virtually all respondents who had graduated by the end of 1984 were employed, whereas 10% of the 1993 to 1996 graduates were not. Minor differences emerge in comparing the employment rate across different fields of study. Graduates of humanities and natural sciences were equally likely to be unemployed (8%), while only 3% of business administration graduates were unemployed. Engineering and education graduates were equally less likely to be unemployed (both at 4%).

Transition from Higher Education to Employment

The transition from higher education to the labor market was expected to be increasingly more turbulent due to the deteriorating economic situation across Africa. As graduates could no longer rely on guaranteed employment in the public sector, which was strongly compressed during the mid 1980s, and with the private sector still in its burgeoning stage, the transition period between school and work represented a challenging time for newly graduated men and women. As indicated by the data, students responded by devising various strategies to face the challenges of finding employment after graduation.

The respondents were asked to state whether they had started looking for employment before or after graduation. A third option—“I did not seek employment”—was offered especially for those who, for example, had either decided to continue on to further studies or, due to child-rearing activities and/or

civil and military service, may not have been seeking access to the labor market. 16% of the graduates chose this third response option. A considerable number of these respondents consisted of graduates who had established their own businesses and, as a result, did not seek external job opportunities. A comparison of the self-employed and the employed shows that 33% of the self-employed did not seek employment, compared with 16% of the traditionally employed.

Overall, almost a third (28%) of the graduates surveyed had started looking for employment before graduation, but this figure varies strongly from country to country. In Ghana, only 11% sought employment prior to graduation, and in Nigeria the figure was 14%. By contrast, 75% of the graduates in Malawi had started looking for employment before graduation. The East African countries take a middle position in this range: In Uganda, Kenya, and Tanzania, respectively, 47%, 48%, and 53% of the graduates had started looking for employment before graduation.

These particular differences among the countries should not be over-emphasized, however. In Nigeria and Ghana, for example, the lower rates of graduates who looked for employment before graduation may be due to compulsory civil and military service. Table 2 shows that the range of those who looked for employment before graduation spanned from 14% of those who graduated prior to 1985 to 41% of those who graduated between 1993 and 1996.

Table 2: Employment Search by Year of Graduation (*Percent*)*

	Year of Graduation				Total
	Up to 1984	1985–89	1990–92	1993–96	
Before graduation	14	18	27	41	27
After graduation	65	67	57	45	57
I did not seek employment	20	16	17	14	16
Total	100	100	100	100	100
Count (n)	(349)	(1,366)	(1,600)	(1,441)	(4,756)

Source: AAU Surveys: Question 6: When did you start seeking a job?

*Some figures may not add up to 100.

The efforts of the graduates to secure employment are reflected in the strategies used in seeking employment. Most African countries have public job centers, which allocate jobs to graduates, but in times of anticipated difficult transition, graduates cannot rely on those agencies alone. They are often forced to

find more resources and pro-active solutions to the problem of finding employment.

The survey respondents were given a rather long list of possible (but not mutually exclusive) search strategies and were asked to indicate which of them they had used in their first job search. Strategies included: applying directly to a job vacancy, receiving an offer directly from an employer, applying to an organization without knowing if there was a vacancy, joining the enterprise of relatives or parents, and getting the first job with the help of a university teaching staff member or a relative. For the purposes of analysis, these points were regrouped into five categories: active search strategies, university contacts, personal contact, employment agency, and "other."

The strategy most often used was the active strategy, chosen by 38% of the respondents. (An active job search strategy is one in which the job search process is done entirely by the graduate alone, without the help of employment agencies, personal and academic contacts, or being approached by the firm.) The employment agency option was also extensively used (35%). In addition, it appears that the use of public employment agencies is still held in high regard by aspiring teachers. In Kenya, where the graduates of the Faculties of Education were surveyed, 98% of the respondents reported having made use of public agencies in their search for a first job. In contrast, university and personal contacts as search strategies scored relatively lowly with 10% and 18%, respectively.

The respondents were additionally asked to state how many employers they had contacted in order to find their first position after graduation. Overall, 30% responded as having contacted only one employer, and 38% acknowledged having contacted between two and five employers. A look at the distribution by graduation year shows that in the mid-1980s and the early 1990s, the number of who said they had contacted between six and ten employers and eleven to twenty employers grew slightly.

Concerning the amount of time spent on the search for initial employment, the vast majority of respondents (73%) reported having spent less than one year searching for employment. 53% even reported spending less than six months. The pattern outlined above does vary according to the economic conditions at the time of graduation. For those who graduated prior to 1985, the average time spent seeking employment was seven months. The average rose to twelve months for those who graduated between 1985 and 1990, and subsequently declined back, to seven months for graduates from 1990 to 1992, and even lower for 1993 to 1996 graduates, who averaged four months for their job search.

The graduates were also asked which factors, in their view, influenced employers the most in their decision to provide them with employment. Job elements relating to their studies rank highest, with 82% of the graduates estimating that their field of study was a significant factor and 70% of graduates noting that their main academic focus—in the case of specialized majors—influenced their employers' decision to hire them. Only 14% of the respondents estimated that the theme of their major thesis had played a role in the decision of the employer. Institution-related factors, like the reputation of the university or the faculty with whom they had studied and worked were also seen by the graduates as not being significantly important in the eyes of employers.

The Employment Sector

The public sector remains the biggest employer of the graduates. Overall, 73% of the graduates reported working for a public employer, whereas 22% were working for a private employer, and 4% were self-employed. (The remaining 1% were working for an employer who did not fit into the above named categories, such as an international organization). A more precise impression of the significance of employment in the public sector appears when one looks at the employment distribution of graduates according to their field of study. 98% of education graduates were working for a public employer, mainly at public schools. In other fields of study, the proportion of public sector employment was not as high (i.e., 69% for graduates of natural sciences and 66% for both social sciences and the humanities). 57% of business administration graduates were also working for the public sector. Conversely, in health sciences and engineering the proportion is less than half, at 44% and 48%, respectively.

A closer look reveals a trend showing a diminishing share of the employees in the public sector over the years. 77% of pre-1985 graduates were employed in the public sector, in contrast to 74% of those who graduated between 1993 and 1996. The private sector increased its intake of graduates from 10% (pre-1986) to 21% (between 1993 and 1996) during the same period of time. Industry (manufacturing, mining, construction, etc.), commerce, and finance are among the economic sectors that had an especially large share of graduates working in the private sector.

Self-employment is also slightly on the rise among graduates. Health sciences graduates are more likely to become self-employed than graduates from other fields of study. Considering graduates from Ghana and Nigeria, in which the proportion of self-employed respondents is large enough to be meaningfully analyzed, we see that 17% of the graduates in health sciences are self-employed. In agriculture, the share of self-employed accounts for 11%, humanities for 10%, business for 8%, and engineering for 7%. In the remaining

fields of study, self-employment seems not to play as big a role. The proportions of self-employed in social science and in natural sciences are equally low (3%). Among graduates from education, only 2% report being self-employed.

A separate analysis of the data for Nigeria and Ghana shows that investment-friendly fiscal reforms and the encouragement of private entrepreneurship over the last few years have influenced this situation, and a comparison of the working conditions of employed graduates and those who have their own business reveals no striking differences (Mugabushaka, 2002).

Position, Status and Income of the Graduates

The battery of questions regarding features of employment (type of work, income, and nature of work assignments), the “subjective” respondents’ views on the adequacy of the job in relation to their level of education, and their perception of their use of the qualifications gained during their studies may help clarify whether or not graduates took on positions suitable for highly skilled workers. Apart from the personal stress associated with being an underemployment highly skilled worker, underemployment is also a problem with far-reaching implications for education planning. When graduates take positions below that of their level of education, people with fewer qualifications may be not be able to compete. In the long run, this situation may result in a depreciation of the value of mid-level qualifications, creating greater disparities between the educated and the less- or non-educated. Furthermore, considering the financial means needed to train higher education graduates as an investment, graduates taking up positions in which their productivity is low means, in economic terms, a loss of resources, which are already scarce in African countries.

Another noticeable feature of the work that the graduates were doing is that it was most often full-time employment. We first look at whether the graduates are full or part-time employed. Overall, part-time employment seems to be a marginal phenomenon. Only 2% of graduates report holding part-time jobs. There are some differences, however, across the fields of studies. In social sciences and education, only 1% of the graduates work part-time; and in agriculture and engineering, just 2% of graduates are employed on part-time basis. The corresponding share among natural sciences and business graduates is 3%, while in the humanities, graduates holding part-time employed account for 5% of all graduates, and in the health sciences, that figure rises to 12%. An examination of the respondents’ work assignments indicates that while the graduates were working in areas for which their field of study “typically” prepared them, other tasks, which are outside of their fields of study, were also being assigned to them. Table 3 shows the distribution of a categorized list of work assignments according to field of study.

Table 3: Major Area of Work Assignment by Field of Study (*Percent*)*

Area of Work	Field of Study								Total
	Bus	Soc	Eng	Edu	Hum	Agri	Nat	Health	
Engineering	24	16	68	6	19	21	26	25	20
Business & Management	55	55	15	5	32	32	20	14	30
Research & Development	4	5	4	1	3	8	4	7	3
Training & Teaching	7	15	8	88	40	29	40	38	41
Advisory & Consulting	7	5	5	1	5	9	7	16	5
Others	3	3	0	0	2	1	1	0	1
Total	100	100	100	100	100	100	100	100	100
Count (n)	(748)	(691)	(274)	(1,164)	(348)	(282)	(357)	(56)	(3,920)

Source: AAU Surveys: Question 20a: What is your current major area of work assignment?

Note: The core questionnaire included a list of 34 possible work assignments, which have been divided here into six categories.

*Some figures may not add up to 100.

According to Table 3, graduates were more likely to be found in three major areas of work assignments: teaching (41%), business and management (30%), and engineering (20%). When these figures are contrasted with those of advisory work and consulting (5%) and of research and development (3%), it is clear that most graduates took positions in typical managerial and professional areas of work, while fewer are employed in knowledge producing areas. Table 3 also reveals that graduates gained employment in a wide range of work assignment categories, the exception being the graduates of education, who showed the smallest dispersion across the work assignment area (i.e., 88% of the graduates of education take teaching positions).

The lack of an accepted general definition of what is an appropriate relationship between education and employment has resulted in the use of a variety of measures to gauge these issues (Teichler, 1999). These measures incorporate a number of intertwined but not interdependent aspects. The extent to which graduates actually use the skills and knowledge they have acquired during their studies is an important indicator of the level of occupation they have. Also, their own subjective perceptions of how the content of their jobs relates to their qualifications hint to the appropriateness of the position achieved.

Overall, 70% of the respondents reported that they were, to a high extent, using the skills and qualifications they had acquired during their studies. 20% took a middle position, whereas 10% said they were not applying the knowl-

edge gained through higher education (or were using their skills only to a very low extent). The percentage of those who were not using their skills was higher than the average in some fields of study, including agriculture (15%), humanities (14%), and social sciences (12%). In addition, the majority of those who believed that they were holding a position in which they were not making use of the skills they had acquired were working in areas of commerce, business, and management. One explanation for this outcome might be that commerce and business attract a great number and variety of graduates, whose studies are not specifically linked with those activities.

The graduates were asked to state why they had taken employment only vaguely linked to their studies, and they reported that it was largely due to a lack of appropriate job opportunities in areas closely related to their field of study. The most frequently cited reason (17%) was that their current job offered better career prospects than positions more closely related to their academic degrees. 24% of graduates of business and management cite this as their reason for being employed in an area different from their academic backgrounds, a percentage higher than the average. Another reason cited was the opportunity for part-time or flexible schedules, chosen by 12% of respondents, while 11% said they took positions in other areas because they could not find a job closely linked to their studies. Also worth noting is the fact that, of the graduates who held teaching positions, 14% reported that they chose teaching because they could not find jobs linked to their studies.

Graduates were also asked to assess the extent to which they believed their position and employment status was appropriate to the level of their education. A five point scale was provided, with one standing for “completely appropriate” and five for “not at all appropriate.”

59% of the graduates considered their position and status to be appropriate to their level of education (scores of 1 and 2). On the other hand, 18% perceived an imbalance between their academic background and their employment level (indicated through reported scores of 4 and 5). Most of those who reported scores of 4 or 5 were teachers (at 24%, their proportion lies 6% above the overall rate). This is mainly due to the income of teachers and fringe benefits such as housing and pension schemes. The income of teachers is lower than in any other area of high-skilled work. The mean monthly gross income of teachers was US\$175, whereas in other areas of skilled work, it was between US\$264 (business and management) and US \$337 (consulting). Engineering graduates were earning US\$293 a month.

The graduates overwhelmingly indicated dissatisfaction with income and fringe benefits, among other characteristics of their professional situation aspects when asked to assess their satisfaction with their professional situation (Table 4).

Table 4: Measures of Professional Satisfaction by Gender (*Percent, Responses 1 and 2*)

	Gender		Total
	Male	Female	
Possibility to use qualifications acquired during my studies	62	61	62
Opportunity to benefit society	63	59	62
Job security	61	59	61
Content of work / professional tasks	61	57	60
Possibility to work in a demanding job	60	54	59
Opportunity of pursuing continued learning	45	44	45
Chance of fulfilling my own ideas	43	38	42
Working atmosphere	38	40	38
Position achieved	35	32	34
Workplace surroundings (noise, space, climate, etc.)	30	32	30
Promotion prospects	30	25	29
Equal treatment of all employees	29	29	29
Equipment of the workplace	24	25	24
Income	20	20	20
Fringe benefits	17	16	17
Count (n)	(3,969)	(1,415)	(5,384)

Source: AAU Surveys: Question 34: To what extent are you satisfied with the following characteristics of your professional situation? Scale from 1 = to a very high extent, to 5 = not at all.

Only 17% were satisfied with the fringe benefits associated with their jobs, and 20% reported being satisfied with their employment income. The aspects with which the graduates were most satisfied were the possibility to use qualifications acquired during their studies (62%), the opportunity to benefit society (62%), and job security (61%).

Respondents were also asked to rate how personally important those and other aspects were to them. 79% rated the possibility of using acquired knowledge as highly important, while 74% noted job security, and 73% the chance of doing something useful for society. It seems that the aspects of work the graduates were most satisfied with were those that were most personally important to them.

There is also another very interesting finding. In regards to satisfaction with work content and the opportunity to work in a demanding job, the graduates

were, overall, highly satisfied, but there were notable differences between male and female graduates. The proportion of those satisfied with the content of their professional tasks and the possibility of working in a demanding job was 61% and 60%, respectively, for male graduates and 57% and 54%, respectively, for female graduates. These differences may be due in large part to gender differences in the graduates' areas of work. The surveys show that female graduates were more likely to work as teachers, whereas male graduates were working in most of the other areas of work. Gender distinctions proved significant throughout the survey findings.

Gender Comparisons

Education has become one of the most important levers for social mobility in African societies. This has led to familiar debates, particularly concerning women, about the fairness of the access procedures existing in countries across Africa. There have been many discussions regarding the participation of women in primary, secondary, and higher education, discussions that are part of ongoing debates about the broader place of women in African society. Beyond the problem of fairness in access to higher education, it is interesting to look at the professional paths of women, once they have completed their studies.

Minor differences can be observed between the experiences of men and women in the process of the transition from higher education to the labor market. Although 56% of both male and female graduates started looking for employment before graduation, women spent more time searching than men (an average 10.3 months for women, compared to 9.7 months for men). The gap is even larger in some countries due to the fact that male graduates, constrained by compulsory civil or military service, have longer employment search times. In addition, more female than male graduates reported that they had not sought employment following graduation, most likely because of child raising factors.

The assessment of the factors that influenced employers to recruit the graduates also appears to differ between men and women. Academic factors (study subject, grades, etc.) were regarded by most respondents, male and female, as being decisive for recruitment. Women seem to believe, however, that personal traits are as important as academic preparation. In fact, 57% of women (compared to 47% of men) considered their own personality as having played a role in their recruitment.

The concentration of women in certain fields of study has repercussions in employment outcomes. For example, a comparison of employment sectors shows that 51% of women (compared to 38% of male graduates) were working in schools. This is the only employment sector in which the share of women is higher than men. Whereas one in five male graduates (20%) work in industry,

the same can only be said for one in seven woman graduates (14%). In other economic fields, too, the proportion of women lies (though slightly) beyond men. 5% of women (compared to 7% of men) work in agriculture, and 13% (compared to 16% of men) work in commerce.

The measures of employment conditions, however, do not reveal perceivable differences between women and men. Still, the median monthly income of women graduates is slightly lower than that of their male counterparts (US\$172 compared to US\$174).

Table 5: General Job Satisfaction by Gender (*Percent**; Arithmetic Mean)

	Gender		Total
	Male	Female	
1 to a very high extent	12	9	11
2	32	28	31
3	35	39	36
4	13	13	13
5 not at all	9	10	9
Total	100	100	100
Count (n)	(3,866)	(1,381)	(5,247)
Arithmetic mean	2.7	2.9	2.8

Source: AAU Surveys: Question 35: Altogether, to what extent are you satisfied with your professional situation? Please take also into account in your statement any professional sidelines. Scale from 1 = to a very high extent, to 5 = not at all.

*Some figures may not add up to 100.

In addition, those who estimated using their skills to a high extent in their work is the same, 69%, for both males and females. This parity also appears in the rating of the appropriateness of position and status, where 60% of men and women held the view that their position and status were adequate to their education. Women, however, seemed to be less satisfied with their jobs than men, with 44% of men reporting high levels of satisfaction with their job situation, while just 37% of women were equally satisfied (scores 1 and 2, Table 5).

Conclusions

The challenges faced by the higher education sector in Africa in the mid-1980s were seen by some observers as the beginning of the mismatch between the increase in access to higher education and the decrease in employment opportunities in the labor market. The imbalance between educational and employ-

ment opportunities was thought to have serious consequences for graduates in at least three ways: the possibility of massive unemployment among higher education graduates; the likelihood of a tedious transition process from school to work; and, for some of the “fortunate few” who were even able to get a job, often the underemployment of highly skilled workers in lower skilled positions. An analysis of the graduate surveys conducted between 1996 and 1997 in Ghana, Kenya, Malawi, Nigeria, Tanzania, and Uganda shows that those scenarios did not actually occur, however.

Although our data cannot give a precise estimate of overall unemployment rates among graduates, the general findings appear less dramatic than feared. On the whole, 5% of the graduates reported not being employed. The transition process from school to work seems to have been difficult in the mid- and late-1980s but “normalized” in the 1990s. The average time spent searching for employment was highest (13.3 months) between 1985 and 1989 and fell to 6.6 months in the 1990s. As for employment conditions, most of the graduates held jobs related to their studies. The majority (59%) of the graduates also felt that the position they held and the status they had achieved were appropriate to their level of education.

The data also suggest that the endeavors undertaken by students to face the challenges of a changing labor market in the 1980s played a role in achieving this somewhat satisfactory situation. An appreciable number of students had started looking for employment before graduation, and they did not rely on the help of existing institutions with their search. Instead, they used “active searching strategies.” It is likely that graduates chose active searching strategies in response to the propagation of the pessimistic scenarios discussed in the introductory part of this article, and such pro-active responses may have actually helped deter the feared outcomes from actually occurring.

The picture of graduate employment given above does apply, however, to the time in which the research was done. The relationship between higher education and work is subject to changes due to prevailing economic situations, societal changes, and external constraints. Studying its match and mismatch cannot be achieved in a single scientific inquiry and is a task that should be conducted on a regular basis. The surveys on which this comparative study is based have shown ways to overcome the barriers facing research when complex surveys are undertaken. We hope this will encourage other researchers in African countries to conduct ambitious examinations of higher education in Africa.

The process of reaching the equilibrium between higher education and the world of work involves a number of actors, including the state, HEIs, employers, and, of course, graduates. In further research, public employment policy,

higher education policy, the initiatives taking place at HEIs, and the approaches of employers in recruiting graduates should be strongly emphasized and comprehensively examined in order to form a coherent picture of the employment circumstances of graduates.

Another significant finding from the study examines the relationship between higher education and the world of work. Our findings highlight issues that can be seen as measures of a possible mismatch between educational opportunities and available career options. Understanding these issues can give the actors involved hints as to how to resolve the situation, if such resolutions are necessary.

In her reflections on how to improve communication between researchers and policy makers in higher education, Elaine El-Khawas (2000) emphasized the role researchers should play in fostering the exchanges between the spheres of research, policy, and practice. Her appeal that researchers should not only address policy-relevant issues but should also focus on “integrated, coordinated studies rather than individualized, unconnected studies” (El-Khawas, 2000) served as a grounding principle for this analysis and should also be a guide to all future researchers examining higher education and policy, not just in Africa, but around the world.

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