

**WHERE HAS ALL THE EDUCATION GONE IN AFRICA?  
EMPLOYMENT OUTCOMES AMONG SECONDARY SCHOOL AND  
UNIVERSITY LEAVERS**

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## PREFACE

Obtaining a comprehensive and detailed picture of the labour market outcomes of secondary school leavers and university graduates is essential in order to enable governments, donor agencies and other key stakeholders in civil society to develop well designed education and employment policies. Anecdotal evidence and generalisations abound concerning the employment outcomes of secondary school leavers and university graduates, but there is very little solid, accurate information on what these groups in African countries do after they have completed their education. The main objective of the research project has been to fill this gap in Malawi, Tanzania, Uganda and Zimbabwe. Standard tracer survey methodology has been used to generate comprehensive time-series information on the activity profiles of representative samples of secondary school leavers and university graduates. This information provides an invaluable source of data for monitoring and evaluating the impact of educational reforms.

The research project explores the types of employment and other activities secondary school leavers and university graduates have engaged in since completing school and university. This includes any further education and training that has been undertaken in order to improve employment prospects. Another important objective of this research has been to assess the extent of the “brain drain” among educated groups in low-income African countries. Finally, the opinions of school leavers and graduates were sought concerning the relevance and quality of their education in light of their employment experiences.

This synthesis report draws together the main findings and recommendations presented in the four country studies, which are also available. Specific topics including self-employment, cumulative mortality, the brain drain and incomes will be explored in more detail in other publications.

Many people contributed to the success of this study. We would like to thank all the senior officials in Ministries of Education and national universities, managers, lecturers and teachers, and students at the survey schools and universities who assisted with the preparation and implementation of the tracer surveys in each country. We are also particularly grateful to the thousands of secondary school and university leavers who participated in the survey. Country teams of 10–15 research assistants were responsible for tracing and interviewing secondary school and university leavers. Their performance was outstanding.

Finally, the study could not have been undertaken without the generous financial support of the Education Department, Department for International Development. Steve Arthur, Manisha Prajapati and Rod Tyrer at DFID head office in London provided excellent administrative and professional back-up. However, the views expressed in this report are entirely those of the authors and do not necessarily represent DFID’s own policies or views.

## ACRONYMS

|       |  |
|-------|--|
| ACCA  | Association of Chartered Certified Accountants     |
| BRAC  | Bangladesh Rural Advancement Committee             |
| DFID  | Department for International Development           |
| FET   | Further education and training                     |
| GER   | Gross Enrolment Ratio                              |
| GDP   | Gross Domestic Product                             |
| ILO   | International Labour Office                        |
| ISCED | International Standard Classification of Education |
| Iya   | Latest year available                              |
| MBA   | Master's in Business Administration                |
| MOEC  | Ministry of Education and Culture, Tanzania        |
| MRCS  | Membership of the Royal College of Surgeons        |
| NGOs  | Non-governmental Organisations                     |
| PPP   | Purchasing power parity                            |
| SSA   | Sub-Saharan Africa                                 |
| SSULs | Secondary school and university leavers            |
| UIS   | UNESCO Institute of Statistics                     |

## EXECUTIVE SUMMARY

This report presents the main findings of an international research project that has evaluated the further education and employment experiences of secondary school leavers and university graduates in four African countries – Malawi, Tanzania, Uganda and Zimbabwe. More than ever, there is urgent need for good quality and up-to-date information about what young people do after they have left school and university.

Over 5000 graduates and school leavers were successfully interviewed. The university sample was drawn from graduates in key occupational areas (five faculties were chosen from agriculture, accountancy, commerce, economics, education, engineering and medicine) who left their national universities in 1980, 1987, 1994 and 1999. Similarly, a representative sample of form four leavers in 1990 and 1995 were traced. The surveys were undertaken in mid-late 2001.

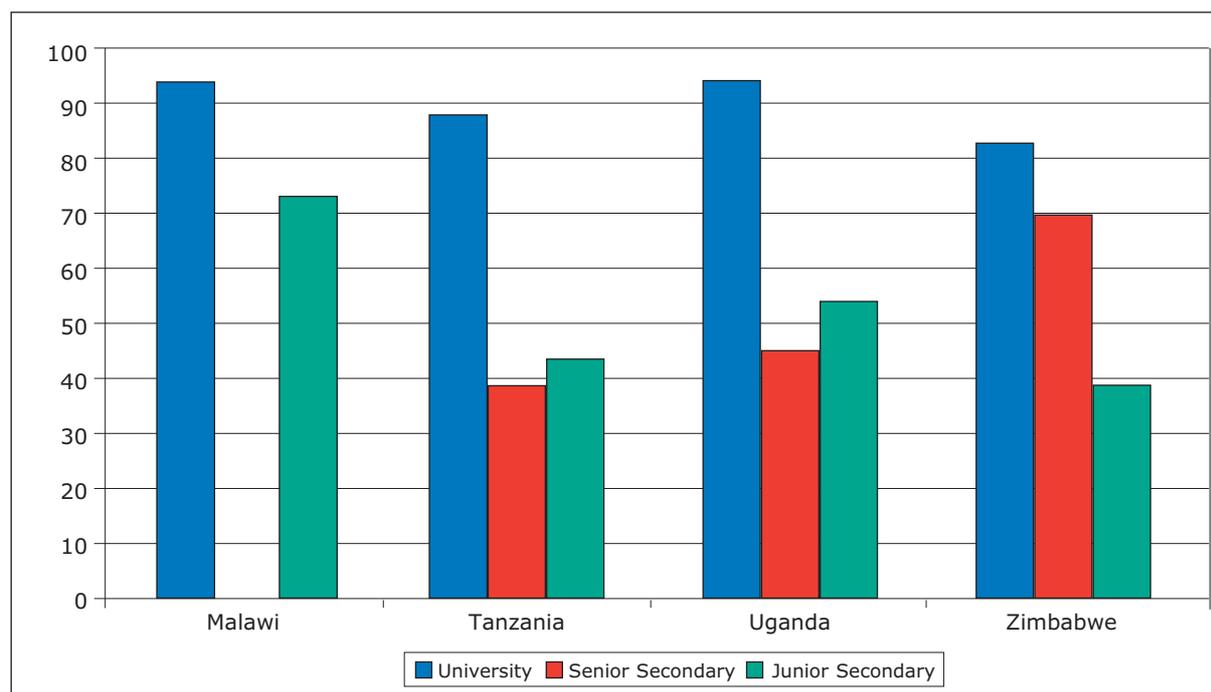
Once traced, as many graduates and school leavers as possible were interviewed. This enabled detailed information on employment histories to be collected. Their views were also sought on the quality and relevance of their education.

Chapter 3 of the report provides an overview of the main activity areas of the leavers at the time of the survey and since they left school and university. These activities are wage and self-employment, unemployment, and further education and training. In addition, the key characteristics of each group are described including gender, socio-economic background, and religion. The tracer surveys also enable an assessment to be made of the overall impact of the AIDS epidemic on what are the two most educated groups in these countries. Very sizeable proportions of the oldest (1980) graduates were deceased by 2001 in Malawi (25 per cent), Uganda (33 per cent) and Zimbabwe (18 per cent). Equally tragically, between 10–14 per cent of the 1990 school leavers in these three countries had died. A key finding of the survey is that cumulative mortality among school leavers is two to three times higher than among graduates of roughly the same age.

International migration among graduates (the so-called “brain drain”) was less than expected. Only around 20 per cent of the 1980 cohorts of graduates in Uganda and Zimbabwe were traced to overseas locations in mid-late 2001. The corresponding figures for Malawi and Tanzania were lower still – only 8 per cent and 4 per cent respectively.

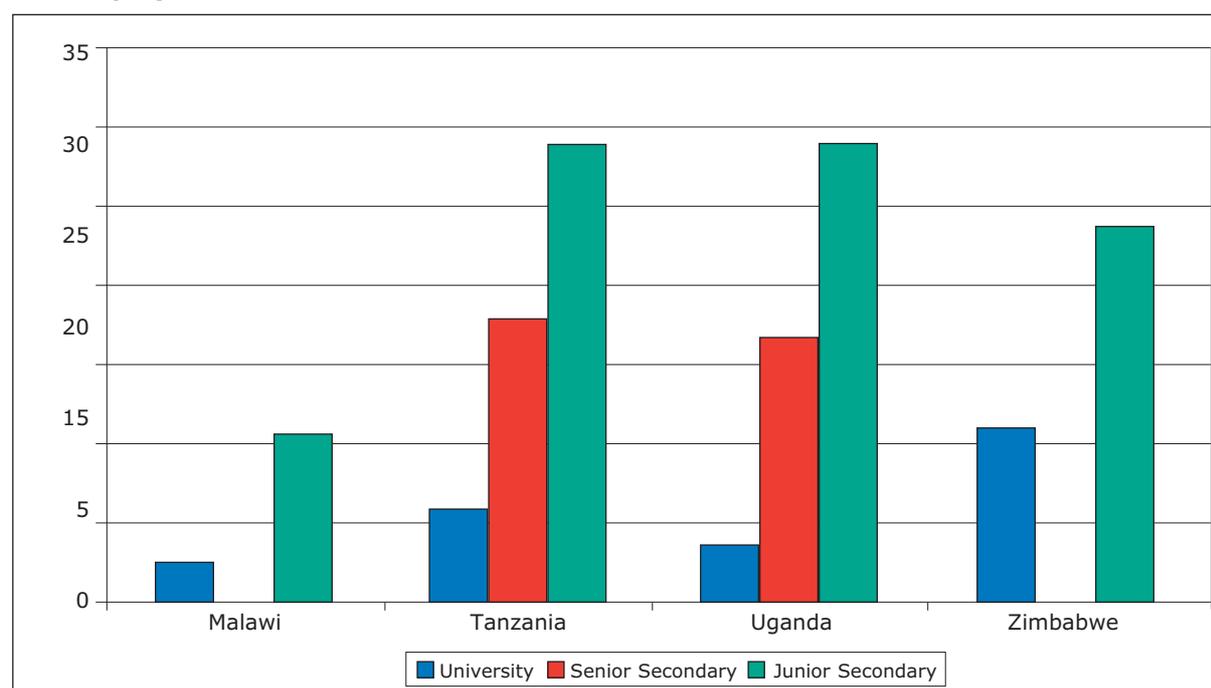
Despite mounting concerns about unemployment and underemployment among university graduates in much of sub-Saharan Africa, nearly all of the sampled university graduates in the four survey countries were in training-related wage employment in late 2001. However, the incidence of wage employment was considerably lower among school leavers (see Figure 1). Among the 1990 terminal leavers (i.e. those who did not proceed to upper secondary and/or university) only around half were in wage employment in Tanzania, Uganda and Zimbabwe, but this figure was over 80 per cent in Malawi. There is no clear gender pattern in wage employment across the four countries. However, in Tanzania wage employment rates tend to be higher for female than for male leavers.

**Figure 1: Percentage of traced university graduates and secondary school leavers in wage employment mid-2001**



In all four countries, very considerable importance is attached to private sector development as part of the process of economic liberalisation. While self-employment among graduates is fairly rare (with the exception of 1980s graduates in Zimbabwe), the shortage of jobs in the formal sector means that the incidence of self-employment among school leavers was quite high and growing over time (see Figure 2). Between 10 and 38 per cent of the terminal school leavers were in full-time self-employment in

**Figure 2: Percentage of traced university graduates and secondary school leavers in self-employment mid-2001**



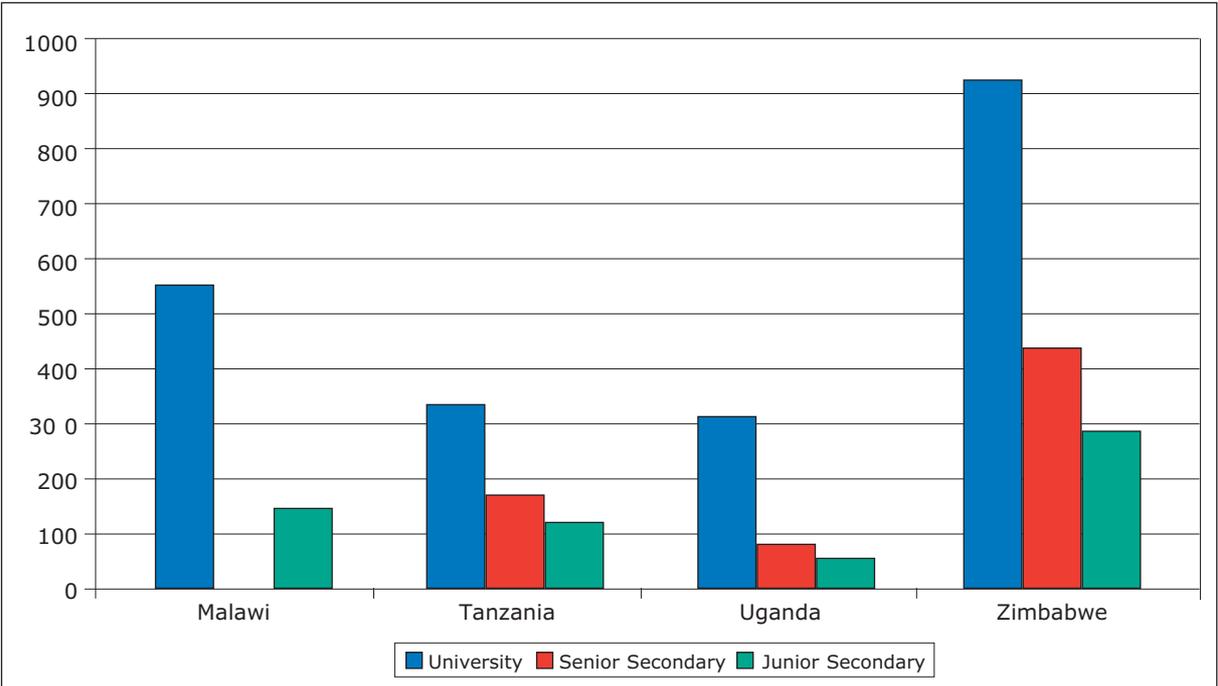
mid-late 2001. However, most of them view self-employment as “employment of the last resort”. Their income generation activities are of a “survivalist” nature with much lower incomes than in wage employment.

The incidence of unemployment among university graduates was very low. Only between 1 and 3 per cent of graduates in the four countries were unemployed and looking for work. Even more surprisingly, unemployment rates were also fairly low among secondary school leavers, with the important exception of Zimbabwe. Only between 5 and 10 per cent of 1990 secondary school leavers were unemployed and looking for work in Malawi, Tanzania, and Uganda.

Both university and school leavers have invested very heavily in further education and training (FET) both in terms of time and money. The large majority of both groups had undertaken some FET. For example, graduates from the 1980s had spent between 2.5 and 3.5 years attending training courses since completing their first degrees. Over half of this group in each country had enrolled at some stage for a Ph.D. or master’s degree programme. The relatively heavy investment in FET by women leavers has been a key factor in the very rapid progress they have made in employment markets during the last decade.

University graduates in wage employment earn substantially more than secondary school leavers (see Figure 3). In all countries, incomes from wage employment are generally much higher than earnings from self-employment. This income structure is likely to have important implications for current policy initiatives to promote private sector development among the relatively educated in these countries. Although there are greater wage employment opportunities for female leavers in some of the surveyed countries, male leavers still tend to earn more.

**Figure 3: Total monthly income of traced university graduates and secondary school leavers in wage employment in mid-2001 (\$US)**



While most of the school leavers and university graduates felt that their education had been a “worthwhile” investment, it is clear that there are fairly major concerns about the quality and relevance of this education. For example, over 60 per cent of the 1995 junior secondary school leavers in Tanzania and almost 50 per cent in Malawi and Uganda did not agree that ‘the secondary school curriculum was relevant and up to date’. University graduates were particularly concerned that their degree courses were ‘too theoretical’ and there were not sufficient opportunities for industrial attachments and other kinds of training-related work experience.

In general, employment outcomes are considerably better than expected. However, the tracer surveys highlight the enormous challenges of educating and subsequently utilising secondary school leavers and university graduates in an efficient and effective manner in low-income African countries. In particular, given the paucity of new employment opportunities in the formal sector, much more needs to be done in order to ensure that both these groups are better prepared for productive self-employment, especially in high-growth and higher skill activities. Improving the overall quality of higher and secondary education is also absolutely critical.

## CHAPTER 1

# INTRODUCTION

This report presents the main findings of an international research project that has evaluated the education and employment experiences of secondary school leavers and university graduates in four African countries – Malawi, Tanzania, Uganda, and Zimbabwe. On the basis of these findings, the report also discusses the main policy lessons that can be drawn.

### 1.1 STUDY OBJECTIVES

The main objective of the study has been to generate comprehensive information on labour market outcomes among representative samples of secondary school and university leavers (SSULs) in four African countries. More than ever, there is an urgent need for good quality and up-to-date data that can help answer a number of key questions about what young people actually do once they have left secondary school and university.

#### 1.1.1 Key issues

*Youth unemployment:* The critical importance of high and middle-level “manpower” in national development is universally accepted by politicians, planners, employers and educationalists throughout Africa. At the same time, however, the spectre of mass unemployment among educated youth increasingly dominates policy discussions on education and employment in sub-Saharan Africa (SSA). Over the years, countless policy documents, newspaper articles and academic reports have highlighted the extent of the unemployment problem. Their overriding concern is that large and growing proportions of educated youth are unable to find gainful employment which, quite apart from the individual suffering of those who are directly affected, poses a serious threat to social and political stability in many countries. It also represents a major waste of public resources, which has encouraged many governments to focus more on the provision of basic education where benefits are seen to be higher and more assured.

*Under-employment:* The extent of serious under-employment among SSULs is also a growing concern in almost all countries in SSA. Government and parents/carers invest very heavily in university and secondary education, but it is widely believed that young people are increasingly unable to find appropriate, training-related employment that effectively utilises the knowledge and skills acquired at secondary school and university. Stories abound of university graduates who are driving taxis, running tuck shops, working as clerks, etc.

**Table 1.1: Economic and labour market information<sup>1</sup>**

|          | Average annual real GDP per capita growth |           | Economically Active Population (000's) |        | Wage Employment (000's) |       | Self-employment (000's) |       | Unemployment (000's) |      |
|----------|---|-----------|--|--------|-------------------------|-------|-------------------------|-------|----------------------|------|
|          | 1990-1994                                 | 1995-1998 | 1990                                   | 2000   | 1991                    | 2000  | 1991                    | 2000  | 1991                 | 2000 |
| Malawi   | -4.0                                      | 2.7       | 3,457                                  | 4,509  | -                       | 586   | -                       | 271   | -                    | -    |
| Tanzania | -0.9                                      | 2.3       | 11,295                                 | 19,099 | 933                     | 1,161 | 807                     | 1,414 | 406                  | 913  |
| Uganda   | 2.7                                       | 3.9       | 8,319                                  | 10,881 | -                       | -     | -                       | -     | 79                   | 668  |
| Zimbabwe | -1.9                                      | 2.1       | 3,601                                  | 4,963  | 1,236                   | 1,316 | -                       | -     | 234                  | 298  |

*Notes:* Tanzania – data are for 1991 and 2000.  
Malawi – data are for 1987 and 1998.  
Uganda – unemployment data are for 1989 and 1997.  
Zimbabwe – unemployment data are for 1987 and 1999. Labour force data are for 1992 and 1999.

*Sources:* Tanzania data: Planning Commission (1991 and 2000).  
Malawi, Uganda and Zimbabwe – ILO (2002).  
GDP per capita growth rates: World Development Indicators CD ROM. World Bank.

There is a strong consensus that the overall incidence of un- and under-employment, both generally and amongst educated groups, has increased rapidly since the mid-late 1980s. Table 1.1. shows that, on the whole, unemployment rates confirm this broad trend although rates fell marginally in Zimbabwe during the nineties. Three main sets of reasons are commonly advanced for the excess supply of educated labour. First, the growth of formal sector employment has been seriously inadequate. Economic reform is supposed to result in an expansion of employment opportunities as the private sector takes on the leading role in economic development and labour markets are de-regulated. However, economic growth has remained generally sluggish. Furthermore, as the pace of public sector reform programmes has accelerated in most countries during the 1990s, governments have considerably scaled down and, in some cases, stopped recruitment altogether. The public sector has traditionally been the principal source of employment among SSULs throughout the continent. While only two of the four countries included in this study have the relevant data they both show that, as a share of the labour force, wage employment has declined substantially over the 1990s (see Table 1.1). Trade liberalisation and privatisation have also resulted in private sector enterprises downsizing their workforces in most sectors. Secondly, despite decreasing job opportunities, secondary school and university enrolments have increased very rapidly during the last decade (see Table 1.2). To a large extent this is a direct consequence of the implementation of the policy of universal primary education coupled with the easing of restrictions on private sector involvement in the education and training sectors, which has allowed pent-up demand for post-primary education to be increasingly met. African parents continue to attach overriding importance to the education of their children, even though governments have begun to introduce cost recovery measures, which increase the private costs of education.

<sup>1</sup> The breakdown of employment figures shown in this table for Tanzania do not sum to the economically active population because traditional agriculture is excluded from the table.

**Table 1.2: Education system characteristics in Malawi, Tanzania, Uganda and Zimbabwe<sup>2</sup>**

|          | Student Numbers (000s) |    |      |    |      |           |      |    |     |    | Gross Enrolment Ratios (%) |     |          |      |      |
|----------|------------------------|----|------|----|------|-----------|------|----|-----|----|----------------------------|-----|----------|------|------|
|          | Tertiary               |    |      |    |      | Secondary |      |    |     |    | Secondary                  |     | Tertiary |      |      |
|          | 1980                   | %f | 1990 | %f | lya  | %f        | 1990 | %f | lya | %f | 1990                       | lya | 1980     | 1990 | lya  |
| Malawi   | 2.6                    | 27 | 4.8  | 26 | 3.2  | 28        | 58   | 19 | 946 | 44 | 8                          | 36  | <1       | 1    | 0.32 |
| Tanzania | 3.1                    | 14 | 7.5  | 16 | 18.9 | 21        | 150  | 42 | 262 | 46 | 5                          | 6   | 0        | 0    | 0.69 |
| Uganda   | 5.9                    | 23 | 17.6 | 28 | 40.6 | 35        | 245  | 37 | 466 | 39 | 13                         | 19  | 1        | 1    | 2.98 |
| Zimbabwe | 8.3                    | -  | 49.4 | -  | 40.9 | 25        | 661  | 47 | 835 | 47 | 50                         | 44  | 1        | 5    | 3.93 |

*Notes:* lya – latest year available. For student numbers lya is 1998 with the exception of data for Malawi (1997), secondary enrolments in Tanzania (2000) and secondary enrolment in Zimbabwe (2000). The latest year available for GERs is 2000/01 except for tertiary in Malawi which is for 1998/99. Data for 1980 tertiary enrolments for Tanzania are actually 1975.  
%f – percentage female.

*Sources:* UNESCO Education Counts CD ROM, UIS website and MOEC BEST (2001).

Thirdly, secondary and tertiary education are themselves widely seen as contributing directly to the employment crisis. The main criticisms are that curricula are irrelevant and out of date and that learning outcomes are generally poor and declining as a result of serious deficiencies in the quality of key inputs, in particular teachers and lecturers and textbooks and other essential learning materials. A constant refrain in all these discussions is that secondary schools and universities continue to inculcate attitudes towards the world of work which are inappropriate for low-income, predominantly rural economies. In particular, education encourages a “white-collar” job mentality that militates against entrepreneurship and a strong commitment to self-employment. Most public universities are in deep financial crisis.

*Access and labour market discrimination:* Although enrolments are increasing rapidly in most countries, there is continuing concern about the inequitable access of women and the poor to secondary schools and, in particular, higher education. And once employed, it has been commonly observed that women school and university leavers are discriminated against in formal sector labour markets. The incidence of wage employment is disproportionately low for women who are “ghettoised” in low-status and low-income occupations.

*Credentialism in poorly regulated education and training markets:* Growing competition for the limited number of “good jobs” in the formal sector continues to fuel qualification escalation. School and university leavers are investing considerable time and money in acquiring additional qualifications that they hope will improve their position in lengthening employment queues.

*Brain drain:* International migration, especially of university-trained professionals, is another much-discussed consequence of lack of employment opportunities for educated labour coupled with relatively low incomes and limited opportunities for career advancement. It has been estimated that 20,000

<sup>2</sup> Data for 2000 were not directly comparable with previous years because the International Standard Classification of Education (ISCED) levels changed in 1997. This included an additional level of post-secondary education which was not included in either secondary or tertiary education classifications. Prior to 1997 this level of education was either reported as secondary or tertiary.

professionals leave Africa every year and that the total cost of this flight of human capital is as much as US\$4 billion per annum (see Aredo 2002). However, 'there is no uniform system of statistics on the number and characteristics of international migrants' (Carrington and Detragiache 2002: 1).

*HIV/AIDS:* The AIDS epidemic is expected to have a devastating impact on the educated labour force in SSA, in particular in countries with high rates of HIV infection. It is widely believed that, certainly in the earlier stages of the epidemic, higher socio-economic groups have higher prevalence rates than the rest of the adult population.

### ***1.1.2 Plugging the knowledge gap***

These are major issues, all of which have far-reaching implications for human resource development in SSA. However, what is striking is how little good quality and up-to-date information is available in virtually every country in SSA that could be used to inform policy-making with regard to both employment and education policy in these key areas. This lack of information has resulted in a plethora of unsubstantiated and often very sweeping generalisations about the extent, causes, and consequences of educated unemployment and under-employment, international migration, the impact of AIDS, and any other of the key issues discussed in the previous section. Many of these generalisations are based on very poor quality and/or old data. More recent information tends to be highly anecdotal.

Well-designed and properly implemented tracer surveys are the best way of tracking the employment histories of representative samples of SSULs. Other types of surveys (such as Labour Force and Household Income and Expenditure Surveys) can provide useful information, but this is usually more general and they only provide a snapshot of employment and other outcomes at a particular point in time. However, for reasons that will be touched upon in the next chapter, remarkably few tracer surveys of SSULs have been undertaken in SSA during the last decade or so. And, among those that do exist, usually quite serious survey design and other methodological problems undermine the usefulness of the data that has been collected.

### ***1.1.3 Core research questions***

This study has successfully conducted tracer surveys of carefully selected SSULs in a representative group of African countries, which have generated a significant amount of information. This has been used to answer the following research questions:

- What are the personal characteristics of SSULs, especially with respect to socio-economic background and gender? How has access to secondary and university education changed during the last 10–20 years?
- How high is the “wastage” of secondary school and university educated labour as a result of mortality and international migration? What are the main patterns and trends in mortality and international migration?

- What further education and training courses do SSULs enrol on once they leave school and university? How successful have they been in acquiring additional qualifications and what impact have these had on employment outcomes?
- What is the incidence of wage and self-employment over time? What are the occupational profiles of SSULs and, in particular, to what extent are jobs training-related? What type of activities do the self-employed undertake? Private sector development is one of the main objectives of economic reform programmes in SSA. To what extent therefore are SSULs establishing viable enterprises, particularly in growth sectors?
- How important is secondary employment? This can be both part-time wage and self-employment outside of the primary employment activity.
- How much do SSULs earn from both their primary and secondary employment activities? To what extent are the self-employed engaged in “survivalist” income-generation activities?
- What is the extent of unemployment among SSULs in each country? What are the main characteristics of the unemployed in terms of duration of unemployment and job search, gender, and education performance?
- How do SSULs assess the relevance and quality of their secondary and university education? What improvements (if any) do they think need to be made in order to improve the efficiency and effectiveness of these two types of education provision?

For each research question, the study focuses on current trends and other basic characteristics, and, where appropriate, highlights the main similarities and differences between the surveyed countries and types of educated (secondary and tertiary) labour.

## **1.2 TARGET AUDIENCES AND OTHER PUBLICATIONS**

The key target audience for this report is education and employment policymakers and planners in sub-Saharan Africa. However, other stakeholders in the education sector, including school managers, education NGOs, donor agencies, and academic researchers should also find the findings of this study of considerable interest.

This report synthesises the main findings of the four country studies. Other reports and articles will be published in the near future, which will explore specific areas in greater depth. In addition to policymakers and planners, the main target audience for these more technical publications is academics and other researchers working on education and employment policy in SSA and other developing countries.

### **1.3 THE STUDY TEAM**

The study team comprises the following individuals:

Dr. Samer Al-Samarrai, Fellow, Institute of Development Studies at the University of Sussex, Brighton, UK.

Dr. Paul Bennell, Senior Partner, Knowledge and Skills for Development, Brighton, UK.

Ms Esme Kadzamira, Senior Research Fellow, Centre for Research on Education and Training, University of Malawi.

Dr. Faustin Mukyanuzi, Managing Director, HR-Consult, Dar-es-Salaam, Tanzania.

Dr. Edward Kirumira, Dean, Faculty of Social Sciences, Makerere University, Uganda.

Dr. Mkhululi Ncube, Senior Lecturer, Department of Economics, University of Zimbabwe.

Paul Bennell was responsible for overall project co-ordination and managed the research in Malawi and Zimbabwe. Samer Al-Samarrai managed and co-ordinated the research in Tanzania and Uganda.

### **1.4 REPORT STRUCTURE**

The report structure is designed to allow readers to easily navigate to parts of the report that are of particular interest. The following chapter describes the tracer survey methodology and reports the survey response rates achieved in each of the four country case studies. The chapter also discusses the major challenges in undertaking a survey of this kind. Chapter 3 provides a broad overview of the activity profiles of secondary school leavers and university graduates as well as key information on access, mortality, and migration. The remaining chapters of the report take a particular activity or theme and explore the research findings in these areas in more detail. These chapters can be read together or separately. Chapter 4 describes the further education and training activities that SSULs have undertaken since leaving school and university. Chapter 5 focuses on wage and self-employment activities and Chapter 6 analyses the reasons for and the extent of unemployment among SSULs. The income earned from the employment activities of secondary school leavers and university graduates is analysed in Chapter 7. The opinions of secondary school and university graduates on their schooling experience in light of their further training and employment histories are presented in Chapter 8. Finally, Chapter 9 discusses the key policy lessons which emerge from this research.

## CHAPTER 2

# SURVEY DESIGN AND IMPLEMENTATION

### 2.1 TRACER SURVEYS

Information on the employment outcomes of primary, secondary and university leavers is available from various sources including household, demographic and health, and labour force surveys and population censuses. However, they do not generally provide sufficiently detailed data on employment outcomes of individuals with different education and training qualifications. Even where these types of surveys identify individuals with specific types of education and training, sample sizes are typically too small to be able to draw robust conclusions about employment outcomes. This is especially the case where enrolment rates are very low and only very small percentages of the overall labour force or population have more than primary education. In addition, these data sources do not explore the employment and training histories of individuals but are concerned primarily with the current status of populations. This also implies that mortality and migration of educated groups are rarely captured by conventional surveys.

It is difficult therefore to analyse in detail the relationship between education and the world of work and how this has changed over time. Well-designed and well-implemented tracer surveys can fill this gap because they focus on the activity profiles of specific groups of individuals since they completed their education. Tracer surveys aim to track down a group of individuals with a specific education/training background and explore their current and past employment activities. While the benefits of regularly undertaking tracer surveys are generally well recognised, very few surveys of this kind exist in low-income countries. One reason for this is that there is a widespread perception that it is just too difficult to trace the current whereabouts of individuals who completed their education and training many years earlier and that it is simply not cost-effective to do so. The generally poor results of tracer surveys tend to confirm this for many policymakers and researchers.

Many previous tracer surveys have had numerous shortcomings in both their design and implementation.

*Sample selection:* There are usually serious problems with the way in which individuals are selected and traced, which means that these samples are biased and not truly representative of the overall population of leavers under investigation. Some surveys only select those individuals for whom there is information on their home address, even though these records are usually incomplete. Another common practice is to track down leavers who are working at major organisations and enterprises although this clearly biases the survey towards wage employees in the formal sector. For example, a tracer survey of graduates from Makerere University in 1997 used a combination of both techniques. Graduate address lists were updated by placing advertisements in local newspapers, requesting graduates to contact the researchers and

sending research assistants to local business establishments where graduates were expected to be located (Mayanja and Nakayiwa 1997).

*Response rates:* Only relatively small percentages of sampled individuals are successfully traced. Response rates are typically well under 50 per cent and with such low response rates selection bias is likely to be a serious problem. Generally, response rates are so low because too much reliance is placed on postal questionnaires rather than locating and personally interviewing individuals. In the Makerere University graduate study questionnaires were either posted to individuals or hand-delivered. Of the 2000 graduates that were targeted for the study only 30 per cent completed the questionnaire (Mayanja and Nakayiwa 1997).

*Survey time period:* A major shortcoming of many tracer surveys is that they select leavers who have only recently completed their education or training (typically less than two years after completion). Relying on employment outcomes after such a short period gives an inaccurate activity profile of school leavers because, in general, it takes leavers considerably longer to find employment. It is essential therefore to collect longitudinal information on outcomes over much longer periods of time in order to get a clearer picture of employment outcomes for school and university leavers.

*Information collected:* Most tracer surveys collect only very basic information on the current activities of respondents, which gives a very incomplete snapshot of activity outcomes. This is often because of the reliance that is placed on postal questionnaires and the limitations this imposes on the length of the questionnaire.

## **2.2 SURVEY DESIGN**

The tracer surveys for this study were very carefully designed to avoid these kinds of problems. In particular, relatively large samples of SSULs who had completed their education at specific points over relatively long time periods were selected using accurate and complete student records. Primary reliance was placed on tracing and then personally interviewing respondents. Also, quite comprehensive information was collected on what each respondent had been doing since leaving school or university as well as relevant personal details.

### **2.2.1 Country selection**

Malawi, Tanzania and Uganda are typical low-income Anglophone African countries. Per capita incomes in 2000 range between \$US170 (Malawi) and \$US280 (Uganda) and each national economy is dominated by smallholder (peasant) agriculture. Formal sector wage employment accounts for no more than 10–20 per cent of total employment in each country (see Table 1.1). Enrolment rates for secondary and university education remain relatively low despite rapid growth in enrolments during the 1990s (see Table 1.2).

Zimbabwe has many of the same economic and social characteristics of the other three countries, but per capita income is much higher (US\$480 in 2001) and the economy is relatively more developed. Wage employment as a share of total employment declined during the 1990s from 57 per cent in 1992 to 37 per cent in 1999 (ILO 2002). Another major difference is that enrolment rates for lower secondary education are very high (44 per cent in 2000). An important reason for including Zimbabwe in this study is that tracer surveys of university graduates and secondary school leavers were conducted by two members of the research team in 1990 (see Bennell and Ncube 1993 and 1994). It was felt therefore that it would be particularly interesting to re-survey university graduates and secondary school leavers from some of the same faculties and schools included in the earlier survey.

The four countries were also selected because they have or have had very high HIV prevalence rates. Relatively little is known about how the epidemic is impacting on educated labour and the tracer survey provides a rare opportunity to collect quantitative and up-to-date data on mortality among large samples of secondary school and university graduates during the last 10–20 years.

And finally, the UK-based researchers had already successfully undertaken research projects with colleagues in three of the countries. Given the size and complexity of the tracer surveys, it was important therefore to collaborate with researchers who have proven track records and where a high degree of trust exists.

### *2.2.2 Secondary school and student selection*

The tracer survey for this study focused on tracing and administering a questionnaire to 1000 secondary school leavers drawn from 10 secondary schools (5 urban and 5 rural schools).<sup>3</sup> A random sample of individuals who had completed four years of secondary education in 1990 and 1995 was selected in each school.

Schools were selected using four main criteria. Firstly, only schools that were in existence by 1986 were selected because more recently established schools would not have students who had completed four years of schooling by 1990. Except for Zimbabwe, this represented a major constraint given the very rapid expansion of secondary schooling since the mid 1980s. Secondly, schools that did not have lists of all students who had completed form four in 1990 and 1995 were excluded. The third selection criteria ensured a good representation of school ownership types. Finally, average quality schools, based on public examination performance, were selected from schools fitting the other criteria. For a variety of reasons, there were some slight differences in the number of schools selected and the selection criteria that were used<sup>4</sup>. The majority of sampled schools were co-educational although single-sex schools were

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<sup>3</sup> Urban areas refer to the largest cities in each country; Malawi - Blantyre, Tanzania - Dar es Salaam, Uganda - Kampala, Zimbabwe - Harare.

<sup>4</sup> In Zimbabwe, 13 schools were sampled (7 urban, 6 rural) because the rapid depreciation of the Zimbabwe dollar meant that the survey budget was larger than originally expected. Three of these schools had been included in a tracer survey that had been undertaken in 1990 (see Bennell and Ncube 1994). In addition, boarding schools were excluded from the Zimbabwe school sample because previous experience had shown that it was very difficult to trace students from boarding schools. In Malawi, the selection of a representative sample of schools took precedence over whether the schools had a cohort of 1990 leavers (see below). An additional rural school was also included in the Malawi sample.

sampled in Malawi and Tanzania. While mission, grant-aided and private schools were also sampled the majority of schools were government-funded owing to the relatively small number of other service providers running schools by the mid-late 1980s (see Appendix Table 2.1).

Lists of students who had completed four years of secondary education in 1990 and 1995 were compiled and random samples of 50 students from 1990 and 1995 in each school were selected. These 100 students from each of the 10 selected schools made up the secondary school leavers sample.<sup>5</sup> Given the gender imbalances in secondary school access present in all of the countries, there are more male than female students in most of the country samples. However, in Malawi and Tanzania girls' schools were included in the sample and this increases the representation of female students.

### *2.2.3 University and university graduate selection*

Five hundred graduates were sampled from the national university in each country (see Appendix Table 2.1). The original intention was to include graduates from private universities. However, this was not feasible mainly because there were very few graduates in the selected degree programmes and most of these universities were only established during the 1990s.

The graduate sample was equally divided between graduates who completed their undergraduate training in 1980, 1987, 1994 and 1999.<sup>6</sup> In all countries, graduates from the Faculties of Agriculture, Engineering and Medicine were selected. The selection of the remaining two groups of graduates was dictated by specific factors at each university (see Appendix Table 2.1). These degree programmes were chosen because they cover occupations that are of critical importance for the overall development process and their graduates are likely to have the most varied employment histories including overseas migration. Thus, 25 graduates from each degree programme were randomly selected from university graduation lists for each of these four years.<sup>7</sup>

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<sup>5</sup> There were some variations in the student samples across the four countries. In Malawi, records for private and community schools were rarely available for the 1990 cohort and therefore the sample contains no 1990 school leavers for private or community schools. However, one community day secondary school did have records for 1993 and these leavers were sampled for the earlier cohort. In addition, a sample of 100 secondary school leavers from 1995 was taken from one of the private urban schools since no 1990 cohort existed. In Uganda, three of the sampled schools did not have as many as 50 secondary school leavers for the 1990 cohort. In these schools all students were sampled but this reduced the size of the sampled 1990 cohort from 500 to 431. Errors relating to the year of junior secondary school completion were also discovered once respondents were interviewed which meant that in some secondary schools the 1995 sample size is greater than 50. In Zimbabwe, school records for 1990 were not available for one school which reduced the overall sample size to 1250 secondary school leavers.

<sup>6</sup> A 1988 cohort was used in Uganda instead of 1987 due to better records for that year for some of the faculties.

<sup>7</sup> For the early cohorts in Malawi there tended to be less than 25 graduates in each cohort and therefore all graduates were sampled.

## **2.3 SURVEY IMPLEMENTATION**

### *2.3.1 Tracing and interviewing*

Tracing the current whereabouts of graduates and school leavers who had completed their education as long ago as 1980 was a major challenge. Detailed and systematic search procedures were therefore needed in order to ensure that most were located. In each country, gender-balanced teams of 15–20 research assistants conducted the survey, which took between 4–6 months to complete. Nearly all the research assistants were graduates. They all received 4–5 days of training which included piloting the survey in several schools. Each was assigned a school or faculty during the initial stages of the survey. The national researchers closely supervised all stages of the fieldwork.

The starting point of the survey work was the student records kept by schools and universities, which contained the home address of the leaver. Research assistants first collected this information from each school and university and updated this by consulting teachers, lecturers and other staff, current students and other key informants. They then located and interviewed all the leavers who resided in the vicinity of the schools in the urban and rural areas. University graduates living in these areas were also interviewed. Parents and other household members of leavers who were living elsewhere were also interviewed and information on their child's whereabouts and other basic information was recorded. In the third stage of the tracing and interviewing process, research assistants were sent to other cities and locations that had high concentrations of traced leavers. Finally, those who were living in remote locations or were living overseas were sent a questionnaire to complete.

The survey questionnaire was divided into five parts:

- Personal information (age, marital status, children and dependants, religion, socio-economic background)
- Further education and training (courses, institutions attended with dates, pattern of attendance, and qualifications obtained)
- Current activity (type of activity, location, duration, sector)
- Chronology of main activities since leaving school or university (type of activity, dates, overseas migration)
- Income from primary and secondary activities
- Views on the quality and relevance of their secondary or university education.

Once the questionnaire was completed the respondent was asked the whereabouts of any selected classmates that the research team had not already located. Information provided by other respondents was one of the main ways that sampled individuals were traced. This created a “snowball” effect; as more individuals were located more and more information on untraced individuals was collected.

### 2.3.2 Response rates

Table 2.1 shows the breakdown of information sources and response rates that were used in the four countries. The study traced and collected information on around 3200 secondary school leavers and 1500 university graduates in sub-Saharan Africa. The large majority of traced leavers were interviewed. Responses from the postal questionnaire tended to be quite low and this method was only used extensively for the university sample in Uganda. In this case the questionnaire was hand-delivered and collected by project staff. Parents provided information on many of the leavers and graduates, but this information was not used when leavers themselves were interviewed.

The response rates shown in Table 2.1 compare very favourably with similar tracer surveys conducted in developing countries and in particular the four countries included in this study (see, for example Bennell and Ncube 1993 and 1994; Kaijage 2000; Narman 1992; Mayanja and Nakayiwa 1997). Response rates for secondary school leavers are everywhere above 60 per cent and in Tanzania almost all sampled secondary leavers were interviewed. Response rates tended to be higher for the rural school sample because relatively more of the families of leavers from these schools continued to live in the vicinity. The response rates for the university sample were very high in Malawi, Tanzania and Uganda. Zimbabwe was the exception mainly because the political situation made many individuals wary about furnishing information on the location and activities of leavers and graduates.

**Table 2.1 Tracer survey response rates**

|                          | Malawi    |           | Tanzania  |           | Uganda    |           | Zimbabwe  |           |
|--------------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
|                          | Sec.      | Uni.      | Sec.      | Uni.      | Sec.      | Uni.      | Sec.      | Uni.      |
| Total Traced             | 621       | 417       | 965       | 448       | 715       | 414       | 951       | 313       |
| Interviewed              | 470       | 307       | 875       | 383       | 590       | 236       | 798       | 233       |
| Postal                   | -         | -         | 16        | 12        | -         | 85        | -         | -         |
| Parents                  | 20        | 9         | 49        | 1         | 34        | -         | -         | -         |
| Deceased                 | 51        | 55        | 21        | 24        | 53        | 50        | 68        | 31        |
| Abroad                   | 80        | 46        | 4         | 28        | 38        | 43        | 85        | 49        |
| Not traced               | 253       | 7         | 35        | 49        | 216       | 86        | 299       | 187       |
| Alive but not traced     | 127       | 86        | -         | 3         | -         | -         | -         | -         |
| Total Sample             | 1001      | 510       | 1000      | 500       | 931       | 500       | 1250      | 500       |
| <b>Response Rate (%)</b> | <b>62</b> | <b>82</b> | <b>97</b> | <b>90</b> | <b>77</b> | <b>83</b> | <b>76</b> | <b>63</b> |

- Notes:
1. Number of interviews for Zimbabwe includes postal questionnaires.
  2. Zimbabwe data on number of individuals deceased and abroad were based on calculations from Zimbabwe report.
  3. In Malawi and Tanzania a group of individuals were known to be alive but were not traced. This group is shown separately.

## **2.4 STRENGTHS AND WEAKNESSES OF THE SURVEY WORK**

There are four main reasons why the tracer surveys were so successful. Firstly, there was good co-operation in all four countries between the selected secondary schools and universities and the survey teams. Secondly, the research assistants were carefully selected, had good initial training, were well supervised, and most were highly committed and hardworking. Given the nature of the research, it was essential that they were paid relatively well. (Different approaches to remuneration were applied in different countries. In Tanzania, for example, tracing and interviewing were split between different individuals and payment was made based on the number of individuals traced and interviewed. This had the added advantage of automatically ensuring that the traced individuals were those included on the sample lists.) Thirdly, the tracing methodology employed was highly effective in locating individuals and the reliance on interviews enabled good quality and comprehensive information to be collected. Furthermore, interviewing traced leavers also provided a great deal of information on the current locations and activities of their classmates and was partly responsible for the high response rates shown in Table 2.1.

The main drawback of the survey was the relatively small number of secondary schools in each country that could be sampled. Given that these schools are among the oldest, they are not completely representative of the entire population of secondary schools at the time of the survey in mid-late 2001. This is particularly the case in Malawi, Tanzania and Uganda where there has been rapid expansion in community, trust and private secondary schools since the early-mid 1990s. While the sample of schools in Malawi is more representative of the current school population, it was not possible to sample 1990 and 1995 leavers in all the selected schools. Thus, with more time and resources, it would have been beneficial to include a slightly larger sample of schools for the 1995 cohort, which could have included a greater number of the more recently established schools.

The focus on strongly vocational degree programmes also meant that the sample of university graduates was probably slightly biased in favour of graduates with more marketable qualifications. It would be desirable to conduct tracer surveys of other degree programmes where it is possible that graduates have faced greater difficulties in finding appropriate employment.

## CHAPTER 3

### OVERVIEW

This chapter provides an overview of the main findings of the tracer surveys. In particular, it covers the following key areas: the overall activity profiles of secondary school leavers and university graduates since they left school; the socio-economic characteristics and examination performance of the university and school leaver samples; patterns of mortality and internal and overseas migration.

Throughout the report the secondary school sample is split into three groups. The first group are those secondary school leavers that terminated their secondary schooling after four years. In Tanzania, Uganda and Zimbabwe these individuals are defined as terminal form four or junior secondary school leavers. This group also contains all secondary school leavers in Malawi that did not complete a first degree at university. The second group – senior secondary leavers – are those leavers who completed senior secondary schooling but had not, at the time of the survey, completed first degrees at university. The final group are university graduates and include those secondary school leavers who had completed first degrees at university by mid-2001. Most information, presented in the report, is reported separately for junior and senior secondary school leavers. The secondary school leavers that completed university degrees are not reported separately because this replicates information reported for the university graduate sample.<sup>8</sup>

#### 3.1 ACTIVITY PROFILES

This section summarises the key characteristics of the activity profiles of the traced university and school leavers who were living in each survey country in mid-2001.

##### 3.1.1 Wage employment

Between 83 and 94 per cent of university graduates in Malawi, Tanzania and Uganda were in wage employment. There is therefore no 'employment crisis' among this diverse group of university graduates in any of the four survey countries (see Table 3.1). It may be the case however that graduates from other degree programmes (including the arts/humanities) face greater problems in finding training-related employment. In Malawi and Zimbabwe a greater proportion of male graduates are in wage employment compared with females. While a higher proportion of females are unemployed and looking for work in these countries, this is mainly due to the greater proportion of females in full-time education and training. This gender pattern of wage employment is reversed in Tanzania where a greater proportion of female graduates are in wage employment.

Among the 1990 junior secondary leavers, approximately half were in wage employment in Tanzania, Uganda, and Zimbabwe while in Malawi over 80 per cent were in wage employment in mid-2001 (see Table 3.2). A similar pattern emerges for the 1995 leavers with a much higher proportion of Malawi

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<sup>8</sup> Appendix Table 3.1 reports the proportions of the total sample in each of these three groups.

**Table 3.1: University graduate activity profile mid-2001 (%)**

|                                     | Malawi |        |       | Tanzania |        |       | Uganda |        |       | Zimbabwe |        |       |
|-------------------------------------|--------|--------|-------|----------|--------|-------|--------|--------|-------|----------|--------|-------|
|                                     | Male   | Female | Total | Male     | Female | Total | Male   | Female | Total | Male     | Female | Total |
| Wage employment                     | 96.1   | 86.4   | 94.3  | 86.9     | 96.7   | 89.1  | 94.5   | 93.8   | 94.4  | 84.0     | 78.9   | 83.2  |
| Self-employment                     | 2.7    | 1.7    | 2.5   | 6.9      | 3.3    | 6.1   | 4.3    | 1.5    | 3.7   | 11.3     | 10.5   | 11.2  |
| Unemployed and looking for work     | 0.0    | 3.4    | 0.6   | 2.0      | 0.0    | 1.5   | 0.4    | 3.1    | 0.9   | 2.1      | 2.6    | 2.2   |
| Unemployed and not looking for work |        |        |       |          |        |       |        |        |       |          |        |       |
| Full-time education and training    | 1.2    | 8.5    | 2.5   | 4.2      | 0.0    | 3.3   | 0.4    | 1.5    | 0.6   | 2.6      | 7.9    | 3.4   |
| Working at home                     | 0.0    | 0.0    | 0.0   | 0.0      | 0.0    | 0.0   | 0.0    | 0.0    | 0.0   | 0.0      | 0.0    | 0.0   |
| Other                               | 0.0    | 0.0    | 0.0   | 0.0      | 0.0    | 0.0   | 0.4    | 0.0    | 0.3   | 0.0      | 0.0    | 0.0   |
| <i>n</i>                            | 257    | 59     | 316   | 306      | 90     | 396   | 256    | 65     | 321   | 194      | 38     | 232   |

**Table 3.2: Junior secondary school leaver activity profile mid-2001 (%)**

|                                      | 1990 |        |       | 1995 |        |       |
|--------------------------------------|------|--------|-------|------|--------|-------|
|                                      | Male | Female | Total | Male | Female | Total |
| <b>MALAWI</b>                        |      |        |       |      |        |       |
| employment                           | 74.2 | 82.6   | 77.8  | 72.1 | 67.9   | 70.3  |
| Self-employment                      | 15.1 | 4.3    | 10.5  | 14.9 | 5.5    | 11.0  |
| Unemployed and looking for work      | 9.7  | 10.1   | 9.9   | 8.4  | 14.7   | 11.0  |
| Unemployed and not looking for work  |      |        |       |      |        |       |
| Full-time education and training     | 0.0  | 0.0    | 0.0   | 4.5  | 5.5    | 4.9   |
| Working at home                      | 0.0  | 2.9    | 1.2   | 0.0  | 4.6    | 1.9   |
| Other                                | 1.1  | 0.0    | 0.6   | 0.0  | 1.8    | 0.8   |
| <i>n</i>                             | 93   | 69     | 162   | 154  | 109    | 263   |
| <b>TANZANIA</b>                      |      |        |       |      |        |       |
| Wage employment                      | 51   | 56     | 53    | 27   | 45     | 36    |
| Self-employment                      | 39   | 19     | 29    | 43   | 16     | 29    |
| Unemployed and looking for work      | 5    | 6      | 5     | 17   | 11     | 14    |
| Unemployed and not looking for work  |      |        |       |      |        |       |
| Full-time education and training     | 0.8  | 4.1    | 2.4   | 7.7  | 12.3   | 10.1  |
| Working at home                      | 0.8  | 13.0   | 6.8   | 2.1  | 12.3   | 7.4   |
| Other                                | 4.0  | 2.4    | 3.2   | 3.5  | 3.2    | 3.4   |
| <i>n</i>                             | 126  | 123    | 249   | 143  | 154    | 297   |
| <b>UGANDA</b>                        |      |        |       |      |        |       |
| Wage employment                      | 53.5 | 40.4   | 49.3  | 55.4 | 60.9   | 57.7  |
| Self-employment                      | 40.4 | 31.9   | 37.7  | 32.2 | 12.0   | 23.5  |
| Unemployed and looking for work      | 6.1  | 6.4    | 6.2   | 10.7 | 9.8    | 10.3  |
| Unemployed and not looking for work  |      |        |       |      |        |       |
| Full-time education and training     | 0.0  | 4.3    | 1.4   | 0.0  | 4.3    | 1.9   |
| Working at home                      | 0.0  | 10.6   | 3.4   | 0.0  | 12.0   | 5.2   |
| Other                                | 0.0  | 6.4    | 2.1   | 1.7  | 1.1    | 1.4   |
| <i>n</i>                             | 99   | 47     | 146   | 121  | 92     | 213   |
| <b>ZIMBABWE</b>                      |      |        |       |      |        |       |
| Wage employment                      | 51.5 | 34.1   | 44.5  | 41.6 | 27.3   | 35.3  |
| Self-employment                      | 25.5 | 25.0   | 25.3  | 24.2 | 20.9   | 22.8  |
| Unemployed and looking for work      | 16.8 | 18.2   | 17.4  | 21.5 | 24.4   | 22.8  |
| Unemployed and not looking for work: |      |        |       |      |        |       |
| Full-time education and training     | 1.0  | 2.3    | 1.5   | 5.9  | 2.3    | 4.3   |
| Working at home                      | 1.0  | 13.6   | 6.1   | 0.5  | 15.7   | 7.2   |
| Other                                | 4.1  | 6.8    | 5.2   | 6.4  | 9.3    | 7.7   |
| <i>n</i>                             | 196  | 132    | 328   | 219  | 172    | 391   |

leavers in wage employment compared with the other countries. However, the incidence of wage employment appears to be lower for the 1995 cohort with the exception of Uganda where 20 per cent more females were in wage employment compared with their 1990 counterparts. For the 1990 cohort, the incidence of wage employment in mid-2001 was higher for females in Malawi and Tanzania, but lower in Uganda and Zimbabwe. Among the 1995 cohort, relatively more females were in wage employment in Tanzania and Uganda while the reverse is true for Malawi and Zimbabwe.

Much higher proportions of senior than junior secondary leavers among the 1990 cohort were in wage employment, especially in Zimbabwe (see Table 3.3). This gap is reversed for the 1995 cohort in Uganda and Tanzania. In all countries relatively more senior secondary female leavers were in wage employment with the exception of 1995 Uganda secondary school leavers.

**Table 3.3: Senior secondary school leaver activity profile mid-2001 (%)**

|                                     | 1990 |        |       | 1995 |        |       |
|-------------------------------------|------|--------|-------|------|--------|-------|
|                                     | Male | Female | Total | Male | Female | Total |
| <b>TANZANIA</b>                     |      |        |       |      |        |       |
| Wage employment                     | 55.1 | 66.2   | 59.7  | 14.1 | 28.4   | 20.5  |
| Self-employment                     | 33.7 | 18.5   | 27.3  | 12.0 | 6.8    | 9.6   |
| Unemployed and looking for work     | 2.2  | 3.1    | 2.6   | 16.3 | 5.4    | 11.4  |
| Unemployed and not looking for work |      |        |       |      |        |       |
| Full-time education and training    | 9.0  | 12.3   | 10.4  | 57.6 | 56.8   | 57.2  |
| Working at home                     | 0.0  | 0.0    | 0.0   | 0.0  | 2.7    | 1.2   |
| Other                               | 0.0  | 0.0    | 0.0   | 0.0  | 0.0    | 0.0   |
| <i>n</i>                            | 89   | 65     | 154   | 92   | 74     | 166   |
| <b>UGANDA</b>                       |      |        |       |      |        |       |
| Wage employment                     | 58.8 | 68.8   | 62.0  | 40.6 | 38.7   | 39.9  |
| Self-employment                     | 29.4 | 18.8   | 26.0  | 18.8 | 6.5    | 13.9  |
| Unemployed and looking for work     | 5.9  | 6.3    | 6.0   | 10.4 | 14.5   | 12.0  |
| Unemployed and not looking for work |      |        |       |      |        |       |
| Full-time education and training    | 5.9  | 6.3    | 6.0   | 28.1 | 29.0   | 28.5  |
| Working at home                     |      |        |       |      | 6.5    | 2.5   |
| Other                               | 0.0  | 0.0    | 0.0   | 2.1  | 4.8    | 3.2   |
| <i>n</i>                            | 34   | 16     | 50    | 96   | 62     | 158   |
| <b>ZIMBABWE</b>                     |      |        |       |      |        |       |
| Wage employment                     | 78.9 | 100.0  | 81.8  | 57.1 | 71.4   | 60.7  |
| Self-employment                     |      |        |       |      |        |       |
| Unemployed and looking for work     | 15.8 | 0.0    | 13.6  | 33.3 | 14.3   | 28.6  |
| Unemployed and not looking for work |      |        |       |      |        |       |
| Full-time education and training    | 5.3  | 0.0    | 4.5   | 9.5  | 14.3   | 10.7  |
| Working at home                     | 0.0  | 0.0    | 0.0   | 0.0  | 0.0    | 0.0   |
| Other                               | 0.0  | 0.0    | 0.0   | 0.0  | 0.0    | 0.0   |
| <i>n</i>                            | 19   | 3      | 22    | 21   | 7      | 28    |

### 3.1.2 Self-employment

Self-employment among university graduates is fairly rare particularly in Malawi, Tanzania and Uganda (see Table 3.1). The overall level of self-employment is considerably higher in Zimbabwe, especially among older graduates. Fewer female graduates are engaged in self-employment although self-employment rates are similar for Zimbabwe graduates.

Much higher levels of self-employment are seen amongst junior and senior secondary school leavers. Between 10 and 38 per cent of 1990 junior secondary leavers were in full-time self-employment in

mid-2001. The corresponding range is 11–29 per cent for the 1995 cohort. In all countries, the incidence of self-employment is higher amongst male than female leavers. This is particularly the case for the 1995 cohort in Tanzania and Uganda. In Tanzania, 43 per cent of the male junior secondary leavers were in self-employment compared with only 16 per cent of females. It is also interesting to note that self-employment is much higher among female Ugandans leaving in 1990 than in 1995.

Around one-third of 1990 male senior secondary school leavers in Tanzania and Uganda were self-employed, which is slightly less than the corresponding junior secondary cohorts. Apart from Tanzania, self-employment among both 1990 and 1995 female upper secondary leavers is low.

### *3.1.3 Open unemployment*

The incidence of unemployment amongst university graduates in mid-2001 was very low. Between 1 and 3 per cent of graduates, in the four countries, were unemployed and looking for work at the time of the surveys (Table 3.1). No male graduates in Malawi and no female graduates in Tanzania were unemployed. The highest unemployment rates were among female graduates in Malawi and Uganda, at 3 per cent.

Among secondary school leavers unemployment rates were fairly low with the exception of Zimbabwe. Only between 5 and 10 per cent of 1990 secondary school leavers were unemployed and looking for work in Malawi, Tanzania and Uganda. However, 17 per cent of these leavers were openly unemployed in Zimbabwe. Open unemployment was much higher among the 1995 cohort (11–23 per cent). This may be due to the length of job search in these countries and the shorter period of time 1995 leavers have spent in the labour market compared with 1990 leavers. Unemployment rates are appreciably lower among the 1990 senior secondary cohorts compared with junior secondary leavers. However, both junior and secondary school leavers from 1995 have similar levels of unemployment.

### *3.1.4 Unemployed and not looking for work*

not seeking work. No female graduates in any of the four countries were full-time housewives working at home. In terms of full-time training and education much higher percentages of female graduates were engaged in training compared with male graduates (with the exception of Tanzania). The incidence of “other activities”, including being unable to work due to illness, is negligible.

Among the 1990 female junior secondary school leavers, 13–14 per cent were “working at home” in mid-2001 in Tanzania, Uganda and Zimbabwe while only 3 per cent of females in Malawi were. Very few 1990 junior secondary school leavers were in full-time education and training although considerably higher proportions of 1995 junior secondary leavers were full-time students. Relatively more females were studying than males in Tanzania and Uganda while the reverse was true for Zimbabwe.

Only six 1995 female upper secondary school leavers were working at home (Table 3.3). A very large proportion of 1995 senior secondary school leavers were in full-time education at the time of the survey. In Tanzania, 57 per cent of 1995 senior secondary leavers were in full-time education in mid-2001. A large proportion of these students were undertaking degree courses in local universities. Generally, larger

proportions of female senior secondary leavers were in full-time education at the time of the survey compared with their male counterparts.

### 3.2 TRENDS IN ACTIVITY PROFILES

The previous section discussed the activity profiles of leavers and graduates at the time the surveys were undertaken in mid-2001. The tracer surveys also asked respondents about their career histories since they left school and information on each activity. Figures 3.1–3.4 show the activity history of 1990 secondary school leavers since they completed Form IV for Malawi, Tanzania, Uganda and Zimbabwe respectively.<sup>9</sup> Each line on the graph represents the proportion of the sample involved in each activity at every point in time since junior secondary school completion.<sup>10</sup> For example, Figure 3.2 shows that in November 1991 approximately 70 percent of 1990 leavers in Tanzania were in full-time education and training. It should be noted that all secondary school leavers, irrespective of whether or not they continued their formal schooling are included in the figures.

An interesting pattern that emerges from the activity trends for secondary school leavers is the ever-increasing proportion of leavers entering the labour market (i.e. wage-employment, self-employment and unemployed and looking for work) over the 10 years since they finished junior secondary school. Therefore, for some leavers it takes a full 10 years before they enter the labour market and perhaps more importantly it takes approximately 10 years before the activity profiles of secondary school leavers begin to stabilise. As the figures show, the increase in labour market activity is due to leavers completing further education. As leavers complete their training they enter wage employment at a higher rate than they enter self-employment and this explains the widening of the gap between wage and self-employment over time. The Tanzania and Uganda graphs clearly show two peaks in the proportion of secondary school leavers in further education and training. The first corresponds to senior secondary schooling and the second to university education.

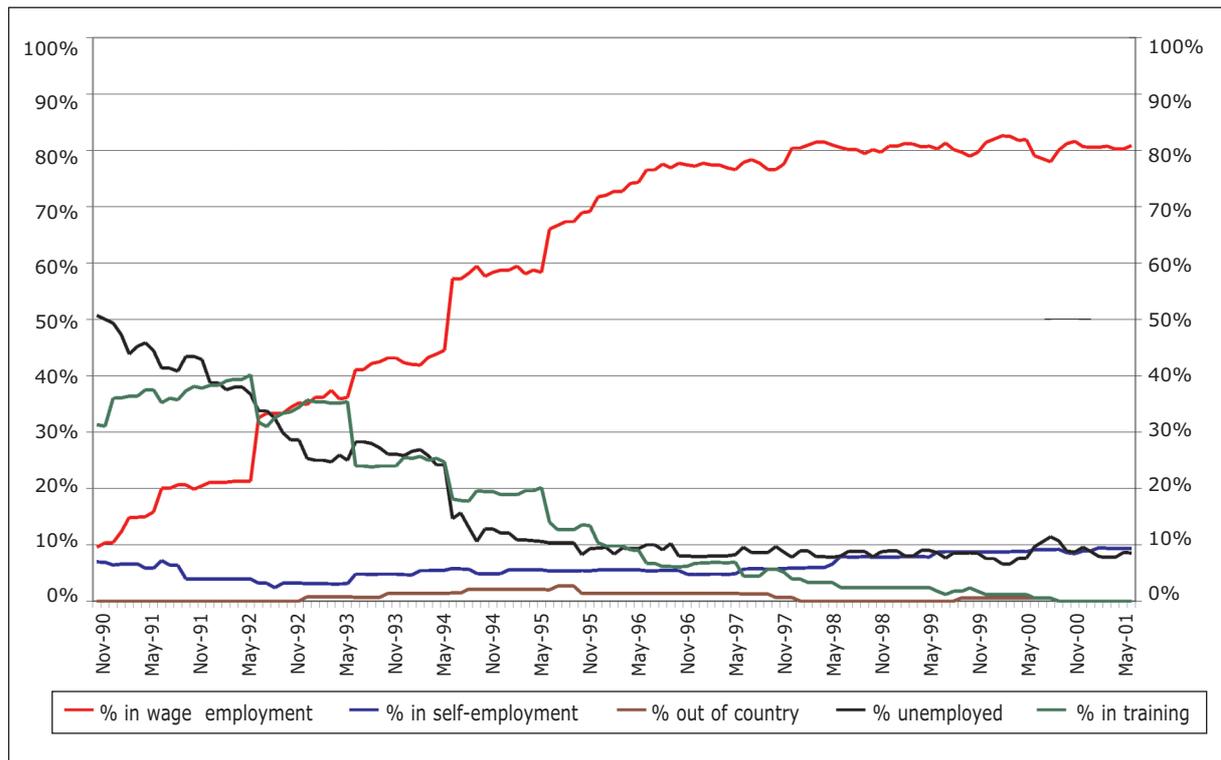
Unlike the other countries included in the study self-employment in Malawi never absorbs a particularly high proportion of secondary school leavers. In fact unemployment rates in Malawi are generally higher than self-employment rates. Malawi also appears to differ from Tanzania and Uganda in terms of temporary international migration. A small but relatively constant proportion of secondary school leavers in Tanzania are abroad. It should be noted that this proportion consists mostly of individuals who have gone overseas to study rather than work.

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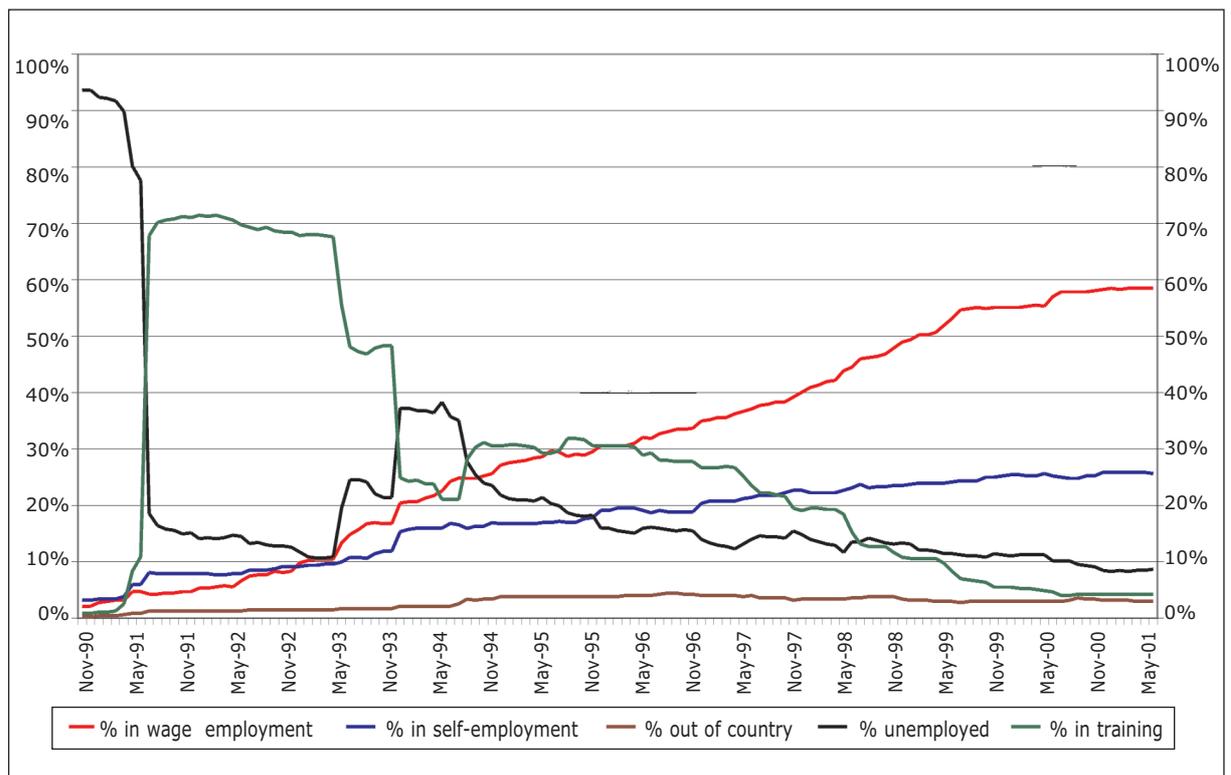
<sup>9</sup> Appendix Figures 3.1-3.4 provide the same information for 1995 leavers.

<sup>10</sup> The percentages shown for 2001 in the figures do not match up to the data shown in Tables 3.2 and 3.3 for two main reasons. Firstly, the sample shown in the figures includes secondary school leavers who completed junior and senior secondary education as well as university. Secondly, parents did not generally provide information on the employment history of their child and hence not all respondents are included in the figures.

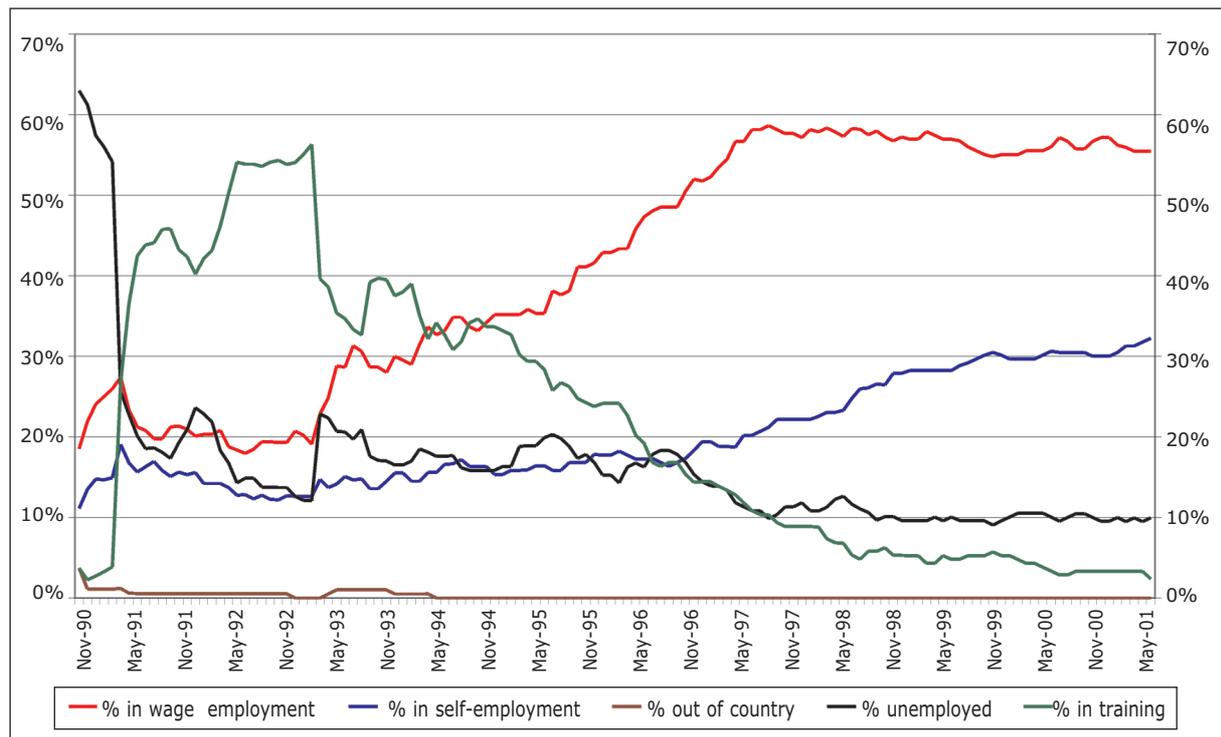
**Figure 3.1: Activity profile for 1990 secondary school leavers in Malawi**



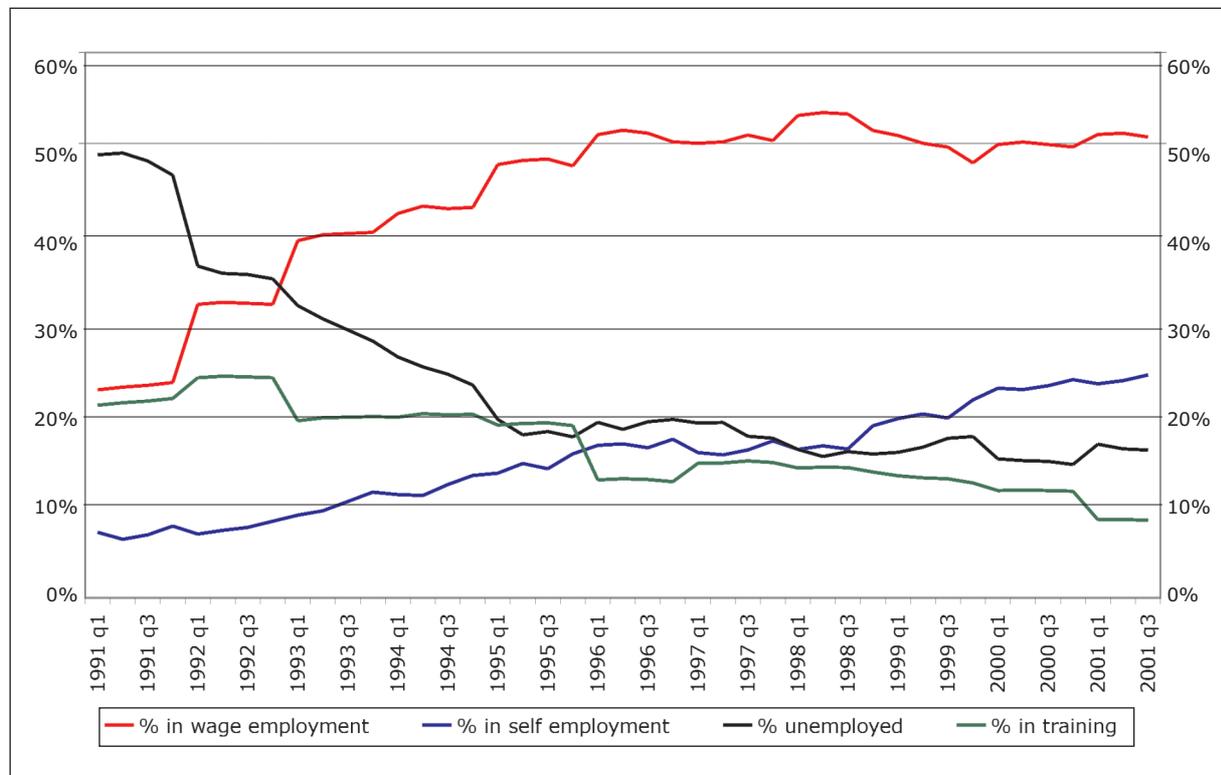
**Figure 3.2: Activity profile for 1990 secondary school leavers in Tanzania**



**Figure 3.3: Activity profile for 1990 secondary school leavers in Uganda**



**Figure 3.4: Activity profile for 1990 secondary school leavers in Zimbabwe<sup>11</sup>**



<sup>11</sup> The sample here excludes individuals who are abroad and unemployed but not looking for work and therefore the interpretation is slightly different from that for the other figures presented in this section.

### **3.3 SAMPLE CHARACTERISTICS**

#### **3.3.1 Gender**

Table 1.2 has shown that there are large gender imbalances in university enrolments in the four survey countries and these have not improved substantially over the last 20 years. This is also reflected in the sampled graduates where, with a few exceptions, the share of female enrolments in most of the sampled degree programmes has not improved significantly during the last 20 years. Looking at the secondary school system as a whole, female students accounted for between 39–47 per cent of total enrolments in the four survey countries by the late 1990s. The gender ratio improved dramatically in Malawi – from 19 per cent in 1990 to 44 per cent in 1997 (see Table 1.2). Again, the secondary school samples in the four country studies have a similar gender composition with the exception of Malawi. In Malawi the gender composition across the two cohorts is similar and is due to the inclusion of a girls' school in this sample.

#### **3.3.2 Age**

By international standards, school leavers and university graduates are relatively old by the time they complete their education (see Appendix Tables 3.2 and 3.3). In Malawi, Tanzania and Uganda the official age of form four completion is 17. This assumes that students enter primary education at the official starting age and do not repeat any grades as they progress through the education system. The average form four completion age for the sampled leavers is at least one year later than this and is due to a combination of delayed entry into primary school and relatively high repetition rates. This is particularly striking in Malawi where secondary school leavers are, on average, 20 years old. The late completion of secondary schooling also impacts on the age at which university leavers graduate. In Tanzania, for example, the majority of students are almost 30 years old before they graduate (see Appendix Table 3.2). This has important implications for the length of their working lives and the extent to which they are able to utilise the knowledge and skills that have been acquired at university. Late university completion is a direct consequence of the age at which students complete their secondary education with the requisite qualifications, and the relatively long time it takes to complete undergraduate degree courses. University closures and other disruptions are common in all four countries. Mean completion ages are generally lower for female students at both secondary and university levels, but there are no significant trends over time. In fact, the mean age of graduation has increased over the last 20 years rather than fallen as might be expected.

#### **3.3.3 Marital status and household structure**

Most graduates were married at the time of the survey in mid–late 2001, although a sizeable minority of 1980 female graduates in Uganda and Zimbabwe remained single (see Appendix Table 3.4). Among the most recent cohort of graduates, it is noticeable that, with the exception of Uganda, ever-married rates are appreciably higher among females than males. This could be a key factor in reducing their vulnerability to HIV infection and for the observed lower mortality rates among female graduates during the 1990s (see below).

There are major differences in marital rates among school leavers across the four survey countries (see Appendix Table 3.5). For example, 99 per cent of 1995 terminal form four leavers in Zimbabwe were married compared with only 27 per cent among the corresponding group in Tanzania. Senior secondary school leavers were less likely to have been married compared with junior secondary school leavers. With the exception of Malawi and Zimbabwe, it is also noticeable that relatively high proportions of 1990 junior secondary school leavers were not married. Difficult economic conditions and high rates of international migration are likely to be key factors.

The mean number of children for 1980s graduates across the four survey countries is very similar (between three to four for both females and males in most cases), which is considerably lower than national fertility rates (see Appendix Table 3.6). In contrast, there are marked differences in the mean number of children among secondary school leavers (see Appendix Table 3.7). Comparing 1994 university graduates and 1995 school leavers shows that graduates tend to have more children than secondary school leavers. For example, in Tanzania a junior secondary school leaver has on average 0.4 children compared with almost 2 children per university graduate. This most likely reflects the fact that university graduates are better off than secondary school leavers.

### 3.3.4 Father's education levels

Table 3.4 shows the proportion of university graduates who have fathers with post-secondary education. Students whose fathers have post-secondary education are heavily over-represented when this is compared with population proportions. This is especially the case for female students where, with the exception of Tanzania, well over half of fathers have post-secondary education. Thus, the smaller proportions of female university graduates are from better-educated and wealthier households. Later cohorts of university graduates tend to have better-educated fathers, which is a consequence of the considerable expansion in post-secondary education seen since Independence in these countries (see Table 1.2).

With the exception of Zimbabwe, access to secondary education is also highly inequitable with respect to socio-economic background. Figure 3.5 shows the proportions of school leavers whose fathers have post-primary education.<sup>12</sup> These are very high compared with the education profile of the adult population as a

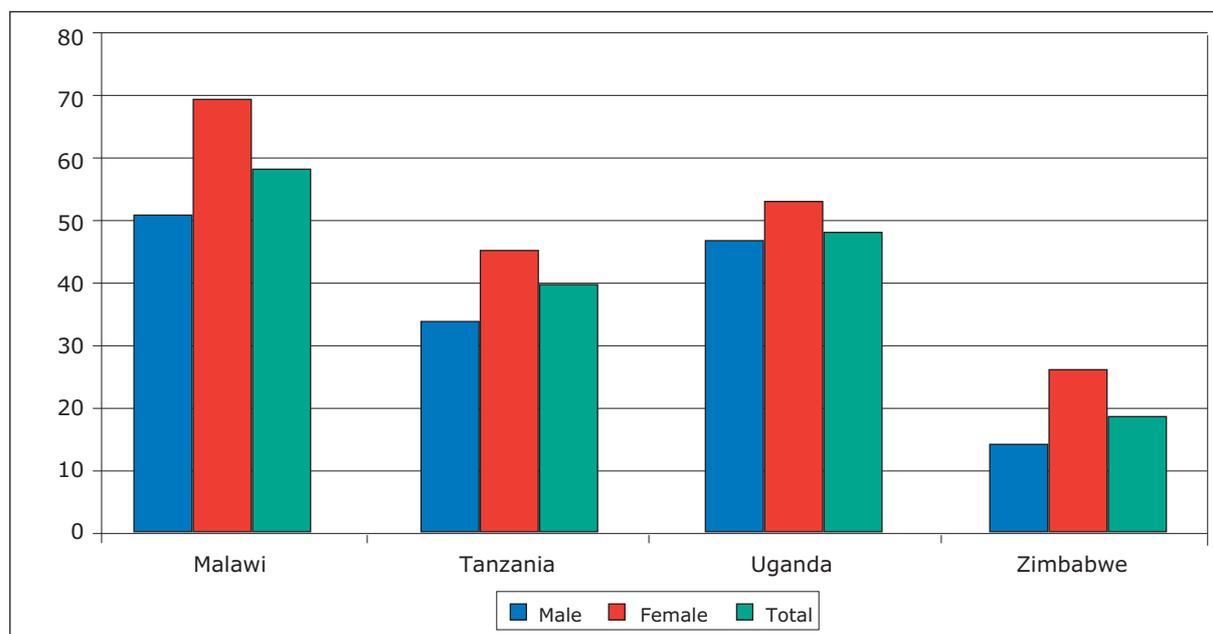
**Table 3.4: University graduates' fathers with post-secondary education (%)**

|          | 1980 & 1987 |        |       | 1994 & 1999 |        |       |
|----------|-------------|--------|-------|-------------|--------|-------|
|          | Male        | Female | Total | Male        | Female | Total |
| Malawi   | 12.8        | 18.8   | 13.8  | 27.5        | 53.8   | 32.8  |
| <i>n</i> | 78          | 16     | 94    | 153         | 39     | 192   |
| Tanzania | 6.6         | 6.1    | 6.5   | 18.3        | 31.6   | 21.7  |
| <i>n</i> | 137         | 33     | 170   | 169         | 57     | 226   |
| Uganda   | 30.5        | 32.0   | 30.8  | 50.6        | 45.0   | 49.5  |
| <i>n</i> | 95          | 25     | 120   | 160         | 40     | 200   |
| Zimbabwe | 19.2        | 10.0   | 18.2  | 26.1        | 55.6   | 31.9  |
| <i>n</i> | 78          | 10     | 88    | 111         | 27     | 138   |

Note: 1987 cohort for Uganda is actually 1988.

<sup>12</sup> See Appendix Table 3.8 for the 1995 junior secondary cohort and the senior secondary profile.

**Figure 3.5: 1990 junior secondary school leavers with fathers with post-primary education (%)**



whole and reflect the key importance of both parental educational attainment and occupational status in determining access to secondary education in countries where enrolment rates are relatively low. As with university graduates, the level of educational attainment among the fathers of female school leavers is generally higher than among the fathers of male leavers. And unless parents have some post-primary education, the chances of completing secondary education are falling in most countries. In Zimbabwe, for example, 25 per cent of 1995 male terminal form four leavers had fathers who had post-primary education compared with only 14 per cent among the corresponding 1990 cohort (see Appendix Table 3.8).

### 3.3.5 Religion

Table 3.5 summarises the religious affiliation of university graduates and school leavers and also reports the religious composition of the populations of each country as a whole. On the basis of simple comparisons between leavers and population proportions, it can be observed that Muslim school leavers are seriously under-represented at secondary schools and universities in Malawi and Tanzania. While Muslims accounted for 20 per cent of the population in Malawi, only four per cent of secondary school leavers in the sample were Muslim. In contrast, Protestant students were heavily over-represented. It also appears that the proportion of Muslims falls as students move from secondary school to university in these countries. The relative success of school leavers from different religious denominations in gaining access to university depends to a large extent on the extent and quality of secondary education provision for each specific religious grouping. However, Muslim representation at university appears to have improved over the last 20 years. This is also the case in Uganda although other religious groups (including indigenous religious groupings) are seriously under-represented across the post-primary education system.

**Table 3.5: Religious affiliations of university graduates and school leavers (%)**

|                 | University Graduates |        |       |             |        |       | Secondary Leavers |        |       | Population |
|-----------------|----------------------|--------|-------|-------------|--------|-------|-------------------|--------|-------|------------|
|                 | 1980 & 1987          |        |       | 1994 & 1999 |        |       | 1990 & 1995       |        |       | Total      |
|                 | Male                 | Female | Total | Male        | Female | Total | Male              | Female | Total |            |
| <b>MALAWI</b>   |                      |        |       |             |        |       |                   |        |       |            |
| Protestant      | 79                   | 88     | 80    | 76          | 66     | 74    | 72                | 72     | 72    | 55         |
| Catholic        | 21                   | 13     | 20    | 22          | 34     | 25    | 24                | 23     | 23    | 20         |
| Muslim          | 0                    | 0      | 0     | 2           | 0      | 2     | 4                 | 5      | 4     | 20         |
| Other           | -                    | -      | -     | -           | -      | -     | 1                 | 0      | 0     | 5          |
| <i>n</i>        | 80                   | 16     | 96    | 153         | 41     | 194   | 290               | 186    | 476   |            |
| <b>TANZANIA</b> |                      |        |       |             |        |       |                   |        |       |            |
| Protestant      | 36                   | 36     | 36    | 34          | 32     | 33    | 22                | 24     | 23    | 45         |
| Catholic        | 45                   | 39     | 44    | 37          | 47     | 39    | 44                | 39     | 42    | -          |
| Muslim          | 13                   | 15     | 14    | 21          | 12     | 19    | 25                | 29     | 27    | 35         |
| Other           | 7                    | 9      | 7     | 8           | 9      | 8     | 10                | 7      | 9     | 20         |
| <i>n</i>        | 137                  | 33     | 170   | 169         | 57     | 226   | 498               | 442    | 940   |            |
| <b>UGANDA</b>   |                      |        |       |             |        |       |                   |        |       |            |
| Protestant      | 45                   | 36     | 43    | 40          | 55     | 43    | 49                | 42     | 46    | 33         |
| Catholic        | 40                   | 40     | 40    | 31          | 30     | 31    | 22                | 23     | 22    | 33         |
| Muslim          | 8                    | 12     | 9     | 19          | 13     | 18    | 22                | 26     | 24    | 16         |
| Other           | 7                    | 12     | 8     | 10          | 3      | 9     | 7                 | 8      | 8     | 18         |
| <i>n</i>        | 96                   | 25     | 121   | 159         | 40     | 199   | 383               | 238    | 621   |            |
| <b>ZIMBABWE</b> |                      |        |       |             |        |       |                   |        |       |            |
| Protestant      | 69                   | 82     | 70    | 75          | 73     | 74    | 51                | 55     | 53    | 75         |
| Catholic        | 29                   | 18     | 27    | 24          | 27     | 25    | 26                | 26     | 26    | -          |
| Other Christian | -                    | -      | -     | -           | -      | -     | 18                | 17     | 17    | -          |
| Muslim          | 3                    | 0      | 2     | 1           | 0      | 1     | 1                 | 0      | 0     | 1          |
| Other           | -                    | -      | -     | -           | -      | -     | 4                 | 2      | 3     | 24         |
| <i>n</i>        | 80                   | 11     | 91    | 111         | 26     | 137   | 397               | 317    | 714   |            |

Source for Population figures: CIA ( 2000). Protestant population figure for Tanzania and Zimbabwe is for all Christian denominations.

Note: 1987 cohort for Uganda is actually 1988.

### 3.4 MORTALITY

*University graduates:* The average ages of the 1980 graduate cohorts are between 40–50 in the four survey countries (see Appendix Table 3.2). Mortality patterns in high HIV prevalence countries show that most infected individuals die by their mid–late forties. Consequently, the epidemic will have had its maximum impact on this group of graduates.<sup>13</sup> Very sizeable proportions of the 1980 graduate cohorts in Malawi (25 per cent), Uganda (33 per cent), and Zimbabwe (18 per cent) were deceased by mid-2001 (see Table 3.6). While not all this mortality is due to HIV/AIDS, the epidemic probably accounted for 60–70 per cent of these deaths. Overall mortality for the 1987 cohorts ranges from 18 per cent in Malawi to 9 per cent in Tanzania. Around 3 per cent of the 1994 cohorts in Uganda and Zimbabwe had died by mid-2001 compared with 1 per cent in Tanzania and 6 per cent in Malawi. Cumulative mortality among the 1999 cohorts is 1–2 per cent in all four countries.

Since it is too early to establish what the full impact of the epidemic has been on later cohorts, firm conclusions cannot yet be reached about overall trends in mortality. In Malawi, Tanzania and Zimbabwe, female cumulative mortality for 1987 graduates is as high or even higher than for 1980 graduates, which

<sup>13</sup> No attempt was made to find out the year of death. These data would have allowed age-specific mortality rates to be computed, which could be compared between cohorts in order to establish precise trends in mortality.

suggests that the epidemic will have a greater impact on this later cohort of women (see Table 3.6). Among the graduate cohorts in the 1990s, male mortality in Tanzania increased from 1 per cent for the 1994 cohort to 2 per cent for the 1999 cohort and is roughly the same for the corresponding cohorts in Zimbabwe. Given the five-year age difference between these cohorts, this again suggests rising levels of HIV infection in these countries. In Uganda, however, cumulative mortality rates decline with the year of graduation and thus it is likely that HIV infection rates have not been increasing for graduates.

**Table 3.6: Percentage of traced university graduates and secondary school leavers deceased by mid-2001 by year of graduation**

|                                 | Malawi |        |       | Tanzania |        |       | Uganda |        |       | Zimbabwe |        |       |
|---------------------------------|--------|--------|-------|----------|--------|-------|--------|--------|-------|----------|--------|-------|
|                                 | Male   | Female | Total | Male     | Female | Total | Male   | Female | Total | Male     | Female | Total |
| <b>University graduates</b>     |        |        |       |          |        |       |        |        |       |          |        |       |
| 1980                            | 25.3   | 21.4   | 24.8  | 10.2     | 11.8   | 10.5  | 32.9   | 37.5   | 33.3  | 18.9     | 14.7   | 18.4  |
| 1987                            | 16.9   | 22.2   | 17.8  | 8.4      | 12.0   | 9.3   | 14.8   | 13.0   | 14.4  | 16.8     | 19.6   | 17.6  |
| 1994                            | 6.1    | 3.7    | 5.6   | 1.2      | 0.0    | 0.9   | 3.4    | 0.0    | 2.8   | 4.2      | 0.0    | 3.5   |
| 1999                            | 0.8    | 0.0    | 0.7   | 2.0      | 0.0    | 1.7   | 2.3    | 0.0    | 1.8   | 3.0      | 0.0    | 2.4   |
| <b>Secondary school leavers</b> |        |        |       |          |        |       |        |        |       |          |        |       |
| 1990                            | 11.2   | 13.5   | 12.1  | 1.1      | 3.7    | 2.3   | 10.9   | 20.2   | 14.2  | n.a.     | n.a.   | 10.2  |
| 1995                            | 2.2    | 4.2    | 3.0   | 2.9      | 1.3    | 2.1   | 2.8    | 2.8    | 2.8   | n.a.     | n.a.   | 4.1   |

Note: 1987 cohort for Uganda is actually 1988.

Gender mortality differentials vary quite considerably both between the two cohorts of 1980s graduates in each country and between countries. For example, among the 1980 graduates, female mortality is approximately five percentage points higher than male mortality in Uganda whereas it is four percentage points lower in Malawi. However, among the two cohorts of 1990s graduates, male mortality is higher in all four countries. It is also striking that, with the exception of the 1994 Malawi cohort, there have been no deaths whatsoever among female graduates in either of the 1994 and 1999 cohorts in any of the four countries. These trends in gender mortality rates and differentials would seem to suggest that since the early–mid 1990s female university graduates have widely adopted safe sexual practices. However, mortality rates are still high among 1999 male graduates in Tanzania, Uganda and Zimbabwe (at 2–3 per cent over a two-year period).

The small numbers of graduates (especially females) in most of the selected degree programmes coupled with sample selection biases mean that it is not possible to compare mortality rates for specific disciplines over time in each country. However, there are large differences in mortality rates between disciplines in each country, although these vary from one cohort to another. This is illustrated in Figure 3.6 for Malawi. Agriculture has consistently higher mortality rates in all four countries and medicine the lowest.

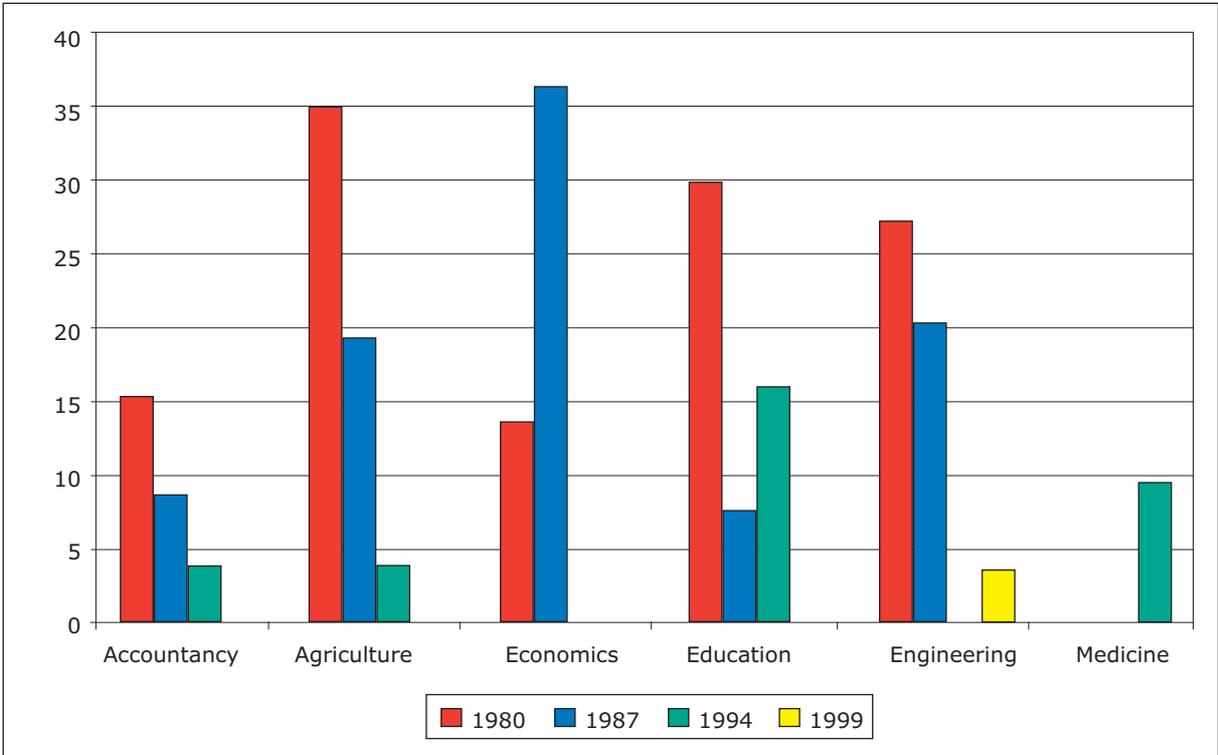
*Secondary school leavers:* Between 12 and 14 per cent of the 1990 secondary school leavers in Malawi and Uganda were deceased by mid-late 2001. The corresponding figures for Tanzania and Zimbabwe are 2 per cent and 10 per cent respectively. Among the 1995 cohort, cumulative mortality rates range from 4 per cent in Zimbabwe to 2 per cent in Tanzania. It is noticeable that the mortality rate for the 1995 male

cohort in Tanzania is higher (by two percentage points) than the 1990 cohort, which again indicates rising levels of infection among this group. However, the corresponding figure for the 1995 female group in Tanzania is 2.4 percentage points lower.

Female mortality, for the 1990 secondary school cohort, is considerably higher in Malawi, Tanzania and Uganda than male mortality. However, this differential disappears or is completely reversed for the 1995 cohort in all four countries. As with the university sample, it appears that female HIV infection rates are now lower than those for males.

Table 3.7 compares the cumulative mortality rates for university and secondary school leaver cohorts of roughly the same age. With the exception of males in Tanzania, mortality rates for 1990 school leavers are typically two to three times higher than for the 1994 university graduates. More research is needed in order to analyse the reasons for these very large mortality differentials with respect to educational level and gender. The socio-economic background of university graduates is likely to be a key factor. University students, and female students in particular, come from increasingly well-educated, professional families, where the awareness of the threat of the AIDS epidemic is likely to be much greater. In contrast, the parents of secondary students, particularly at rural schools with local catchment areas, have much lower levels of educational attainment and are engaged in mainly smallholder agriculture and semi-unskilled wage employment.

**Figure 3.6: Percentage of traced Malawian university graduates deceased by mid-2001 by discipline and year of graduation<sup>14</sup>**



<sup>14</sup> The Malawi sample did not include any medicine graduates for 1980 and 1987.

**Table 3.7: Difference in mortality between similar aged university graduates and secondary school leavers**

|                 | 1990 school leaver |              | 1994 university graduate |              | Difference in % deceased | 1995 school leaver |              | 1999 university graduate |              | Difference in % deceased |
|-----------------|--------------------|--------------|--------------------------|--------------|--------------------------|--------------------|--------------|--------------------------|--------------|--------------------------|
|                 | Mean Age           | Deceased (%) | Mean Age                 | deceased (%) |                          | Mean Age           | Deceased (%) | Mean Age                 | Deceased (%) |                          |
| <b>MALAWI</b>   |                    |              |                          |              |                          |                    |              |                          |              |                          |
| Male            | 31.7               | 11.2         | 32.4                     | 6.1          | 5.1                      | 26.6               | 2.2          | 27.8                     | 0.8          | 1.4                      |
| Female          | 30.0               | 13.5         | 32.3                     | 3.7          | 9.8                      | 25.2               | 4.2          | 25.5                     | 0.0          | 4.2                      |
| Total           | 31.1               | 12.1         | 32.4                     | 5.6          | 6.5                      | 26.0               | 3.0          | 27.3                     | 0.7          | 2.3                      |
| <b>TANZANIA</b> |                    |              |                          |              |                          |                    |              |                          |              |                          |
| Male            | 29.9               | 1.1          | 35.5                     | 1.2          | -0.1                     | 25.2               | 2.9          | 30.2                     | 2.0          | 0.9                      |
| Female          | 29.0               | 3.7          | 35.3                     | 0.0          | 3.7                      | 24.5               | 1.3          | 31.6                     | 0.0          | 1.3                      |
| Total           | 29.5               | 2.3          | 35.5                     | 0.9          | 1.4                      | 24.8               | 2.1          | 30.5                     | 1.7          | 0.4                      |
| <b>UGANDA</b>   |                    |              |                          |              |                          |                    |              |                          |              |                          |
| Male            | 30.0               | 10.9         | 32.1                     | 3.4          | 7.5                      | 24.7               | 2.8          | 28.0                     | 2.3          | 0.5                      |
| Female          | 28.7               | 20.2         | 32.5                     | 0.0          | 20.2                     | 24.0               | 2.8          | 26.8                     | 0.0          | 2.8                      |
| Total           | 29.6               | 14.2         | 32.2                     | 2.8          | 11.4                     | 24.4               | 2.8          | 27.7                     | 1.8          | 1.0                      |
| <b>ZIMBABWE</b> |                    |              |                          |              |                          |                    |              |                          |              |                          |
| Male            | 29.0               | n.a          | 30.1                     | 4.2          | n.a                      | 23.6               | n.a          | 25.7                     | 3.0          | n.a                      |
| Female          | 28.7               | n.a          | 30.5                     | 0.0          | n.a                      | 23.2               | n.a          | 25.0                     | 0.0          | n.a                      |
| Total           | 28.9               | 10.2         | 30.2                     | 3.5          | 6.7                      | 23.4               | 4.1          | 25.6                     | 2.4          | 1.7                      |

*Note:* Difference in the percentage deceased is calculated by subtracting the university graduate mortality rate from the school leaver mortality rate.

### 3.5 MIGRATION

#### 3.5.1 Internal

In all four countries, the large majority of 1990 and 1995 school leavers from both rural and urban schools were living in urban areas in mid-2001. There are two main reasons for this. First, a high proportion of students who attended the rural schools in Malawi were not from the immediate locality, but came from Blantyre and other cities and towns. Similarly, in Tanzania, the sampled rural schools (in Dodoma) recruit students from all over the country. Students must therefore either board, stay with relations, or live on their own in hostels. Secondly, internal migration from rural to urban areas is very high. Among the 1990 school leavers from rural schools in Zimbabwe, most of which have local school catchment areas, 75 per cent were living in urban locations in mid-2001. This migration has been fuelled by the paucity of further education and employment opportunities in rural areas coupled with sizeable urban/rural income differentials. Hardly any leavers from urban schools were in rural areas.

#### 3.5.2 Overseas

Around 20 per cent of the 1980 cohorts of university graduates in Uganda and Zimbabwe were traced to overseas locations in mid-2001. However, the corresponding figures for Malawi and Tanzania are much lower – only 8 per cent and 4 per cent respectively (see Table 3.8). While the economic crisis in Tanzania during the 1980s resulted in an appreciable increase in migration among 1987 graduates, overseas migration since then appears to have been much lower. The political situation in the late 1980s in Malawi also resulted in much higher levels of emigration among the 1987 cohort. In contrast, the incidence of overseas migration fell in Uganda and Zimbabwe during the mid-late 1980s. In Uganda, this was due mainly to the improvement in the political and military situation after 1986 and in Zimbabwe emigration

**Table 3.8: Percentage of traced university graduates and secondary school leavers abroad at time of survey**

|                                 | Malawi |        |       | Tanzania |        |       | Uganda |        |       | Zimbabwe |        |       |
|---------------------------------|--------|--------|-------|----------|--------|-------|--------|--------|-------|----------|--------|-------|
|                                 | Male   | Female | Total | Male     | Female | Total | Male   | Female | Total | Male     | Female | Total |
| <b>University graduates</b>     |        |        |       |          |        |       |        |        |       |          |        |       |
| 1980                            | 6.3    | 21.4   | 8.3   | 3.4      | 5.9    | 3.8   | 22.0   | 0.0    | 20.0  | 21.0     | 29.0   | 22.0  |
| 1987                            | 16.9   | 11.1   | 15.9  | 15.7     | 12.0   | 14.8  | 12.3   | 0.0    | 9.6   | 17.0     | 10.0   | 15.0  |
| 1994                            | 6.9    | 14.8   | 8.4   | 3.7      | 2.9    | 3.4   | 5.6    | 5.3    | 5.6   | 20.0     | 35.0   | 23.0  |
| 1999                            | 5.1    | 7.4    | 5.6   | 4.1      | 0.0    | 3.3   | 8.0    | 8.3    | 8.0   | 1.0      | 16.0   | 4.0   |
| <b>Secondary school leavers</b> |        |        |       |          |        |       |        |        |       |          |        |       |
| 1990                            | 10.2   | 10.3   | 10.2  | 0.4      | 0.0    | 0.2   | 10.3   | 14.4   | 11.8  | 9.0      | 15.0   | 12.0  |
| 1995                            | 10.5   | 11.9   | 11.0  | 0.4      | 0.8    | 0.6   | 1.2    | 0.6    | 0.9   | 6.0      | 7.0    | 6.0   |

Note: 1987 cohort for Uganda is actually 1988.

rates among former white settlers began to tail off from the high levels that they had reached after Independence in the early 1980s. However, with the deepening economic crisis since the late 1990s, there has been a marked increase in the proportion of University of Zimbabwe graduates who are overseas; nearly one-quarter of the 1994 cohort were not in the country in mid-2001.

Trends during the 1990s are more difficult to interpret in Malawi and Uganda. Whereas 15 per cent of 1994 female graduates in Malawi were overseas compared with only 11 per cent among the more experienced and older 1987 cohort, the reverse is the case for male graduates in these two years. Among the 1999 cohort, 5–7 per cent of both female and male Malawi graduates were already overseas just two years later in mid-2001.

Between 10 and 15 per cent of the 1990 school leavers in Malawi, Uganda and Zimbabwe were overseas in mid-2001. Among the 1995 cohort, similar proportions of school leavers in Malawi were overseas. Out-migration is lower, though still quite high, for this group in Zimbabwe whereas rates in Uganda appear to be significantly reduced. Only relatively tiny numbers of 1990 and 1995 school leavers in Tanzania were traced overseas. Generally speaking, roughly the same proportions of female and male 1990 and 1995 school leavers were located overseas in all four countries. The main exception is the 1990 cohort in Zimbabwe, where 15 per cent of females were overseas compared with only 9 per cent for males.

School leavers from urban schools were more likely to be overseas than the equivalent group from rural schools. For example, in Zimbabwe, 7.3 per cent of 1990 rural female school leavers were located abroad compared with 14.5 per cent of urban female school leavers in the same year. Higher proportions of female university graduates were traced overseas in Malawi and Zimbabwe for most of the four cohorts. While no female Ugandan graduate from the 1980s was overseas, there were no gender differentials among 1990s graduates.

Table 3.9 shows the percentage of university graduates who were located in-country at the time of the survey, but had been overseas to study and/or work at least once since finishing university and school.<sup>15</sup> It can be observed that very high proportions of the 1980 graduates in all four countries had been overseas at some stage. In Malawi, Uganda and Zimbabwe slightly more than half of these graduates

<sup>15</sup> Appendix Table 3.9 shows the same information for the secondary school sample.

**Table 3.9: Return rates among graduates who have studied and worked abroad (%)**

|                 | Overseas<br>mid-2001 | Overseas<br>but<br>returned | Total | Returned |
|-----------------|----------------------|-----------------------------|-------|----------|
| <b>MALAWI</b>   |                      |                             |       |          |
| 1980            | 8.3                  | 12.5                        | 20.8  | 60.2     |
| 1987            | 15.9                 | 8.0                         | 23.9  | 33.5     |
| 1994            | 8.4                  | 1.1                         | 9.5   | 11.3     |
| 1999            | 5.6                  | 0.9                         | 6.4   | 13.4     |
| <b>TANZANIA</b> |                      |                             |       |          |
| 1980            | 3.8                  | 36.0                        | 39.8  | 90.4     |
| 1987            | 14.8                 | 32.1                        | 46.9  | 68.4     |
| 1994            | 3.4                  | 17.1                        | 20.5  | 83.4     |
| 1999            | 3.3                  | 2.6                         | 5.9   | 44.2     |
| <b>UGANDA</b>   |                      |                             |       |          |
| 1980            | 20.0                 | 28.6                        | 48.6  | 58.8     |
| 1988            | 9.6                  | 22.8                        | 32.4  | 70.4     |
| 1994            | 5.6                  | 5.1                         | 10.7  | 47.4     |
| 1999            | 8.0                  | 2.0                         | 10.0  | 19.8     |
| <b>ZIMBABWE</b> |                      |                             |       |          |
| 1980            | 22.0                 | 25.0                        | 47.0  | 53.2     |
| 1987            | 15.0                 | 9.3                         | 24.3  | 38.2     |
| 1994            | 23.0                 | 8.2                         | 31.2  | 26.3     |
| 1999            | 4.0                  | 0.0                         | 4.0   | 0.0      |

had returned home by mid-2001 while almost all Tanzanian graduates had returned. While the return rates are considerably lower for the 1987 and 1994 university cohorts in Malawi, they remained at roughly the same levels in Uganda. In Tanzania, the return rate for 1987 graduates declined to 68 per cent, but was 83 per cent for the 1994 cohort. In Zimbabwe the return rate declines with the more recent graduates.

### 3.6 WASTAGE

Table 3.10 shows the total “wastage” of university graduates and school leavers as a result of mortality and overseas migration. In Uganda, over 50 per cent of the 1980 graduates were no longer available for employment within the country in mid-2001. Wastage rates are also very high for the 1987 cohort in Malawi (34 per cent) and in Zimbabwe (40 per cent 1980 and 33 per cent 1987). Among school leavers, around one-quarter of the 1990 cohorts in Malawi, Uganda, and Zimbabwe had either died or were overseas.

**Table 3.10: Percentage of university graduates and secondary school leavers deceased or overseas**

|          | University Graduates |      |      |      | Secondary Leavers |      |
|----------|----------------------|------|------|------|-------------------|------|
|          | 1980                 | 1987 | 1994 | 1999 | 1990              | 1995 |
| Malawi   | 33.0                 | 33.6 | 14.0 | 6.2  | 22.3              | 14.0 |
| Tanzania | 14.3                 | 24.1 | 4.3  | 5.0  | 2.5               | 2.7  |
| Uganda   | 53.3                 | 24.0 | 8.4  | 9.8  | 26.0              | 3.7  |
| Zimbabwe | 40.0                 | 33.0 | 26.0 | 6.4  | 22.0              | 10.0 |

Note: 1987 cohort for Uganda is actually 1988.

## CHAPTER 4

# FURTHER EDUCATION AND TRAINING

Secondary school leavers and university graduates in all four countries invest heavily in further education and training (FET), both in terms of time and money. This chapter summarises the key features of what are complex and protracted training processes. Interview respondents were requested to provide basic information on all FET activities since leaving secondary school and university. This includes the names, dates and duration of training courses, the training institution attended, the mode of attendance (full/part-time) and qualifications obtained.

The training activities of secondary school leavers who do not continue to upper secondary and/or university are of particular interest since it is the employment outcomes for this group that are of greatest concern. As noted earlier, the large majority of school leavers in all of these countries finish their secondary education after four years. This chapter focuses therefore on junior secondary leavers and university graduates. Before looking at FET, the extent of private tuition among both these groups while they are still attending school and university is briefly discussed.

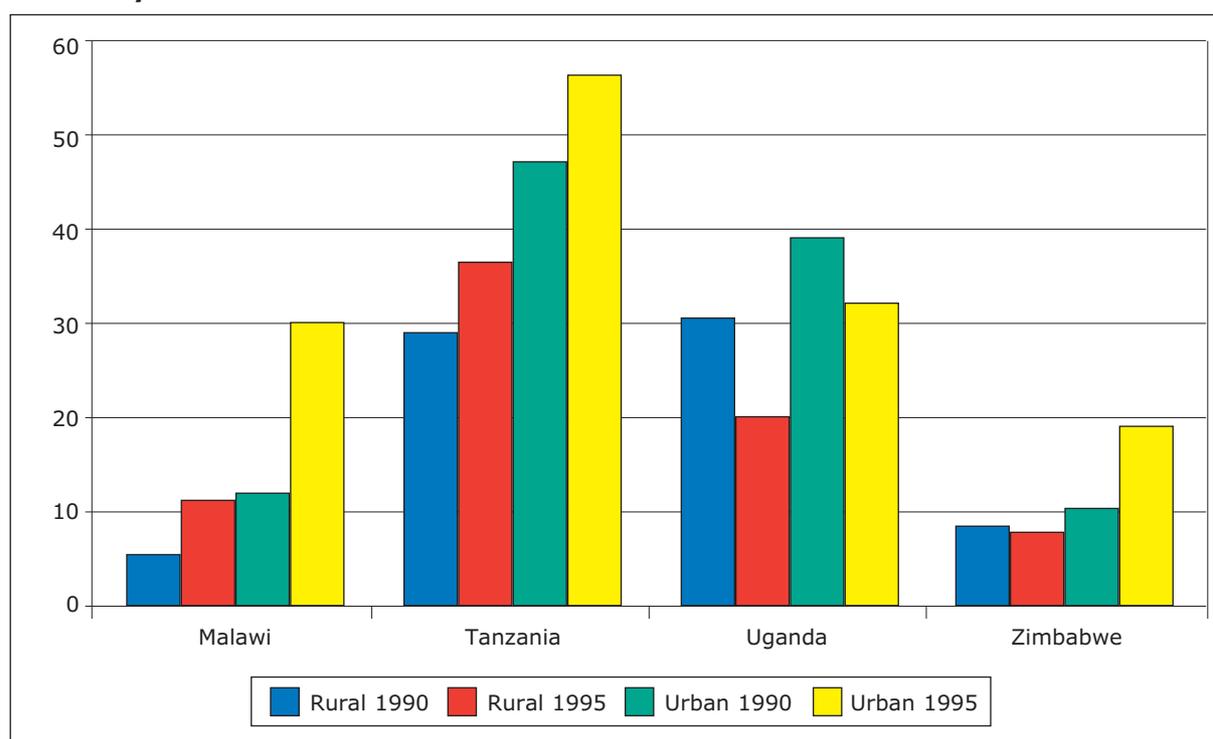
### 4.1 PRIVATE TUITION AND ADDITIONAL QUALIFICATIONS

*Secondary school leavers:* A large and growing proportion of secondary students in the four countries received private tuition while they were still at school (see Figure 4.1). In the face of rapidly expanding secondary school enrolments, parents are increasingly relying on private tuition in order to improve the examination performance of their children. This also enables teachers in government schools to supplement their meagre salaries. The emergence of private tutoring as a mass phenomenon in many parts of sub-Saharan Africa is therefore a key feature of the growing privatisation of secondary education.

The incidence of private tuition is markedly higher in urban areas, with the notable exception of Uganda. In Tanzania, half of both the 1990 and 1995 groups who attended urban schools were privately tutored. But, even in rural areas, around one-quarter of the 1995 cohort paid for private tuition in Tanzania and Uganda. While there is a strong upward trend among both female and male students in urban areas (again with the exception of Uganda), the picture is more mixed in rural areas.

The proportions of females at rural schools who benefited from private tuition were lower among the 1995 cohorts in Uganda and Zimbabwe, compared with female 1990 leavers, but higher in Malawi and Tanzania. The incidence of private tuition among male leavers from rural schools increased over time in Malawi, Tanzania and Zimbabwe, but declined substantially in Uganda (see Appendix Table 4.1). Interestingly, among the 1995 group, considerably higher percentages of female students at schools in Blantyre (Malawi) and Harare (Zimbabwe) were privately tutored and male/female differentials are small in Dar es Salaam (Tanzania) and Kampala (Uganda). In rural areas, more 1995 male students have had

**Figure 4.1: Percentage of secondary school leavers who received private tuition while at secondary school**



private tutoring in Zimbabwe, but there is gender parity in Malawi and relatively more females have been privately tutored in Tanzania and Uganda (see Appendix Table 4.1). There is no evidence therefore that indicates that female students are being adversely affected by the growing pervasiveness of private tutoring.

*University graduates:* While private tuition is much less common among university students, among the 1990s cohorts, 8 per cent of male graduates from Makerere University in Uganda and 11 per cent of female graduates from the University of Zimbabwe received private tuition while they were at university (see Appendix Table 4.2).

University graduates were also asked if they studied for any additional qualifications while they were undergraduates. Only very small proportions of university graduates did study for other qualifications at the same time with the exception of graduates from Makerere University in the 1990s; approximately 16 per cent of graduates studied for other qualifications while at university (see Table 4.1). Studying for additional qualifications was also common among female graduates from the University of Zimbabwe and the University of Dar es Salaam in the 1980s. While private tuition is much less common among university students, among the 1994 and 1999 cohorts, 14 per cent of male graduates from Makerere University in Uganda and 9 per cent of female graduates from the University of Zimbabwe received private tuition while they were at university. Undergraduates studying for other qualifications while they are at university account for a large proportion of this private tuition.

**Table 4.1: Percentage of university graduates studying for additional qualifications while undertaking their first degrees**

|          | 1980 & 1987 |        |       | 1994 & 1999 |        |       |
|----------|-------------|--------|-------|-------------|--------|-------|
|          | Male        | Female | Total | Male        | Female | Total |
| Malawi   | 2.4         | 0.0    | 2.0   | 3.7         | 0.0    | 3.0   |
| <i>n</i> | 84          | 15     | 99    | 161         | 42     | 203   |
| Tanzania | 4.4         | 9.1    | 5.3   | 4.7         | 3.5    | 4.4   |
| <i>n</i> | 137         | 33     | 170   | 169         | 57     | 226   |
| Uganda   | 3.1         | 4.0    | 3.3   | 14.4        | 20.0   | 15.5  |
| <i>n</i> | 96          | 25     | 121   | 160         | 40     | 200   |
| Zimbabwe | 2.5         | 18.2   | 4.4   | 1.0         | 9.1    | 2.4   |
| <i>n</i> | 79          | 11     | 90    | 105         | 22     | 127   |

Note: 1987 cohort for Uganda is actually 1988.

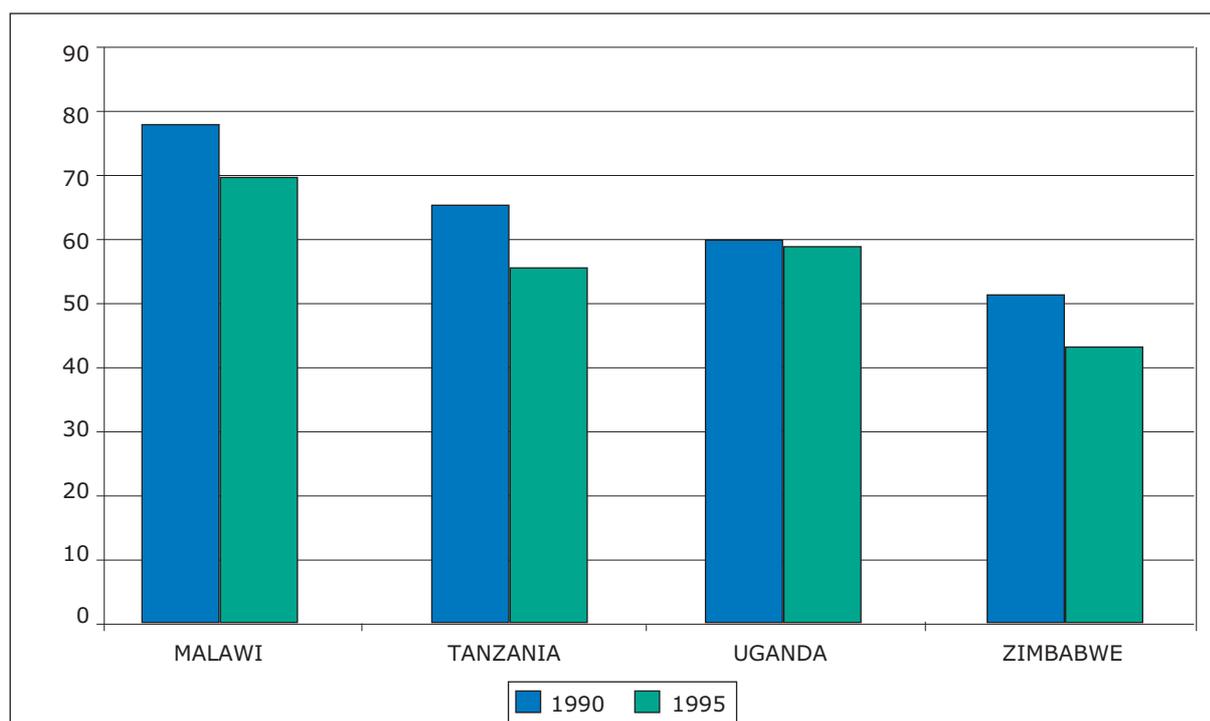
## 4.2 THE INCIDENCE AND INTENSITY OF FET

### 4.2.1 Incidence

The large majority of junior secondary students who completed their secondary education in 1990 have undertaken some FET (see Figure 4.2). It is also the case that the ever-trained percentages are generally higher among female junior secondary school leavers for both the 1990 and 1995 cohorts (see Appendix Table 4.3). Only among 1990 leavers in Uganda is there a sizeable gender gap in favour of males.

Most university graduates have undertaken some FET since leaving university (see Table 4.2). A significant proportion in each country have undertaken more than one FET course since completing their undergraduate degree. For example, in Uganda 39 per cent of 1980s graduates had taken more than one FET course. The percentage of females who have ever trained is higher than males in all countries with

**Figure 4.2: Percentage of junior secondary school leavers who undertook further education and training**



**Table 4.2: Frequency of additional training for university graduates**

|                 | No. of courses taken | 1980 & 1987 |        |       | 1994 & 1999 |        |       |
|-----------------|----------------------|-------------|--------|-------|-------------|--------|-------|
|                 |                      | Male        | Female | Total | Male        | Female | Total |
| <b>MALAWI</b>   |                      |             |        |       |             |        |       |
|                 | 0                    | 16.9        | 23.5   | 17.9  | 45.2        | 35.7   | 43.3  |
|                 | 1                    | 40.4        | 17.6   | 36.8  | 35.7        | 28.6   | 34.3  |
|                 | 2                    | 25.8        | 52.9   | 30.2  | 14.3        | 23.8   | 16.2  |
|                 | 3                    | 14.6        | 5.9    | 13.2  | 3.6         | 9.5    | 4.8   |
|                 | >3                   | 2.2         |        | 1.9   | 1.2         | 2.4    | 1.4   |
|                 | <i>n</i>             | 89          | 17     | 106   | 168         | 42     | 210   |
| <b>TANZANIA</b> |                      |             |        |       |             |        |       |
|                 | 0                    | 46.7        | 27.3   | 42.9  | 69.8        | 68.4   | 69.5  |
|                 | 1                    | 26.3        | 54.5   | 31.8  | 25.4        | 24.6   | 25.2  |
|                 | 2                    | 16.1        | 12.1   | 15.3  | 3.6         | 5.3    | 4.0   |
|                 | 3                    | 5.8         | 3.0    | 5.3   | 0.0         | 1.8    | 0.4   |
|                 | >3                   | 5.1         | 3.0    | 4.7   | 1.2         | 0.0    | 0.9   |
|                 | <i>n</i>             | 137         | 33     | 170   | 169         | 57     | 226   |
| <b>UGANDA</b>   |                      |             |        |       |             |        |       |
|                 | 0                    | 30.2        | 28.0   | 29.8  | 43.1        | 55.0   | 45.5  |
|                 | 1                    | 32.3        | 28.0   | 31.4  | 38.1        | 40.0   | 38.5  |
|                 | 2                    | 21.9        | 20.0   | 21.5  | 15.0        | 5.0    | 13.0  |
|                 | 3                    | 11.5        | 20.0   | 13.2  | 3.1         |        | 2.5   |
|                 | >3                   | 4.2         | 4.0    | 4.1   | 0.6         | 0.0    | 0.5   |
|                 | <i>n</i>             | 96          | 25     | 121   | 160         | 40     | 200   |
| <b>ZIMBABWE</b> |                      |             |        |       |             |        |       |
|                 | 0                    | 22.2        | 9.1    | 20.7  | 40.4        | 33.3   | 39.0  |
|                 | 1                    | 45.7        | 54.5   | 46.7  | 48.2        | 48.1   | 48.2  |
|                 | 2                    | 22.2        | 27.3   | 22.8  | 8.8         | 11.1   | 9.2   |
|                 | 3                    | 9.9         | 9.1    | 9.8   | 0.9         | 3.7    | 1.4   |
|                 | >3                   | 0.0         | 0.0    | 0.0   | 1.8         | 3.7    | 2.1   |
|                 | <i>n</i>             | 81          | 11     | 92    | 114         | 27     | 141   |

Note: 1987 cohort for Uganda is actually 1988.

the exception of 1990s graduates from Uganda and 1980s graduates in Malawi where similar proportions of male and female graduates have received FET.

#### 4.2.2 Training duration and modalities

Not only is the incidence of participation of school leavers and graduates in FET very high, but both groups have spent considerable periods of time attending courses and studying for additional qualifications.

*School leavers:* The 1990 junior secondary school leavers in Tanzania and Uganda spent, on average, 2.5–3.0 years doing FET after leaving school while the figure was 2.0 years for 1995 school leavers (see Table 4.3). There are no sizeable gender differences among junior secondary school leavers in the duration of training. In Tanzania senior secondary school leavers spend a similar amount of time in FET as their junior secondary school counterparts do. However, in Uganda senior secondary leavers spend considerably more time in FET after leaving secondary school than junior secondary school leavers do. Leavers from 1995 who have undertaken FET in Uganda have spent almost 3 years in full-time education and training since leaving secondary school. This implies that these individuals have nearly always been in FET since they left senior secondary school. This, in part, reflects the large number of these students completing university diplomas or currently studying for university degrees (see Table 3.3).

**Table 4.3: Average months of full-time FET among junior and senior secondary school leavers<sup>16</sup>**

|                  |          | 1990 |        |       | 1995 |        |       |
|------------------|----------|------|--------|-------|------|--------|-------|
|                  |          | Male | Female | Total | Male | Female | Total |
| <b>MALAWI</b>    |          |      |        |       |      |        |       |
| Junior secondary | Mean     | 20.2 | 28.2   | 23.9  | 26.9 | 24.1   | 25.5  |
|                  | Median   | 13   | 25.5   | 19    | 21.5 | 23     | 22.5  |
|                  | <i>n</i> | 41   | 34     | 75    | 42   | 42     | 84    |
| <b>TANZANIA</b>  |          |      |        |       |      |        |       |
| Junior secondary | Mean     | 33.5 | 37.5   | 35.6  | 24.9 | 28.9   | 27.4  |
|                  | Median   | 30   | 29     | 29.5  | 23   | 24     | 24    |
|                  | <i>n</i> | 77   | 87     | 164   | 64   | 102    | 166   |
| Senior secondary | Mean     | 32.6 | 37.5   | 34.9  | 24.7 | 25.4   | 25.0  |
|                  | Median   | 29   | 35     | 33    | 26   | 26     | 2     |
|                  | <i>n</i> | 66   | 58     | 124   | 68   | 64     | 132   |
| <b>UGANDA</b>    |          |      |        |       |      |        |       |
| Junior secondary | Mean     | 27.6 | 33.2   | 29.0  | 22.0 | 25.3   | 23.5  |
|                  | Median   | 25   | 28     | 25    | 23   | 24     | 23    |
|                  | <i>n</i> | 51   | 17     | 68    | 60   | 49     | 109   |
| Senior secondary | Mean     | 39.3 | 47.3   | 42.0  | 33.2 | 36.5   | 34.5  |
|                  | Median   | 43   | 44     | 44    | 27   | 32     | 28    |
|                  | <i>n</i> | 30   | 15     | 45    | 82   | 53     | 135   |
| <b>ZIMBABWE</b>  |          |      |        |       |      |        |       |
| Junior secondary | Mean     | 29.8 | 29.8   | 29.8  | 23.0 | 23.3   | 23.1  |
|                  | Median   | 24   | 24     | 24    | 24   | 24     | 24    |
|                  | <i>n</i> | 105  | 74     | 179   | 106  | 81     | 187   |

*Notes:* Junior secondary school leavers are defined as leavers who terminated their formal schooling after four years of secondary schooling. Senior secondary school leavers are defined as leavers who terminated their formal schooling after six years of secondary schooling (i.e. they have not completed university degrees). Senior secondary average durations exclude time spent in senior secondary school. These data were not available for senior secondary leavers in Zimbabwe.

*University graduates:* Graduates from the 1980s have spent between 2.5 and 4.5 years attending training courses since completing their first degrees (see Figure 4.3).<sup>17</sup> Table 4.2 showed that, with the exception of Malawi 1980s graduates and Uganda 1990s graduates, female graduates were more likely to have had some FET since leaving university. However, in terms of mean months of training, sizeable gender differentials across the 1980s cohorts exist in Uganda and Zimbabwe. In Uganda, male graduates from the 1980s spend almost twice as long as female graduates in FET. For graduates from the 1990s the average time spent in FET is between 16 (Malawi) and 31 months (Uganda). A similar gender pattern emerges amongst these more recent graduates with the exception of Uganda where female graduates spend on average 55 months in FET compared with only 29 months for males (see Appendix Table 4.4).<sup>18</sup>

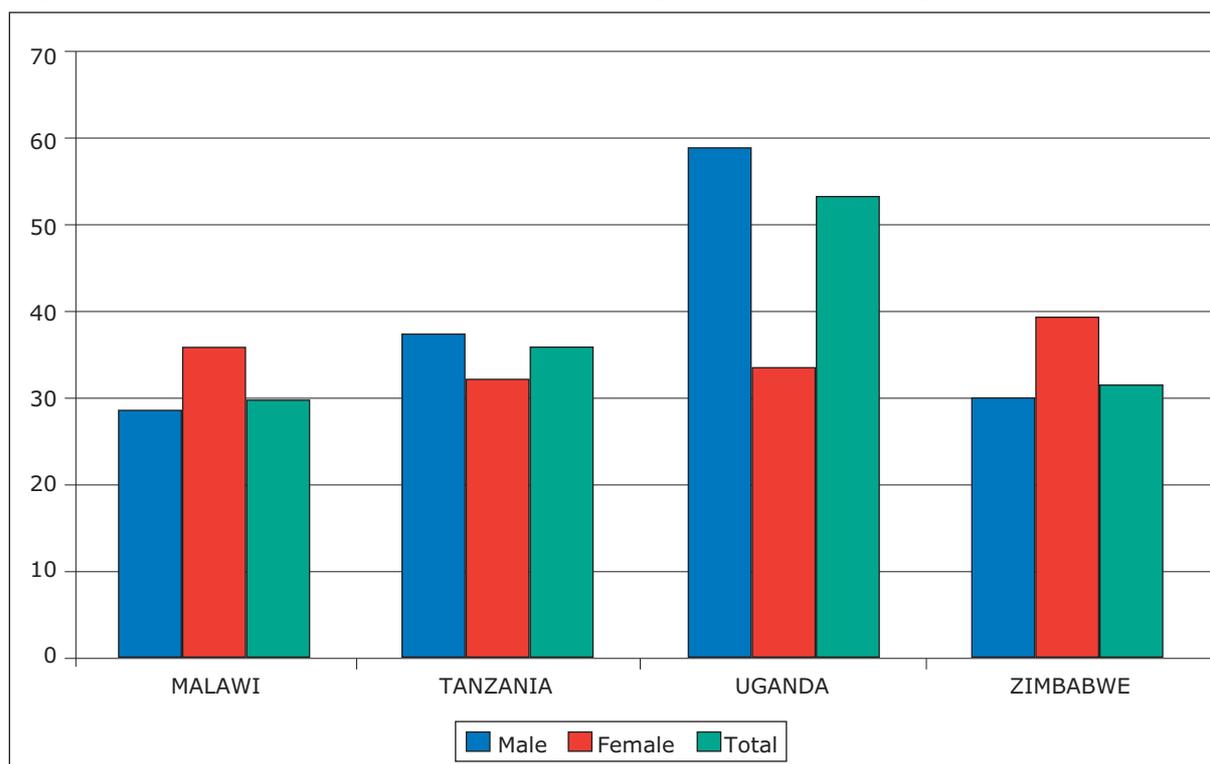
Very sizeable proportions of both junior secondary leavers and university graduates study for additional qualifications on a part-time basis (see Table 4.4). This is particularly the case in Malawi and Zimbabwe. At least one-third of all courses taken by the 1990s graduates in all four countries were

<sup>16</sup> Data in this table for Zimbabwe are based on annual data (i.e. whether an individual was in training in a particular year).

<sup>17</sup> Graduates are only included in the calculation of the mean if they have had some FET. See Appendix Table 4.4 for the full data and the same information for 1990s graduates.

<sup>18</sup> These figures are based on small sample sizes and should be treated with caution.

**Figure 4.3: Mean months of full-time FET among 1980s university graduates**



Note: 1987 cohort for Uganda is actually 1988.

part-time, with the exception of males in Tanzania and females in Uganda. The extent of part-time training also appears to be increasing rapidly among both groups. In Tanzania, for example, the percentage of courses that were part-time was only 15 per cent among the 1990 cohort, but was 28 per cent for the 1995 cohort. Whereas only around 15 per cent of courses taken by 1980s graduates in Malawi were on a part-time basis, among 1990s graduates, this increases to nearly one-third. The only exception to this trend is among school leavers in Uganda.

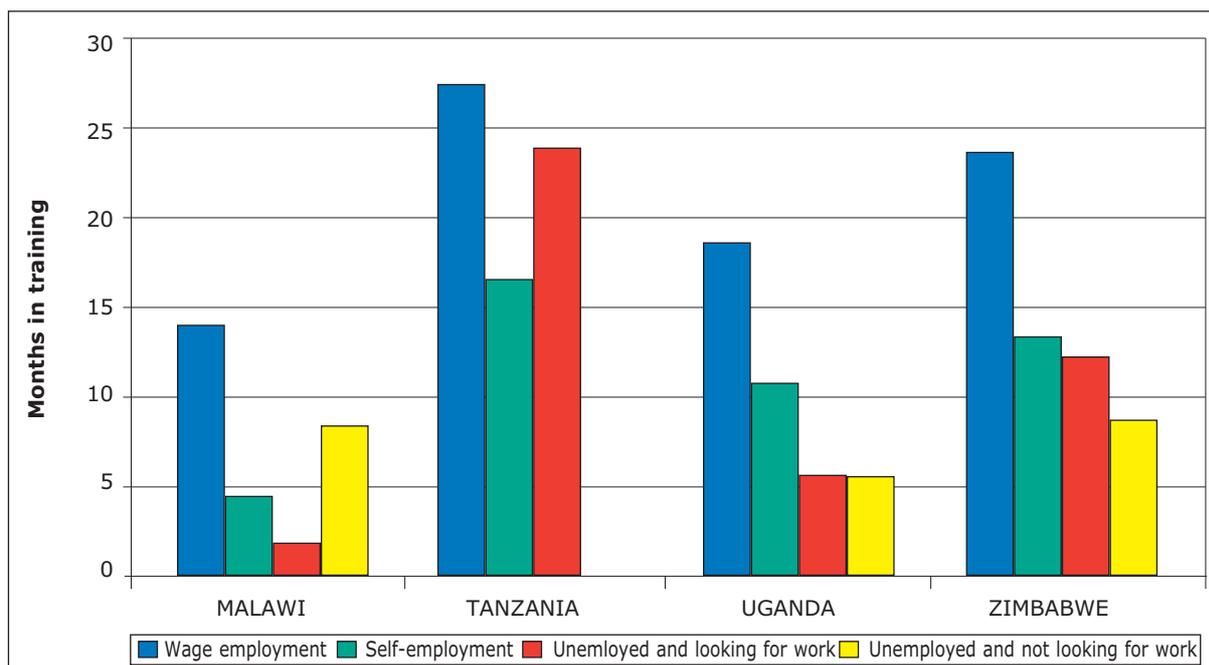
While there has always been a strong tradition of private study for professional and other qualifications in the region, there are a number of reasons for the rapid growth of part-time study during the 1990s. Public sector training institutions have been able to offer training to only a small fraction of the burgeoning numbers of secondary school leavers and university graduates. With the liberalisation of

**Table 4.4: Part-Time FET courses as a percentage of total courses (university graduates and form IV leavers)**

|          | University Graduates |        |       |             |        |       | Junior Secondary Leavers |        |       |      |        |       |
|----------|----------------------|--------|-------|-------------|--------|-------|--------------------------|--------|-------|------|--------|-------|
|          | 1980 & 1987          |        |       | 1994 & 1999 |        |       | 1990                     |        |       | 1995 |        |       |
|          | Male                 | Female | Total | Male        | Female | Total | Male                     | Female | Total | Male | Female | Total |
| Malawi   | 15.6                 | 11.1   | 14.8  | 30.9        | 34.9   | 31.9  | 29.5                     | 25.0   | 27.6  | 38.6 | 30.3   | 34.9  |
| <i>n</i> | 135                  | 27     | 162   | 139         | 43     | 182   | 122                      | 92     | 214   | 153  | 122    | 275   |
| Tanzania | 16.8                 | 6.3    | 14.8  | 15.4        | 34.8   | 20.5  | 11.2                     | 19.0   | 15.4  | 19.8 | 31.6   | 27.5  |
| <i>n</i> | 137                  | 32     | 169   | 65          | 23     | 88    | 116                      | 137    | 253   | 81   | 152    | 233   |
| Uganda   | 29.5                 | 20.0   | 28.0  | 39.0        | 25.0   | 37.8  | 12.4                     | 15.9   | 13.4  | 10.3 | 11.7   | 10.9  |
| <i>n</i> | 105                  | 20     | 125   | 82          | 8      | 90    | 218                      | 88     | 306   | 331  | 257    | 588   |
| Zimbabwe | 61.1                 | 50.0   | 59.6  | 58.3        | 48.0   | 56.0  | 55.3                     | 72.7   | 63.1  | 67.8 | 78.0   | 72.4  |
| <i>n</i> | 95                   | 14     | 109   | 84          | 25     | 109   | 123                      | 99     | 222   | 121  | 100    | 221   |

Note: 1987 cohort for Uganda is actually 1988.

**Figure 4.4: Average months spent in full-time education and training by 1990 junior secondary school leavers by current activity<sup>19</sup>**



training markets in the early–mid 1990s, private sector training providers have been able to tap this demand and have offered courses in new, mainly non-technical, areas to both job-seekers and those who are already in work. It is this latter group who study on a part-time basis, attending classes in the evenings and at weekends.

### 4.2.3 Training duration and employment outcomes

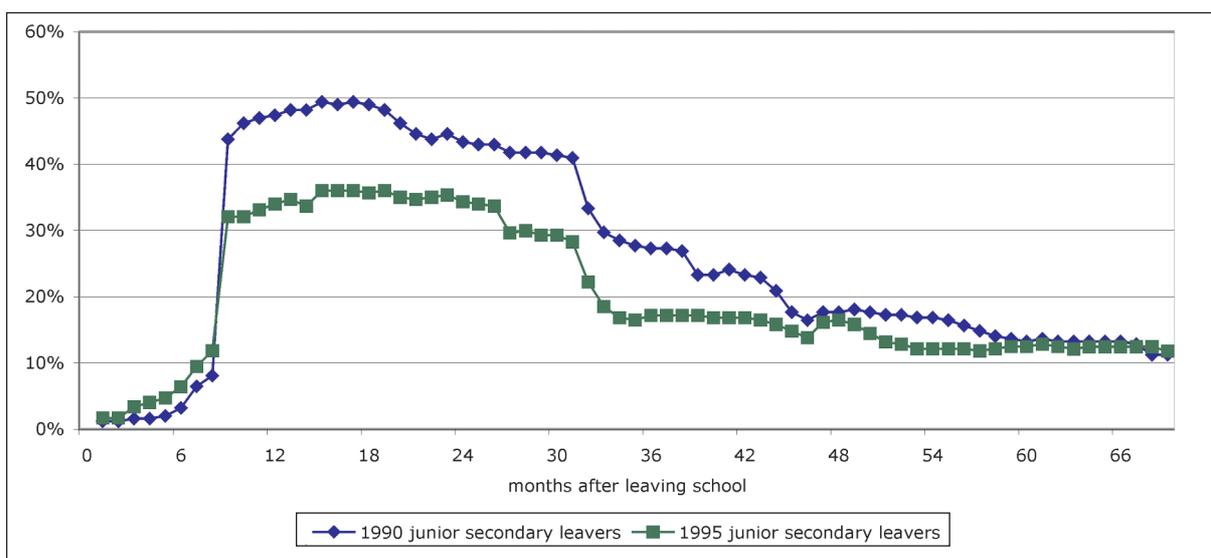
What impact have these further education and training investments had on employment outcomes? Figure 4.4 shows the average time spent in FET for 1995 junior secondary school leavers by current employment status. The Figure suggests that individuals currently in wage employment have spent more time in FET compared with leavers in other activities, which suggests that these investments improve leavers’ chances of securing wage employment. However, it should also be pointed out that no account has been made of the actual types of training pursued and the socio-economic background of respondents has not been controlled for.

### 4.2.4 Trends

Figure 4.5 shows the training activity profiles for 1990 and 1995 Tanzanian junior secondary school leavers for each year after completing their secondary education. Comparing the overall incidence of FET over the first six years after leaving school, significantly more 1990 junior secondary leavers had been trained in Tanzania compared with 1995 leavers. In Tanzania, this partly reflects the fact that 1990 leavers were more

<sup>19</sup> Unlike Table 4.3 this Figure includes all junior secondary school leavers in the calculation of the mean duration of FET (i.e. it includes individuals with zero months of FET). Appendix Figure 4.1 shows the same information for 1995 leavers.

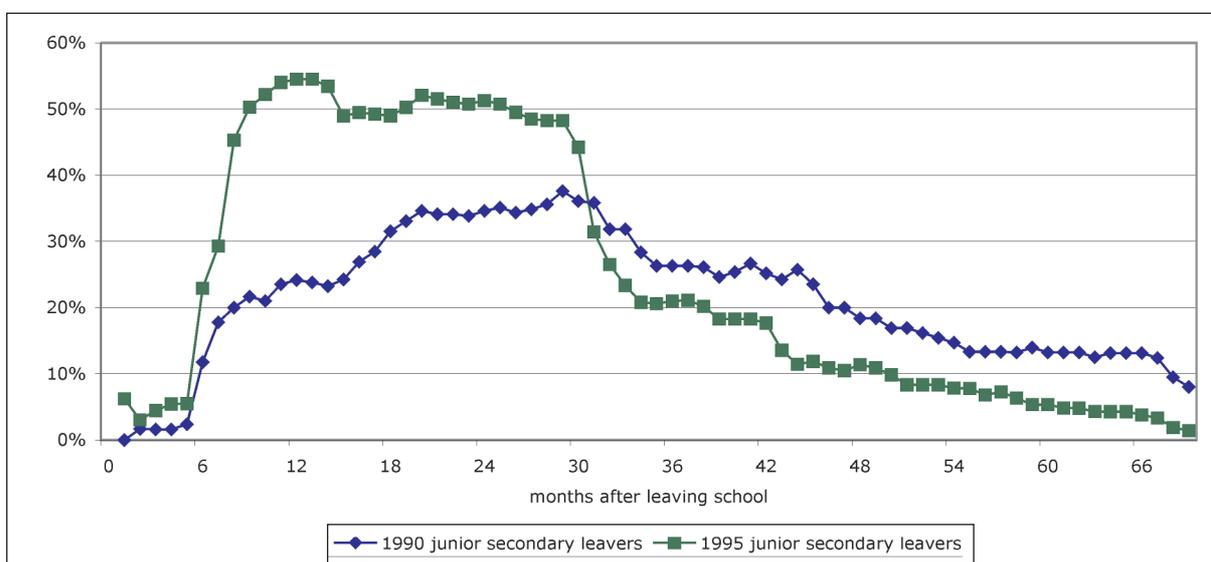
**Figure 4.5: Proportion of Tanzanian junior secondary school leavers in full-time education and training by months after leaving school**



likely than 1995 leavers to undertake national service. Five years after leaving, however, similar proportions of 1990 and 1995 leavers are in FET.

Comparing the overall incidence of FET, in Uganda, over the first six years after each group had left school shows significantly more 1995 junior secondary school leavers had been trained. The overall intensity of the training effort appears therefore to be increasing over time. There are three main reasons for this. First, higher proportions of female school leavers are enrolling on training courses. Second, employers are increasing minimum qualification requirements in the face of growing numbers of school leavers. As a consequence, the demand for these qualifications has grown rapidly. And thirdly, private sector training capacity has increased sharply as a result of the liberalisation of training markets.

**Figure 4.6: Proportion of Ugandan junior secondary school leavers in full-time education and training by months after leaving school**



## 4.3 COURSES AND QUALIFICATIONS

### 4.3.1 Education and training courses

*School leavers:* Six broad areas of occupational training – manual trades, health/nursing, secretarial, teaching and management and computing – account for well over two-thirds of training courses completed by 1995 junior secondary school leavers (see Table 4.5). In the past, many secondary school leavers went on to teacher training college. However, with the exception of Uganda, relatively few of the 1995 junior secondary leavers had trained to be teachers. Furthermore, a smaller proportion of 1995 leavers trained to be teachers compared with 1990 leavers (see Appendix Table 4.5 for FET of 1990 leavers). This is partly because secondary school teachers are increasingly recruited from university graduates and upper secondary leavers, and partly because of public sector recruitment freezes. As job opportunities have become more limited, more junior secondary leavers are enrolling in manual trades courses, especially males in Malawi and Tanzania.

Female training is heavily concentrated in secretarial, health/nursing, and management and computing courses. Garment/textiles courses are also relatively popular in Zimbabwe. They account for over 90 per cent of skilled manual training among all females. Pre-employment apprenticeship training has declined in all four countries as a consequence of privatisation, public sector recruitment freezes and de-industrialisation. It is also noticeable that in Zimbabwe higher proportions of junior secondary leavers are training for semi-skilled occupations such as security guards and salespersons (retail). Again this is the consequence of a mass secondary education system with school leavers “filtering down” into lower-level occupations. Despite attempts to limit the growth of public sector employment, sizeable numbers of school leavers continued to be trained for mainly public sector occupations. For example, 39 per cent of 1995 school leavers in Uganda had completed teacher training.

**Table 4.5: Types of FET courses undertaken by 1995 junior secondary school leavers (%)<sup>20</sup>**

|   | Malawi      |             |             | Tanzania    |             |             | Uganda     |            |            | Zimbabwe    |             |             |
|---|-------------|-------------|-------------|-------------|-------------|-------------|------------|------------|------------|-------------|-------------|-------------|
|   | Male        | Female      | Total       | Male        | Female      | Total       | Male       | Female     | Total      | Male        | Female      | Total       |
| Accounting and banking                      | 24.3        | 10.9        | 18.1        | -           | -           | -           | -          | -          | -          | 4.9         | 8.9         | 6.7         |
| Computing                                   | 12.9        | 20.2        | 16.2        | -           | -           | -           | -          | -          | -          | 9.8         | 8.9         | 9.4         |
| Management/marketing                        | 11.4        | 10.9        | 11.2        | -           | -           | -           | -          | -          | -          | 7.4         | 1.0         | 4.5         |
| <b>Management, accounting and computing</b> | <b>48.6</b> | <b>42.0</b> | <b>45.6</b> | <b>28.0</b> | <b>34.9</b> | <b>32.5</b> | <b>2.1</b> | <b>6.6</b> | <b>4.3</b> | <b>22.1</b> | <b>18.8</b> | <b>20.6</b> |
| Teaching                                    | 4.3         | 6.7         | 5.4         | 8.5         | 7.9         | 8.1         | 36.5       | 40.7       | 38.5       | 4.1         | 3.0         | 3.6         |
| Manual trades                               | 19.3        | 1.7         | 11.2        | 4.9         | -           | 1.7         | -          | -          | -          | 34.4        | 2.0         | 19.7        |
| Technical and vocational                    | 0.0         | 0.0         | 0.0         | 24.4        | 4.6         | 11.5        | 24.7       | 14.0       | 19.5       | -           | -           | -           |
| Secretarial/receptionist                    | 0.0         | 26.1        | 12.0        | 1.2         | 13.2        | 9.0         | -          | -          | -          | -           | 16.8        | 7.6         |
| Nursing/health                              | 6.4         | 7.6         | 6.9         | 3.7         | 9.2         | 7.3         | 16.7       | 19.8       | 18.2       | 2.5         | 5.9         | 4.0         |
| Garments/textiles/tailoring                 | 0.0         | 0.8         | 0.4         | -           | -           | -           | -          | -          | -          | 1.6         | 25.7        | 12.6        |
| Agriculture                                 | 0.0         | 0.0         | 0.0         | -           | 1.3         | 0.9         | -          | -          | -          | 1.6         | -           | 0.9         |
| Tourism and catering                        | 0.7         | 2.5         | 1.5         | -           | -           | -           | -          | -          | -          | 1.6         | 11.9        | 6.3         |
| Police/military/security                    | 3.6         | 0.8         | 2.3         | 7.3         | 0.7         | 3.0         | -          | -          | -          | 13.1        | -           | 7.2         |
| Retail                                      | 2.9         | 0.0         | 1.5         | -           | -           | -           | -          | -          | -          | 5.7         | 3.0         | 4.5         |
| Other                                       | 14.3        | 11.8        | 13.1        | 22.0        | 28.3        | 26.1        | 19.8       | 18.7       | 19.3       | 13.1        | 12.9        | 13.0        |
| <i>n</i>                                    | 140         | 119         | 259         | 82          | 152         | 234         | 96         | 91         | 187        | 122         | 101         | 223         |

<sup>20</sup> Appendix Table 4.5 details the types of courses 1990 junior secondary school leavers take.

**Table 4.6: University graduates studying for PhD and master's degrees as a percentage of graduates who undertook some FET**

|          | 1980 & 1987 |        |       | 1994 & 1999 |        |       |
|----------|-------------|--------|-------|-------------|--------|-------|
|          | Male        | Female | Total | Male        | Female | Total |
| Malawi   | 42.7        | 58.8   | 45.3  | 12.7        | 21.4   | 14.5  |
| <i>n</i> | 89          | 17     | 106   | 165         | 42     | 207   |
| Tanzania | 46.6        | 62.5   | 50.5  | 25.5        | 33.3   | 27.5  |
| <i>n</i> | 73          | 24     | 97    | 51          | 18     | 69    |
| Uganda   | 73.5        | 77.8   | 74.4  | 41.9        | 31.6   | 40.2  |
| <i>n</i> | 68          | 18     | 86    | 93          | 19     | 112   |
| Zimbabwe | 44.4        | 50.0   | 45.2  | 35.3        | 16.7   | 31.4  |
| <i>n</i> | 63          | 10     | 73    | 68          | 18     | 86    |

Note: Uganda includes postgraduate diploma courses. 1987 cohort for Uganda is actually 1988.

The main training growth areas are management, accounting and bookkeeping and computing. Quite a number of mainly female school leavers in Zimbabwe have also completed courses in tourism, hotel management, and catering. But it is striking how little agriculture-related training there is in all four countries.

*University graduates:* Perhaps the most noticeable feature of FET among graduates is that so many have studied for postgraduate degrees. Among the 1980s graduates, around a half had enrolled on Ph.D. and master's degree programmes (see Table 4.6). This percentage is even higher in Uganda, although the figures also include postgraduate diploma courses. In all four countries, relatively more female graduates have studied for these degrees than males. This enormous investment in postgraduate degree training is the result of a number of factors: strong demand to study at overseas universities as well as for high-value qualifications (most notably MBAs), which are very marketable both in national and international labour markets. A master's degree is also required for promotions beyond a certain point in the public sector in some countries.

Two other types of training activity predominate among university graduates: Short-term courses that are closely job-related and mainly part-time study for professional qualifications, particularly in accountancy, engineering and medicine.

#### 4.3.2 Qualifications and training outcomes

With economic liberalisation, both school leavers and university graduates are increasingly paying to study for overseas qualifications, which are offered in a much wider range of specialist subject areas than national qualifications and are usually more marketable. While some qualification bodies maintain direct control over the training process, the majority accredit other, mostly private, training providers to offer their qualifications. British and South African qualifications now dominate training markets in management, accountancy, and computing.

Pass rates are generally high among junior secondary leavers taking certificate and diploma courses. Most graduates also successfully obtain their master's degrees and other postgraduate qualifications awarded by universities. However, only a small minority (generally less than 10 per cent in the main subject areas) successfully pass overseas professional qualifications (such as ACCA and MRCS).

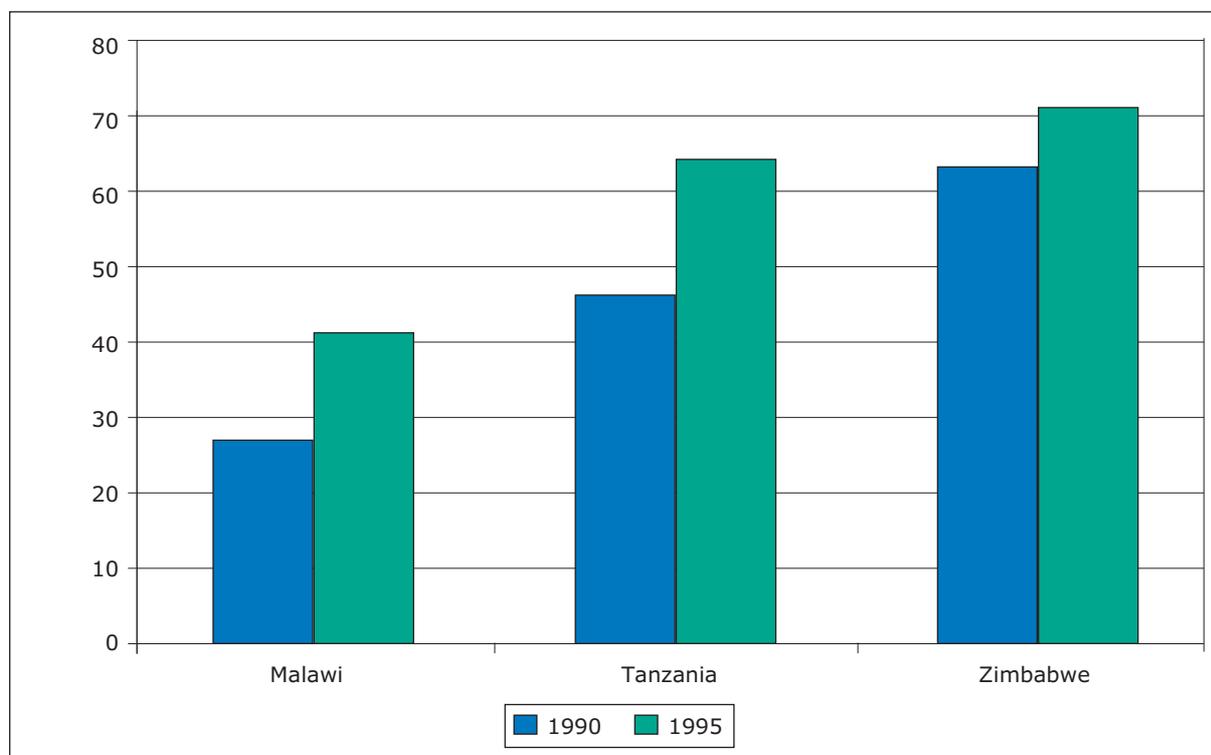
## 4.4 TRAINING INSTITUTIONS

### 4.4.1 Public and private provision

As discussed above, the 1990s saw the emergence of private sector training providers specialising in mainly non-technical courses. These are relatively easy to offer and barriers to entry are low. Despite some efforts to reform public sector training provision, most government training centres have continued to focus on traditional areas of artisan and technician training and pre-employment training for the main public sector occupations (administration, teaching, nursing, agricultural extension, military, police, etc).

*School leavers:* The extent of private sector training provision is most impressive in Zimbabwe; well over two-thirds of all courses undertaken by junior secondary leavers from both the 1990 and 1995 cohorts were at private training centres (see Figure 4.7). Figure 4.7 shows that private training has increased in significance for the 1995 leavers compared with the 1990 leavers in all countries. Generally speaking, relatively more female school leavers are attending private training courses than males. This is particularly marked among school leavers in Zimbabwe and Tanzania.

**Figure 4.7: Private courses taken by junior secondary school leavers as a proportion of total FET courses<sup>21</sup>**



Notes: These data not collated in Uganda

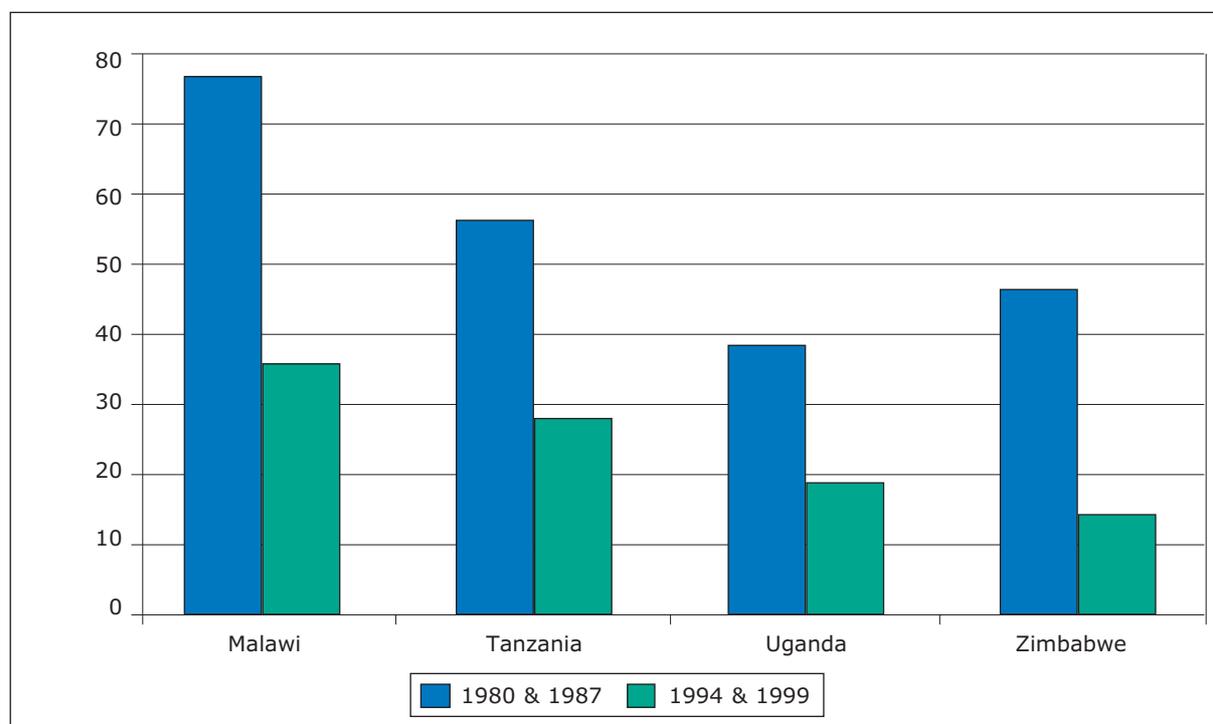
<sup>21</sup> Appendix Table 4.6 reports the data used for Figure 4.7.

*University graduates:* Private sector training provision for graduates in Malawi remains quite limited. Information is not available for Zimbabwe, but other research indicates that significant numbers of graduates enrol on professional and management courses run by private training centres (see Bennell, 1999).

#### 4.4.2 Overseas training

While only a handful of junior secondary leavers have trained overseas, three-quarters of courses undertaken by 1980s graduates in Malawi and 45–55 per cent in Tanzania and Zimbabwe have been overseas (see Figure 4.8). Overseas training opportunities were limited in Uganda during the 1980s as result of the civil war. There is no strong gender pattern in overseas training with similar proportions of male and female graduates attending overseas training institutions (see Appendix Table 4.7). The relative importance of foreign training appears to have fallen appreciably since the late 1980s. Less than 35 per cent of 1990s graduates have been overseas to study. A key factor is that donor funding of postgraduate training has declined considerably during the last decade and there has been significant disinvestment by foreign companies, which in the past sponsored the bulk of overseas training from within the private sector.

**Figure 4.8: Percentage of graduates with FET who have studied overseas**



Note: 1987 cohort for Uganda is actually 1988.

## CHAPTER 5

### WAGE AND SELF-EMPLOYMENT

A key finding of the tracer surveys is that most secondary school leavers and university graduates are economically active and the majority are either in wage or self-employment.<sup>22</sup> The proportion of junior secondary school leavers currently in the labour market and in wage or self-employment varied from a high of 94 per cent for 1990 leavers in Tanzania and Uganda to a low of 71 per cent for 1995 leavers in Zimbabwe (see Table 3.2). Furthermore, a greater proportion of economically active secondary school and university graduates were in wage rather than self-employment. Rates of female wage employment, among secondary school leavers, were higher or similar to male rates in all countries with the exception of Zimbabwe where male wage employment rates were significantly higher than for females. In all the four surveyed countries more than 85 per cent of university graduates who were economically active were in wage employment. Unlike the secondary school sample there did not appear to be large gender differences in rates of wage employment.

#### 5.1 TRENDS IN WAGE AND SELF-EMPLOYMENT

How have employment opportunities changed for secondary school leavers and university graduates over time? The current activity profiles, described in Chapter 3, provide part of the answer but do not compare employment outcomes of leavers at the same time after leaving school or university. For university graduates wage employment dominates and this has not changed a great deal over the last twenty years. For this reason this section focuses on secondary school leavers.

Figure 5.1 shows the proportion of 1990 and 1995 junior secondary school leavers in wage employment for each month after they left school in Tanzania. It can be observed that slightly greater proportions of the 1990 cohort were in wage employment at the same time after leaving school than the 1995 cohort. This suggests that wage employment opportunities, for this group, have been declining over the nineties. A similar pattern prevails in Malawi and Zimbabwe (see Appendix Figures 5.1 and 5.2).

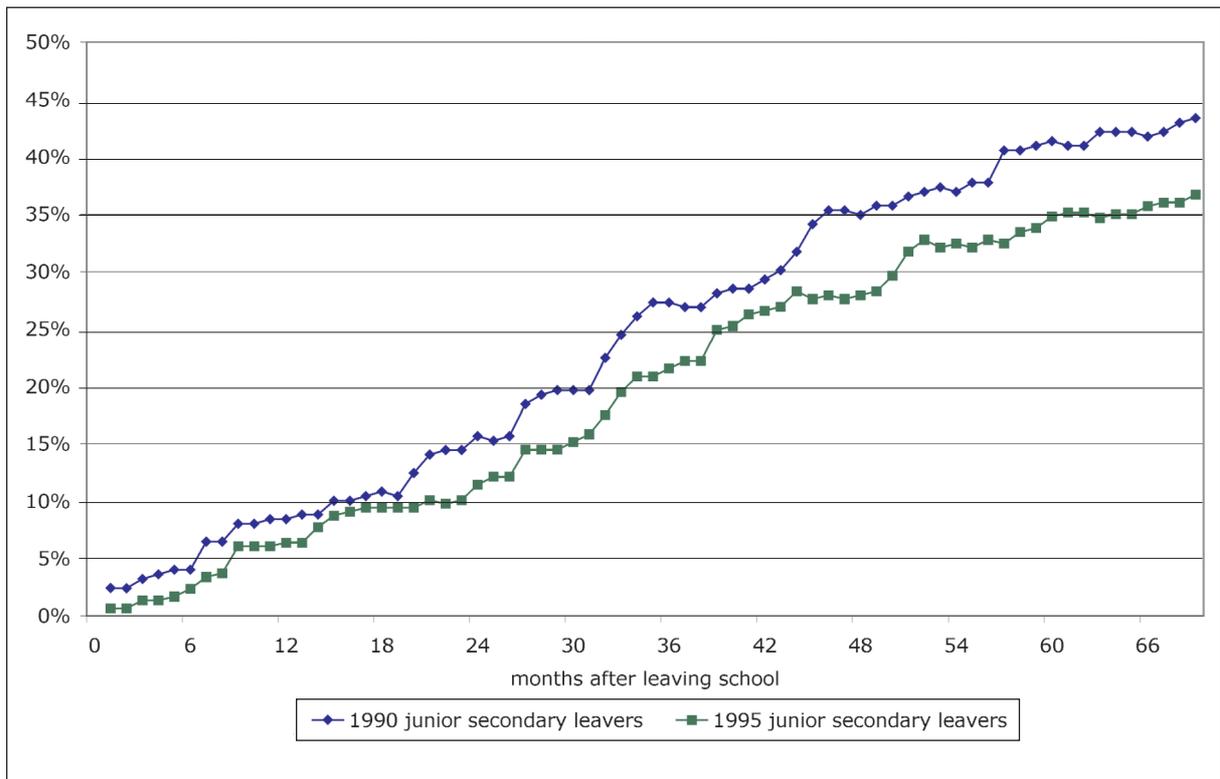
A different picture emerges for Uganda where approximately three years after leaving school more 1995 than 1990 junior secondary school leavers are in wage employment. This in part reflects the very different economic growth record experienced by Uganda compared with the other countries in the study (see Table 1.1).

While there are some differences in wage employment trends across the four countries, 1995 leavers are more likely to be in self-employment compared with 1990 leavers at the same time after leaving school. Figure 5.3 shows that three years after leaving secondary school 9 per cent of Malawi 1995 leavers were self-employed compared with 6 per cent of 1990 leavers. This implies that self-employment amongst

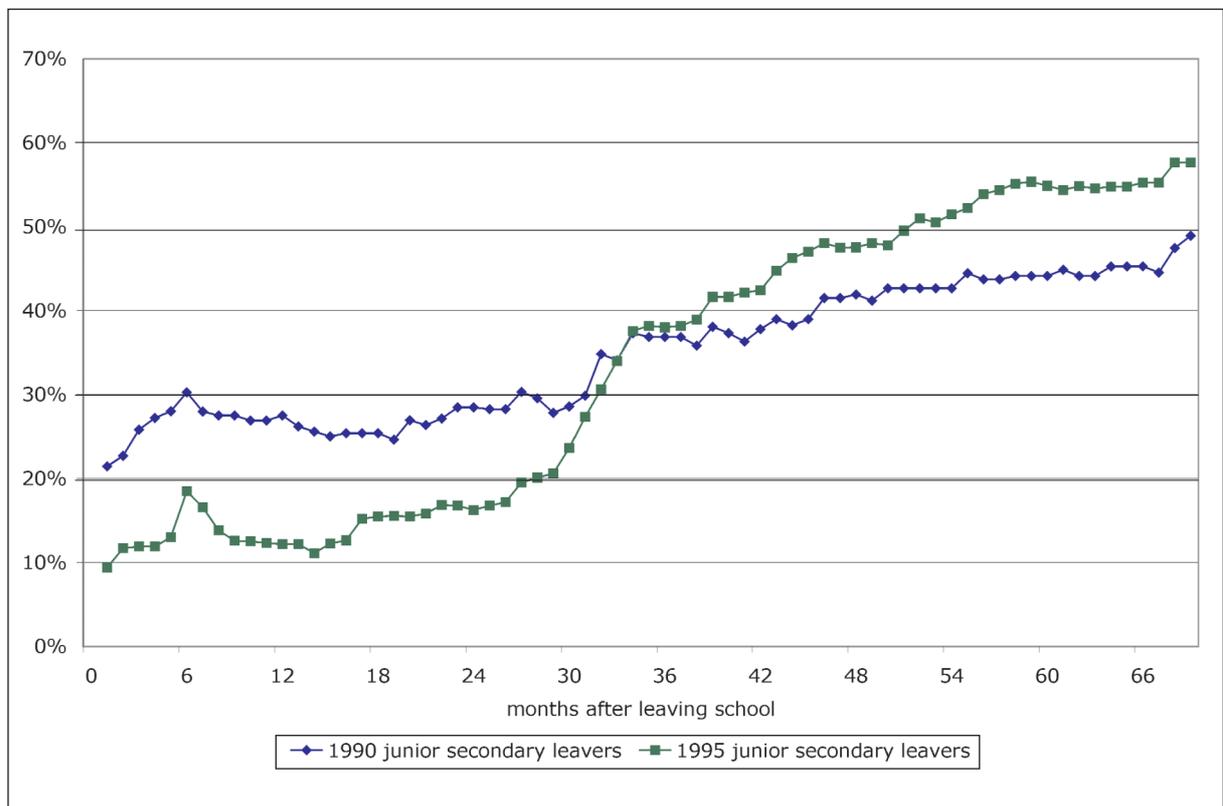
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<sup>22</sup> A person is considered to be economically active if they are either in wage employment, self-employed or unemployed and looking for work.

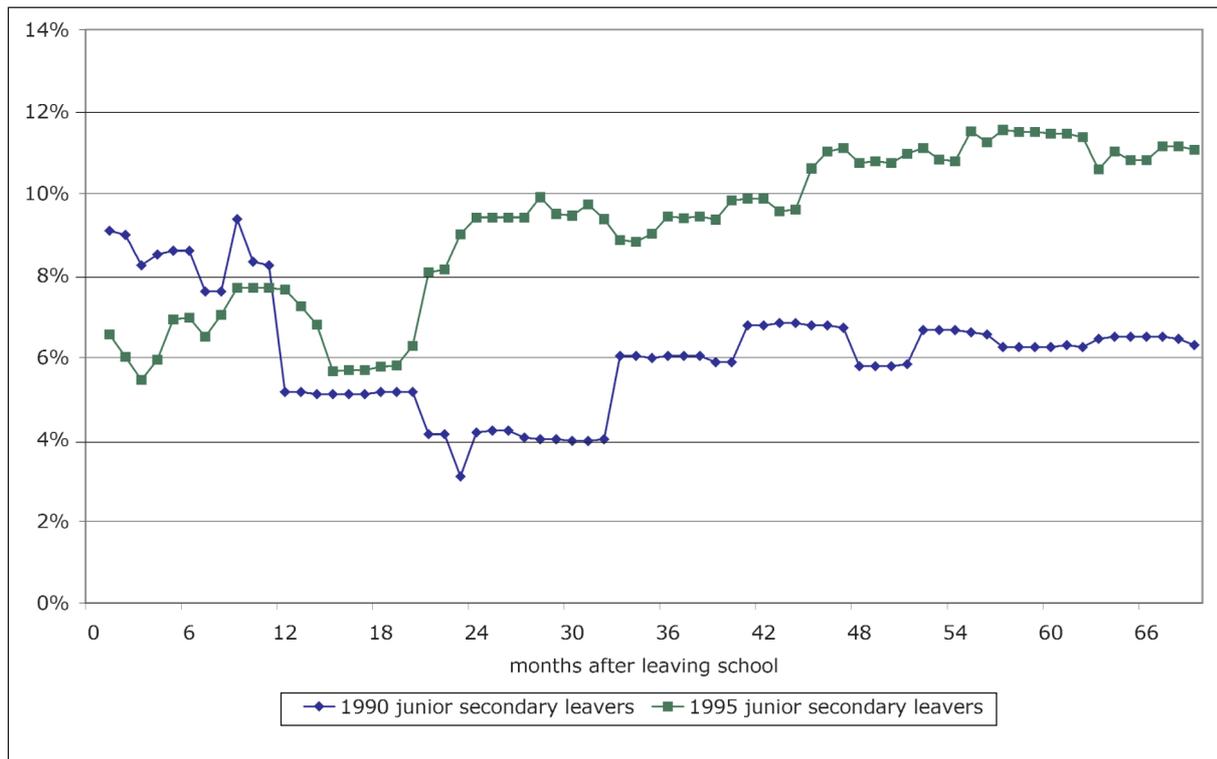
**Figure 5.1: Proportion of Tanzanian junior secondary school leavers in wage employment by months after leaving school**



**Figure 5.2: Proportion of Ugandan junior secondary school leavers in wage employment by months after leaving school**



**Figure 5.3: Proportion of Malawian secondary school leavers in self-employment by months after leaving school**



junior secondary school leavers has been increasing during the nineties. A similar trend is also found in Tanzania, Uganda and Zimbabwe (see Appendix Figures 5.3, 5.4 and 5.5).

With the exception of Uganda there has been a declining trend in wage employment over the nineties for junior secondary school students. Conversely, self-employment is becoming more common for this group in all four countries. In Malawi, Tanzania and Uganda these trends are likely to continue given the recent expansion in secondary school enrolments.

## 5.2 EXAMINATION PERFORMANCE

How important is examination performance in determining employment outcomes? Table 5.1 shows the percentage of secondary school leavers with good and poor grades in the junior secondary school examination, who are in wage and self-employment. The table shows that in most cases a slightly greater proportion of terminal form four leavers with good grades are in either wage or self-employment compared with leavers who had poor grades. For example, in Tanzania 89 per cent of 1990 leavers with good grades are in wage and self-employment (i.e. 60 per cent in wage employment and 29 per cent in self-employment) compared with 78 per cent of leavers with poor grades (i.e. 49 per cent in wage employment and 29 per cent in self-employment).

In general, junior secondary school leavers with good examination grades are more likely to be in wage employment than students who performed poorly. For example, in Malawi 64 per cent of 1995 terminal form four leavers with good performance were in wage employment compared with only 54 per cent of poorly performing students. Conversely, a greater share of terminal form four leavers with poor grades in

**Table 5.1: Percentage of secondary school leavers with good and poor grades in the junior secondary school examination**

|  |            | WAGE EMPLOYMENT |        |       |      |        |       | SELF-EMPLOYMENT |        |       |      |        |       |
|--|------------|-----------------|--------|-------|------|--------|-------|-----------------|--------|-------|------|--------|-------|
|  |            | 1990            |        |       | 1995 |        |       | 1990            |        |       | 1995 |        |       |
|  |            | Male            | Female | Total | Male | Female | Total | Male            | Female | Total | Male | Female | Total |
| <b>Junior Secondary School Leavers</b> |            |                 |        |       |      |        |       |                 |        |       |      |        |       |
| Malawi                                 | Good grade | 77              | 11     | 64    | 64   | 63     | 64    | 17              | 67     | 27    | 23   | 12     | 18    |
|  | Poor grade | 41              | 47     | 43    | 51   | 59     | 54    | 53              | 24     | 42    | 38   | 12     | 27    |
| Tanzania                               | Good grade | 57              | 66     | 60    | 25   | 65     | 38    | 36              | 17     | 29    | 55   | 15     | 42    |
|  | Poor grade | 46              | 52     | 49    | 27   | 42     | 36    | 41              | 19     | 29    | 38   | 16     | 26    |
| Uganda                                 | Good grade | 82              | 14     | 70    | 74   | 81     | 77    | 18              | 86     | 30    | 24   | 16     | 20    |
|  | Poor grade | 42              | 67     | 49    | 54   | 81     | 63    | 57              | 33     | 49    | 40   | 17     | 32    |
| Zimbabwe                               | Good grade | 65              | 62     | 64    | 42   | 42     | 42    | 19              | 15     | 18    | 26   | 14     | 22    |
|  | Poor grade | 32              | 14     | 23    | 40   | 17     | 29    | 35              | 34     | 35    | 21   | 27     | 24    |
| <b>Senior Secondary School Leavers</b> |            |                 |        |       |      |        |       |                 |        |       |      |        |       |
| Tanzania                               | Good grade | 58              | 64     | 61    | 11   | 26     | 16    | 32              | 21     | 29    | 12   | 0      | 8     |
|  | Poor grade | 40              | 94     | 74    | 29   | 36     | 33    | 50              | 18     | 30    | 12   | 18     | 16    |
| Uganda                                 | Good grade | 65              | 89     | 71    | 63   | 89     | 71    | 35              | 11     | 29    | 35   | 11     | 27    |
|  | Poor grade | 75              | 60     | 67    | 76   | 78     | 77    | 25              | 40     | 33    | 24   | 22     | 23    |
| Zimbabwe                               | Good grade | 78              | 100    | 80    | 58   | 71     | 62    | 0               | 0      | 0     | 0    | 0      | 0     |
|  | Poor grade | -               | 100    | 100   | 100  | -      | 100   | -               | 0      | 0     | 0    | -      | 0     |

*Notes:* Junior secondary school leavers are defined as leavers who terminated their formal schooling after four years of secondary schooling. Senior secondary school leavers are defined as leavers who terminated their formal schooling after six years of secondary schooling (i.e. they have not completed university degrees). Data for table taken from Appendix Table 5.1. In Tanzania and Uganda a good grade is defined as a Division I–III pass on the form IV secondary school examination, in Malawi a credit or an ordinary pass and in Zimbabwe obtaining 4 or more 'O' levels. Approximately 50 per cent of the sample in each country obtains a good grade and 50 per cent a poor grade.

Malawi and Uganda are in self-employment compared with leavers with good grades. This is particularly the case for male leavers. While there is a positive (negative) relationship between examination performance and chances of wage (self-) employment this correlation does not appear to be very strong, particularly in Malawi and Tanzania. This may in part be due to additional training undertaken by these leavers after leaving junior secondary school (see Chapter 4). In Uganda and Zimbabwe the relationship appears to be slightly stronger and may be related to the higher secondary school enrolment rates in these countries and hence the more important role examination results have as a sorting mechanism.

Given that most university graduates are in wage employment, the class of degree has little impact on employment outcomes.

## 5.3 SECTORAL BREAKDOWNS

### 5.3.1 Public/private sector employment

In most countries in sub-Saharan Africa, the public sector dominated the markets for secondary school leavers and university graduates for much of the post-Independence period. However, with the advent of comprehensive economic reform programmes, concerted efforts have been made to reduce public sector

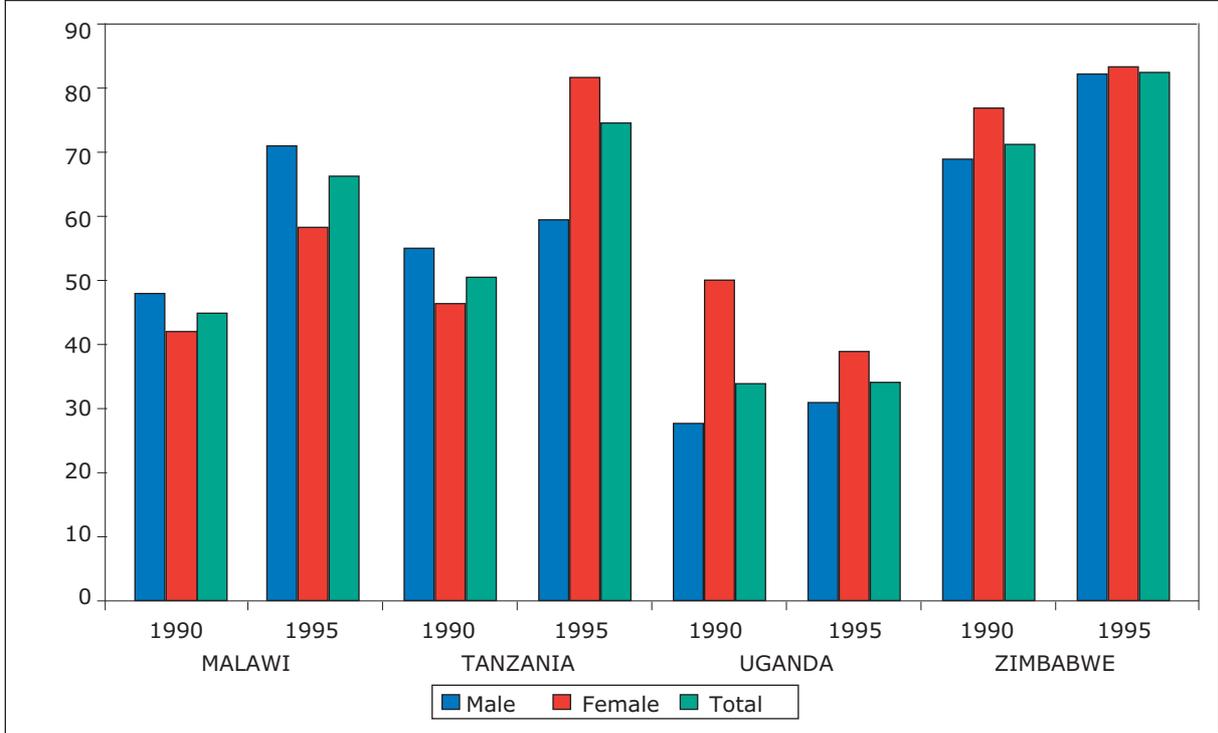
employment and encourage employment generation in the private sector. To what extent has this shift been reflected in wage employment among school leavers and university graduates during the last decade?

Figure 5.4 shows that, with the exception of Ugandan females, the percentage of 1995 leavers who were employed in the private sector in mid-2001 was much higher than for the 1990 group.<sup>23</sup> The higher proportion of female wage employees in the later cohort in Uganda may be because large numbers of this group are employed as teachers in the public sector (see Table 5.2). The largest difference was in Tanzania where 50 per cent of 1990 wage employees are working in the private sector compared with 74 per cent of 1995 leavers. Figure 5.4 also shows country variations in the relative size of the public and private sectors. In Tanzania and Zimbabwe a greater proportion of wage employees are employed in the private sector regardless of the year they left junior secondary school. In Malawi, the private sector absorbs more junior secondary school leavers than the public sector in the later cohort but slightly less in the earlier cohort. In Uganda the public sector still remains the main employer of junior secondary school leavers although its share declines across the two cohorts.

There are interesting gender differences in the breakdown of public/private employment across the four countries. With the exception of Uganda, relatively more male school leavers were employed in the private sector than females. This is true for both cohorts except in Tanzania where the percentage of 1995 female waged school leavers working in the private sector increased very significantly.

The differences in the composition of wage employment shown in Figure 5.4 may not only be due to changes over time but may also reflect differences in experience between the 1990 and 1995 cohorts. For example, experience may be positively correlated with public sector employment and therefore 1990

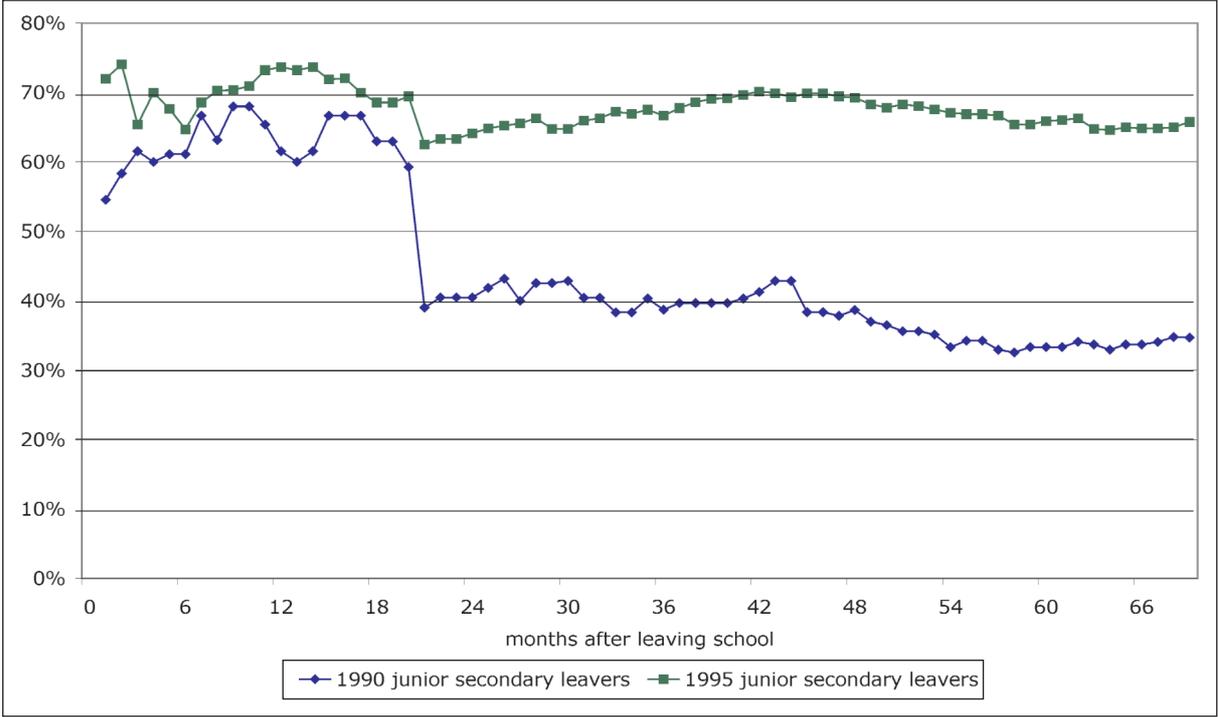
**Figure 5.4: Private sector employment among waged junior secondary school leavers (%)**



<sup>23</sup> Appendix Table 5.2 provides detailed information on the proportion of terminal form four leavers in wage employment working for the public and private sectors.

secondary school leavers would be more likely to be in public sector wage employment than 1995 leavers. Figure 5.5 plots the percentage of Malawian 1990 and 1995 terminal form four leavers who were in private sector employment for each month after they left school. This clearly shows a shift in wage employment, from the public to the private sector, among the later group of school leavers. Similar patterns are found in Tanzania and Zimbabwe. In Uganda, a greater proportion of 1995 leavers are employed in the private sector early on in their careers, but after four years the proportion still in the private sector is similar to the 1990 cohort (see Appendix Figure 5.7).

**Figure 5.5: Private sector wage employment as a percentage of total wage employment by months after leaving school: Malawi junior secondary school leavers<sup>24</sup>**



University graduate employees are less likely to be working for the private sector compared with secondary school leavers (see Figure 5.6). The public sector is the main employer of university graduates in all four countries. However, the share of private sector wage employment is higher among the 1990s graduates, especially in Tanzania and Uganda.

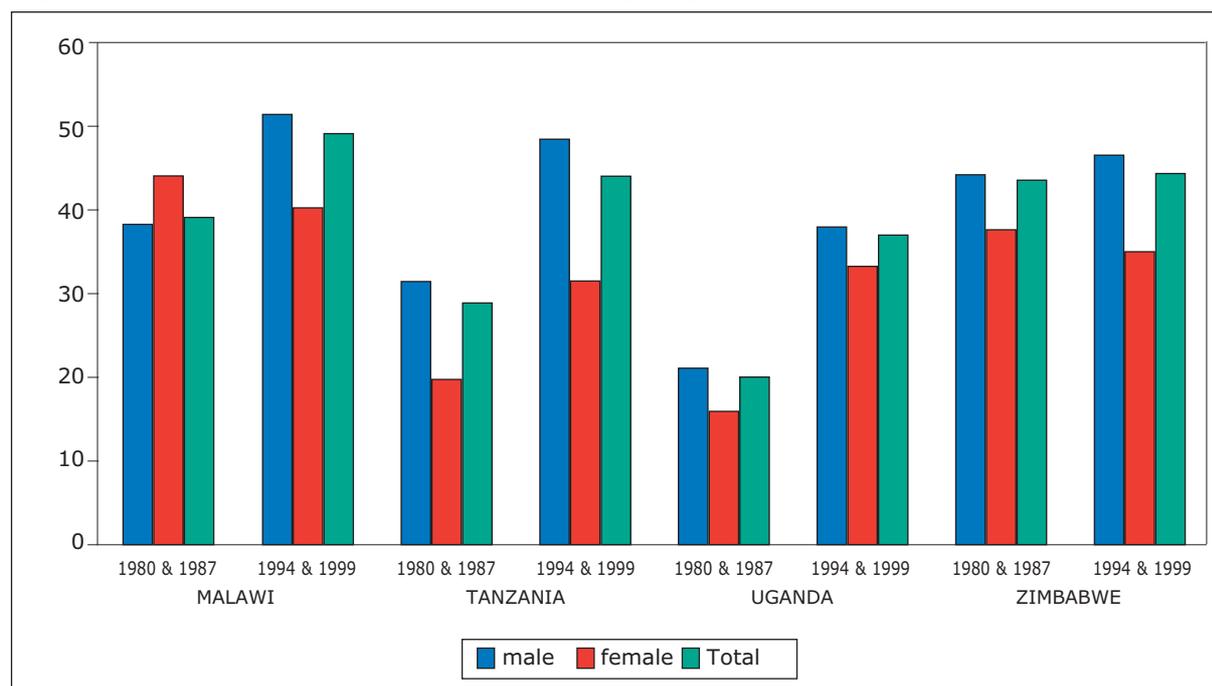
Roughly equal proportions of female and male graduates were working in the private sector in each country, with Tanzania being the notable exception. It should be noted, however, that due to large gender differences in university access the female samples are very small at the university level.

**5.3.2 Economic sectors**

The economic sectors in which the secondary school leavers are working are many and varied. However, relatively large numbers are teachers and nurses in all four countries (see below). Other important sectors include transport, trading and manufacturing.

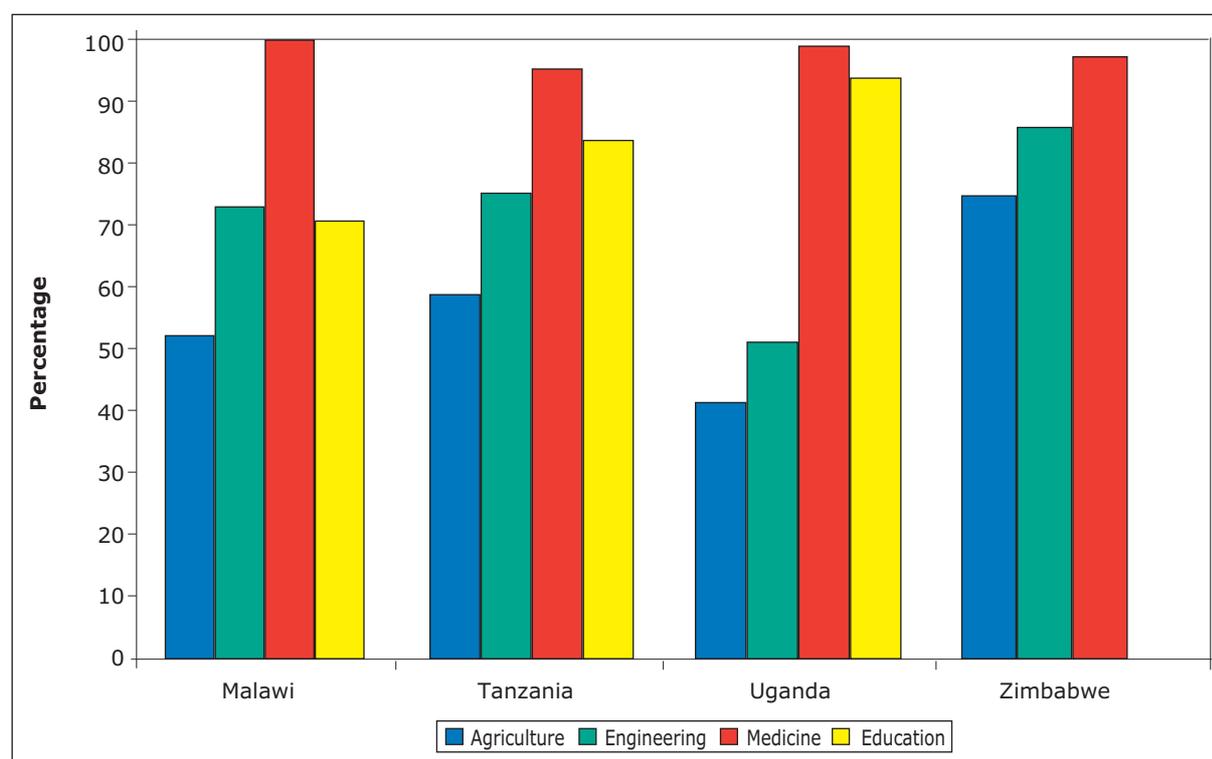
<sup>24</sup> Appendix Figures 5.6, 5.7 and 5.8 show the same information for Tanzania, Uganda and Zimbabwe respectively.

**Figure 5.6: Private sector employment among waged university graduates (%)<sup>25</sup>**



Note: 1987 cohort for Uganda is actually 1988.

**Figure 5.7 Training/economic sector mismatches among university graduates**



*Notes:* The graph shows the percentage of graduates in the sample currently working in sectors most closely associated with their degree discipline. The bars for agriculture show the percentage of agriculture graduates working in agriculture; the bars for engineering show the percentage of engineering graduates currently working in agriculture/mining, manufacturing, electricity, gas and water and construction; the bars for medicine show the percentage of medical graduates working in the health sector; and the bars for education graduates show the percentage of education graduates currently working in the education sector.

<sup>25</sup> Appendix Table 5.3 provides detailed information on the proportion of university graduates in wage employment working for the public and private sectors.

With the exception of agriculture graduates, most university graduates are employed in the economic sectors that are most closely related to their degree training (see Figure 5.7). The mismatch between training and employment among agriculture graduates is mainly due to the relatively limited number of sufficiently attractive jobs in the agriculture sector. Agricultural officers in the public sector are frequently posted to remote rural areas.

## **5.4 OCCUPATIONAL PROFILES**

### *5.4.1 Wage employment*

The occupational profiles of secondary school and university leavers are to a large extent the outcome of prevailing labour market conditions and the relative scarcity of educational opportunities.<sup>26</sup> A simple occupational classification has been used to highlight the key features of these profiles.

A major concern is that secondary school leavers, and especially females, end up in low-level semi-unskilled jobs that do not require secondary school education. However, the tracer surveys show that, with the exception of Zimbabwe, over 80 per cent of secondary school leavers who were in wage employment had “white collar” jobs (i.e. professional and skilled non-manual occupations). Teaching accounts for most professional employment across the four countries. (see Table 5.2). In Uganda, over 80 per cent of all waged junior secondary school leavers were teachers, many of whom are employed in the burgeoning private school sector (see Bennell and Sayed 2002). By contrast, the majority of junior secondary school leavers in Zimbabwe were in skilled manual or unskilled occupations. Given the protracted training and job search processes, it is difficult to make meaningful comparisons between the occupational profiles of the 1990 and 1995 school leaver groups. It may be the case, however, that the more recent cohorts are “filtering down” into lower level occupations as it becomes increasingly difficult to find good jobs in the formal sector. In particular, secondary school leavers are not being employed as unqualified teachers in anything like the same numbers as before.

Not only are higher percentages of female leavers in wage employment in three out of the four survey countries, but these females are not disproportionately employed in semi-unskilled occupations. The main exception is the 1995 group in Zimbabwe. However, much higher percentages of male leavers are employed in skilled manual occupations in all four countries. Female leavers are more heavily concentrated in skilled non-manual occupations, in particular secretarial and nursing, which have been much less affected by economic restructuring than skilled manual jobs, especially in the manufacturing and transport sectors. It is still the case however that female school leavers tend to work in a narrower range of occupations than males.

Senior secondary school leavers have similar occupational profiles to junior secondary school leavers in Tanzania and Uganda (see Appendix Table 5.4). However, in Zimbabwe a much greater proportion of senior secondary leavers are in professional occupations. For example, 59 per cent of the 1995 cohort

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<sup>26</sup> Data in Table 5.2 differ from the occupational profiles in the country reports. This is because in each country different groupings were used to code individuals into occupations. Data presented in this report on occupation use a common occupational classification.

**Table 5.2: Occupational profile of junior secondary school leavers in wage employment (%)**

|                     | 1990 |        |       | 1995 |        |       |
|---------------------|------|--------|-------|------|--------|-------|
|                     | Male | Female | Total | Male | Female | Total |
| <b>MALAWI</b>       |      |        |       |      |        |       |
| Professional        | 52.2 | 59.6   | 55.6  | 35.1 | 41.1   | 37.5  |
| <i>o/w Teachers</i> | 58.3 | 52.9   | 55.7  | 15.4 | 63.3   | 36.2  |
| Skilled non-manual  | 34.8 | 38.6   | 36.5  | 34.2 | 53.4   | 41.8  |
| Skilled manual      | 11.6 | 1.8    | 7.1   | 27.9 | 5.5    | 19.0  |
| Unskilled           | 1.4  | 0.0    | 0.8   | 2.7  | 0.0    | 1.6   |
| <i>n</i>            | 69   | 57     | 126   | 111  | 73     | 184   |
| <b>TANZANIA</b>     |      |        |       |      |        |       |
| Professional        | 55.1 | 58.7   | 57.1  | 44.8 | 40.3   | 41.7  |
| <i>o/w Teachers</i> | 37.0 | 54.1   | 46.9  | 23.1 | 33.3   | 30.0  |
| Skilled non-manual  | 20.4 | 34.9   | 28.6  | 24.1 | 46.3   | 39.6  |
| Skilled manual      | 18.4 | 3.2    | 9.8   | 20.7 | 6.0    | 10.4  |
| Unskilled           | 6.1  | 3.2    | 4.5   | 10.3 | 7.5    | 8.3   |
| <i>n</i>            | 49   | 63     | 112   | 29   | 67     | 96    |
| <b>UGANDA</b>       |      |        |       |      |        |       |
| Professional        | 84.9 | 73.7   | 81.9  | 78.8 | 87.5   | 82.8  |
| <i>o/w Teachers</i> | 86.7 | 64.3   | 81.4  | 84.6 | 79.6   | 82.2  |
| Skilled non-manual  | 7.5  | 26.3   | 12.5  | 0.0  | 8.9    | 4.1   |
| Skilled manual      | 7.5  | 0.0    | 5.6   | 16.7 | 0.0    | 9.0   |
| Unskilled           | 0.0  | 0.0    | 0.0   | 0.0  | 0.0    | 0.0   |
| <i>n</i>            | 53   | 19     | 72    | 66   | 56     | 122   |
| <b>ZIMBABWE</b>     |      |        |       |      |        |       |
| Professional        | 19.8 | 20.0   | 19.9  | 14.4 | 4.3    | 10.9  |
| Skilled non-manual  | 21.8 | 46.7   | 29.5  | 24.4 | 34.0   | 27.7  |
| Skilled manual      | 35.6 | 11.1   | 28.1  | 33.3 | 17.0   | 27.7  |
| Unskilled           | 22.8 | 22.2   | 22.6  | 27.8 | 44.7   | 33.6  |
| <i>n</i>            | 101  | 45     | 146   | 90   | 47     | 137   |

who completed senior secondary education and are in wage employment are professionals compared with only 11 per cent of 1995 leavers that terminated their schooling at junior secondary.<sup>27</sup>

Despite persistent concerns that large numbers of university graduates are unable to utilise effectively the knowledge and skills they acquired while at university, nearly all the traced graduates in the four countries were in professional occupations that were directly related to their university training. Apart from education graduates, relatively few were teaching (see Appendix Table 5.5).

#### 5.4.2 Self-employment

Table 5.3 shows that large proportions of the self-employed are vendors (i.e. buying and selling goods) and builders. In Tanzania, two-thirds of the self-employed state their activity as 'business', which does not give a clear indication of the activities these individuals were undertaking. It is clear, however, that secondary school leavers, on the whole, are running micro-enterprises and thus work alone or employ very few staff. Only between 9 (Zimbabwe) and 25 (Tanzania) per cent of terminal form four leavers employed more than three staff.<sup>28</sup> Therefore it is likely that self-employment for most junior secondary school leavers is a second-best option and is undertaken while the individual looks for stable wage

<sup>27</sup> It should be noted that the number of senior secondary leavers in the Zimbabwe sample is very small and the proportions reported in the text should be interpreted cautiously. See Appendix Table 5.4 for the senior secondary occupational profiles.

<sup>28</sup> See Appendix Table 5.6

**Table 5.3: Activities of self-employed junior secondary school leavers (%)**

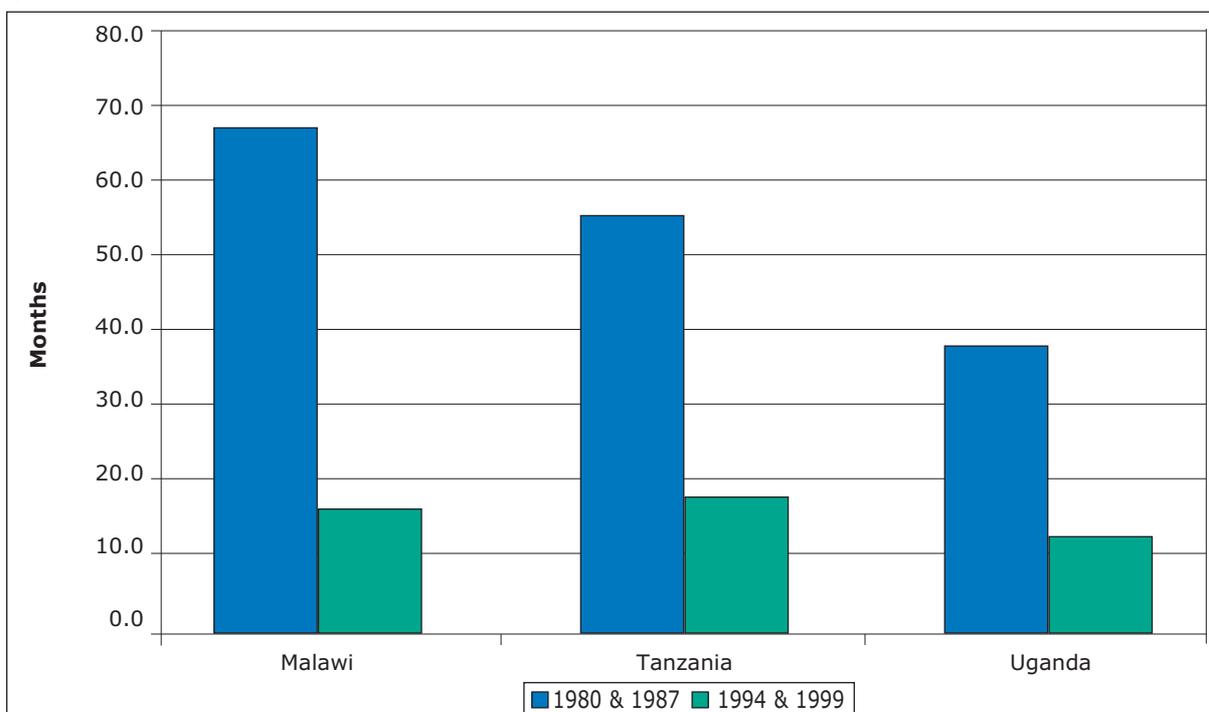
|                          | Malawi |        |       | Tanzania |        |       | Uganda |        |       | Zimbabwe |        |       |
|--------------------------|--------|--------|-------|----------|--------|-------|--------|--------|-------|----------|--------|-------|
|                          | Male   | Female | Total | Male     | Female | Total | Male   | Female | Total | Male     | Female | Total |
| Retail/wholesale/vending | 57     | 67     | 59    | 7        | 10     | 8     | 41     | 35     | 39    | 31       | 39     | 34    |
| Tailoring                | 11     | 22     | 13    | 2        | 15     | 6     | 0      | 20     | 4     | 0        | 0      | 0     |
| Transportation           | 14     | 0      | 11    | 0        | 2      | 1     | 7      | 0      | 6     | 0        | 0      | 0     |
| Construction/carpentry   | 11     | 0      | 9     | 0        | 0      | 0     | 20     | 5      | 17    | 49       | 56     | 52    |
| Business                 | -      | -      | -     | 72       | 52     | 66    | -      | -      | -     | -        | -      | -     |
| Farmer                   | 3      | 0      | 2     | 5        | 4      | 4     | 14     | 20     | 16    | 5        | 2      | 4     |
| Other                    | 5      | 11     | 7     | 14       | 17     | 15    | 17     | 20     | 18    | 14       | 3      | 10    |
| <i>n</i>                 | 37     | 9      | 46    | 108      | 48     | 156   | 69     | 20     | 89    | 97       | 66     | 163   |

employment. This has very important implications for the overall development of the private sector and related entrepreneurial capacity in these four countries.

## 5.5 JOB TURNOVER

Perhaps unsurprisingly the duration of wage employment spells seems to have declined between the earlier and later cohorts of secondary leavers and university graduates. Figure 5.8 shows the average length of first wage employment for university graduates who left university in the eighties and the nineties.<sup>29</sup> Older university graduates spent a great deal longer in their first wage employment compared to more recent graduates. For example, in Tanzania the earlier cohorts of graduates spent an average of 56 months (approximately 5 years) in their first wage employment compared to only 18 months for the nineties graduates.

**Figure 5.8: Average duration of first wage employment for university graduates (months)**



Note: Data for Zimbabwe not available. 1987 cohort for Uganda is actually 1988.

<sup>29</sup> The used to create Figure 5.8 only includes complete periods of first wage employment. For example, if the first period of wage employment for an individual is their current activity this is excluded. The detailed data for Figure 5.8 are reported in Appendix Table 5.7.

The findings for secondary school leavers are quite similar. Duration of first wage employment is, on average, one year longer for the 1990 than for the 1995 cohort (see Appendix Table 5.8). The same pattern exists among self-employed secondary school leavers. Average periods of first public and private wage employment are similar for each cohort of students.<sup>30</sup> Therefore, private wage employment is not any less secure than public sector employment. More recent leavers may be moving on quickly from their first job because they are in great demand and are enticed away to more attractive employment. However, this is unlikely given the higher frequency of self-employment amongst the later cohorts. This suggests that the stability of all parts of the labour market for these educated groups has declined since 1980.

## 5.6 SECONDARY EMPLOYMENT

It is widely believed that, in order to meet their basic livelihood needs, most secondary school leavers and graduates in sub-Saharan Africa have to supplement their salaries with income earned from secondary or part-time employment activities. Furthermore, with the serious decline in public sector incomes over the years, the extent of this secondary income activity is likely to have increased, having adverse impacts on labour productivity and good governance.

The tracer surveys show that it is common for junior secondary school leavers in wage employment to have secondary employment activities (see Table 5.4). Secondary employment is most common in Uganda where almost half of all junior secondary leavers in wage employment have a secondary source of income.<sup>31</sup>

Among waged junior secondary school leavers with secondary employment, self-employment activities and, in particular, farming predominated. In Uganda, more than half of male 1990 leavers in wage employment had a secondary self-employment activity compared with only 17 per cent in Tanzania.

With the exception of Tanzania, male secondary school leavers were more likely to have a part-time self-employment activity than female leavers. These leavers are engaged mostly in part-time farming activities although in Zimbabwe motor repair and machine operating are also common. The number of wage employees with additional wage employment is quite low in all countries. Part-time teaching and tutoring are frequent secondary wage activities for these groups particularly in Malawi and Uganda.

Relatively few self-employed school leavers undertook secondary employment activities.<sup>32</sup> In Zimbabwe, however, a higher percentage of self-employed leavers had secondary activities than did those in wage employment. Again, part-time self-employment is the most common secondary activity among this group.

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<sup>30</sup> For example, in Tanzania the average spell of first public wage employment for 1990 (1995) terminal form four leavers was 30 (16) months compared with 26 (14) months for first private wage employment.

<sup>31</sup> There is no clear difference between public and private sector wage employees in the incidence of secondary employment. In general, private wage employees are more likely to have secondary employment activities, with the exception of Uganda where part-time self-employment is more common amongst public wage employees.

<sup>32</sup> It should be noted that self-employment sample sizes, particularly for female leavers, are very small in Malawi.

The incidence of secondary employment, both waged and self-employment, was generally much higher among university graduates who were in full-time wage employment than it was among school leavers (see Table 5.5). Nearly three-quarters of 1980s graduates in Uganda had a secondary income, over 60 per cent in Zimbabwe, and nearly 45 per cent in Tanzania. These percentages are generally much lower among 1990s graduates, which suggests that it takes time before a graduate is able to exploit secondary employment activities. Part-time teaching/lecturing and working as part-time doctors or medical officers and undertaking consultancy work are common part-time wage activities amongst these graduates across countries. As with secondary school leavers, farming is an important part-time self-employment activity for university graduates. The incidence of secondary employment is generally higher among graduates who work in the public sector (see Appendix Table 5.9). For example, in Zimbabwe almost half of all graduates from the 1980 and 1987 cohorts in public wage employment were engaged in some part-time self-employment compared to only a quarter of private wage employees.

**Table 5.4: Secondary employment among junior secondary school leavers (%)**

|                 | WAGE EMPLOYMENT |        |       |      |        |       | SELF-EMPLOYMENT |        |       |      |        |       |
|-----------------|-----------------|--------|-------|------|--------|-------|-----------------|--------|-------|------|--------|-------|
|                 | 1990            |        |       | 1995 |        |       | 1990            |        |       | 1995 |        |       |
|                 | Male            | Female | Total | Male | Female | Total | Male            | Female | Total | Male | Female | Total |
| <b>MALAWI</b>   |                 |        |       |      |        |       |                 |        |       |      |        |       |
| Secondary wage  | 5.8             | 3.6    | 4.8   | 9.4  | 0.0    | 5.7   | 16.7            | 0.0    | 13.3  | 4.3  | 0.0    | 3.4   |
| <i>n</i>        | 69              | 56     | 125   | 106  | 69     | 175   | 12              | 3      | 15    | 23   | 6      | 29    |
| Secondary self  | 21.7            | 7.4    | 15.4  | 15.1 | 8.5    | 12.4  | 16.7            | 0.0    | 13.3  | 8.7  | 0.0    | 6.9   |
| <i>n</i>        | 69              | 54     | 123   | 106  | 71     | 177   | 12              | 3      | 15    | 23   | 6      | 29    |
| <b>TANZANIA</b> |                 |        |       |      |        |       |                 |        |       |      |        |       |
| Secondary wage  | 3.1             | 5.8    | 4.5   | 0.0  | 1.4    | 0.9   | 0.0             | 4.3    | 1.4   | 0.0  | 0.0    | 0.0   |
| <i>n</i>        | 64              | 69     | 133   | 38   | 69     | 107   | 49              | 23     | 72    | 61   | 24     | 85    |
| Secondary self  | 12.3            | 15.9   | 14.4  | 2.6  | 14.5   | 10.3  | 6.1             | 4.3    | 5.6   | 4.9  | 4.2    | 4.7   |
| <i>n</i>        | 65              | 69     | 132   | 38   | 69     | 107   | 49              | 23     | 72    | 61   | 24     | 85    |
| <b>UGANDA</b>   |                 |        |       |      |        |       |                 |        |       |      |        |       |
| Secondary wage  | 3.8             | 5.3    | 4.2   | 13.6 | 1.9    | 8.4   | 5.1             | 0.0    | 3.7   | 2.9  | 0.0    | 2.2   |
| <i>n</i>        | 53              | 19     | 72    | 66   | 53     | 119   | 39              | 15     | 54    | 35   | 11     | 46    |
| Secondary self  | 52.8            | 36.8   | 48.6  | 45.5 | 24.1   | 35.8  | 38.5            | 40.0   | 38.9  | 37.1 | 27.3   | 34.8  |
| <i>n</i>        | 53              | 19     | 72    | 66   | 54     | 120   | 39              | 15     | 54    | 35   | 11     | 46    |
| <b>ZIMBABWE</b> |                 |        |       |      |        |       |                 |        |       |      |        |       |
| Secondary wage  | 7.4             | 4.7    | 6.5   | 10.3 | 2.3    | 7.6   | 20.9            | 0.0    | 12.3  | 12.8 | 2.9    | 8.6   |
| <i>n</i>        | 95              | 43     | 138   | 87   | 44     | 131   | 43              | 30     | 73    | 47   | 34     | 81    |
| Secondary self  | 17.0            | 23.3   | 19.0  | 21.4 | 9.1    | 17.2  | 37.0            | 13.8   | 28.0  | 24.5 | 9.1    | 18.3  |
| <i>n</i>        | 94              | 43     | 137   | 84   | 44     | 128   | 46              | 29     | 75    | 49   | 33     | 82    |

**Table 5.5: Secondary employment among university graduates (%)<sup>33</sup>**

|                 | WAGE EMPLOYMENT |        |       |             |        |       |
|-----------------|-----------------|--------|-------|-------------|--------|-------|
|                 | 1980 & 1987     |        |       | 1994 & 1999 |        |       |
|                 | Male            | Female | Total | Male        | Female | Total |
| <b>MALAWI</b>   |                 |        |       |             |        |       |
| Secondary wage  | 12.3            | 12.5   | 12.4  | 11.2        | 14.3   | 11.7  |
| <i>n</i>        | 81              | 16     | 97    | 161         | 35     | 196   |
| Secondary self  | 17.8            | 30.8   | 19.8  | 14.5        | 16.7   | 14.9  |
| <i>n</i>        | 73              | 13     | 86    | 131         | 30     | 161   |
| <b>TANZANIA</b> |                 |        |       |             |        |       |
| Secondary wage  | 13.7            | 3.1    | 11.5  | 7.7         | 12.7   | 9.1   |
| <i>n</i>        | 124             | 32     | 156   | 142         | 55     | 197   |
| Secondary self  | 37.1            | 21.9   | 34.0  | 25.4        | 20.0   | 23.9  |
| <i>n</i>        | 124             | 32     | 156   | 142         | 55     | 197   |
| <b>UGANDA</b>   |                 |        |       |             |        |       |
| Secondary wage  | 21.1            | 24.0   | 21.7  | 19.1        | 13.9   | 18.1  |
| <i>n</i>        | 90              | 25     | 115   | 152         | 36     | 188   |
| Secondary self  | 55.6            | 32.0   | 50.4  | 28.9        | 8.3    | 25.0  |
| <i>n</i>        | 90              | 25     | 115   | 152         | 36     | 188   |
| <b>ZIMBABWE</b> |                 |        |       |             |        |       |
| Secondary wage  | 23.0            | 25.0   | 23.2  | 19.6        | 9.1    | 17.7  |
| <i>n</i>        | 61              | 8      | 69    | 102         | 22     | 124   |
| Secondary self  | 37.7            | 50.0   | 39.1  | 17.6        | 13.6   | 16.9  |
| <i>n</i>        | 61              | 8      | 69    | 102         | 22     | 124   |

Note: 1987 cohort for Uganda is actually 1988.

<sup>33</sup> Self-employed university graduates are few in number so they are not reported in this table.

## CHAPTER 6

# UNEMPLOYMENT

Unemployment amongst the educated is widely regarded as a “time bomb”, which poses a major threat to the political and social stability of most countries in Africa. Nonetheless very little hard evidence is ever presented to support these claims of widespread and growing open unemployment among educated youth. Part of the problem is that measuring unemployment is not easy, especially in low-income countries where, in the absence of state income benefits, even those without wage employment have to find something to do in order to survive.

There are two main types of unemployment among the school leavers and university graduates in this study. The majority who are unemployed are actively looking for work, but there are some who are unemployed but have become so discouraged that they have given up trying to find a job. While this latter group are “seated”, most do whatever they can to support their own livelihoods and that of other household members. In time, most of the discouraged unemployed will regard themselves as being “at home” and thus no longer in the labour force. However, as was mentioned in Chapter 3, this group is surprisingly small in all four countries. While the discouraged unemployed is an interesting group, the main focus of this chapter is on the actively unemployed.

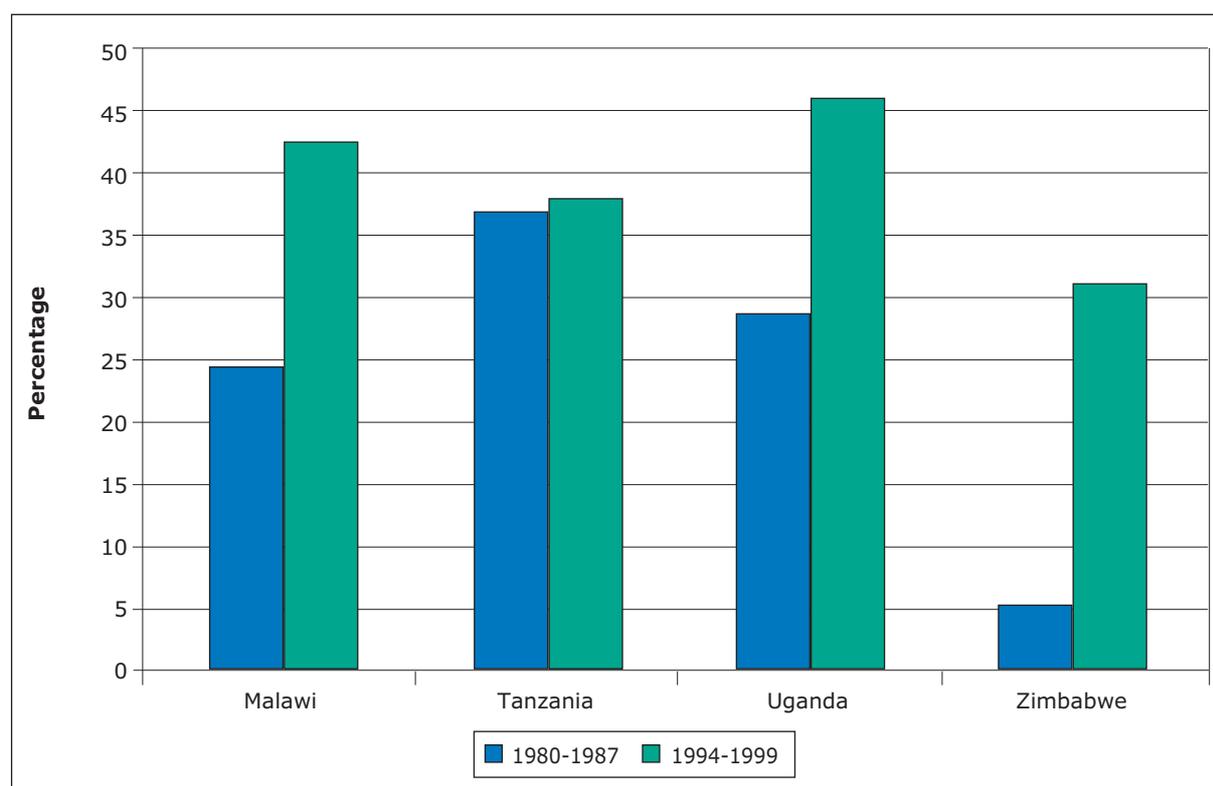
Current unemployment rates for secondary school leavers who were looking for work varied across countries and cohorts. In general less than 10 per cent of 1990 secondary school leavers (both junior and secondary school leavers) were unemployed and looking for work whereas for the 1995 cohort this proportion was well above 10 per cent. This reflects differences, across the cohorts, in the time spent in the labour market as well as different conditions encountered by these groups when they first entered the labour market. Chapter 3 also showed that a far smaller proportion of university graduates than of secondary school leavers were unemployed and looking for work; unemployment rates for this group ranged between 1 and 3 per cent across countries.

### 6.1 UNEMPLOYMENT RATES

#### 6.1.1 *Ever unemployed*

Large proportions of both university graduates and school leavers have been unemployed at least once since leaving school or university (see Figure 6.1). Even though they have been in the labour market for much shorter periods of time, ever-unemployed rates are much higher for 1990s than for 1980 graduates. In Zimbabwe, for example, only 5 per cent of 1980s graduates had ever been unemployed compared with 31 per cent of 1990s graduates. In all four countries, well over one-quarter of the 1990s graduates had been unemployed at least once since leaving university. As discussed earlier, job turnover rates are generally much higher among more recent graduate cohorts and this is associated with short-term frictional unemployment.

**Figure 6.1: Percentage of university graduates who have ever been unemployed and looking for work**



Note: 1987 cohort for Uganda is actually 1988.

Ever-unemployed rates also vary considerably from one degree programme to another. They are lowest among medical graduates. In Uganda, for example, only around 10 per cent of doctors who trained at Makerere University had ever been unemployed compared with 35 per cent for the sample as a whole (see Figure 6.1).<sup>34</sup> With the exception of Malawi, agriculture graduates have had the highest rates of unemployment.

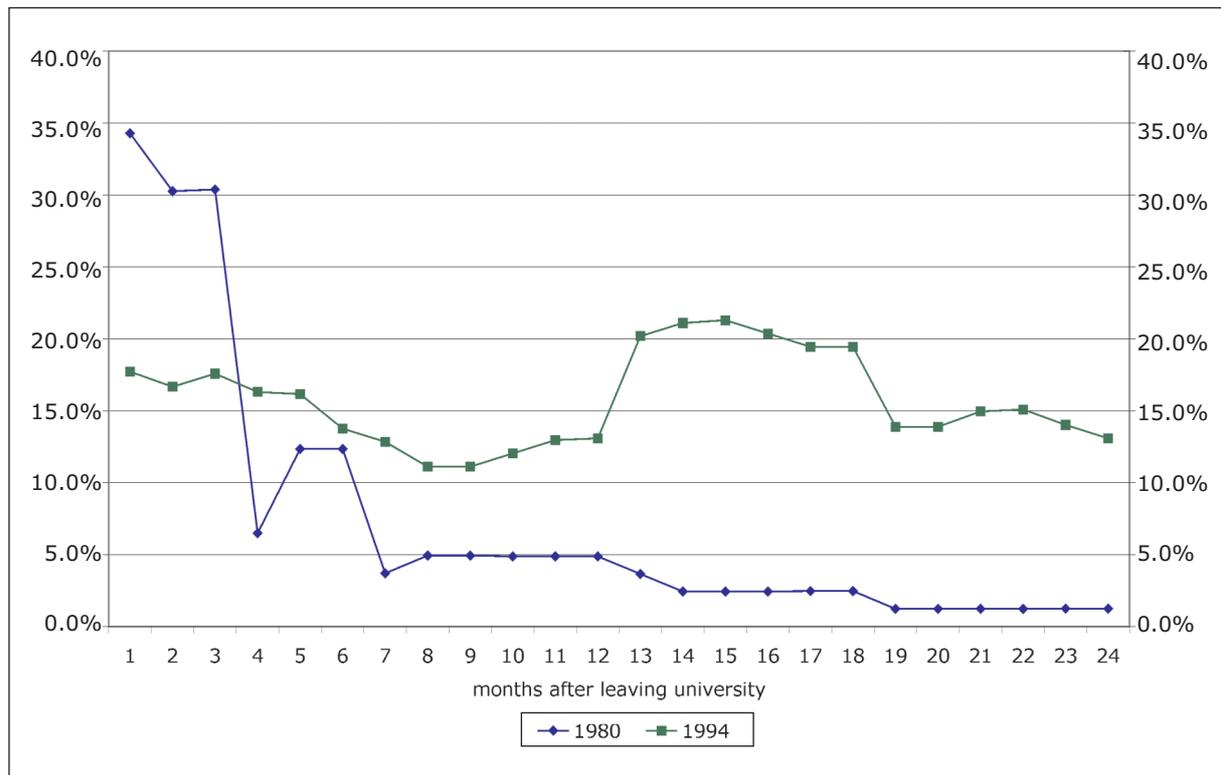
Figure 6.2 shows the unemployment rates for 1980 and 1994 graduates in Tanzania during the first two years after leaving university.<sup>35</sup> Clearly, the more recent cohort encountered much greater difficulties in securing employment. During the first few months after graduating, around 30 per cent of the 1980 group were unemployed compared with 17 per cent for the equivalent period among the 1994 cohort. However, after seven months of job search, only 4 per cent of 1980 graduates were unemployed compared with 13 per cent of 1994 graduates. While there is some fluctuation in unemployment rates after this there is a persistent gap suggesting that unemployment rates have been higher among later cohorts of graduates in Tanzania.

A larger proportion of secondary school leavers have experienced periods of unemployment while they have been looking for work compared with university graduates. Over half of 1990 junior

<sup>34</sup> There are two exceptions; Tanzania 1980-87 engineering and commerce graduates and Zimbabwe 1980-87 engineering, economics and accountancy graduates are less likely to have had periods of unemployment compared with medical graduates (see Appendix Table 6.1).

<sup>35</sup> A similar figure for Ugandan graduates is shown in Appendix Figure 6.1.

**Figure 6.2: Percentage of 1980 and 1994 university graduates unemployed and looking for work by months after leaving university: Tanzania**



secondary school leavers in Malawi and Zimbabwe had been unemployed at least once since leaving school (see Table 6.1). Unlike university graduates, ever-unemployed rates tend to be lower for the most recent cohort of junior secondary school leavers. However, in Tanzania and Malawi 1995 junior secondary leavers are more likely than their 1990 counterparts to have experienced unemployment. It appears that it has become more difficult for later cohorts of junior secondary school leavers to gain employment in these two countries. There is no clear gender pattern in ever-unemployed rates except for Uganda where a larger proportion of female junior secondary school leavers have experienced unemployment in both cohorts. Ever-unemployed rates tend to be slightly higher for senior secondary school leavers. The main exception is among 1995 senior secondary school leavers in Tanzania where considerably fewer of this group have ever been unemployed compared with their junior secondary counterparts. Given the very large proportion of this group who were still in full-time education and training at the time of the survey, this is not particularly surprising (see Table 3.3).

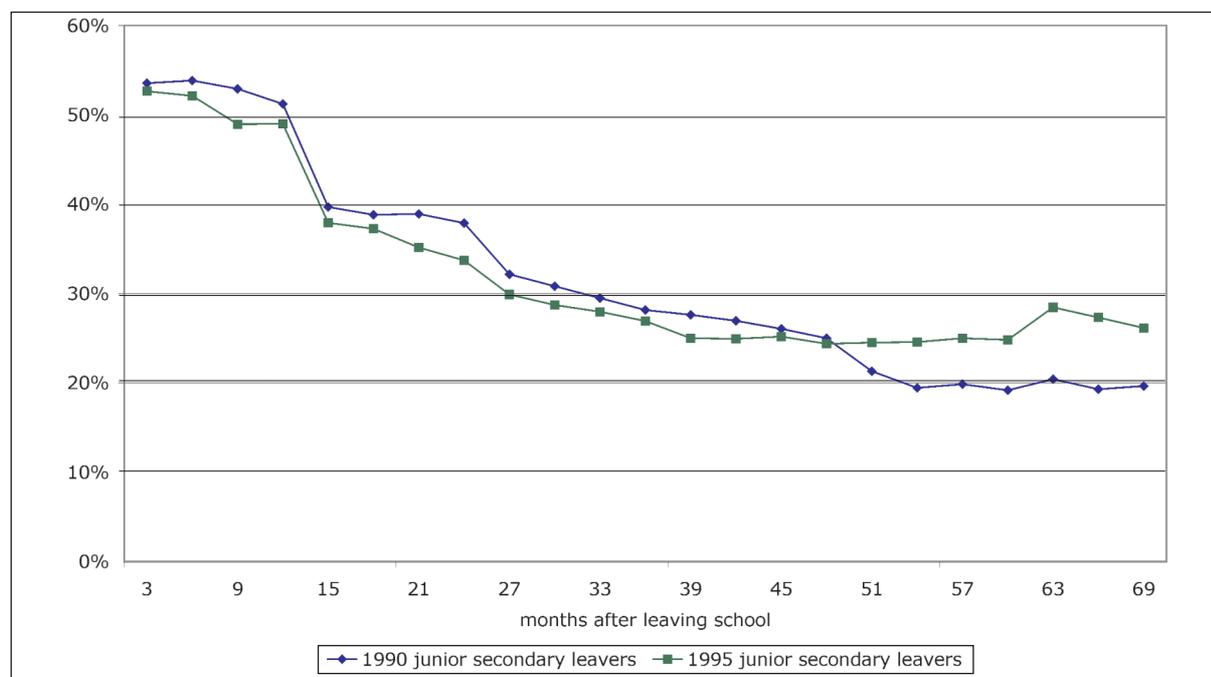
The unemployment rates for 1990 and 1995 junior secondary school leavers during the first five years of leaving school are presented in Figure 6.3 for Zimbabwe.<sup>36</sup> In Malawi, unemployment among 1995 leavers is much higher. A similar pattern can be seen for junior secondary school leavers in Tanzania and Uganda.

**Table 6.1: Percentage of secondary school leavers who have ever been unemployed and looking for work**

|  | 1990 |        |       | 1995 |        |       |
|--|------|--------|-------|------|--------|-------|
|  | Male | Female | Total | Male | Female | Total |
| <b>Junior Secondary School Leavers</b> |      |        |       |      |        |       |
| Malawi                                 | 70   | 64     | 67    | 73   | 67     | 70    |
| <i>n</i>                               | 93   | 70     | 163   | 154  | 110    | 264   |
| Tanzania                               | 44   | 54     | 49    | 64   | 62     | 63    |
| <i>n</i>                               | 126  | 123    | 249   | 142  | 157    | 299   |
| Uganda                                 | 41   | 43     | 42    | 31   | 41     | 36    |
| <i>n</i>                               | 99   | 47     | 146   | 121  | 92     | 213   |
| Zimbabwe                               | 76   | 64     | 71    | 65   | 61     | 63    |
| <i>n</i>                               | 191  | 129    | 320   | 211  | 168    | 380   |
| <b>Senior Secondary School Leavers</b> |      |        |       |      |        |       |
| Tanzania                               | 58   | 63     | 60    | 45   | 32     | 39    |
| <i>n</i>                               | 89   | 65     | 154   | 92   | 74     | 166   |
| Uganda                                 | 50   | 50     | 50    | 42   | 42     | 42    |
| <i>n</i>                               | 34   | 16     | 50    | 96   | 62     | 158   |
| Zimbabwe                               | 68   | 33     | 64    | 80   | 100    | 85    |
| <i>n</i>                               | 19   | 3      | 22    | 20   | 7      | 27    |

*Note:* Junior secondary school leavers are defined as leavers who terminated their formal schooling after four years of secondary schooling. Senior secondary school leavers are defined as leavers who terminated their formal schooling after six years of secondary schooling (i.e. they have not completed university degrees).

**Figure 6.3: Percentage of 1990 and 1995 junior secondary school leavers unemployed and looking for work by months after leaving school: Zimbabwe**



<sup>36</sup> See Appendix Figures 6.2, 6.3 and 6.4 for similar information on junior secondary school leavers in Malawi, Tanzania and Uganda.

## 6.2 REASONS FOR UNEMPLOYMENT

Over two-thirds of unemployed junior secondary school leavers in Malawi and Tanzania indicated that the main reason why they were unemployed was because there were no jobs to apply for (see Table 6.2). One-third of unemployed junior secondary school leavers in Zimbabwe also gave this reason. This implies that there were no job vacancies that these school leavers were prepared to apply for.

**Table 6.2: Reasons given by junior secondary school leavers for being unemployed (%)**

|                                   | Malawi |        |       | Tanzania |        |       | Uganda |        |       | Zimbabwe |        |       |
|-----------------------------------|--------|--------|-------|----------|--------|-------|--------|--------|-------|----------|--------|-------|
|                                   | Male   | Female | Total | Male     | Female | Total | Male   | Female | Total | Male     | Female | Total |
| Job scarcity                      | 63     | 78     | 70    | 82       | 70     | 76    | 20     | 13     | 17    | 43       | 25     | 35    |
| Poor results                      | 0      | 6      | 3     | 0        | 0      | 0     | 7      | 0      | 4     | 28       | 42     | 34    |
| Lack of connections               | 21     | 0      | 11    | 7        | 4      | 6     | 13     | 0      | 9     | 10       | 19     | 14    |
| Lack of experience/qualifications | 0      | 6      | 3     | 11       | 26     | 18    | 7      | 25     | 13    | 13       | 6      | 10    |
| Other                             | 16     | 11     | 14    | 0        | 0      | 0     | 53     | 63     | 57    | 6        | 9      | 7     |
| <i>n</i>                          | 19     | 18     | 37    | 28       | 23     | 51    | 15     | 8      | 23    | 68       | 53     | 121   |

Poor examination results were only widely cited as a reason in Zimbabwe. Growing competition for formal sector jobs from other junior secondary school leavers is a major factor in this country. Elsewhere, however, junior secondary school leavers comprise a very small fraction of the total labour force and, regardless of their examination performance, therefore remain well placed near the front of lengthening employment queues. Around one in ten respondents in Malawi, Tanzania and Uganda cited corruption and nepotism as reasons. Lack of experience and qualifications are seen to be quite an important factor among unemployed school leavers in Tanzania and Uganda.

## 6.3 EXAMINATION PERFORMANCE

Table 6.3 shows that a greater proportion of terminal form four students with poor grades are unemployed compared with leavers with good grades. Differences are particularly wide for 1990 junior secondary school leavers in Malawi and Zimbabwe and to a lesser extent in Tanzania. For example, in Zimbabwe only 14 per cent of 1990 leavers with good grades are unemployed compared with 22 per cent of those leavers with poor grades. This may in part explain why secondary school leavers in Zimbabwe cite poor performance as a reason for current unemployment (see Table 6.2). This relationship is weaker among the 1995 junior secondary school leavers in all four countries (see Table 6.3).

## 6.4 UNEMPLOYMENT DURATION

The duration and frequency of unemployment varies quite considerably between the different cohorts of leavers. In Tanzania and Uganda, the first period of unemployment was well over one year among 1990 junior secondary school leavers (see Table 6.4). With the exception of Malawi, 1995 junior secondary school leavers had slightly shorter periods of unemployment when looking for their first job than their 1990 counterparts. While there are important gender differences in the length of time unemployed after finishing school, there is no common pattern across the four countries.

**Table 6.3: Unemployment rates among junior secondary school leavers by examination rates (%)**

|          |            | 1990 |        |       | 1995 |        |       |
|----------|------------|------|--------|-------|------|--------|-------|
|          |            | Male | Female | Total | Male | Female | Total |
| Malawi   | Good grade | 6    | 4      | 5     | 10   | 8      | 9     |
|          | Poor grade | 15   | 14     | 15    | 6    | 18     | 13    |
| Tanzania | Good grade | 5    | 0      | 3     | 16   | 5      | 13    |
|          | Poor grade | 4    | 8      | 6     | 17   | 12     | 14    |
| Uganda   | Good grade | 6    | 0      | 5     | 11   | 10     | 11    |
|          | Poor grade | 6    | 8      | 7     | 10   | 10     | 10    |
| Zimbabwe | Good grade | 13   | 15     | 14    | 19   | 26     | 22    |
|          | Poor grade | 22   | 22     | 22    | 24   | 22     | 23    |

Notes: Data for table taken from Appendix Table 5.1. In Tanzania and Uganda a good grade is defined as a Division I-III pass on the form IV secondary school examination, in Malawi a credit or an ordinary pass and in Zimbabwe obtaining four or more 'O' levels. Approximately 50 per cent of the sample in each country obtains a good grade and 50 per cent a poor grade.

**Table 6.4: Mean duration of first unemployment among junior secondary school leavers (months)<sup>37</sup>**

|  | 1990 |        |       | 1995 |        |       |
|--|------|--------|-------|------|--------|-------|
|  | Male | Female | Total | Male | Female | Total |
| <b>Junior Secondary School Leavers</b> |      |        |       |      |        |       |
| Malawi                                 | 15   | 14     | 15    | 17   | 18     | 17    |
|  | 46   | 25     | 71    | 85   | 50     | 135   |
| Tanzania                               | 16   | 16     | 16    | 13   | 12     | 12    |
|  | 53   | 63     | 116   | 64   | 71     | 135   |
| Uganda                                 | 13   | 20     | 16    | 13   | 16     | 15    |
|  | 33   | 17     | 50    | 27   | 32     | 59    |
| Zimbabwe                               | 27   | 38     | 31    | 18   | 24     | 20    |
|  | 177  | 104    | 281   | 181  | 121    | 303   |
| <b>Senior Secondary School Leavers</b> |      |        |       |      |        |       |
| Tanzania                               | 13   | 11     | 12    | 12   | 8      | 10    |
|  | 51   | 40     | 91    | 31   | 20     | 51    |
| Uganda                                 | 12   | 6      | 10    | 7    | 8      | 7     |
|  | 17   | 7      | 24    | 33   | 18     | 51    |
| Zimbabwe                               | 17   | 10     | 16    | 12   | 17     | 13    |
|  | 17   | 2      | 19    | 17   | 5      | 22    |

<sup>37</sup> Data in Table 6.4 are drawn from slightly different sources in each country. In Malawi and Zimbabwe respondents were asked explicitly how long it took them to get their first job after they left full-time education. However, in Tanzania and Uganda data in Table 6.4 are calculated using information from an individual's employment history. In these countries it is possible that individuals did not leave their first period of unemployment for wage or self-employment but could have gone into full-time education and training.

The duration of first period of unemployment among senior secondary school leavers is slightly shorter and, on average, the 1990 cohort took longer to find employment than the 1995 group, which is again unexpected. The 1990 female cohort were also unemployed for considerably shorter periods of time than their male classmates.

The duration of first period of unemployment for university graduates tends to be shorter. For example, in Tanzania university graduates spend between three and nine months unemployed and looking for work (see Appendix Table 6.2). Amongst university graduates there is no consistent difference between the cohorts in terms of duration of unemployment spells.

Combining information on the incidence and duration of unemployment suggests that while unemployment durations have not changed, a great deal over time a greater proportion of 1995 secondary school leavers are facing spells of unemployment compared with their 1990 counterparts and these spells are more frequent. This implies that more recent cohorts of school leavers and graduates have spent a greater proportion of the time since leaving school or university unemployed and looking for work. Table 6.5 shows the percentage of time secondary school leavers spent looking for work in the first five years after leaving secondary school. In Tanzania the 1990 junior secondary school leavers had been unemployed for 12 per cent of their time since leaving school compared with 18 per cent among the 1995 cohort. As discussed earlier, unemployment for junior secondary school leavers in Uganda appears to have a different trend, with 1990 and 1995 leavers spending similar periods in their first five years after school looking for work.

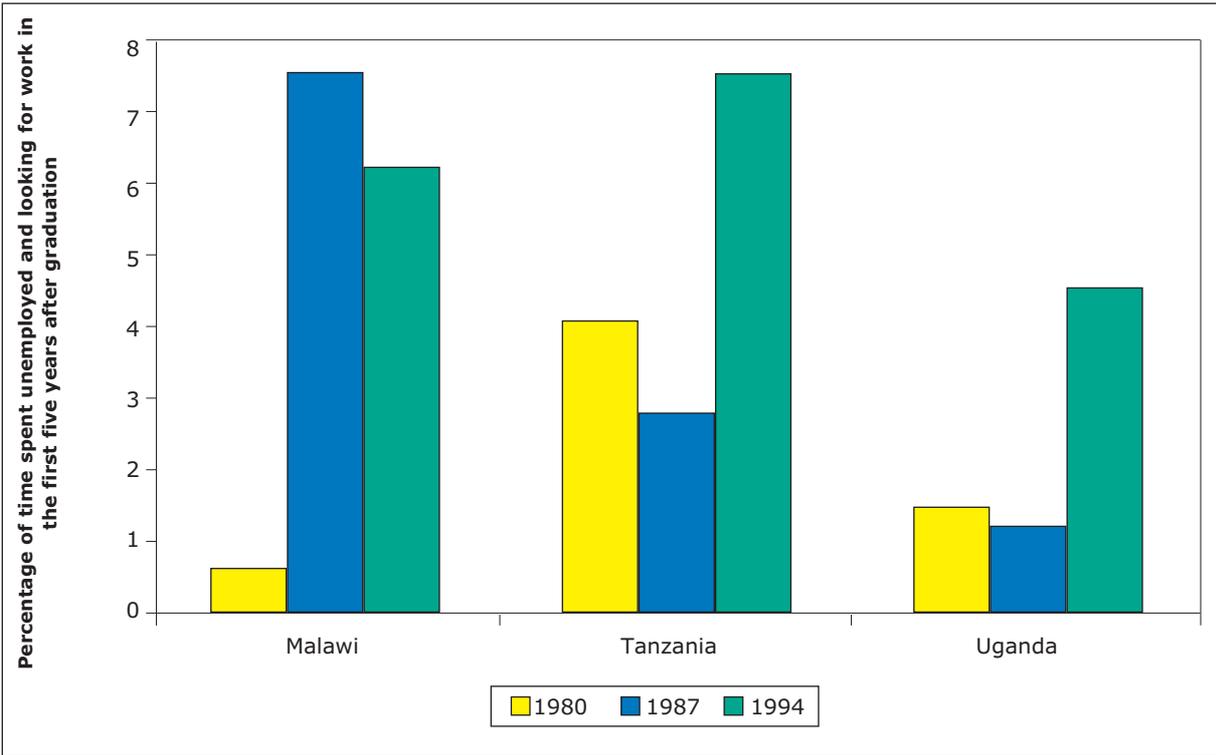
**Table 6.5: Percentage of time spent unemployed and looking for work in first five years after leaving secondary school**

|                          | 1990 |        |       | 1995 |        |       |
|--------------------------|------|--------|-------|------|--------|-------|
|                          | Male | Female | Total | Male | Female | Total |
| <b>MALAWI</b>            |      |        |       |      |        |       |
| Junior secondary leavers | 15.6 | 18.6   | 17.0  | 16.7 | 22.4   | 19.1  |
| <i>n</i>                 | 68   | 57     | 125   | 110  | 81     | 191   |
| <b>TANZANIA</b>          |      |        |       |      |        |       |
| Junior secondary leavers | 11.3 | 11.6   | 11.5  | 21.2 | 14.4   | 17.7  |
| <i>n</i>                 | 126  | 123    | 249   | 143  | 154    | 297   |
| Senior secondary leavers | 10.6 | 9.9    | 10.3  | 10.4 | 3.6    | 7.3   |
| <i>n</i>                 | 89   | 65     | 154   | 92   | 74     | 166   |
| <b>UGANDA</b>            |      |        |       |      |        |       |
| Junior secondary leavers | 6.9  | 20.3   | 11.1  | 9.6  | 14.7   | 11.8  |
| <i>n</i>                 | 99   | 45     | 144   | 119  | 92     | 211   |
| Senior secondary leavers | 8.2  | 9.7    | 8.7   | 8.0  | 5.7    | 7.1   |
| <i>n</i>                 | 34   | 16     | 50    | 96   | 62     | 158   |

Note: Data for Zimbabwe not available.

Graduates from the 1980s cohorts in all four countries had, on average, been unemployed for a very short time during their first five years after graduating. However, in all countries the more recent cohorts spent considerably longer looking for work in the first five years since graduating (see Figure 6.3). This was particularly the case for the most recent cohort in Tanzania and Uganda.

**Figure 6.4: Percentage of time spent unemployed and looking for work in first five years after leaving university**



Notes: Data drawn from Appendix Table 6.3. Data for Zimbabwe not available. 1987 cohort for Uganda is actually 1988.

## CHAPTER 7

# INCOME

The obvious financial motivation for individuals investing considerable time and money in secondary and university education is to get a good job where they can earn what is considered to be a reasonable income. The level and pattern of these incomes is therefore of central importance in any analysis of the relationship between education and employment.

After Independence, the bulk of the outputs from both secondary schools and the national university were employed in the public sector in the four study countries. With only minor modifications, these salaries were inherited from the colonial civil service and were very high both in absolute terms and in relation to income levels among the mass of the population. Higher and secondary education was the only way to gain entry into the “labour aristocracy”. However, as the economic crisis in each country deepened rapidly during the 1960s and 1970s, these income levels were not sustainable and real incomes in the public sector plummeted. This brought with it a new set of problems. In particular, the motivation, commitment and standards of professional conduct of public servants were seriously eroded as they were forced to find additional secondary sources of income. However, despite the growing immiseration of public servants, the demand for secondary and university education has continued to grow in every country. Why should this be the case when it would appear that the returns on this education have fallen quite dramatically in recent decades?

Obtaining reliable information about the incomes of school leavers and university graduates was therefore a key objective of the study. Interview and postal questionnaire respondents were given the choice of providing their actual income or selecting an income range. While most were loath to give actual figures, nearly all were willing to indicate the range into which their incomes fell. Those in wage employment were asked to provide their monthly income. Given that earnings from self-employment and secondary income usually vary from one month to another, total income from these activities during the last six months was requested and then converted into monthly incomes.

### 7.1 TOTAL INCOME

#### 7.1.1 *Secondary school leavers*

The total (primary plus secondary) incomes earned by secondary school leavers vary greatly from one country to another (see Table 7.1). In mid-2001, mean incomes were four to six times higher in Zimbabwe than Uganda, regardless of completion cohort and employment activity. However, unless exchange rates are adjusted in order to take account of differences in the purchasing power of individual currencies, it is not possible to say to what extent a school leaver in Zimbabwe has a higher standard of living than in Uganda. Purchasing power parity exchange rate conversions can, to some extent, address this issue. Appendix Table 7.1 reports mean incomes in purchasing power parity (PPP)

**Table 7.1 Total monthly income for secondary school leavers in wage and self-employment (\$US)**

|                                 | WAGE EMPLOYMENT |        |       |      |        |       | SELF EMPLOYMENT |        |       |      |        |       |
|---------------------------------|-----------------|--------|-------|------|--------|-------|-----------------|--------|-------|------|--------|-------|
|                                 | 1990            |        |       | 1995 |        |       | 1990            |        |       | 1995 |        |       |
|                                 | Male            | Female | Total | Male | Female | Total | Male            | Female | Total | Male | Female | Total |
| <b>JUNIOR SECONDARY LEAVERS</b> |                 |        |       |      |        |       |                 |        |       |      |        |       |
| Malawi                          | 150             | 176    | 161   | 140  | 131    | 136   | 186             | 111    | 173   | 92   | 67     | 86    |
| <i>n</i>                        | 60              | 44     | 104   | 97   | 61     | 158   | 10              | 2      | 12    | 20   | 6      | 26    |
| Tanzania                        | 136             | 125    | 130   | 102  | 105    | 104   | 87              | 66     | 80    | 50   | 62     | 53    |
| <i>n</i>                        | 64              | 69     | 133   | 36   | 68     | 104   | 47              | 23     | 70    | 59   | 25     | 84    |
| Uganda                          | 78              | 46     | 69    | 49   | 45     | 47    | 55              | 54     | 55    | 38   | 20     | 35    |
| <i>n</i>                        | 47              | 19     | 66    | 59   | 52     | 111   | 36              | 11     | 47    | 36   | 8      | 44    |
| Zimbabwe                        | 355             | 319    | 344   | 239  | 212    | 229   | 185             | 130    | 162   | 146  | 178    | 158   |
| <i>n</i>                        | 96              | 43     | 139   | 86   | 45     | 131   | 47              | 33     | 80    | 49   | 32     | 81    |
| <b>SENIOR SECONDARY LEAVERS</b> |                 |        |       |      |        |       |                 |        |       |      |        |       |
| Tanzania                        | 192             | 187    | 190   | 115  | 126    | 121   | 63              | 51     | 60    | 45   | 77     | 55    |
| <i>n</i>                        | 47              | 40     | 87    | 13   | 20     | 33    | 30              | 12     | 42    | 11   | 5      | 16    |
| Uganda                          | 103             | 113    | 107   | 68   | 62     | 65    | 91              | 52     | 84    | 53   | 43     | 52    |
| <i>n</i>                        | 18              | 10     | 28    | 33   | 23     | 56    | 9               | 2      | 11    | 15   | 2      | 17    |
| Zimbabwe                        | 550             | 473    | 538   | 323  | 305    | 318   |                 |        |       |      |        |       |
| <i>n</i>                        | 15              | 3      | 18    | 11   | 4      | 15    |                 |        |       |      |        |       |

*Notes:* Junior secondary school leavers are defined as leavers who terminated their formal schooling after four years of secondary schooling. Senior secondary school leavers are defined as leavers who terminated their formal schooling after six years of secondary schooling (i.e. they have not completed university degrees). Local currency has been converted into US dollars using the official exchange rate for 2001 reported in the IMF International Financial Statistics CD-ROM. The exchange rate for Malawi was 67 Kwacha per US dollar, Tanzania 876 Shillings per US dollar, Uganda 1756 Shillings per dollar and Zimbabwe 50 Zimbabwe dollars per US dollar.

dollars.<sup>38</sup> The ranking of incomes across countries, when PPP dollars are used, shows incomes of Ugandan leavers to be higher than Tanzanian leavers. The other major difference from official exchange rate conversions is that the gap between Zimbabwe and the other countries grows (see Appendix Table 7.1).

In all countries, incomes from wage employment are generally much higher than earnings from self-employment. However, this income differential varies considerably among the four study countries. It is only approximately 30 per cent in Uganda, but much higher in Tanzania and Zimbabwe. As long as incomes from self-employment remain so much lower in comparative terms, it is quite rational for secondary school leavers to continue to seek wage employment. This income structure has, therefore, profoundly important implications for current policy initiatives to promote private sector development among the relatively educated in all four countries.

Not surprisingly, senior secondary school leavers tend to earn more than junior secondary school leavers. This is particularly the case among those who are wage earners. Both the overall and relative scarcity of junior and senior secondary leavers are key factors determining the size of the income differentials between these two groups. The differential is much higher in Zimbabwe partly because the transition rate between junior and senior secondary education is under 10 per cent. Among the self-employed, income differentials between these two groups are slightly smaller, which suggests that

<sup>38</sup> The PPP exchange rate is defined as the number of units of a country's currency required to buy the same amounts of goods and services in the domestic market as a United States dollar would buy in the United States.

educational attainment is a less important determinant of income among the self-employed than in formal sector wage employment.<sup>39</sup> This is especially the case in the public sector where jobs and thus incomes are closely linked to academic qualifications.

Mean incomes for 1990 junior secondary school leavers are consistently higher than among the same group in 1995. This is not only because the 1990 leavers have around five years more work experience but also because the real value of starting incomes has been declining over time (see below).

Male school leavers tend to earn more than female wage employees. In Malawi and Tanzania, mean female incomes were approximately 90 per cent of males for both year groups. In Uganda, 1990 female junior secondary school leavers in wage employment achieved, on average, only 60 per cent of the income levels of their male counterparts.<sup>40</sup> The main exception is Tanzania where the mean wage incomes of 1995 female junior and secondary school leavers were slightly higher. While this gender income differential is small, it is clear that labour market opportunities for female secondary school leavers have changed very considerably during the last decade.

### *7.1.2 University graduates*

University graduates earn substantially more than senior secondary school leavers.<sup>41</sup> Among males, the mean income wage differentials between the two groups who are closest in terms of age, namely 1990 school leavers and 1994/1999 graduates, were between 150 and 300 per cent (see Tables 7.1 and 7.2).<sup>42</sup> Given that there was very little cost recovery up until recently at public universities, the private rate of returns to university education were very high.

Male graduates earn, on average, 20–40 per cent more than female graduates in Tanzania and Uganda, but only 5–6 per cent more in Zimbabwe. In Malawi, the mean wage incomes of 1980s and 1990s female graduates are 18 per cent and 6 per cent higher respectively than male incomes. As with school leavers in Tanzania, more research is needed to find out why female graduates in Malawi are doing so well. As noted earlier, female graduates come from better-off households and may therefore have particularly good connections in leading enterprises and organisations.<sup>43</sup> But they also invest more heavily in postgraduate training activities (see Table 4.2).

Mean incomes are lowest among education graduates (see Appendix Table 7.3). For example, while the mean income among all 1994 and 1999 graduates in Malawi was US\$483, education graduates from these years earned, on average, only \$US333. Accountancy/commerce and medical graduates tend to have the highest incomes, although there is some country variation. However, 1980s engineering graduates in Zimbabwe were the highest paid, earning, on average, \$US1213 per month in mid-2001.

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<sup>39</sup> The very small numbers of senior secondary leavers who are self-employed makes it difficult to reach firm conclusions.

<sup>40</sup> Ugandan female 1990 senior secondary leavers in wage employment have higher average earnings than males but the sample size is small.

<sup>41</sup> Given the small numbers of university graduates that are self-employed their incomes are not reported.

<sup>42</sup> Appendix Table 7.2 presents income data for university graduates in PPP dollars.

<sup>43</sup> This gender wage gap does not appear to be associated with one particular discipline (see Appendix Table 7.3)

**Table 7.2: Total monthly income of university graduates in wage employment (\$US)**

|          | 1980 & 1987 |        |       | 1994 & 1999 |        |       |
|----------|-------------|--------|-------|-------------|--------|-------|
|          | Male        | Female | Total | Male        | Female | Total |
| Malawi   | 683         | 808    | 702   | 477         | 510    | 483   |
| <i>n</i> | 71          | 13     | 84    | 143         | 33     | 176   |
| Tanzania | 422         | 340    | 45    | 289         | 238    | 275   |
| <i>n</i> | 124         | 31     | 155   | 142         | 55     | 197   |
| Uganda   | 362         | 314    | 351   | 303         | 215    | 286   |
| <i>n</i> | 89          | 25     | 114   | 151         | 36     | 187   |
| Zimbabwe | 1134        | 1079   | 1127  | 824         | 780    | 816   |
| <i>n</i> | 57          | 8      | 65    | 97          | 22     | 119   |

*Notes:* Local currency has been converted into US dollars using the official exchange rate for 2001 reported in the IMF International Financial Statistics CD-ROM. Exchange rate for Malawi was 67 Kwacha per US dollar, Tanzania 876 Shillings per US dollar, Uganda 1756 Shillings per dollar and Zimbabwe 50 Zimbabwe dollars per US dollar. 1987 cohort for Uganda is actually 1988.

## 7.2 EXAMINATION PERFORMANCE

School leavers in Malawi, Uganda and Zimbabwe who obtained good passes in their junior secondary examinations earned, on average, more than double the earnings of leavers from the same years who had poor grades. This is partly due to the higher incidence of wage employment among leavers with good grades (see Table 5.1) but is also partly the result of the higher incomes earned by the top academic performers regardless of whether they are in wage or self-employment. In Tanzania though, the school leavers who did badly in the school certificate examinations actually earned, on average, slightly more than those who did well.

The relationship between junior secondary examination performance and income is much weaker among senior secondary leavers, which suggests that it is examination performance in the senior secondary examinations that is a more important determinant of income (see Appendix Table 7.4). This is mainly because very good senior secondary examination results are normally needed to get into the national university.<sup>44</sup>

Appendix Table 7.5 provides similar information for university graduates. Unlike school leavers, there is no consistently strong positive correlation between the class of degree and income. 1980s graduates in Tanzania with a pass actually earned 44 per cent more than graduates with a first class degree. However, this differential is reversed among the 1990s graduates.<sup>45</sup>

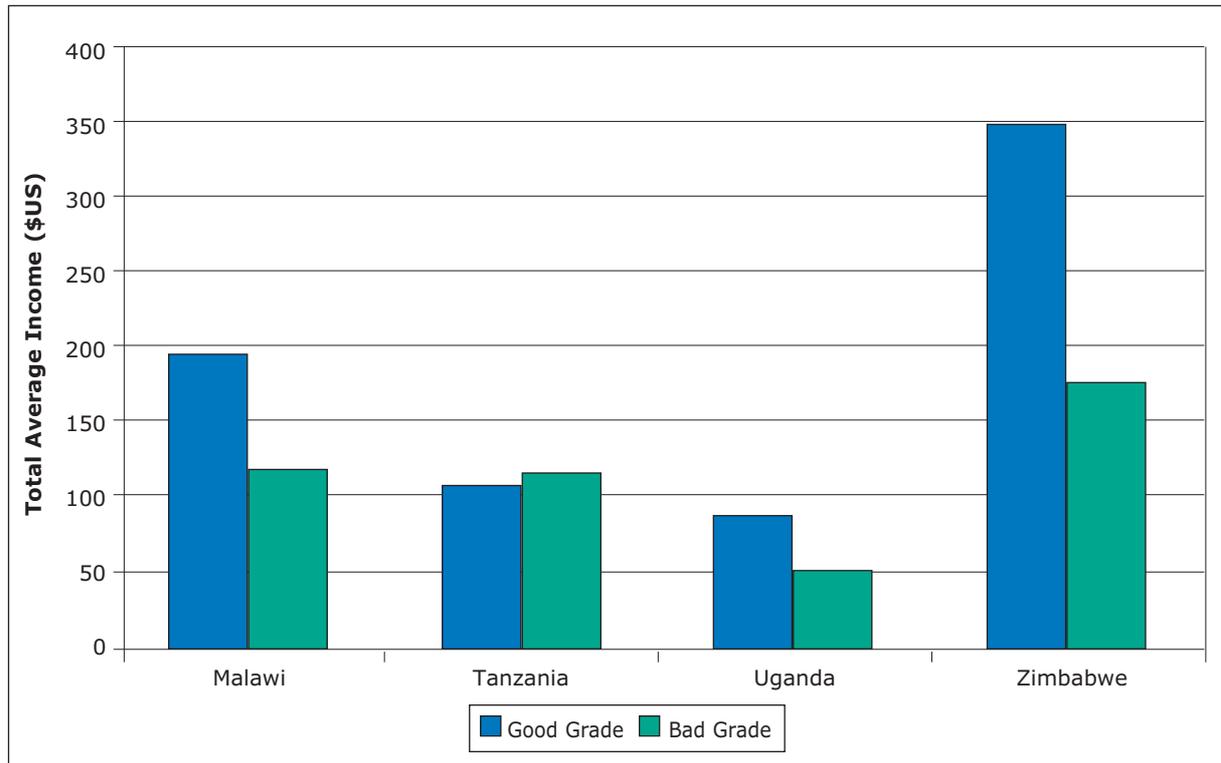
## 7.3 PUBLIC/PRIVATE SECTOR INCOMES

As was discussed earlier, school leavers and graduates in all four countries are increasingly finding employment in the private sector. It is also the case that private sector incomes are, on average, higher than those in the public sector. This sectoral income differential is largest in Tanzania where the average

<sup>44</sup> Unfortunately, senior secondary examination results were not collected.

<sup>45</sup> Degree classifications were not available for university graduates in Uganda and Zimbabwe.

**Figure 7.1: Total monthly income of 1990 junior secondary school leavers by junior secondary examination performance**



private sector income is approximately 50 per cent higher. Similar income differentials exist among the 1980s cohorts and there are no significant variations with respect to gender.<sup>46</sup>

Public/private income differentials are generally smaller among secondary school leavers and there is considerable variation among the four countries (see Appendix Table 7.7). In Zimbabwe, 1995 junior secondary school leavers employed in the public sector earned considerably more than those working for private sector enterprises (with mean monthly incomes of \$US347 and \$US182 respectively). In Uganda, public and private sector workers have similar incomes whereas, in Tanzania, 1995 junior secondary school leavers in the public sector are paid more.

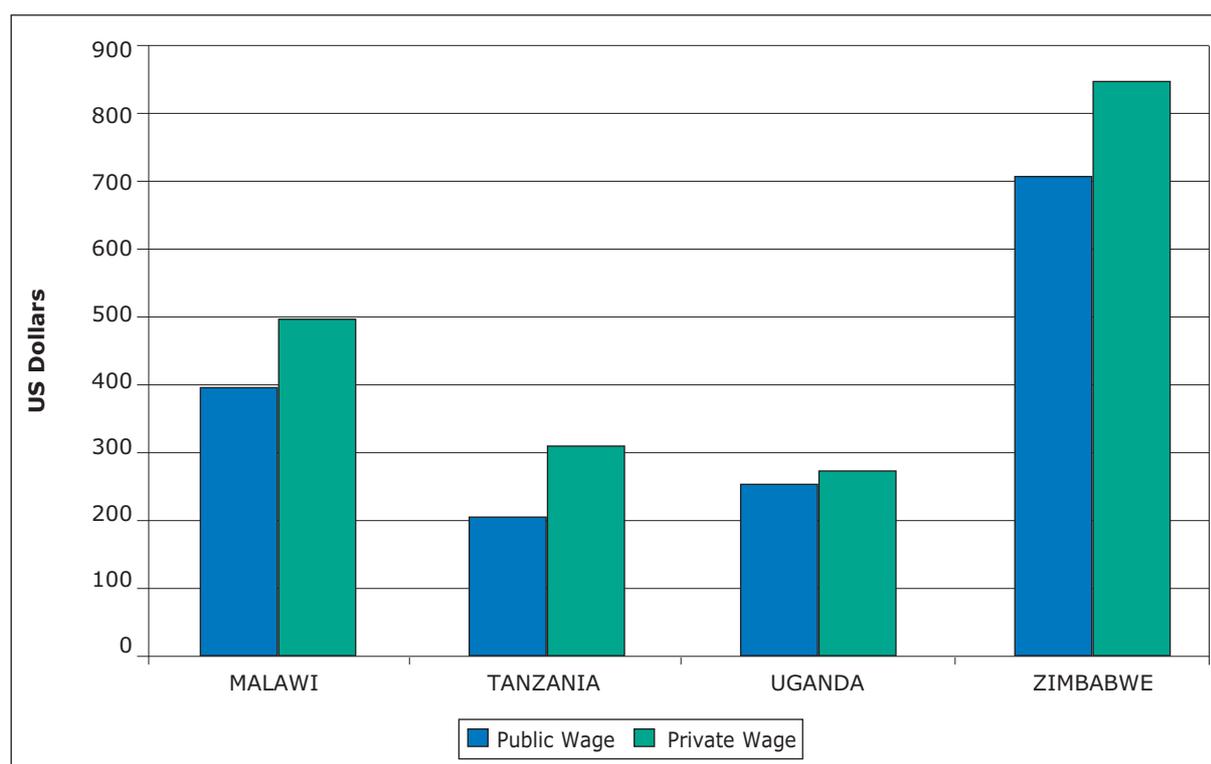
There is also an important gender dimension. In Tanzania, average earnings are higher for female school leavers employed in the public sector whereas the reverse is the case for private sector earnings. Conversely, female school leavers in Malawi have higher private sector wages than males but their public sector wages are lower than or similar to male earnings (see Appendix Table 7.7).

## 7.4 OCCUPATION

Occupational income differentials are similar among the two groups of school leavers across the four countries. In Malawi, Tanzania and Zimbabwe, terminal form four leavers working as “professionals” have the highest earnings. In Uganda income does not vary a great deal across the occupational distribution and skilled workers tend to have similar incomes to professionals (see Table 7.3). It should be pointed

<sup>46</sup> Higher wages are paid to 1980s female graduates in public sector employment in Uganda and Zimbabwe. However, sample sizes for private sector wages are very small (see Appendix Table 7.6).

**Figure 7.2: Average public and private monthly wage for 1994 and 1999 graduates (\$US)<sup>47</sup>**



out that university graduate incomes are typically two to five times more than the incomes of these professional junior secondary school leavers. Teachers are relatively poorly paid compared with other professionals in all the countries. They earn less than unskilled workers in Malawi and Uganda.

There are also quite large income differences between skilled manual and non-manual occupations, which continue to fuel the preference for “white-collar” jobs among many school leavers. This is further compounded by the fact that mean incomes for skilled manual workers are actually less than those for semi- and unskilled workers in Malawi and only slightly higher in Uganda, Tanzania and Zimbabwe. The

**Table 7.3: Monthly wage income by occupation among 1995 junior secondary school leavers (\$US)**

|                    | Malawi |        |       | Tanzania |        |       | Uganda |        |       | Zimbabwe |        |       |
|--------------------|--------|--------|-------|----------|--------|-------|--------|--------|-------|----------|--------|-------|
|                    | Male   | Female | Total | Male     | Female | Total | Male   | Female | Total | Male     | Female | Total |
| Professional       | 158    | 201    | 166   | 168      | 130    | 144   | 63     | 41     | 49    | 463      | 350    | 446   |
| <i>n</i>           | 28     | 7      | 35    | 10       | 18     | 28    | 5      | 9      | 14    | 12       | 2      | 14    |
| Teacher            | 126    | 38     | 62    | 67       | 117    | 105   | 34     | 36     | 35    |          |        |       |
| <i>n</i>           | 6      | 16     | 22    | 3        | 9      | 12    | 40     | 36     | 76    |          |        |       |
| Skilled non-manual | 149    | 156    | 153   | 77       | 79     | 79    | -      | 51     | 51    | 314      | 352    | 331   |
| <i>n</i>           | 31     | 33     | 64    | 7        | 31     | 38    | -      | 5      | 5     | 21       | 16     | 37    |
| Skilled manual     | 79     | 89     | 80    | 57       | 71     | 63    | 51     | -      | 51    | 148      | 119    | 142   |
| <i>n</i>           | 29     | 4      | 33    | 6        | 4      | 10    | 10     | -      | 10    | 28       | 8      | 36    |
| Unskilled          | 102    | -      | 102   | 67       | 51     | 57    | 43     | 28     | 37    | 107      | 82     | 96    |
| <i>n</i>           | 3      | -      | 3     | 3        | 5      | 8     | 3      | 2      | 5     | 24       | 19     | 43    |
| Total              | 128    | 125    | 127   | 102      | 95     | 97    | 40     | 38     | 39    | 222      | 196    | 213   |
| <i>n</i>           | 97     | 60     | 157   | 29       | 67     | 96    | 58     | 52     | 110   | 85       | 45     | 130   |

<sup>47</sup> Income in Figure 7.2 differs from the data in previous tables as it is only wage income from a respondent's primary activity and excludes any secondary activity income.

demand for skilled manual labour remains weak in these countries as a result of de-industrialisation and mass public sector retrenchments.

1990 junior secondary school and senior secondary leavers have similar patterns of occupational incomes as those observed for the 1995 junior secondary school leavers. Since all university graduates are professionals, it is not possible to disaggregate their incomes according to occupational classification. However, graduate teachers earn considerably less than graduates in other professional occupations.

## 7.5 SECONDARY INCOME

Secondary income only accounts for around one-quarter of total graduate income in all four countries (see Table 7.4). However, it appears to be a more important source of income for public sector employees than for private sector workers (see Appendix Table 7.9). For example, secondary sources of income for 1990s graduates in Malawi represent 33 and 14 per cent of total income for graduates working in the public and private sectors respectively.

Whereas 1990s graduates appear to be more reliant than 1980s graduates on secondary income in Malawi and Tanzania, the opposite is the case in Zimbabwe. In general, the share of secondary income in total income is higher among school leavers. Among 1995 junior secondary school leavers in Tanzania, secondary income accounts for nearly 40 per cent of total income (see Appendix Table 7.8), but this share is as low as 29 per cent for the same group in Malawi.

**Table 7.4: Secondary income as a percentage of total income for university graduates in wage and self-employment.**

|          | 1980 & 1987 |        |       | 1994 & 1999 |        |       |
|----------|-------------|--------|-------|-------------|--------|-------|
|          | Male        | Female | Total | Male        | Female | Total |
| Malawi   | 22          | 16     | 21    | 25          | 27     | 26    |
| <i>n</i> | 30          | 7      | 37    | 44          | 12     | 56    |
| Tanzania | 22          | 22     | 22    | 24          | 37     | 26    |
| <i>n</i> | 54          | 7      | 61    | 44          | 12     | 56    |
| Uganda   | 20          | 21     | 21    | 20          | 20     | 20    |
| <i>n</i> | 60          | 12     | 72    | 60          | 6      | 66    |
| Zimbabwe | 25          | 29     | 26    | 17          | 15     | 16    |
| <i>n</i> | 38          | 5      | 43    | 38          | 12     | 50    |

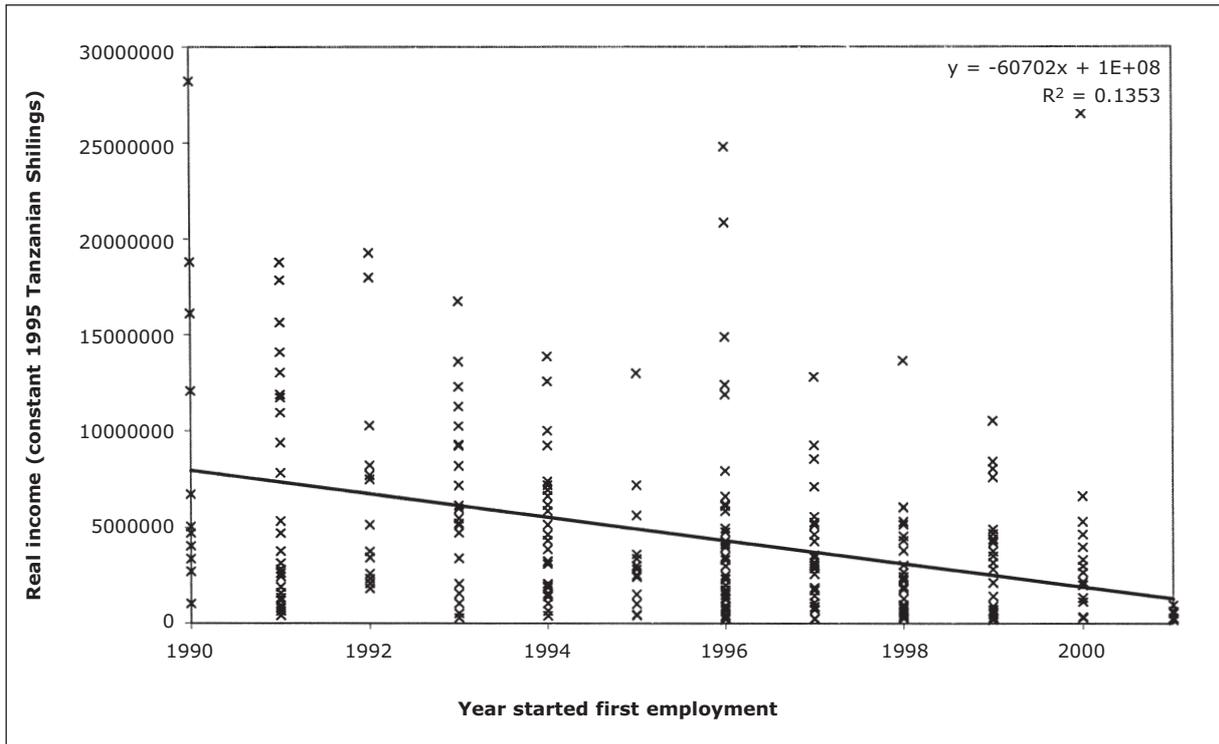
Note: 1987 cohort for Uganda is actually 1988.

## 7.6 INCOME TRENDS

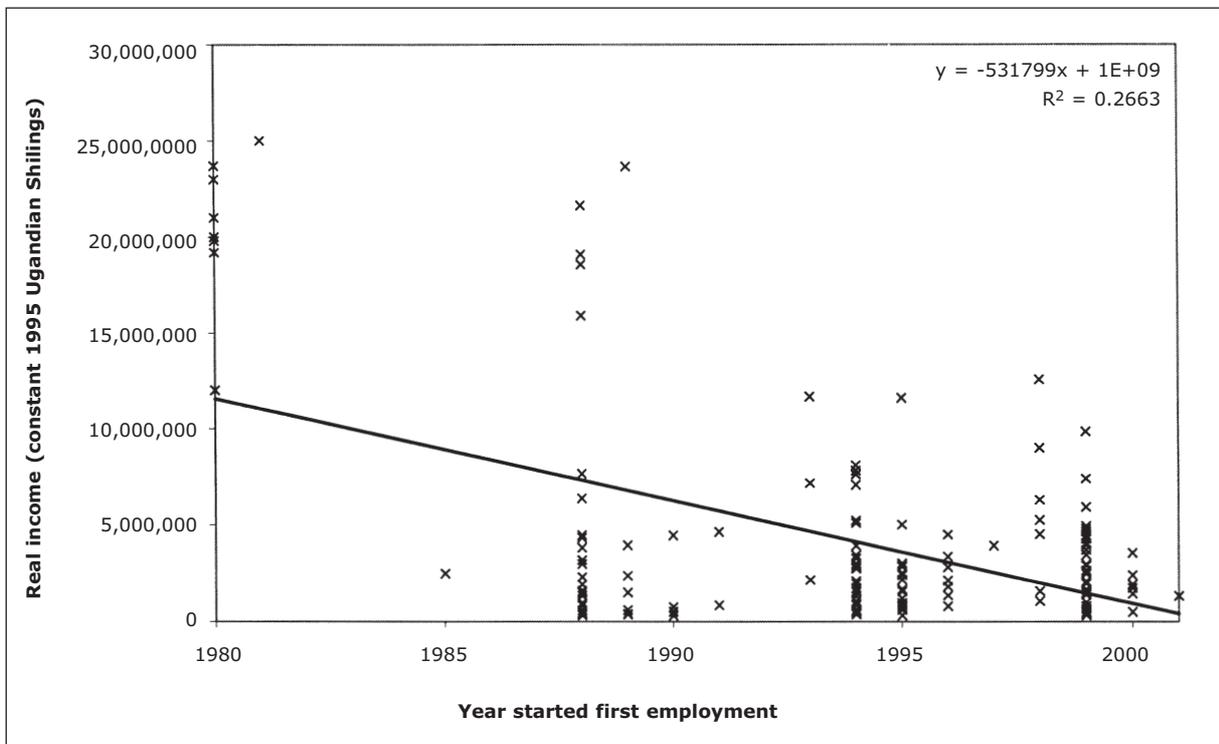
Information on the incomes of school leavers and graduates in their first jobs was also collected. Figures 7.3 and 7.4 present scatter plots showing real incomes against the year that respondents started their first employment. Looking at the trend lines in these figures it can be observed that real incomes have fallen very considerably over time.<sup>48</sup>

<sup>48</sup> Appendix Figures 7.1-7.4 present the same information for Malawi, university graduates in Tanzania and junior secondary school leavers in Uganda. These data were not available for Zimbabwe.

**Figure 7.3: Real wages for first job taken by junior secondary school leavers after leaving school in Tanzania**



**Figure 7.4: Real wages for first job taken by university graduates after leaving university in Uganda**



## CHAPTER 8

# EDUCATIONAL QUALITY AND RELEVANCE

There are long-standing debates in all four of the survey countries concerning the quality and relevance of both secondary and university education. Many believe that secondary education should have a much stronger vocational orientation so that it can provide school leavers with more relevant knowledge and skills. Concerns about declining quality in both secondary schools and universities have also increased considerably, especially during the last decade.

This study focuses on the employment outcomes of secondary school and university leavers. However, questionnaire respondents were asked some simple questions about the overall value, relevance and quality of their secondary and university education. Most of these were in the form of statements about specific aspects of their education. Each respondent was requested to rate their level of agreement with each of the statements using a five-point scale (strongly agree, agree, not sure, disagree, and strongly disagree). They were also asked to identify the three main strengths and weaknesses of their secondary/university education and the three key improvements they would like to see made.

### 8.1 INVESTING IN EDUCATION

The large majority of school leavers in all four countries, regardless of gender, cohort or school location, agreed with the statement 'my secondary education was a worthwhile investment' (see Table 8.1). Not surprisingly, those who went on to upper secondary school and university are the most positive, but most junior secondary school leavers also agree with this statement. This is probably because relatively few young people manage to attend secondary school (with the exception of Zimbabwe) and the majority of secondary school leavers have managed to find some kind of wage employment.

It is noticeable, though, that relatively few school leavers agreed strongly with this statement, especially in Tanzania, Uganda and Zimbabwe (typically less than 25 per cent). An important reason for this may be because of increasing competition for jobs as the number of secondary school leavers has grown rapidly during the mid-late 1990s.

The responses of graduates to the statement 'the job expectations I had before I went to university have been largely fulfilled' are presented in Table 8.2. Most males who graduated during the 1980s agreed with this statement. However, noticeably higher proportions of female graduates indicated that their job expectations have not been met (with the exception of Malawi). A key reason for this could be that these female graduates have encountered serious labour market discrimination.

Among the graduate cohorts who completed their university education during the 1990s, around a half feel that their original job expectations have not been fulfilled. This much higher proportion may be partly because graduates are at earlier stages of their careers, but such large increases in a relatively short period are more likely due to the greater difficulties that these graduates have had in finding

**Table 8.1: Responses of junior secondary school leavers to statement 'my secondary education was a worthwhile investment' (%)**

|                                     | 1990 |        |       | 1995 |        |       |
|-------------------------------------|------|--------|-------|------|--------|-------|
|                                     | Male | Female | Total | Male | Female | Total |
| <b>MALAWI</b>                       |      |        |       |      |        |       |
| Stongly agree                       | 46   | 37     | 42    | 36   | 32     | 35    |
| Agree                               | 46   | 53     | 49    | 36   | 43     | 39    |
| Not sure/disagree/strongly disagree | 7    | 8      | 8     | 27   | 21     | 24    |
| <i>n</i>                            | 84   | 60     | 144   | 141  | 102    | 243   |
| <b>TANZANIA</b>                     |      |        |       |      |        |       |
| Strongly agree                      | 17   | 25     | 21    | 17   | 22     | 19    |
| Agree                               | 56   | 46     | 51    | 54   | 44     | 49    |
| Not sure/disagree/strongly disagree | 26   | 27     | 27    | 29   | 32     | 31    |
| <i>n</i>                            | 120  | 113    | 233   | 135  | 142    | 277   |
| <b>UGANDA</b>                       |      |        |       |      |        |       |
| Strongly agree                      | 32   | 19     | 28    | 14   | 17     | 16    |
| Agree                               | 49   | 60     | 53    | 62   | 69     | 65    |
| Not sure/disagree/strongly disagree | 18   | 21     | 19    | 23   | 12     | 18    |
| <i>n</i>                            | 93   | 43     | 136   | 114  | 86     | 200   |
| <b>ZIMBABWE</b>                     |      |        |       |      |        |       |
| Stongly agree                       | 25   | 15     | 21    | 22   | 16     | 19    |
| Agree                               | 51   | 55     | 52    | 49   | 57     | 53    |
| Not sure/disagree/strongly disagree | 24   | 30     | 27    | 29   | 27     | 28    |
| <i>n</i>                            | 188  | 128    | 316   | 210  | 163    | 373   |

**Table 8.2: Responses of university graduates to the statement 'the job expectations I had when I went to university have been largely fulfilled' (%)**

|                                       | 1980 & 1987 |        |       | 1994 & 1999 |        |       |
|---------------------------------------|-------------|--------|-------|-------------|--------|-------|
|                                       | Male        | Female | Total | Male        | Female | Total |
| <b>MALAWI</b>                         |             |        |       |             |        |       |
| Stongly agree                         | 14          | 27     | 16    | 14          | 14     | 14    |
| Agree                                 | 42          | 60     | 45    | 33          | 33     | 33    |
| "Not sure/disagree/strongly disagree" | 44          | 13     | 39    | 53          | 52     | 53    |
| <i>n</i>                              | 78          | 15     | 93    | 149         | 42     | 191   |
| <b>TANZANIA</b>                       |             |        |       |             |        |       |
| Strongly agree                        | 38          | 34     | 37    | 23          | 20     | 22    |
| Agree                                 | 43          | 34     | 42    | 31          | 35     | 32    |
| "Not sure/disagree/strongly disagree" | 19          | 31     | 21    | 46          | 45     | 46    |
| <i>n</i>                              | 125         | 29     | 154   | 153         | 51     | 204   |
| <b>UGANDA</b>                         |             |        |       |             |        |       |
| Strongly agree                        | 22          | 12     | 20    | 14          | 3      | 12    |
| Agree                                 | 58          | 40     | 55    | 44          | 33     | 42    |
| "Not sure/disagree/strongly disagree" | 20          | 48     | 26    | 42          | 64     | 46    |
| <i>n</i>                              | 96          | 25     | 121   | 157         | 39     | 196   |
| <b>ZIMBABWE</b>                       |             |        |       |             |        |       |
| Stongly agree                         | 34          | 9      | 31    | 14          | 9      | 13    |
| Agree                                 | 44          | 36     | 43    | 29          | 36     | 30    |
| "Not sure/disagree/strongly disagree" | 23          | 55     | 26    | 57          | 55     | 57    |
| <i>n</i>                              | 80          | 11     | 91    | 105         | 22     | 127 - |

Note: 1987 cohort for Uganda is actually 1988.

training-related employment, coupled with lower real incomes. Interestingly, though, gender differences with respect to job expectations virtually disappear among this more recent group of graduates. Uganda is the key exception with nearly two-thirds of 1990s female graduates still indicating that their job expectations have not been fulfilled compared with only 42 per cent of males.

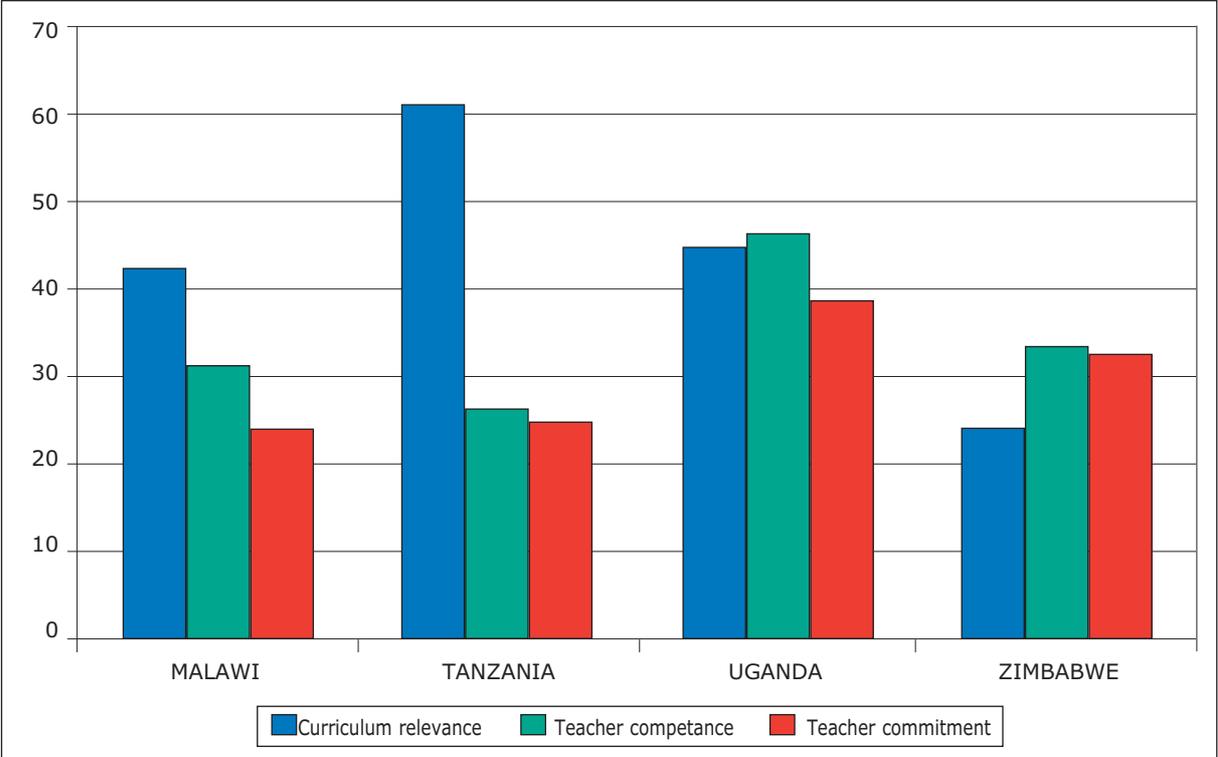
**8.2 CURRICULUM CONTENT AND DELIVERY**

*8.2.1 Relevance*

Over 60 per cent of the 1995 junior secondary school leavers in Tanzania and almost 50 per cent in Malawi and Uganda did not agree with the statement that ‘my secondary school curriculum was relevant and up to date’ (see Figure 8.1). About 5 per cent of these school leavers in Tanzania and Uganda and only 20 per cent in Malawi agreed strongly with this statement (see Appendix Table 8.1). Much higher proportions of 1995 junior secondary school leavers were not sure or disagreed with the relevance statement than the corresponding 1990 groups. It would appear therefore that concerns about the relevance of secondary schooling have been increasing over time.

A slightly different statement was used for the survey in Zimbabwe, namely ‘most of the lessons at secondary school were interesting’. Three-quarters of 1995 junior secondary school leavers agreed with this statement (but only 16 per cent indicated strong agreement).

**Figure 8.1: Percentage of 1995 junior secondary school leavers not sure or disagreeing with statements on curriculum relevance and teacher competence and commitment<sup>49</sup>**



*Notes:* Respondents were asked to say whether they strongly agreed, agreed, were not sure, disagreed or strongly disagreed with the following statements: 1. ‘Most of my teachers at secondary school were committed to their work’; 2. ‘Most of my teachers at secondary school were competent’; and 3. ‘The curriculum for my course was relevant and up to date’.

<sup>49</sup> Appendix Table 8.1 reports the full results for this figure.

It is interesting to note that despite these low levels of agreement with the relevance statement, only 6–11 per cent of the weaknesses with secondary schooling identified by junior secondary school leavers relate directly to concerns about the school curriculum (see Table 8.3). The lack of practical and vocational subjects accounts for only about 1 per cent of total weaknesses in Malawi, Tanzania, and Uganda, but around 10 per cent in Zimbabwe. The “other” curriculum sub-category includes such issues as subject coverage and specialisation, and subject difficulty (especially science and mathematics).

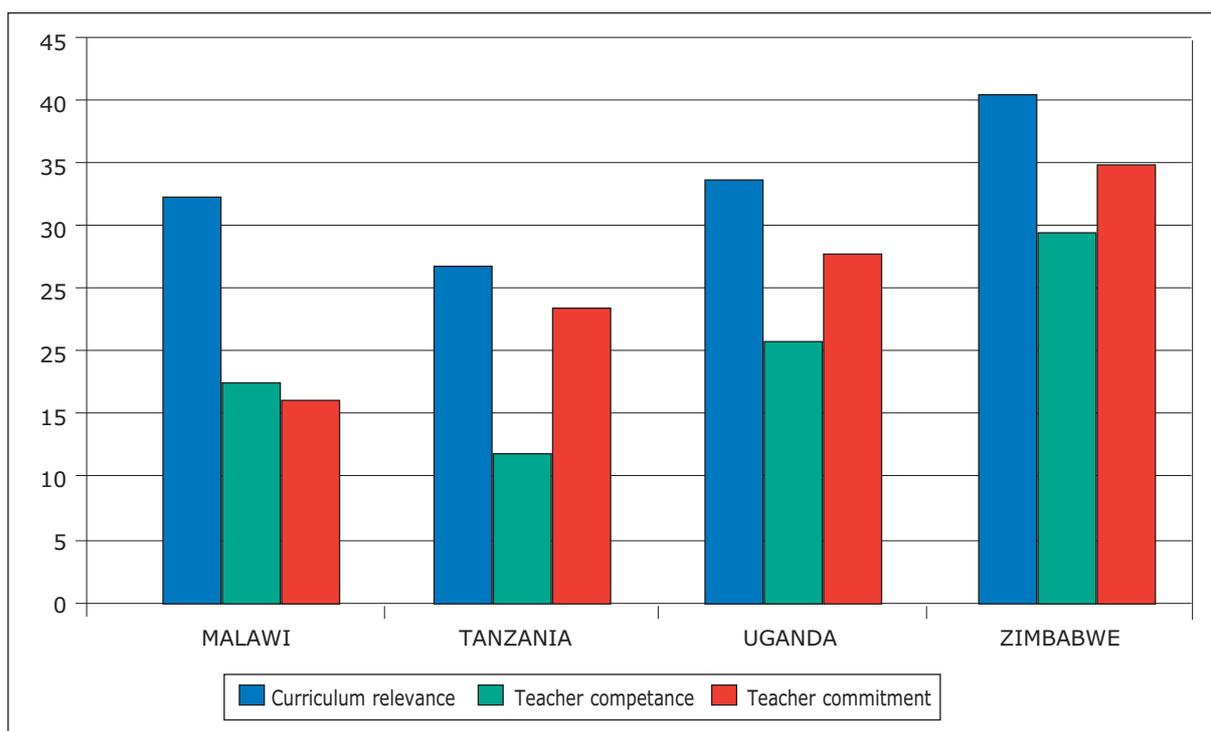
Many university graduates are also concerned about the relevance of the undergraduate degree curricula. In Zimbabwe, 41 per cent of the 1990s graduates were not sure or disagreed with the statement that ‘my university course was relevant and up to date’. In Malawi and Uganda, one-third of these graduates responded similarly (see Figure 8.2). Given the strongly vocational nature of the degree programmes that were selected, university training should be highly relevant. However, less than 20 per cent of 1990s graduates in all four countries agreed strongly with the relevance statement (see Appendix Table 8.2). Concerns about curricula relevance appear to be higher among female graduates and have certainly increased over time.

Table 8.4 shows that around one-third of all weaknesses identified by graduates in Malawi and Uganda relate directly to the relevance of the curriculum. Nearly 50 per cent of the ten most frequently mentioned weaknesses by graduates in Zimbabwe also focus on this issue. Graduates complain that their courses were ‘too theoretical’ with too little practice and that industrial and other work-place attachments

**Table 8.3: Breakdown of weaknesses of secondary education mentioned by 1995 terminal form four leavers (%)**

|  | Malawi    |           |           | Tanzania  |           |           | Uganda    |           |           | Zimbabwe  |           |           |
|--|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
|  | Male      | Female    | Total     |
| <b>Staffing</b>                          |           |           |           |           |           |           |           |           |           |           |           |           |
| Teacher shortages/turnover               | 5         | 8         | 6         | 8         | 7         | 8         | 2         | 4         | 3         | 0         | 0         | 0         |
| Teacher competence                       | 8         | 8         | 8         | 13        | 14        | 14        | 6         | 7         | 6         | 32        | 31        | 32        |
| Teacher commitment                       | 15        | 18        | 16        | 7         | 3         | 5         | 5         | 7         | 6         | 0         | 0         | 0         |
| Teacher discipline of students           | 1         | 3         | 2         | 4         | 6         | 5         | 9         | 9         | 9         | 4         | 0         | 2         |
| Teacher absenteeism                      | 2         | 2         | 2         | 0         | 1         | 0         | 1         | 1         | 1         | 0         | 0         | 0         |
| School management                        | 1         | 1         | 1         | 2         | 1         | 2         | 4         | 4         | 4         | 0         | 0         | 0         |
| <b>Sub-Total</b>                         | <b>32</b> | <b>41</b> | <b>35</b> | <b>35</b> | <b>32</b> | <b>33</b> | <b>28</b> | <b>32</b> | <b>29</b> | <b>36</b> | <b>31</b> | <b>34</b> |
| <b>Buildings/physical infrastructure</b> |           |           |           |           |           |           |           |           |           |           |           |           |
| Laboratories                             | 0         | 0         | 0         | 14        | 6         | 10        | 13        | 12        | 12        | 6         | 4         | 5         |
| Other facilities                         | 3         | 2         | 3         | 11        | 10        | 11        | 10        | 8         | 10        | 5         | 0         | 2         |
| <b>Sub-Total</b>                         | <b>16</b> | <b>22</b> | <b>18</b> | <b>12</b> | <b>13</b> | <b>13</b> | <b>4</b>  | <b>3</b>  | <b>4</b>  | <b>25</b> | <b>26</b> | <b>25</b> |
| <b>Curriculum content</b>                |           |           |           |           |           |           |           |           |           |           |           |           |
| Practical Subjects                       | 1         | 1         | 1         | 1         | 0         | 0         | 1         | 0         | 1         | 10        | 8         | 9         |
| Vocationalisation                        | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         |
| Sex/HIV education                        | 0         | 0         | 0         | 1         | 1         | 1         | 0         | 0         | 0         | 0         | 0         | 0         |
| Other                                    | 8         | 4         | 6         | 7         | 11        | 9         | 5         | 6         | 6         | 4         | 0         | 2         |
| <b>Sub-Total</b>                         | <b>9</b>  | <b>5</b>  | <b>8</b>  | <b>9</b>  | <b>13</b> | <b>11</b> | <b>6</b>  | <b>6</b>  | <b>6</b>  | <b>14</b> | <b>8</b>  | <b>11</b> |
| Textbooks/learning materials             | 16        | 22        | 18        | 12        | 13        | 13        | 4         | 3         | 4         | 25        | 26        | 25        |
| Student behaviour                        | 7         | 2         | 5         | 2         | 1         | 1         | 2         | 3         | 3         | 2         | 3         | 2         |
| Travel/distance to school                | 1         | 1         | 1         | 5         | 6         | 5         | 7         | 8         | 8         | 0         | 0         | 0         |
| Fees/education-related costs             | 9         | 18        | 13        | 3         | 2         | 2         | 14        | 12        | 13        | 0         | 0         | 0         |
| Poverty/orphanhood                       | 2         | 0         | 1         | 0         | 0         | 0         | 1         | 0         | 1         | 0         | 0         | 0         |
| Inadequate study time                    | 7         | 1         | 5         | 0         | 0         | 0         | 2         | 1         | 1         | 0         | 4         | 2         |
| Other                                    | 13        | 10        | 12        | 10        | 17        | 14        | 13        | 15        | 14        | 11        | 25        | 18        |
| <i>n</i>                                 | 225       | 130       | 355       | 193       | 218       | 411       | 367       | 230       | 597       | -         | -         | -         |

**Figure 8.2: Percentage of 1994 and 1999 graduates not sure or disagreeing with statements on curriculum relevance and teacher competence and commitment <sup>50</sup>**



Notes: Respondents were asked to say whether they strongly agreed, agreed, were not sure, disagreed or strongly disagreed with the following statements: 1. 'Most of my lecturers at university were committed to their work'; 2. 'Most of my lecturers at university were competent'; and 3. 'The curriculum for my course was relevant and up to date'.

**Table 8.4: Breakdown of weaknesses of university education mentioned by graduates (%)**

|   | Malawi      |             | Tanzania    |             | Uganda      |             | Zimbabwe    |             |
|---|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
|   | 1980 & 1987 | 1994 & 1999 | 1980 & 1987 | 1994 & 1999 | 1980 & 1987 | 1994 & 1999 | 1980 & 1987 | 1994 & 1999 |
| Administration  | 0           | 0           | 0           | 1           | 1           | 3           | 0           | 0           |
| Lecturers and teaching                                | 12          | 8           | 14          | 10          | 6           | 9           | 13          | 6           |
| Curriculum  |             |             |             |             |             |             |             |             |
| Lacks relevance/too theoretical/little practical work | 21          | 22          | 6           | 10          | 32          | 29          | 33          | 35          |
| Lack of computing/IT skills                           | 6           | 8           | 4           | 4           | 5           | 2           | 11          | 12          |
| Lack of management/entrepreneurship skills            | 4           | 2           | 2           | 0           | 1           | 2           | 12          | 10          |
| Poor preparation for self-employment                  | 0           | 0           | 0           | 1           | 1           | 1           | 0           | 0           |
| Other curriculum                                      | 23          | 20          | 17          | 16          | 16          | 16          | 0           | 7           |
| <b>Sub-Total</b>                                      | <b>54</b>   | <b>52</b>   | <b>30</b>   | <b>31</b>   | <b>54</b>   | <b>49</b>   | <b>57</b>   | <b>63</b>   |
| Books and learning materials                          | 8           | 14          | 3           | 6           | 6           | 4           | 3           | 0           |
| Physical facilities                                   |             |             |             |             |             |             |             |             |
| Laboratories  | 0           | 2           | 3           | 3           | 2           | 1           | 0           | 5           |
| Other facilities                                      | 0           | 0           | 9           | 12          | 2           | 8           | 0           | 0           |
| <b>Sub-Total</b>                                      | <b>8</b>    | <b>16</b>   | <b>15</b>   | <b>20</b>   | <b>11</b>   | <b>13</b>   | <b>0</b>    | <b>5</b>    |
| Student welfare                                       | 4           | 2           | 3           | 5           | 4           | 2           | 0           | 0           |
| Funding   | 1           | 3           | 4           | 7           | 3           | 3           | 6           | 4           |
| Examinations/assessment                               | 3           | 3           | 10          | 4           | 8           | 5           | 0           | 0           |
| Discipline/security/disruptions                       | 0           | 6           | 4           | 1           | 3           | 3           | 0           | 0           |
| Other   | 17          | 11          | 19          | 21          | 11          | 14          | 22          | 22          |
| <i>n</i>  | 118         | 283         | 232         | 363         | 170         | 318         | -           | -           |

<sup>50</sup> Appendix Table 8.3 reports the full results for this figure.

were non-existent or very limited. The lack of information technology and management/entrepreneurship training were also frequently mentioned, which further undermines the relevance of degree training. In total, curricula issues account for over 50 per cent of total weaknesses mentioned by graduates in Malawi, Uganda and Zimbabwe and one-third in Tanzania.

### *8.2.2 Teacher competence and commitment*

School leavers and university graduates were asked to respond to two separate statements about the competence and commitment of their teachers and lecturers respectively. In overall terms, around two-thirds of junior secondary school leavers in Malawi and Zimbabwe and almost three-quarters in Tanzania agreed that their teachers at secondary school were competent (see Figure 8.1). Again, however, relatively few strongly agreed with this statement (9–17 per cent in Tanzania, Uganda, and Zimbabwe and 25 per cent in Malawi). Rural school leavers in Malawi, Tanzania and Uganda appear to be considerably more concerned about teacher competence, although in Zimbabwe the opposite is true. With the exception of Zimbabwe, agreement rates are considerably lower among the 1995 groups, which suggests teacher competence has deteriorated rather than improved in these three countries. This trend appears to be particularly marked in rural secondary schools, especially in Uganda. There are no obvious gender differences on this issue.

While between three-quarters and two-thirds of junior secondary school respondents agreed that their secondary school teachers were hard working and committed, it is clear that levels of teacher commitment are relatively low in some locations (see Figure 8.1). The existence of strong gender biases against female students could be reflected in higher levels of concern about teacher behaviour and motivation among female leavers. Interestingly, though, male leavers tend to be more dissatisfied than female leavers with teacher commitment. Comparing 1990 and 1995 cohort responses, overall satisfaction with levels of teacher commitment appear to have fallen quite appreciably, especially in Malawi and Tanzania (both rural and urban areas) and in rural Uganda.

Issues related to teacher performance account for over one-third of the total weaknesses of secondary education identified by 1995 junior secondary school leavers (see Table 8.3). Teacher commitment appears to be a serious problem in Malawi, Tanzania and Uganda. Beatings, favouritism and other types of teacher behaviour are a common complaint, especially in Tanzania and Uganda.

While the majority of graduates indicated that their lecturers were competent and committed, sizeable numbers expressed concerns about various aspects of teaching performance. Again, less than one-quarter of 1990s graduates in three out of the four countries (Malawi, Uganda and Zimbabwe) strongly agreed with the competence and commitment statements. It is also noticeable that much higher percentages of 1990s graduates in Uganda and Zimbabwe did not agree with these statements compared with the 1980s cohorts.

Between 6 and 14 per cent of the total weaknesses identified by graduates concern lecturer competence and commitment (see Table 8.3). The most frequent complaints are that most lecturers rely almost exclusively on traditional “chalk and talk” teaching methods, are poorly motivated, and that there

is generally far too little contact between students and lecturers, which has been exacerbated by the emergence of parallel student programmes, especially in Uganda. The lack of accountability by lecturers is also a major issue.

### **8.2.3 Learning materials and physical infrastructure**

No specific statements were included in the questionnaire concerning learning materials and school buildings and other facilities. However, lack of learning materials and poor facilities at secondary schools are major areas of weakness in all four countries (see Table 8.3). Textbooks and other learning materials account for between 18 and 25 per cent of total identified weaknesses in Malawi and Zimbabwe and concerns about poor facilities are particularly acute within the same countries.

Between 3–20 per cent of the weaknesses identified by university graduates concerned learning materials and physical infrastructure (particularly laboratories and library facilities). It is clear that the learning environment has become more difficult over time (see Table 8.4).

### **8.2.4 Other weaknesses**

Poor student welfare (in particular catering and dormitories/hostels) was identified as a major weakness by junior secondary school leavers in both rural and urban schools in Malawi as well as in urban Uganda. Travel to school and fees and other education costs are also important concerns in Tanzania and Uganda. Inadequate time to study is a major issue at urban (day) schools in Malawi, particularly among males. Interestingly, the problems faced by poor and other disadvantaged students (including orphans) were not identified as a major problem by school leavers in any of the four countries.

Table 8.4 shows that student welfare, funding, assessment, and disruptions are frequently cited weaknesses of university education. Student welfare and funding issues appear to be particularly acute in Tanzania. University closures and other disruptions that result from student protests and other political factors have become an increasing serious issue during the 1990s, particularly in Malawi. Some students also felt that university examinations are unfair in Malawi, Tanzania and Uganda.

## **8.3 KNOWLEDGE AND SKILLS**

### **8.3.1 Verbal and written competencies**

Levels of satisfaction among junior secondary school leavers concerning both verbal and written English skills are surprisingly high (see Table 8.5). There are however sizeable minorities of leavers who feel that they left school with inadequate competencies in these two key areas. Nearly all university graduates appear to be satisfied with their verbal and written competencies (see Table 8.5).

### **8.3.2 Other generic skills**

Almost all school leavers indicated that they did not receive adequate training in information technology while they were at school. There are also widespread concerns about the failure of secondary schools to focus on the development of analytical and other problem-solving skills as well as management and

entrepreneurship competencies. Only around half of junior secondary school leavers in Malawi, Tanzania and Uganda believe that their secondary education equipped them with the necessary knowledge and skills for productive working lives.

Most university graduates were also dissatisfied with their IT and management/ entrepreneurship skills. Nonetheless, most feel that they acquired the necessary knowledge and skills for their chosen occupations (see Table 8.5).

**Table 8.5: Graduate and school leavers agreeing or strongly agreeing with statements on competencies (%)**

|   | Verbal | Written | IT skills | Analytical/<br>problem<br>solving | Management/<br>entrepren-<br>eurship | Necessary<br>knowledge |
|---|--------|---------|-----------|-----------------------------------|--------------------------------------|------------------------|
| <b>JUNIOR SECONDARY SCHOOL LEAVERS 1995</b> |        |         |           |                                   |                                      |                        |
| Malawi                                      | 81     | 80      | 11        | 56                                | 30                                   | 50                     |
| <i>n</i>                                    | 243    | 244     | 242       | 242                               | 241                                  | 244                    |
| Tanzania                                    | 72     | 76      | 21        | 50                                | 51                                   | 58                     |
| <i>n</i>                                    | 285    | 276     | 101       | 279                               | 250                                  | 279                    |
| Uganda                                      | 85     | 89      | 3         | 35                                | 37                                   | 46                     |
| <i>n</i>                                    | 200    | 200     | 196       | 200                               | 200                                  | 200                    |
| Zimbabwe                                    | -      | -       | -         | -                                 | 42                                   | -                      |
| <i>n</i>                                    |        |         |           |                                   | 374                                  |                        |
| <b>UNIVERSITY GRADUATES 1994 AND 1999</b>   |        |         |           |                                   |                                      |                        |
| Malawi                                      | 89     | 89      | 37        | 76                                | 51                                   | 82                     |
| <i>n</i>                                    | 190    | 190     | 189       | 190                               | 190                                  | 189                    |
| Tanzania                                    | 91     | 95      | 31        | 86                                | 73                                   | 96                     |
| <i>n</i>                                    | 224    | 225     | 176       | 222                               | 208                                  | 222                    |
| Uganda                                      | 92     | 90      | 28        | 71                                | 50                                   | 89                     |
| <i>n</i>                                    | 199    | 197     | 187       | 198                               | 195                                  | 200                    |
| Zimbabwe                                    | 85     | 93      | 28        | 86                                | 33                                   | 84                     |
| <i>n</i>                                    | 128    | 128     | 128       | 128                               | 128                                  | 128                    |

*Notes:* Respondents were asked to say whether they strongly agreed, agreed, were not sure, disagreed or strongly disagreed with the following statements: 1. 'I was satisfied with my verbal communication skills in English'; 2. 'I was satisfied with my written communication skills in English'; 3. 'I was satisfied with my information technology/computer skills'; 4. 'I was satisfied with my analytical/problem solving skills'; 5. 'I was satisfied with my managerial/entrepreneurship skills'; 6. 'I had acquired the necessary knowledge and skills required for my chosen profession'. Secondary school leavers in Zimbabwe were not asked all these questions.

## CHAPTER 9

# CONCLUSIONS

The tracer surveys of secondary school leavers and university graduates have generated a wealth of detailed, accurate and up-to-date information about the employment and other outcomes of two areas of educational provision that are of central importance for economic and social development. The common survey methodology has enabled high proportions of both groups of leavers to be both traced and interviewed. A major benefit of being able to interview leavers has been the ability to collate detailed activity profiles of each leaver over relatively long periods of time. This dimension is lost in other types of surveys, which are not based on tightly-specified groups of leavers. Furthermore, since the average cost of each national survey was approximately £25,000, this is a highly cost-effective way of generating information that is essential for effective, well conceived policy-making, not only for higher and secondary education, but also for vocational training, enterprise development, poverty reduction, and employment policy.

We strongly believe therefore that similar kinds of tracer surveys should be regularly undertaken for all types of education and training provision. In particular, since so few children in many low-income developing countries proceed any further than primary education, the employment and other livelihood outcomes of primary schooling are a top priority. Tracer surveys of particular cohorts of leavers should not just be a one-off affair, but should be done every five years so that it is possible to build a comprehensive picture of the overall activity profiles of representative groups of individuals throughout their lives. With respect to our two groups of leavers therefore, we certainly intend to follow up on the individuals who have already been traced as well as select more recent cohorts of leavers (probably 2000 for form four leavers and 2004 for university graduates). This should be done in 2006.

Creating the capacity to undertake tracer surveys of this kind should be a top priority. Again, the surveys have shown that with careful preparation, competent management, and committed teams of research assistants it is possible to trace and interview very large numbers of leavers in a short space of time. The experience gained by the national research teams in each of the four countries, means that future surveys can be completed considerably more efficiently and in an even shorter timeframe

### 9.1 POLICY IMPLICATIONS

The tracer surveys highlight the enormous challenges of educating and subsequently utilising school leavers and university graduates in an efficient and effective manner in low-income countries in Africa. These countries are following an entirely new development strategy that simultaneously attempts to achieve rapid private sector (i.e. capitalist) development in high-growth sectors catering for both domestic and overseas markets, as well as rapidly reducing pervasive levels of poverty, particularly rural poverty. As the most educated groups in society, secondary school leavers and graduates must be at the vanguard

of this new development process. They are essential for two reasons. First, they are the core group that will drive private sector development in both the formal and informal sectors of the economy. And secondly, they are the main providers of the key services – such as health, education, water and sanitation, and appropriate technologies – that are needed for rapid and comprehensive poverty reduction.

The findings of the tracer surveys also call into question much of the received wisdom about the employment and other outcomes among these two groups. In particular, it is not true that unemployment rates among graduates are high and increasing. Nor are graduates seriously under-employed in jobs that do not effectively utilise the knowledge and skills they acquired while at university. Unemployment among school leavers is also much less than expected ranging from 5–15 percent in Malawi, Tanzania, and Uganda. Zimbabwe is an exception with nearly one-quarter of the 1995 cohort of form four leavers openly unemployed in late 2001. With the rapid deterioration in the Zimbabwean economy since then, the incidence of unemployment among this group has almost certainly increased significantly.

However, only one-third to a half of school leavers managed to find wage employment (with the notable exception of Malawi where wage employment is very high for this group and wage employment opportunities appear to be declining for these groups. This inevitably means that self-employment is becoming an increasingly important source of income for secondary school leavers.

### *9.1.1 Self-employment*

Viable private sector development depends on the emergence of a relatively large and dynamic group of entrepreneurs in each country who can spearhead a sustained and intensive process of investment, which in turn will generate employment. Unfortunately, the findings of the tracer survey show quite clearly that neither group of leavers is at the forefront of such a process of entrepreneurial development. The reality is that for both groups, full-time self-employment is almost always a last resort. With a few exceptions, only tiny numbers of university graduates are self-employed and these graduates are involved in activities such as consultancy, which is donor-driven and -dependent. Many are part-time entrepreneurs generating secondary income that is essential for their household survival, but these part-time activities are invariably limited in scale and sophistication.

The incidence of self-employment varies quite considerably among secondary school leavers across the four countries ranging from 30 percent in Tanzania to less than 11 per cent in Malawi. However, most of these are “survivalist” micro enterprises that require limited skills, have limited economic potential and are established by school leavers who have done least well at school. A key objective of national economic reform programmes has been to create the necessary “enabling environments” for the development of larger, more productive enterprises that produce a wide range of goods and services with good growth potential. The evidence from the surveys shows that these policy regimes are not working, certainly with regard to educated youth. Lack of economic opportunities is the root cause of the limited range of activities that are undertaken by the unemployed and of the relatively low incomes that are generally earned. Small and micro-enterprise development strategies continue to focus

on the provision of a fairly standard package of inputs – namely credit, land, training and advice/extension services. However, these have not been successfully scaled up in Africa, partly because of weak states, but also because there are too few large NGOs (such as BRAC in Bangladesh) that are capable of managing national programmes with very large numbers of clients. There is also a danger that too strong an emphasis on poverty reduction will lead to too little support being given to educated youth with the entrepreneurial talent to successfully develop small and medium-sized enterprises.

The other much discussed policy initiative is to re-orientate primary and secondary education so that students are better able to be self-reliant and establish viable enterprises. Interestingly, many of the recommendations made by school leavers themselves focus on the need to revise the curriculum so that it is more practical and vocational. The provision of basic pre-vocational training in business and management and information technology is certainly essential. However, the capacity of secondary schools to provide artisan or other types of occupational training is severely limited. Such training should be undertaken by specialist training institutions and should be demand-driven.

### **9.1.2 Gender**

The received wisdom is that the employment outcomes for female graduates and school leavers throughout nearly all low-income Africa are generally much worse than for males. The tracer surveys have shown however that this generalisation is no longer valid among the four case study countries. With the exception of Zimbabwe, the gender gap with regard to the incidence of wage employment has been completely or almost completely eliminated. Female school leavers often come from better-off families and have been investing very heavily in further education and training. However, it is still the case that they are more narrowly concentrated in a limited number of occupations and, among both groups of leavers, average incomes for women are considerably lower than for men. Concerted efforts are needed therefore to reduce gender discrimination in formal sector labour markets but, equally importantly, to encourage greater female employment in more male-dominated occupations. The problem, though, in many countries is that employment in many of these occupations is contracting which makes it difficult to increase female employment. Some countries such as Bangladesh have established quotas for women in the public sector which have helped to boost the demand for female secondary and higher education.

### **9.1.3 International migration**

The tracer surveys show that the permanent “brain drain” of university graduates has been considerably less serious than is suggested by anecdotal evidence. However, it continues to be high for some professions, in particular medical doctors. In addition, in countries such as Zimbabwe, which are facing very serious economic crises, international migration among both groups of leavers is increasing very rapidly. This clearly represents a major loss of skilled personnel, many of whom are essential for the attainment of the Millennium Development Goals. It is also the case however that migrant remittances

are an increasingly important source of income for households, without which poverty levels would increase rapidly. Governments can do very little in the short term to reduce brain drain. Improving public sector salaries is a top priority, especially for professionals in high demand in the North and who have internationally negotiable qualifications.

## **9.2 IMPROVING EDUCATIONAL QUALITY AND RELEVANCE**

Although the focus of this study is on employment outcomes, the responses of university and school leaver interviewees to questions about curriculum content and learning methodologies strongly indicate that there are widespread concerns about the quality and relevance of university and secondary education. It is self-evidently the case that the entire development process hinges on the availability of a critical mass of well-trained personnel, especially in the context of rapid globalisation.

### **9.2.1 Access**

The demand for secondary education will continue to increase very rapidly as universal primary education is attained. As the tracer studies have shown, access to secondary education is severely restricted for the children from the poorest families, especially where secondary enrolment rates are low. It is widely accepted that at least two to three years of secondary education is part and parcel of “basic education for all”. Improving access to secondary education should therefore be a key objective of poverty-reduction programmes. Bursaries and other support measures are needed to enable the poor students and especially girls to complete secondary education. It is important to note though that improving educational access to disadvantaged groups does not automatically lead to better employment/livelihood outcomes. Most notably, in Zimbabwe where gender parity in secondary education has almost been achieved, employment outcomes with respect to gender are the worst among the four case study countries.

Access to university is increasingly restricted to children from professional family backgrounds. Relatively high private rates of return to university education provide support for increased cost recovery from university students. However, unless appropriate support can be provided to students from poorer backgrounds, the role of higher education in reproducing social and economic inequality will be further reinforced.

### **9.2.2 Curriculum relevance**

Both groups of leavers expressed major concerns about the lack of relevance of their education. The majority of university graduates feel that their training is too theoretical and there are too few opportunities for learning by doing through industrial attachments and other types of “practical” activities. Comparing the recommendations of both groups, it is clear though that curriculum reform is a much higher priority among university graduates, with the notable exception of Tanzania (see Tables 8.3 and 8.4). While secondary school leavers also want greater relevance, the bulk of their recommendations focus on the need to improve teaching quality, learning materials and school facilities.

Calls to improve the relevance of university education are of course not new. But the need for university training that imparts knowledge and skills that are directly relevant to the developmental challenges facing low-income countries in Africa and elsewhere is greater than ever. In particular, there must be a clear focus in all degree programmes on service delivery for the poor. This includes not just appropriate knowledge and skills, but also building commitment to fighting poverty.

The results of the tracer surveys indicate that the impact of HIV/AIDS has been much greater among terminal form four school leavers than among university graduates. Given the seriousness of the epidemic, HIV prevention should be a major curriculum objective throughout the education system. The problem is that, to date, schools almost everywhere have been singularly unsuccessful in providing effective life skills and sexual and reproductive health education. School environments are not conducive to this kind of education and, for a variety of reasons, most teachers are not committed. The only solution is for these subjects to be mainstreamed in the school curriculum with full-time professionally trained teachers.

### *9.2.3 Educational quality*

The deterioration in the quality of university education in many African countries has far-reaching consequences that have still not been properly recognised by most governments and donor agencies. Very poor examination results in secondary schools are also symptomatic of chronically under-resourced schools and poorly trained and motivated teachers. However, given the importance that is currently attached to the attainment of universal primary education, there is a danger that secondary and higher education will be neglected. The attainment of universal primary education at the expense of secondary and higher education would have disastrous consequences for human resource development.

University lecturers and secondary school teachers are paid usually too little to expect them to be highly committed and hard-working. Claims that teachers are “over-paid” are simply not borne out by the results of this study. Most are forced to earn secondary incomes to make ends meet. While there are certainly steps that can be taken to improve the efficiency of both university and secondary education, reducing salaries would aggravate the current situation. In short, there are no simple “quick-fix” solutions that would improve the quality of secondary and higher education in most countries.

## APPENDIX TABLES

**Appendix Table 2.1: Secondary school sample characteristics and universities selected**

|          | Sampled Secondary Schools by Ownership   |  | Sampled University and Faculties   |
|----------|--|--|--|
|          | Rural  | Urban  |  |
| Malawi   | 2 government<br>1 grant-aided<br>1 community<br>1 private not-for-profit<br>1 private for profit | 2 government<br>1 grant-aided<br>1 community<br>1 private for profit | University of Malawi: Accountancy, Agriculture, Economics, Education, Engineering and Medicine |
| Tanzania | 4 government<br>1 private  | 4 government<br>1 private  | University of Dar es Salaam: Agriculture, Commerce, Education, Engineering, Medicine           |
| Uganda   | 4 grant-aided<br>1 joint ownership between government and Kingdom of Buganda                     | 5 grant-aided  | Makerere University: Agriculture, Commerce, Education, Engineering, Medicine                   |
| Zimbabwe | 6 government   | 6 government<br>1 trust school                                       | University of Zimbabwe: Accountancy, Agriculture, Economics, Engineering and Medicine          |

**Appendix Table 3.1: Percentages of secondary school sample by completed education**

|                   | 1990 |        |       | 1995 |        |       |
|-------------------|------|--------|-------|------|--------|-------|
|                   | Male | Female | Total | Male | Female | Total |
| <b>MALAWI</b>     |      |        |       |      |        |       |
| secondary         | 79.5 | 90.9   | 84.0  | 87.0 | 92.4   | 89.2  |
| university        | 20.5 | 9.1    | 16.0  | 13.0 | 7.6    | 10.8  |
| <i>n</i>          | 117  | 77     | 194   | 177  | 119    | 296   |
| <b>TANZANIA</b>   |      |        |       |      |        |       |
| junior secondary  | 48.3 | 58.3   | 52.8  | 60.3 | 66.7   | 63.5  |
| senior secondary  | 34.1 | 30.8   | 32.6  | 38.8 | 32.0   | 35.5  |
| university        | 17.6 | 10.9   | 14.6  | 0.8  | 1.3    | 1.1   |
| <i>n</i>          | 261  | 211    | 472   | 237  | 231    | 468   |
| <b>UGANDA</b>     |      |        |       |      |        |       |
| junior secondary  | 68.3 | 69.1   | 68.5  | 50.6 | 53.5   | 51.8  |
| senior secondary  | 23.4 | 23.5   | 23.5  | 40.2 | 36.0   | 38.4  |
| university leaver | 8.3  | 7.4    | 8.0   | 9.2  | 10.5   | 9.7   |
| <i>n</i>          | 145  | 68     | 213   | 239  | 172    | 411   |
| <b>ZIMBABWE</b>   |      |        |       |      |        |       |
| junior secondary  | 90.5 | 95.8   | 92.6  | 90.2 | 93.6   | 91.7  |
| senior secondary  | 8.6  | 2.1    | 6.1   | 8.5  | 3.7    | 6.5   |
| university        | 0.9  | 2.1    | 1.4   | 1.2  | 2.7    | 1.8   |
| <i>n</i>          | 221  | 142    | 363   | 246  | 188    | 434   |

**Appendix Table 3.2: Average age at graduation of university graduates**

|          | 1980 |        |       | 1987 |        |       | 1994 |        |       | 1999 |        |       |
|----------|------|--------|-------|------|--------|-------|------|--------|-------|------|--------|-------|
|          | Male | Female | Total |
| Malawi   | 23.8 | 22.6   | 23.7  | 26.3 | 25.0   | 26.0  | 25.4 | 25.3   | 25.3  | 25.8 | 23.5   | 25.3  |
| <i>n</i> | 44   | 7      | 51    | 37   | 10     | 47    | 73   | 17     | 90    | 85   | 23     | 108   |
| Tanzania | 28.6 | 26.4   | 28.3  | 29.4 | 27.8   | 29.0  | 28.5 | 28.3   | 28.5  | 28.2 | 29.6   | 28.5  |
| <i>n</i> | 75   | 14     | 89    | 62   | 19     | 81    | 77   | 34     | 111   | 92   | 23     | 115   |
| Uganda   | 24.1 | 19.2   | 23.5  | 25.2 | 24.3   | 25.0  | 25.1 | 25.5   | 25.2  | 26.0 | 24.8   | 25.7  |
| <i>n</i> | 37   | 5      | 42    | 59   | 20     | 79    | 81   | 18     | 99    | 79   | 22     | 101   |
| Zimbabwe | 22.8 | 22.0   | 22.7  | 24.4 | 25.4   | 24.5  | 23.1 | 23.5   | 23.2  | 23.7 | 23.0   | 23.6  |
| <i>n</i> | 33   | 4      | 37    | 48   | 7      | 55    | 50   | 11     | 61    | 64   | 16     | 80    |

Note: 1987 cohort for Uganda is actually 1988.

**Appendix Table 3.3: Average age after four years of secondary schooling**

|                  | 1990 |        |       | 1995 |        |       |
|------------------|------|--------|-------|------|--------|-------|
|                  | Male | Female | Total | Male | Female | Total |
| <b>MALAWI</b>    |      |        |       |      |        |       |
| secondary        | 21.1 | 19.3   | 20.4  | 20.9 | 19.3   | 20.2  |
| <i>n</i>         | 92   | 66     | 158   | 149  | 106    | 255   |
| <b>TANZANIA</b>  |      |        |       |      |        |       |
| junior secondary | 18.9 | 18.2   | 18.6  | 19.3 | 18.7   | 19.0  |
| <i>n</i>         | 126  | 123    | 249   | 143  | 154    | 297   |
| senior secondary | 19.0 | 17.8   | 18.5  | 19.0 | 18.2   | 18.6  |
| <i>n</i>         | 89   | 65     | 154   | 92   | 74     | 166   |
| <b>UGANDA</b>    |      |        |       |      |        |       |
| junior secondary | 19.2 | 17.8   | 18.8  | 19.2 | 18.5   | 18.9  |
| <i>n</i>         | 99   | 47     | 146   | 121  | 92     | 213   |
| senior secondary | 18.5 | 17.4   | 18.2  | 18.4 | 17.4   | 18.0  |
| <i>n</i>         | 34   | 16     | 50    | 96   | 62     | 158   |
| <b>ZIMBABWE</b>  |      |        |       |      |        |       |
| junior secondary | 18.1 | 17.8   | 18.0  | 17.6 | 17.3   | 17.4  |
| <i>n</i>         | 200  | 136    | 336   | 222  | 176    | 399   |
| senior secondary | 17.3 | 16.3   | 17.2  | 17.4 | 16.7   | 17.3  |
| <i>n</i>         | 19   | 3      | 22    | 21   | 7      | 28    |

**Appendix Table 3.4: Percentage of university graduates who have ever been married**

|          | 1980 |        |       | 1987 |        |       | 1994 |        |       | 1999 |        |       |
|----------|------|--------|-------|------|--------|-------|------|--------|-------|------|--------|-------|
|          | Male | Female | Total |
| Malawi   | 100  | 100    | 100   | 100  | 100    | 100   | 93   | 65     | 87    | 44   | 50     | 45    |
| <i>n</i> | 45   | 7      | 52    | 37   | 9      | 46    | 69   | 17     | 86    | 87   | 24     | 111   |
| Tanzania | 99   | 100    | 99    | 98   | 95     | 98    | 86   | 79     | 84    | 33   | 52     | 37    |
| <i>n</i> | 75   | 14     | 89    | 62   | 19     | 81    | 77   | 34     | 111   | 92   | 23     | 115   |
| Uganda   | 95   | 60     | 90    | 95   | 85     | 92    | 65   | 72     | 67    | 27   | 23     | 26    |
| <i>n</i> | 37   | 5      | 42    | 59   | 20     | 79    | 81   | 18     | 99    | 79   | 22     | 101   |
| Zimbabwe | 97   | 75     | 95    | 98   | 100    | 98    | 96   | 82     | 93    | 27   | 56     | 33    |
| <i>n</i> | 33   | 4      | 37    | 48   | 7      | 55    | 49   | 11     | 60    | 64   | 16     | 80    |

Note: 1987 cohort for Uganda is actually 1988.

**Appendix Table 3.5: Percentage of secondary school leavers who have ever been married**

|                  | 1990 |        |       | 1995  |        |       |
|------------------|------|--------|-------|-------|--------|-------|
|                  | Male | Female | Total | Male  | Female | Total |
| <b>Malawi</b>    |      |        |       |       |        |       |
| secondary        | 94.6 | 92.5   | 93.7  | 47.7  | 47.7   | 47.7  |
| <i>n</i>         | 92   | 67     | 159   | 153   | 107    | 260   |
| <b>Tanzania</b>  |      |        |       |       |        |       |
| junior secondary | 54.8 | 69.1   | 61.8  | 16.1  | 37.0   | 26.9  |
| <i>n</i>         | 126  | 123    | 249   | 143   | 154    | 297   |
| senior secondary | 50.6 | 60.0   | 54.5  | 6.5   | 13.5   | 9.6   |
| <i>n</i>         | 89   | 65     | 154   | 92    | 74     | 166   |
| <b>Uganda</b>    |      |        |       |       |        |       |
| junior secondary | 79.8 | 70.2   | 76.7  | 45.5  | 44.6   | 45.1  |
| <i>n</i>         | 99   | 47     | 146   | 121   | 92     | 213   |
| senior secondary | 47.1 | 56.3   | 50.0  | 15.6  | 17.7   | 16.5  |
| <i>n</i>         | 34   | 16     | 50    | 96    | 62     | 158   |
| <b>Zimbabwe</b>  |      |        |       |       |        |       |
| junior secondary | 98.5 | 94.1   | 96.7  | 100.0 | 97.7   | 99.0  |
| <i>n</i>         | 200  | 136    | 336   | 222   | 176    | 398   |
| senior secondary | 57.9 | 66.7   | 59.1  | 9.5   | 28.6   | 14.3  |
| <i>n</i>         | 19   | 3      | 22    | 21    | 7      | 28    |

**Appendix Table 3.6: Average number of children and average household size for university graduates**

|                 | 1980 |        |       | 1987 |        |       | 1994 |        |       | 1999 |        |       |
|-----------------|------|--------|-------|------|--------|-------|------|--------|-------|------|--------|-------|
|                 | Male | Female | Total |
| <b>MALAWI</b>   |      |        |       |      |        |       |      |        |       |      |        |       |
| Children        | 3.5  | 2.7    | 3.4   | 2.8  | 2.4    | 2.7   | 1.3  | 1.3    | 1.3   | 0.4  | 0.5    | 0.4   |
| <i>n</i>        | 44   | 7      | 51    | 37   | 9      | 46    | 69   | 17     | 86    | 86   | 24     | 110   |
| Household size  | 6.4  | 6.0    | 6.4   | 6.8  | 7.2    | 6.9   | 5.0  | 5.1    | 5.0   | 3.1  | 4.9    | 3.5   |
| <i>n</i>        | 44   | 6      | 50    | 37   | 9      | 46    | 68   | 17     | 85    | 86   | 24     | 110   |
| <b>TANZANIA</b> |      |        |       |      |        |       |      |        |       |      |        |       |
| Children        | 4.3  | 3.4    | 4.1   | 3.3  | 3.2    | 3.2   | 1.8  | 2.1    | 1.9   | 0.5  | 0.8    | 0.6   |
| <i>n</i>        | 75   | 14     | 89    | 62   | 19     | 81    | 77   | 34     | 111   | 92   | 23     | 115   |
| Household size  | 7.3  | 7.4    | 7.3   | 6.9  | 6.3    | 6.8   | 5.3  | 5.4    | 5.3   | 3.7  | 4.0    | 3.8   |
| <i>n</i>        | 75   | 14     | 89    | 62   | 19     | 81    | 77   | 34     | 111   | 92   | 23     | 115   |
| <b>UGANDA</b>   |      |        |       |      |        |       |      |        |       |      |        |       |
| Children        | 5.0  | 2.2    | 4.7   | 3.1  | 3.2    | 3.1   | 1.2  | 2.1    | 1.4   | 0.5  | 0.0    | 0.4   |
| <i>n</i>        | 37   | 5      | 42    | 59   | 20     | 79    | 81   | 18     | 99    | 79   | 22     | 101   |
| Household size  | 8.7  | 6.0    | 8.4   | 6.8  | 7.4    | 6.9   | 4.4  | 5.2    | 4.6   | 3.6  | 3.9    | 3.7   |
| <i>n</i>        | 37   | 5      | 42    | 58   | 20     | 78    | 79   | 16     | 95    | 64   | 16     | 80    |
| <b>ZIMBABWE</b> |      |        |       |      |        |       |      |        |       |      |        |       |
| Children        | 3.3  | 2.8    | 3.3   | 2.7  | 2.7    | 2.7   | 1.2  | 1.4    | 1.2   | 0.2  | 0.5    | 0.2   |
| <i>n</i>        | 33   | 4      | 37    | 48   | 7      | 55    | 50   | 11     | 61    | 64   | 16     | 80    |
| Household size  | 6.0  | 5.0    | 5.9   | 5.6  | 5.7    | 5.6   | 4.4  | 5.6    | 4.6   | 3.3  | 4.7    | 3.6   |
| <i>n</i>        | 32   | 1      | 33    | 47   | 7      | 54    | 49   | 9      | 58    | 49   | 15     | 64    |

Note: 1987 cohort for Uganda is actually 1988.

**Appendix Table 3.7: Average number of children and average household size for secondary school leavers**

|                         |                | 1990 |        |       | 1995 |        |       |
|-------------------------|----------------|------|--------|-------|------|--------|-------|
|                         |                | Male | Female | Total | Male | Female | Total |
| <b>MALAWI</b>           |                |      |        |       |      |        |       |
|                         | Children       | 1.9  | 1.8    | 1.8   | 0.7  | 0.7    | 0.7   |
|                         | <i>n</i>       | 92   | 65     | 157   | 153  | 106    | 259   |
|                         | Household size | 4.6  | 4.9    | 4.7   | 4.0  | 5.1    | 4.4   |
|                         | <i>n</i>       | 91   | 65     | 156   | 143  | 104    | 247   |
| <b>TANZANIA</b>         |                |      |        |       |      |        |       |
| junior secondary leaver | Children       | 1.1  | 1.4    | 1.3   | 0.2  | 0.6    | 0.4   |
|                         | <i>n</i>       | 126  | 123    | 249   | 143  | 154    | 297   |
|                         | Household size | 4.8  | 5.2    | 5.0   | 4.9  | 5.3    | 5.1   |
|                         | <i>n</i>       | 126  | 123    | 249   | 143  | 154    | 297   |
| senior secondary leaver | Children       | 0.8  | 0.9    | 0.8   | 0.0  | 0.2    | 0.1   |
|                         | <i>n</i>       | 89   | 65     | 154   | 92   | 74     | 166   |
|                         | Household size | 4.6  | 5.2    | 4.9   | 4.6  | 5.9    | 5.2   |
|                         | <i>n</i>       | 89   | 65     | 154   | 92   | 74     | 166   |
| <b>UGANDA</b>           |                |      |        |       |      |        |       |
| junior secondary leaver | Children       | 2.6  | 1.9    | 2.4   | 0.9  | 1.0    | 1.0   |
|                         | <i>n</i>       | 99   | 47     | 146   | 121  | 92     | 213   |
|                         | Household size | 5.6  | 5.6    | 5.6   | 4.9  | 5.2    | 5.0   |
|                         | <i>n</i>       | 95   | 41     | 136   | 89   | 76     | 165   |
| senior secondary leaver | Children       | 1.0  | 1.1    | 1.0   | 0.4  | 0.4    | 0.4   |
|                         | <i>n</i>       | 34   | 16     | 50    | 96   | 62     | 158   |
|                         | Household size | 4.1  | 3.6    | 3.9   | 5.4  | 6.9    | 6.0   |
|                         | <i>n</i>       | 32   | 16     | 48    | 66   | 47     | 113   |
| <b>ZIMBABWE</b>         |                |      |        |       |      |        |       |
| junior secondary leaver | Children       | 1.3  | 1.6    | 1.4   | 0.4  | 0.8    | 0.6   |
|                         | <i>n</i>       | 193  | 128    | 321   | 174  | 156    | 330   |
|                         | Household size | 4.1  | 3.2    | 3.7   | 2.4  | 2.4    | 2.4   |
|                         | <i>n</i>       | 184  | 127    | 311   | 163  | 144    | 307   |
| senior secondary leaver | Children       | 0.9  | 1.0    | 0.9   | 0.1  | 0.3    | 0.2   |
|                         | <i>n</i>       | 18   | 2      | 20    | 14   | 6      | 20    |
|                         | Household size | 2.4  | 0.5    | 2.2   | 3.0  | 1.6    | 2.7   |
|                         | <i>n</i>       | 19   | 2      | 21    | 15   | 5      | 20    |

**Appendix Table 3.8: Secondary leavers' fathers with post-primary education (%)**

|                  |          | 1990 |        |       | 1995 |        |       |
|------------------|----------|------|--------|-------|------|--------|-------|
|                  |          | Male | Female | Total | Male | Female | Total |
| <b>MALAWI</b>    |          |      |        |       |      |        |       |
| secondary        |          | 48.9 | 67.7   | 56.6  | 67.5 | 74.3   | 70.3  |
|                  | <i>n</i> | 90   | 62     | 152   | 151  | 105    | 256   |
| <b>TANZANIA</b>  |          |      |        |       |      |        |       |
| junior secondary |          | 32.5 | 43.9   | 38.2  | 44.1 | 60.4   | 52.5  |
|                  | <i>n</i> | 126  | 123    | 249   | 143  | 154    | 297   |
| senior secondary |          | 39.3 | 63.1   | 49.4  | 53.3 | 74.3   | 62.7  |
|                  | <i>n</i> | 89   | 65     | 154   | 92   | 74     | 166   |
| <b>UGANDA</b>    |          |      |        |       |      |        |       |
| junior secondary |          | 45.5 | 51.1   | 47.3  | 47.5 | 65.2   | 55.2  |
|                  | <i>n</i> | 99   | 47     | 146   | 120  | 92     | 212   |
| senior secondary |          | 73.5 | 68.8   | 72.0  | 69.5 | 82.3   | 74.5  |
|                  | <i>n</i> | 34   | 16     | 50    | 95   | 62     | 157   |
| <b>ZIMBABWE</b>  |          |      |        |       |      |        |       |
| junior secondary |          | 14.1 | 25.0   | 18.6  | 25.3 | 26.0   | 25.6  |
|                  | <i>n</i> | 198  | 136    | 334   | 221  | 173    | 394   |
| senior secondary |          | 31.6 | 66.7   | 36.4  | 33.3 | 28.6   | 32.1  |
|                  | <i>n</i> | 19   | 3      | 22    | 21   | 7      | 28    |

**Appendix Table 3.9: Return rates among secondary school leavers and worked abroad (%)**

|                 |      | Overseas<br>mid-2001 | Overseas<br>but<br>returned | Total | Returned |
|-----------------|------|----------------------|-----------------------------|-------|----------|
| <b>MALAWI</b>   | 1990 | 10.2                 | 4.6                         | 14.8  | 31.3     |
|                 | 1995 | 11.0                 | 1.7                         | 12.7  | 13.3     |
| <b>TANZANIA</b> | 1990 | 0.2                  | 7.2                         | 7.4   | 97.3     |
|                 | 1995 | 0.6                  | 3.4                         | 4.0   | 85.1     |
| <b>UGANDA</b>   | 1990 | 11.8                 | 1.9                         | 13.7  | 13.7     |
|                 | 1995 | 0.9                  | 1.2                         | 2.1   | 57.5     |
| <b>ZIMBABWE</b> | 1990 | 12.0                 | 3.0                         | 15.0  | 20.2     |
|                 | 1995 | 6.0                  | 1.8                         | 7.8   | 23.5     |

**Appendix Table 4.1: Percentage of secondary school Leavers that received private tuition while at secondary school**

|          | 1990  |        |       |       |        |       | 1995  |        |       |       |        |       |
|----------|-------|--------|-------|-------|--------|-------|-------|--------|-------|-------|--------|-------|
|          | Rural |        |       | Urban |        |       | Rural |        |       | Urban |        |       |
|          | Male  | Female | Total |
| Malawi   | 5.7   | 4.7    | 5.2   | 9.5   | 18.2   | 12.5  | 11.6  | 11.5   | 11.6  | 15.9  | 30.0   | 20.3  |
| <i>n</i> | 53    | 43     | 96    | 63    | 33     | 96    | 86    | 78     | 164   | 88    | 40     | 128   |
| Tanzania | 22.2  | 15.8   | 19.6  | 46.0  | 47.4   | 46.7  | 34.1  | 39.4   | 36.5  | 59.5  | 54.3   | 56.7  |
| <i>n</i> | 135   | 95     | 230   | 126   | 116    | 242   | 126   | 104    | 230   | 111   | 127    | 238   |
| Uganda   | 37.2  | 21.4   | 31.0  | 34.4  | 52.9   | 39.4  | 19.0  | 23.5   | 21.2  | 35.0  | 28.6   | 32.6  |
| <i>n</i> | 43    | 28     | 71    | 93    | 34     | 127   | 84    | 81     | 165   | 143   | 84     | 227   |
| Zimbabwe | 4.3   | 13.2   | 6.8   | 10.2  | 11.0   | 10.6  | 8.8   | 3.0    | 6.5   | 16.7  | 22.5   | 19.3  |
| <i>n</i> | 94    | 38     | 132   | 118   | 100    | 218   | 102   | 66     | 168   | 132   | 111    | 243   |

**Appendix Table 4.2: Percentage of university graduates that received private tuition while at university**

|          | 1980 & 1987 |        |       | 1994 & 1999 |        |       |
|----------|-------------|--------|-------|-------------|--------|-------|
|          | Male        | Female | Total | Male        | Female | Total |
| Malawi   | 1.2         | 0.0    | 1.0   | 2.5         | 2.4    | 2.5   |
| <i>n</i> | 85          | 15     | 100   | 161         | 42     | 203   |
| Tanzania | 0.0         | 0.0    | 0.0   | 2.4         | 3.5    | 2.7   |
| <i>n</i> | 137         | 33     | 170   | 169         | 57     | 226   |
| Uganda   | 1.0         | 0.0    | 0.8   | 7.5         | 2.5    | 6.5   |
| <i>n</i> | 96          | 25     | 121   | 160         | 40     | 200   |
| Zimbabwe | 5.1         | 0.0    | 4.4   | 1.8         | 11.1   | 3.6   |
| <i>n</i> | 79          | 11     | 90    | 113         | 27     | 140   |

**Appendix Table 4.3: Frequency of Additional Training for secondary school leavers**

|                  | Number of courses taken | 1990 |        |       | 1995 |        |       |
|------------------|-------------------------|------|--------|-------|------|--------|-------|
|                  |                         | Male | Female | Total | Male | Female | Total |
| <b>MALAWI</b>    |                         |      |        |       |      |        |       |
| Secondary        | 0                       | 24.7 | 17.1   | 21.5  | 33.8 | 24.5   | 29.9  |
|                  | 1                       | 50.5 | 60.0   | 54.6  | 42.9 | 44.5   | 43.6  |
|                  | 2                       | 15.1 | 15.7   | 15.3  | 18.2 | 25.5   | 21.2  |
|                  | 3                       | 8.6  | 4.3    | 6.7   | 4.5  | 3.6    | 4.2   |
|                  | 4                       | 1.1  | 2.9    | 1.8   | 0.6  | 1.8    | 1.1   |
|                  | <i>n</i>                | 93   | 70     | 163   | 154  | 110    | 264   |
| <b>TANZANIA</b>  |                         |      |        |       |      |        |       |
| Junior secondary | 0                       | 38.9 | 29.3   | 34.1  | 55.2 | 33.8   | 44.1  |
|                  | 1                       | 38.1 | 35.0   | 36.5  | 34.3 | 37.7   | 36.0  |
|                  | 2                       | 15.9 | 30.9   | 23.3  | 8.4  | 24.7   | 16.8  |
|                  | 3                       | 6.3  | 4.9    | 5.6   | 2.1  | 3.9    | 3.0   |
|                  | 5                       | 0.8  | –      | 0.4   | –    | –      | –     |
|                  | <i>n</i>                | 126  | 123    | 249   | 143  | 154    | 297   |
| Senior secondary | 0                       | 25.8 | 10.8   | 19.5  | 26.1 | 13.5   | 20.5  |
|                  | 1                       | 38.2 | 32.3   | 35.7  | 54.3 | 66.2   | 59.6  |
|                  | 2                       | 28.1 | 40.0   | 33.1  | 14.1 | 16.2   | 15.1  |
|                  | 3                       | 6.7  | 15.4   | 10.4  | 5.4  | 1.4    | 3.6   |
|                  | 4                       | 1.1  | 1.5    | 1.3   | –    | 1.4    | 0.6   |
|                  | 5                       | –    | –      | –     | –    | 1.4    | 0.6   |
|                  | <i>n</i>                | 89   | 65     | 154   | 92   | 74     | 166   |
| <b>UGANDA</b>    |                         |      |        |       |      |        |       |
| Junior secondary | 0                       | 30.3 | 40.4   | 33.6  | 31.4 | 27.2   | 29.6  |
|                  | 1                       | 49.5 | 44.7   | 47.9  | 57.9 | 51.1   | 54.9  |
|                  | 2                       | 14.1 | 8.5    | 12.3  | 10.7 | 17.4   | 13.6  |
|                  | 3                       | 5.1  | 6.4    | 5.5   | –    | 4.3    | 1.9   |
|                  | 4                       | 1.0  | –      | 0.7   | –    | –      | –     |
|                  | <i>n</i>                | 99   | 47     | 146   | 121  | 92     | 213   |
| Senior secondary | 0                       | 2.9  | –      | 2.0   | 7.3  | 9.7    | 8.2   |
|                  | 1                       | 20.6 | 31.3   | 24.0  | 32.3 | 21.0   | 27.8  |
|                  | 2                       | 47.1 | 43.8   | 46.0  | 47.9 | 59.7   | 52.5  |
|                  | 3                       | 26.5 | 25.0   | 26.0  | 11.5 | 6.5    | 9.5   |
|                  | 4                       | 2.9  | –      | 2.0   | 1.0  | 1.6    | 1.3   |
|                  | 5                       | –    | –      | –     | –    | 1.6    | 0.6   |
|                  | <i>n</i>                | 34   | 16     | 50    | 96   | 62     | 158   |
| <b>ZIMBABWE</b>  |                         |      |        |       |      |        |       |
| Junior secondary | 0                       | 48.5 | 47.8   | 48.2  | 55.4 | 58.5   | 56.8  |
|                  | 1                       | 42.0 | 36.8   | 39.9  | 35.6 | 29.0   | 32.7  |
|                  | 2                       | 8.0  | 10.3   | 8.9   | 7.2  | 9.1    | 8.0   |
|                  | 3                       | 1.5  | 2.9    | 2.1   | 1.8  | 3.4    | 2.5   |
|                  | 4                       | –    | 2.2    | 0.9   | –    | –      | –     |
|                  | <i>n</i>                | 200  | 136    | 336   | 222  | 176    | 398   |
| Senior secondary | 0                       | –    | –      | –     | 4.8  | –      | 3.6   |
|                  | 1                       | 15.8 | –      | 13.6  | 38.1 | 28.6   | 35.7  |
|                  | 2                       | 63.2 | 33.3   | 59.1  | 47.6 | 57.1   | 50.0  |
|                  | 3                       | 15.8 | 66.7   | 22.7  | 4.8  | 14.3   | 7.1   |
|                  | 4                       | 5.3  | –      | 4.5   | –    | –      | –     |
|                  | 5                       | –    | –      | –     | 4.8  | –      | 3.6   |
|                  | <i>n</i>                | 19   | 3      | 22    | 21   | 7      | 28    |

**Appendix Table 4.4: Mean and median months of full-time FET among university graduates**

|                 | 1980 & 1987 |        |       | 1994 & 1999 |        |       |
|-----------------|-------------|--------|-------|-------------|--------|-------|
|                 | Male        | Female | Total | Male        | Female | Total |
| <b>MALAWI</b>   |             |        |       |             |        |       |
| Mean            | 28.8        | 36.0   | 30.0  | 16.1        | 13.3   | 15.5  |
| Median          | 24.0        | 28.0   | 24.0  | 12.0        | 12.0   | 12.0  |
| <i>n</i>        | 52          | 11     | 63    | 54          | 17     | 71    |
| <b>TANZANIA</b> |             |        |       |             |        |       |
| Mean            | 37.4        | 32.3   | 36.2  | 17.7        | 14.2   | 16.8  |
| Median          | 25.0        | 22.5   | 25.0  | 14.0        | 9.5    | 13.0  |
| <i>n</i>        | 73          | 24     | 97    | 51          | 18     | 69    |
| <b>UGANDA</b>   |             |        |       |             |        |       |
| Mean            | 59.1        | 33.7   | 53.6  | 28.5        | 54.8   | 31.3  |
| Median          | 52          | 31     | 45.5  | 25          | 15.5   | 24.5  |
| <i>n</i>        | 47          | 13     | 60    | 50          | 6      | 56    |
| <b>ZIMBABWE</b> |             |        |       |             |        |       |
| Mean            | 30.6        | 39.6   | 31.8  | 21.5        | 15.4   | 20.1  |
| Median          | 24.0        | 24.0   | 24.0  | 18.0        | 12.0   | 18.0  |
| <i>n</i>        | 31          | 5      | 36    | 30          | 9      | 39    |

**Appendix Table 4.5: Types of FET courses undertaken by 1990 terminal form four leavers**

|   | Malawi      |             |             | Tanzania    |             |             | Uganda     |             |            | Zimbabwe    |             |             |
|---|-------------|-------------|-------------|-------------|-------------|-------------|------------|-------------|------------|-------------|-------------|-------------|
|   | Male        | Female      | Total       | Male        | Female      | Total       | Male       | Female      | Total      | Male        | Female      | Total       |
| Accounting and Banking                      | 22.3        | 17.3        | 20.1        | -           | -           | -           | -          | -           | -          | 4.8         | 4.9         | 4.8         |
| Computing                                   | 4.9         | 4.9         | 4.9         | -           | -           | -           | 1.0        | 0.7         | 5.6        | 8.8         | 7.0         |             |
| Management/ marketing                       | 7.8         | 2.5         | 5.4         | -           | -           | -           | 4.2        | 15.8        | 7.5        | 9.6         | 4.9         | 7.5         |
| <b>Management, accounting and computing</b> | <b>35.0</b> | <b>24.7</b> | <b>30.4</b> | <b>23.1</b> | <b>26.3</b> | <b>24.8</b> | <b>5.2</b> | <b>15.8</b> | <b>8.2</b> | <b>20.0</b> | <b>18.6</b> | <b>19.4</b> |
| Teaching                                    | 23.3        | 17.3        | 20.7        | 14.5        | 14.6        | 14.6        | 36.5       | 18.4        | 31.3       | 7.2         | 4.9         | 6.2         |
| Manual Trades                               | 10.7        | 0.0         | 6.0         | 3.4         | 0.7         | 2.0         | -          | -           | -          | 36.0        | 2.9         | 21.1        |
| Technical and Vocational                    | 0.0         | 0.0         | 0.0         | 11.1        | 7.3         | 9.1         | 31.3       | 34.2        | 32.1       | -           | -           | -           |
| Secretarial/receptionist                    | 1.0         | 23.5        | 10.9        | 0.9         | 10.2        | 5.9         | -          | -           | -          | 1.6         | 24.5        | 11.9        |
| Nursing/health                              | 5.8         | 25.9        | 14.7        | 4.3         | 9.5         | 7.1         | 10.4       | 15.8        | 11.9       | 2.4         | 9.8         | 5.7         |
| Garments/ textiles / tailoring              | 0.0         | 1.2         | 0.5         | -           | -           | -           | -          | -           | -          | 2.4         | 23.5        | 11.9        |
| Agriculture                                 | 1.0         | 0.0         | 0.5         | -           | -           | -           | -          | -           | -          | 1.6         | -           | 0.9         |
| Tourism and catering                        | 4.9         | 3.7         | 4.3         | -           | -           | -           | -          | -           | -          | 1.6         | 3.9         | 2.6         |
| Police/military/security                    | 3.9         | 0.0         | 2.2         | 21.4        | 16.1        | 18.5        | -          | -           | -          | 4.0         | 3.9         | 4.0         |
| Retail                                      | 2.9         | 1.2         | 2.2         | -           | -           | -           | -          | -           | -          | 4.0         | -           | 2.2         |
| Other                                       | 11.7        | 2.5         | 7.6         | 21.4        | 15.3        | 18.1        | 16.7       | 15.8        | 16.4       | 19.2        | 7.8         | 14.1        |
| <i>n</i>                                    | 103         | 81          | 184         | 117         | 137         | 25          | 96         | 38          | 134        | 125         | 102         | 227         |

**Appendix Table 4.6 : Private courses taken by junior secondary leavers as a proportion of total FET courses**

|          | 1990       |            |            | 1995       |            |            |
|----------|------------|------------|------------|------------|------------|------------|
|          | Male       | Female     | Total      | Male       | Female     | Total      |
| Malawi   | 22.3       | 33.3       | 27.1       | 33.6       | 51.3       | 41.8       |
| <i>n</i> | 103        | 78         | 181        | 134        | 117        | 251        |
| Tanzania | 44.4       | 48.9       | 46.9       | 53.7       | 71.1       | 65.0       |
| <i>n</i> | 117        | 137        | 254        | 82         | 152        | 234        |
| Zimbabwe | 62.0       | 66.0       | 63.6       | 64.0       | 80.0       | 71.0       |
| <i>n</i> | <i>n.a</i> | <i>n.a</i> | <i>n.a</i> | <i>n.a</i> | <i>n.a</i> | <i>n.a</i> |

Note: Data for Zimbabwe taken from Table 16 of the Zimbabwe study. Sample sizes were not available.

**Appendix Table 4.7: Percentage of graduates with FET who have studied overseas**

|          | 1980 & 1987 |        |       | 1994 & 1999 |        |       |
|----------|-------------|--------|-------|-------------|--------|-------|
|          | Male        | Female | Total | Male        | Female | Total |
| Malawi   | 74.3        | 80.0   | 75.3  | 36.6        | 29.6   | 35.0  |
| <i>n</i> | 74          | 15     | 89    | 93          | 27     | 120   |
| Tanzania | 54.8        | 54.2   | 54.6  | 23.5        | 38.9   | 27.5  |
| <i>n</i> | 73          | 24     | 97    | 51          | 18     | 69    |
| Uganda   | 36.8        | 33.3   | 36.0  | 18.3        | 15.8   | 17.9  |
| <i>n</i> | 68          | 18     | 86    | 93          | 19     | 112   |
| Zimbabwe | 46.0        | 40.0   | 45.2  | 13.2        | 16.7   | 14.0  |
| <i>n</i> | 63          | 10     | 73    | 68          | 18     | 86    |

Note: 1987 cohort for Uganda is actually 1988.

**Appendix Table 4.8: Percentage of graduates with FET that have studied overseas**

|          | 1980 & 1987 |        |       | 1994 & 1999 |        |       |
|----------|-------------|--------|-------|-------------|--------|-------|
|          | Male        | Female | Total | Male        | Female | Total |
| Malawi   | 74.3        | 76.9   | 74.7  | 37.0        | 29.6   | 35.3  |
| <i>n</i> | 74          | 13     | 87    | 92          | 27     | 119   |
| Tanzania | 54.8        | 54.2   | 54.6  | 23.5        | 38.9   | 27.5  |
| <i>n</i> | 73          | 24     | 97    | 51          | 18     | 69    |
| Uganda   | 38.8        | 33.3   | 37.6  | 18.7        | 16.7   | 18.3  |
| <i>n</i> | 67          | 18     | 85    | 91          | 18     | 109   |
| Zimbabwe | 46.0        | 40.0   | 45.2  | 13.2        | 16.7   | 14.0  |
| <i>n</i> | 63          | 10     | 73    | 68          | 18     | 86    |

**Appendix Table A5.1: Percentage of leavers with good and bad grades in their junior secondary examination by activity**

|                                 | Junior Secondary School Leavers |        |       |      |        |       | Senior Secondary School Leavers |        |       |      |        |       |
|---------------------------------|---------------------------------|--------|-------|------|--------|-------|---------------------------------|--------|-------|------|--------|-------|
|                                 | 1990                            |        |       | 1995 |        |       | 1990                            |        |       | 1995 |        |       |
|                                 | Male                            | Female | Total | Male | Female | Total | Male                            | Female | Total | Male | Female | Total |
| <b>TANZANIA</b>                 |                                 |        |       |      |        |       |                                 |        |       |      |        |       |
| Wage salary                     |                                 |        |       |      |        |       |                                 |        |       |      |        |       |
| good grade                      | 57                              | 66     | 60    | 25   | 65     | 38    | 58                              | 64     | 61    | 11   | 26     | 16    |
| poor grade                      | 46                              | 52     | 49    | 27   | 42     | 36    | 40                              | 94     | 74    | 29   | 36     | 33    |
| Self-employed                   |                                 |        |       |      |        |       |                                 |        |       |      |        |       |
| good grade                      | 36                              | 17     | 29    | 55   | 15     | 42    | 32                              | 21     | 29    | 12   | 0      | 8     |
| poor grade                      | 41                              | 19     | 29    | 38   | 16     | 26    | 50                              | 18     | 30    | 12   | 18     | 16    |
| Looking for work                |                                 |        |       |      |        |       |                                 |        |       |      |        |       |
| good grade                      | 5                               | 0      | 3     | 16   | 5      | 13    | 1                               | 2      | 2     | 16   | 5      | 12    |
| poor grade                      | 4                               | 8      | 6     | 17   | 12     | 14    | 10                              | 6      | 7     | 18   | 7      | 11    |
| Unemployed not looking for work |                                 |        |       |      |        |       |                                 |        |       |      |        |       |
| good grade                      | 2                               | 9      | 4     | 2    | 5      | 3     | 0                               | 0      | 0     | 0    | 2      | 1     |
| poor grade                      | 4                               | 15     | 10    | 5    | 14     | 10    | 0                               | 0      | 0     | 0    | 4      | 2     |
| <i>n</i>                        |                                 |        |       |      |        |       |                                 |        |       |      |        |       |
| <i>good grade</i>               | 56                              | 35     | 91    | 44   | 20     | 64    | 77                              | 42     | 119   | 75   | 43     | 118   |
| <i>poor grade</i>               | 70                              | 88     | 158   | 99   | 134    | 233   | 10                              | 17     | 27    | 17   | 28     | 45    |
| <b>UGANDA</b>                   |                                 |        |       |      |        |       |                                 |        |       |      |        |       |
| Wage salary                     |                                 |        |       |      |        |       |                                 |        |       |      |        |       |
| good grade                      | 77                              | 11     | 64    | 64   | 63     | 64    | 57                              | 73     | 61    | 36   | 40     | 37    |
| poor grade                      | 41                              | 47     | 43    | 51   | 59     | 54    | 75                              | 60     | 67    | 54   | 37     | 47    |
| Self-employed                   |                                 |        |       |      |        |       |                                 |        |       |      |        |       |
| good grade                      | 17                              | 67     | 27    | 23   | 12     | 18    | 30                              | 9      | 24    | 19   | 5      | 14    |
| poor grade                      | 53                              | 24     | 42    | 38   | 12     | 27    | 25                              | 40     | 33    | 17   | 11     | 14    |
| Looking for work                |                                 |        |       |      |        |       |                                 |        |       |      |        |       |
| good grade                      | 6                               | 0      | 5     | 11   | 10     | 11    | 7                               | 9      | 7     | 13   | 19     | 15    |
| poor grade                      | 6                               | 8      | 7     | 10   | 10     | 10    | 0                               | 0      | 0     | 4    | 5      | 5     |
| Unemployed not looking for work |                                 |        |       |      |        |       |                                 |        |       |      |        |       |
| good grade                      | 0                               | 22     | 5#    | 2    | 12     | 7     | 0                               | 0      | 0#    | 1    | 9      | 4     |
| poor grade                      | 0                               | 18     | 7#    | 1    | 14     | 6     | 0                               | 0      | 0#    | 4    | 16     | 9     |
| <i>n</i>                        |                                 |        |       |      |        |       |                                 |        |       |      |        |       |
| <i>good grade</i>               | 35                              | 9      | 44    | 44   | 41     | 85    | 30                              | 11     | 41    | 72   | 43     | 115   |
| <i>poor grade</i>               | 64                              | 38     | 102   | 77   | 51     | 128   | 4                               | 5      | 9     | 24   | 19     | 43    |
| <b>MALAWI</b>                   |                                 |        |       |      |        |       |                                 |        |       |      |        |       |
| Wage salary                     |                                 |        |       |      |        |       |                                 |        |       |      |        |       |
| good grade                      | 87                              | 85     | 86    | 75   | 76     | 75    |                                 |        |       |      |        |       |
| poor grade                      | 58                              | 81     | 70    | 68   | 63     | 66    |                                 |        |       |      |        |       |
| Self-employed                   |                                 |        |       |      |        |       |                                 |        |       |      |        |       |
| good grade                      | 8                               | 7      | 8     | 9    | 5      | 8     |                                 |        |       |      |        |       |
| poor grade                      | 25                              | 2      | 13    | 24   | 6      | 14    |                                 |        |       |      |        |       |
| Looking for work                |                                 |        |       |      |        |       |                                 |        |       |      |        |       |
| good grade                      | 6                               | 4      | 5     | 10   | 8      | 9     |                                 |        |       |      |        |       |
| poor grade                      | 15                              | 14     | 15    | 6    | 18     | 13    |                                 |        |       |      |        |       |
| Unemployed not looking for work |                                 |        |       |      |        |       |                                 |        |       |      |        |       |
| good grade                      | 0                               | 4      | 1     | 0    | 3      | 1     |                                 |        |       |      |        |       |
| poor grade                      | 3                               | 2      | 2     | 0    | 8      | 4     |                                 |        |       |      |        |       |
| <i>n</i>                        |                                 |        |       |      |        |       |                                 |        |       |      |        |       |
| <i>good grade</i>               | 53                              | 27     | 80    | 91   | 38     | 129   |                                 |        |       |      |        |       |
| <i>poor grade</i>               | 40                              | 42     | 82    | 63   | 71     | 134   |                                 |        |       |      |        |       |
| <b>ZIMBABWE</b>                 |                                 |        |       |      |        |       |                                 |        |       |      |        |       |
| Wage salary                     |                                 |        |       |      |        |       |                                 |        |       |      |        |       |
| good grade                      | 65                              | 62     | 64    | 42   | 42     | 42    | 78                              | 100    | 80    | 58   | 71     | 62    |
| poor grade                      | 32                              | 14     | 23    | 40   | 17     | 29    | -                               | 100    | 100   | 100  | -      | 100   |
| Self-employed                   |                                 |        |       |      |        |       |                                 |        |       |      |        |       |
| good grade                      | 19                              | 15     | 18    | 26   | 14     | 22    | 0                               | 0      | 0     | 0    | 0      | 0     |
| poor grade                      | 35                              | 34     | 35    | 21   | 27     | 24    | -                               | 0      | 0     | 0    | -      | 0     |
| Looking for work                |                                 |        |       |      |        |       |                                 |        |       |      |        |       |
| good grade                      | 13                              | 15     | 14    | 19   | 26     | 22    | 17                              | 0      | 15    | 32   | 14     | 27    |
| poor grade                      | 22                              | 22     | 22    | 24   | 22     | 23    | -                               | 0      | 0     | 0    | -      | 0     |
| Unemployed not looking for work |                                 |        |       |      |        |       |                                 |        |       |      |        |       |
| good grade                      | 1                               | 4      | 2     | 4    | 14     | 8     | -                               | -      | -     | -    | -      | -     |
| poor grade                      | 11                              | 30     | 20    | 11   | 33     | 22    | -                               | -      | -     | -    | -      | -     |
| <i>n</i>                        |                                 |        |       |      |        |       |                                 |        |       |      |        |       |
| <i>good grade</i>               | 112                             | 52     | 164   | 118  | 77     | 195   | 18                              | 2      | 20    | 19   | 7      | 26    |
| <i>poor grade</i>               | 82                              | 74     | 156   | 94   | 90     | 184   | 0                               | 1      | 1     | 1    | 0      | 1     |

Note: Examination results for respondents in full-time education and training are excluded from this table.

**Appendix Table A5.2: Percentage of wage employees by sector of employment, junior secondary school leavers**

|                    | 1990 |        |       | 1995 |        |       |
|--------------------|------|--------|-------|------|--------|-------|
|                    | Male | Female | Total | Male | Female | Total |
| <b>MALAWI</b>      |      |        |       |      |        |       |
| Central government | 42.0 | 43.9   | 42.9  | 17.3 | 28.4   | 21.7  |
| Local government   | 2.9  | 5.3    | 4.0   | 2.7  | 2.7    | 2.7   |
| Parastatal         | 7.2  | 8.8    | 7.9   | 9.1  | 10.8   | 9.8   |
| Private            | 47.8 | 42.1   | 45.2  | 70.9 | 58.1   | 65.8  |
| <i>n</i>           | 69   | 57     | 126   | 110  | 74     | 184   |
| <b>TANZANIA</b>    |      |        |       |      |        |       |
| Central government | 17.2 | 20.3   | 18.8  | 21.6 | 4.3    | 10.4  |
| Local government   | 14.1 | 26.1   | 20.3  | 10.8 | 10.1   | 10.4  |
| Parastatal         | 14.1 | 7.2    | 10.5  | 8.1  | 4.3    | 5.7   |
| Private            | 54.7 | 46.4   | 50.4  | 59.5 | 81.2   | 73.6  |
| <i>n</i>           | 64   | 69     | 133   | 37   | 69     | 106   |
| <b>UGANDA</b>      |      |        |       |      |        |       |
| Central government | 49.0 | 30.0   | 43.7  | 49.2 | 48.1   | 48.7  |
| Local government   | 17.6 | 15.0   | 16.9  | 20.0 | 13.0   | 16.8  |
| Parastatal         | 5.9  | 5.0    | 5.6   | 0.0  | 0.0    | 0.0   |
| Private            | 27.5 | 50.0   | 33.8  | 30.8 | 38.9   | 34.5  |
| <i>n</i>           | 51   | 20     | 71    | 65   | 54     | 119   |
| <b>ZIMBABWE</b>    |      |        |       |      |        |       |
| Central government | 13.3 | 11.9   | 12.9  | 10.3 | 4.3    | 8.3   |
| Local government   | 9.2  | 9.5    | 9.3   | 2.3  | 10.9   | 5.3   |
| Parastatal         | 9.2  | 2.4    | 7.1   | 5.7  | 2.2    | 4.5   |
| Private            | 68.4 | 76.2   | 70.7  | 81.6 | 82.6   | 82.0  |
| <i>n</i>           | 98   | 42     | 140   | 87   | 46     | 133   |

**Appendix Table A5.3: Percentage of wage employees by public and private sector (University Graduates)**

|                    | 1980 & 1987 |        |       | 1994 & 1999 |        |       |
|--------------------|-------------|--------|-------|-------------|--------|-------|
|                    | Male        | Female | Total | Male        | Female | Total |
| <b>MALAWI</b>      |             |        |       |             |        |       |
| Central government | 41          | 13     | 36    | 28          | 37     | 30    |
| Local government   | 0           | 0      | 0     | 3           | 3      | 3     |
| Parastatal         | 22          | 44     | 25    | 18          | 20     | 19    |
| Private            | 38          | 44     | 39    | 51          | 40     | 49    |
| <i>n</i>           | 79          | 16     | 95    | 159         | 35     | 194   |
| <b>TANZANIA</b>    |             |        |       |             |        |       |
| Central government | 38          | 47     | 39    | 30          | 26     | 29    |
| Local government   | 2           | 3      | 2     | 6           | 6      | 6     |
| Parastatal         | 30          | 30     | 30    | 15          | 37     | 21    |
| Private            | 31          | 20     | 29    | 48          | 31     | 44    |
| <i>n</i>           | 122         | 30     | 152   | 141         | 54     | 195   |
| <b>UGANDA</b>      |             |        |       |             |        |       |
| Central government | 53          | 52     | 53    | 36          | 56     | 40    |
| Local government   | 6           | 12     | 7     | 9           | 3      | 8     |
| Parastatal         | 20          | 20     | 20    | 17          | 8      | 16    |
| Private            | 21          | 16     | 20    | 38          | 33     | 37    |
| <i>n</i>           | 89          | 25     | 114   | 151         | 36     | 187   |
| <b>ZIMBABWE</b>    |             |        |       |             |        |       |
| Central government | 21          | 38     | 22    | 40          | 61     | 44    |
| Local government   | 4           | 13     | 5     | 5           | 0      | 4     |
| Parastatal         | 31          | 13     | 29    | 9           | 4      | 8     |
| Private            | 44          | 38     | 43    | 46          | 35     | 44    |
| <i>n</i>           | 68          | 8      | 76    | 104         | 23     | 127   |

**Appendix Table 5.4: Occupational profile of senior secondary school leavers in wage employment**

|                     | 1990 |        |       | 1995 |        |       |
|---------------------|------|--------|-------|------|--------|-------|
|                     | Male | Female | Total | Male | Female | Total |
| <b>TANZANIA</b>     |      |        |       |      |        |       |
| Professional        | 43.9 | 66.7   | 55.4  | 30.0 | 70.0   | 56.7  |
| <i>o/w Teachers</i> | 33.3 | 21.4   | 26.1  | 33.3 | 35.7   | 35.3  |
| Skilled non-manual  | 39.0 | 26.2   | 32.5  | 50.0 | 30.0   | 36.7  |
| Skilled manual      | 12.2 | 4.8    | 8.4   | 10.0 | 0.0    | 3.3   |
| Unskilled           | 4.9  | 2.4    | 3.6   | 10.0 | 0.0    | 3.3   |
| <i>n</i>            | 41   | 42     | 83    | 10   | 20     | 30    |
| <b>UGANDA</b>       |      |        |       |      |        |       |
| Professional        | 65   | 100    | 77    | 85   | 63     | 76    |
| <i>o/w Teachers</i> | 69   | 73     | 71    | 70   | 87     | 75    |
| Skilled non-manual  | 25   | 0      | 16    | 8    | 29     | 16    |
| Skilled manual      | 10   | 0      | 6     | 5    | 4      | 5     |
| Unskilled           | 0    | 0      | 0     | 3    | 4      | 3     |
| <i>n</i>            | 20   | 11     | 31    | 39   | 24     | 63    |
| <b>ZIMBABWE</b>     |      |        |       |      |        |       |
| Professional        | 47   | 67     | 50    | 58   | 60     | 59    |
| Skilled non-manual  | 33   | 33     | 33    | 25   | 40     | 29    |
| Skilled manual      | 20   |        | 17    | 17   |        | 12    |
| Unskilled           |      |        |       |      |        |       |
| <i>n</i>            | 15   | 3      | 18    | 12   | 5      | 17    |

**Appendix Table 5.5: Occupational profile of university graduates in wage employment (per cent)**

|                     | 1980 & 1987 |        |       | 1994 & 1999 |        |       |
|---------------------|-------------|--------|-------|-------------|--------|-------|
|                     | Male        | Female | Total | Male        | Female | Total |
| <b>MALAWI</b>       |             |        |       |             |        |       |
| Professional        | 99          | 100    | 99    | 98          | 100    | 98    |
| <i>o/w teachers</i> | 1           | 0      | 1     | 9           | 17     | 10    |
| Skilled non-manual  | 1           | 0      | 1     | 1           | 0      | 1     |
| Skilled manual      | 0           | 0      | 0     | 1           | 0      | 1     |
| <i>n</i>            | 75          | 15     | 90    | 154         | 35     | 189   |
| <b>TANZANIA</b>     |             |        |       |             |        |       |
| Professional        | 96          | 97     | 96    | 96          | 89     | 94    |
| <i>o/w teachers</i> | 16          | 6      | 14    | 18          | 11     | 16    |
| Skilled non-manual  | 4           | 3      | 4     | 4           | 11     | 6     |
| Skilled manual      | 0           | 0      | 0     | 1           | 0      | 1     |
| <i>n</i>            | 122         | 32     | 154   | 141         | 53     | 194   |
| <b>UGANDA</b>       |             |        |       |             |        |       |
| Professional        | 97          | 100    | 98    | 98          | 100    | 98    |
| <i>o/w teachers</i> | 14          | 36     | 19    | 19          | 54     | 26    |
| Skilled non-manual  | 1           | 0      | 1     | 0           | 0      | 0     |
| Skilled manual      | 2           | 0      | 2     | 2           | 0      | 2     |
| <i>n</i>            | 96          | 25     | 121   | 157         | 37     | 194   |
| <b>ZIMBABWE</b>     |             |        |       |             |        |       |
| Professional        | 100         | 100    | 100   | 100         | 100    | 100   |
| <i>n</i>            | 61          | 8      | 69    | 102         | 22     | 124   |

Note: 1987 cohort for Uganda is actually 1988. It was not possible to separate teachers from other professionals in Zimbabwe.

**Appendix Table 5.6: Number of employees of self employed junior secondary school leavers (%)**

|          | 0  | 1  | 2  | 3  | > 3 | n   |
|----------|----|----|----|----|-----|-----|
| Malawi   | 48 | 7  | 16 | 9  | 20  | 44  |
| Tanzania | 12 | 26 | 23 | 14 | 25  | 155 |
| Uganda   | 52 | 11 | 8  | 9  | 20  | 100 |
| Zimbabwe | 61 | 14 | 9  | 7  | 9   | 139 |

**Appendix Table 5.7: Average months spent in first wage and self employment period, university graduates**

|                 | 1980 & 1987 |        |       | 1994 & 1999 |        |       |
|-----------------|-------------|--------|-------|-------------|--------|-------|
|                 | Male        | Female | Total | Male        | Female | Total |
| <b>Malawi</b>   |             |        |       |             |        |       |
| employment      | 65.6        | 75.6   | 67.3  | 16.5        | 17.4   | 16.7  |
| <i>n</i>        | 40          | 8      | 48    | 91          | 25     | 116   |
| Self-employment | 17.7        | -      | 17.7  | 5.0         | 4.0    | 4.3   |
| <i>n</i>        | 3           | -      | 3     | 1           | 2      | 3     |
| Wage employment | 55.7        | 57.5   | 56.1  | 19.1        | 15.5   | 18.1  |
| <i>n</i>        | 131         | 30     | 161   | 80          | 28     | 108   |
| Self-employment | 28          | 12     | 24    | 6           | 5      | 5.8   |
| <i>n</i>        | 3           | 1      | 4     | 4           | 1      | 5     |
| <b>Uganda</b>   |             |        |       |             |        |       |
| Wage employment | 39.2        | 35.2   | 38.4  | 12.6        | 15.2   | 13.1  |
| <i>n</i>        | 75          | 17     | 92    | 97          | 21     | 118   |
| Self-employment | 18.5        | 5.0    | 16.6  | 12.5        | 18.0   | 13.0  |
| <i>n</i>        | 6           | 1      | 7     | 11          | 1      | 12    |

Note: Zimbabwe data unavailable. 1987 cohort for Uganda is actually 1988.

**Appendix Table 5.8: Average months spent in first wage and self employment period, secondary school leavers**

|                                 | 1990 |        |       | 1995 |        |       |
|---------------------------------|------|--------|-------|------|--------|-------|
|                                 | Male | Female | Total | Male | Female | Total |
| <b>JUNIOR SECONDARY LEAVERS</b> |      |        |       |      |        |       |
| <b>Malawi</b>                   |      |        |       |      |        |       |
| Wage employment                 | 29.3 | 20.5   | 25.9  | 15.2 | 14.6   | 15.0  |
| <i>n</i>                        | 33   | 21     | 54    | 64   | 36     | 100   |
| Self-employment                 | 16.3 | 13.5   | 15.6  | 15.0 | 13.8   | 14.7  |
| <i>n</i>                        | 12   | 4      | 16    | 18   | 6      | 24    |
| <b>Tanzania</b>                 |      |        |       |      |        |       |
| Wage employment                 | 26.1 | 31.5   | 28.7  | 11.5 | 16.4   | 14.5  |
| <i>n</i>                        | 43   | 39     | 82    | 20   | 32     | 52    |
| Self-employment                 | 36.5 | 33.4   | 35.4  | 23.2 | 22.8   | 23.1  |
| <i>n</i>                        | 31   | 16     | 47    | 33   | 23     | 56    |
| <b>Uganda</b>                   |      |        |       |      |        |       |
| Wage employment                 | 20.2 | 16.2   | 19.3  | 11.4 | 10.3   | 10.8  |
| <i>n</i>                        | 67   | 20     | 87    | 37   | 39     | 76    |
| Self-employment                 | 21.9 | 18.2   | 21.1  | 13.8 | 11.7   | 13.4  |
| <i>n</i>                        | 38   | 10     | 48    | 33   | 7      | 40    |
| <b>SENIOR SECONDARY LEAVERS</b> |      |        |       |      |        |       |
| <b>Tanzania</b>                 |      |        |       |      |        |       |
| Wage employment                 | 26.2 | 20.2   | 23.4  | 14.6 | 8.1    | 10.3  |
| <i>n</i>                        | 26   | 22     | 48    | 5    | 10     | 15    |
| Self-employment                 | 31.9 | 21.2   | 27.3  | 12.9 | 18.4   | 15.2  |
| <i>n</i>                        | 18   | 14     | 32    | 10   | 7      | 17    |
| <b>Uganda</b>                   |      |        |       |      |        |       |
| Wage employment                 | 14.2 | 22.6   | 16.5  | 4.9  | 6.4    | 5.4   |
| <i>n</i>                        | 29   | 11     | 40    | 40   | 22     | 62    |
| Self-employment                 | 13.7 | 9.5    | 12.8  | 5.5  | 10.7   | 7.2   |
| <i>n</i>                        | 7    | 2      | 9     | 22   | 10     | 32    |

Note: Zimbabwe data unavailable.

**Appendix Table 5.9: Secondary employment among waged university graduates by employment sector (per cent)**

|                 | 1980 & 1987 |         |       | 1994 & 1999 |         |       |
|-----------------|-------------|---------|-------|-------------|---------|-------|
|                 | Public      | Private | Total | Public      | Private | Total |
| <b>MALAWI</b>   |             |         |       |             |         |       |
| Part-time wage  | 14.0        | 8.1     | 11.7  | 16.5        | 7.4     | 12.0  |
| <i>n</i>        | 57          | 37      | 94    | 97          | 94      | 191   |
| Part-time self- | 16.3        | 26.5    | 20.5  | 13.6        | 16.7    | 15.1  |
| <i>n</i>        | 49          | 34      | 83    | 81          | 78      | 159   |
| <b>TANZANIA</b> |             |         |       |             |         |       |
| Part-time wage  | 12.0        | 6.8     | 10.5  | 9.1         | 9.4     | 9.2   |
| <i>n</i>        | 108         | 44      | 152   | 110         | 85      | 195   |
| Part-time self- | 35.2        | 29.5    | 33.6  | 25.5        | 22.4    | 24.1  |
| <i>n</i>        | 108         | 44      | 152   | 110         | 85      | 195   |
| <b>UGANDA</b>   |             |         |       |             |         |       |
| Part-time wage  | 24.2        | 13.0    | 21.9  | 20.3        | 14.5    | 18.2  |
| <i>n</i>        | 91          | 23      | 114   | 118         | 69      | 187   |
| Part-time self- | 52.7        | 43.5    | 50.9  | 27.1        | 21.7    | 25.1  |
| <i>n</i>        | 91          | 23      | 114   | 118         | 69      | 187   |
| <b>ZIMBABWE</b> |             |         |       |             |         |       |
| Part-time wage  | 26.8        | 18.5    | 23.5  | 24.3        | 9.7     | 17.9  |
| <i>n</i>        | 41          | 27      | 68    | 70          | 53      | 123   |
| Part-time self- | 48.8        | 25.9    | 39.7  | 15.7        | 18.9    | 17.1  |
| <i>n</i>        | 41          | 27      | 68    | 70          | 53      | 123   |

Note: 1987 cohort for Uganda is actually 1988.

**Appendix Table 6.1: Percentage of university graduates ever unemployed and looking for work**

|                 | 1980 & 1987 |        |       | 1994 & 1999 |        |       |
|-----------------|-------------|--------|-------|-------------|--------|-------|
|                 | Male        | Female | Total | Male        | Female | Total |
| <b>MALAWI</b>   |             |        |       |             |        |       |
| Accountancy     | 18          | 0      | 14    | 52          | 43     | 50    |
| <i>n</i>        | 17          | 5      | 22    | 29          | 7      | 36    |
| Agriculture     | 28          | 33     | 29    | 40          | 75     | 48    |
| <i>n</i>        | 18          | 3      | 21    | 25          | 8      | 33    |
| Economics       | 15          | 33     | 19    | 73          | 100    | 78    |
| <i>n</i>        | 13          | 3      | 16    | 37          | 8      | 45    |
| Education       | 44          | 17     | 38    | 13          | 38     | 22    |
| <i>n</i>        | 18          | 6      | 24    | 24          | 13     | 37    |
| Engineering     | 22          | -      | 22    | 41          | -      | 41    |
| <i>n</i>        | 23          | -      | 23    | 32          | -      | 32    |
| Medicine        | -           | -      | -     | 0           | 0      | 0     |
| <i>n</i>        | -           | -      | -     | 21          | 6      | 27    |
| <b>TANZANIA</b> |             |        |       |             |        |       |
| Agriculture     | 67          | 36     | 58    | 61          | 50     | 58    |
| <i>n</i>        | 27          | 11     | 38    | 36          | 12     | 48    |
| Commerce        | 21          | 11     | 18    | 39          | 42     | 40    |
| <i>n</i>        | 24          | 9      | 33    | 36          | 12     | 48    |
| Education       | 48          | 63     | 51    | 18          | 20     | 18    |
| <i>n</i>        | 29          | 8      | 37    | 34          | 10     | 44    |
| Engineering     | 17          | 0      | 16    | 72          | 71     | 72    |
| <i>n</i>        | 30          | 1      | 31    | 32          | 7      | 39    |
| Medicine        | 37          | 25     | 35    | 6           | 6      | 6     |
| <i>n</i>        | 27          | 4      | 31    | 31          | 16     | 47    |
| <b>UGANDA</b>   |             |        |       |             |        |       |
| Agriculture     | 28          | 75     | 36    | 57          | 70     | 60    |
| <i>n</i>        | 18          | 4      | 22    | 30          | 10     | 40    |
| Commerce        | 25          | 50     | 30    | 33          | 83     | 39    |
| <i>n</i>        | 24          | 6      | 30    | 43          | 6      | 49    |
| Education       | 15          | 67     | 36    | 28          | 55     | 39    |
| <i>n</i>        | 13          | 9      | 22    | 29          | 20     | 49    |
| Engineering     | 47          | 0      | 44    | 79          | 100    | 79    |
| <i>n</i>        | 15          | 1      | 16    | 33          | 1      | 34    |
| Medicine        | 12          | 0      | 10    | 8           | 33     | 11    |
| <i>n</i>        | 26          | 5      | 31    | 25          | 3      | 28    |
| <b>ZIMBABWE</b> |             |        |       |             |        |       |
| Accountancy     | 0           | 0      | 0     | 26          | 20     | 25    |
| <i>n</i>        | 15          | 1      | 16    | 23          | 5      | 28    |
| Agriculture     | 25          | 0      | 23    | 57          | 43     | 52    |
| <i>n</i>        | 12          | 1      | 13    | 14          | 7      | 21    |
| Economics       | 0           | 20     | 4     | 37          | 27     | 34    |
| <i>n</i>        | 18          | 5      | 23    | 27          | 11     | 38    |
| Medicine        | 7           | 0      | 6     | 0           | 0      | 0     |
| <i>n</i>        | 14          | 4      | 18    | 21          | 3      | 24    |
| Engineering     | 0           | 0      | 0     | 45          | 0      | 43    |
| <i>n</i>        | 22          | 0      | 22    | 29          | 1      | 30    |

Note: 1987 cohort for Uganda is actually 1988.

**Appendix Table 6.2: Average duration of first unemployment and looking for work university graduates (months)**

|          | 1980 & 1987 |        |       | 1994 & 1999 |        |       |
|----------|-------------|--------|-------|-------------|--------|-------|
|          | Male        | Female | Total | Male        | Female | Total |
| Malawi   | 6           | 10     | 6     | 5           | 7      | 6     |
| <i>n</i> | 21          | 3      | 24    | 66          | 21     | 87    |
| Tanzania | 9           | 3      | 8     | 8           | 9      | 8     |
| <i>n</i> | 52          | 11     | 63    | 63          | 19     | 82    |
| Uganda   | 9           | 14     | 10    | 8           | 8      | 8     |
| <i>n</i> | 16          | 8      | 24    | 59          | 22     | 81    |
| Zimbabwe | 1           | 1      | 1     | 1           | 3      | 2     |
| <i>n</i> | 79          | 11     | 90    | 111         | 26     | 137   |

Note: 1987 cohort for Uganda is actually 1988.

**Appendix Table 6.3: Percentage of time spent unemployed and looking for work in first five years since leaving university**

|          | 1980 |        |       | 1987 |        |       | 1994 |        |       |
|----------|------|--------|-------|------|--------|-------|------|--------|-------|
|          | Male | Female | Total | Male | Female | Total | Male | Female | Total |
| Malawi   | 1    | 0      | 1     | 8    | 5      | 7     | 5    | 10     | 6     |
| <i>n</i> | 40   | 5      | 45    | 33   | 9      | 42    | 72   | 18     | 90    |
| Tanzania | 4    | 1      | 4     | 3    | 1      | 3     | 8    | 6      | 7     |
| <i>n</i> | 75   | 14     | 89    | 62   | 19     | 81    | 77   | 34     | 111   |
| Uganda   | 2    | 0      | 1     | 1    | 3      | 1     | 4    | 8      | 4     |
| <i>n</i> | 37   | 5      | 42    | 59   | 20     | 79    | 81   | 18     | 99    |

Note: Data for Zimbabwe unavailable. 1987 cohort for Uganda is actually 1988.

**Appendix Table 7.1: Total monthly income for wage and self employed secondary school leavers (\$PPP)**

|                                 | WAGE EMPLOYMENT |        |       |      |        |       | SELF-EMPLOYMENT |        |       |      |        |       |
|---------------------------------|-----------------|--------|-------|------|--------|-------|-----------------|--------|-------|------|--------|-------|
|                                 | 1990            |        |       | 1995 |        |       | 1990            |        |       | 1995 |        |       |
|                                 | Male            | Female | Total | Male | Female | Total | Male            | Female | Total | Male | Female | Total |
| <b>Junior Secondary Leavers</b> |                 |        |       |      |        |       |                 |        |       |      |        |       |
| Malawi                          | 499             | 587    | 536   | 466  | 436    | 454   | 619             | 372    | 578   | 307  | 224    | 288   |
| <i>n</i>                        | 60              | 44     | 104   | 97   | 61     | 158   | 10              | 2      | 12    | 20   | 6      | 26    |
| Tanzania                        | 271             | 249    | 260   | 205  | 211    | 209   | 175             | 133    | 161   | 100  | 124    | 107   |
| <i>n</i>                        | 64              | 69     | 133   | 36   | 68     | 104   | 47              | 23     | 70    | 59   | 25     | 84    |
| Uganda                          | 392             | 229    | 345   | 247  | 226    | 237   | 276             | 272    | 275   | 189  | 101    | 173   |
| <i>n</i>                        | 47              | 19     | 66    | 59   | 52     | 111   | 36              | 11     | 47    | 36   | 8      | 44    |
| Zimbabwe                        | 1777            | 1594   | 1721  | 1194 | 1059   | 1147  | 923             | 652    | 811   | 730  | 888    | 792   |
| <i>n</i>                        | 96              | 43     | 139   | 86   | 45     | 131   | 47              | 33     | 80    | 49   | 32     | 81    |
| <b>Senior Secondary Leavers</b> |                 |        |       |      |        |       |                 |        |       |      |        |       |
| Tanzania                        | 385             | 374    | 380   | 230  | 251    | 243   | 127             | 102    | 120   | 91   | 154    | 111   |
| <i>n</i>                        | 47              | 40     | 87    | 13   | 20     | 33    | 30              | 12     | 42    | 11   | 5      | 16    |
| Uganda                          | 514             | 567    | 533   | 338  | 311    | 327   | 454             | 261    | 419   | 266  | 214    | 260   |
| <i>n</i>                        | 18              | 10     | 28    | 33   | 23     | 56    | 9               | 2      | 11    | 15   | 2      | 17    |
| Zimbabwe                        | 2752            | 2367   | 2688  | 1613 | 1525   | 1589  | -               | -      | -     | -    | -      | -     |
| <i>n</i>                        | 15              | 3      | 18    | 11   | 4      | 15    | -               | -      | -     | -    | -      | -     |

*Notes:* PPP conversion factors for 2000 were used to convert the US dollar values reported in Table 7.1 into PPP dollars. These conversion factors were 0.3 (Malawi), 0.5 (Tanzania), 0.2 (Uganda) and 0.2 (Zimbabwe). The conversion factor implies that a US dollar buys twice as many goods and services in Tanzania as implied by the official exchange rate to the US dollar.

**Appendix Table 7.2: Total monthly income for graduates in wage employment (\$PPP)**

|          | 1980 & 1987 |        |       | 1994 & 1999 |        |       |
|----------|-------------|--------|-------|-------------|--------|-------|
|          | Male        | Female | Total | Male        | Female | Total |
| Malawi   | 2277        | 2694   | 2341  | 1590        | 1699   | 1610  |
| <i>n</i> | 71          | 13     | 84    | 143         | 33     | 176   |
| Tanzania | 844         | 679    | 811   | 578         | 476    | 549   |
| <i>n</i> | 124         | 31     | 155   | 142         | 55     | 197   |
| Uganda   | 1808        | 1572   | 1756  | 1515        | 1073   | 1430  |
| <i>n</i> | 89          | 25     | 114   | 151         | 36     | 187   |
| Zimbabwe | 5670        | 5396   | 5636  | 4119        | 3902   | 4078  |
| <i>n</i> | 57          | 8      | 65    | 97          | 22     | 119   |

*Notes:* PPP conversion factors for 2000 were used to convert the US dollar values reported in Table 7.1 into PPP dollars. These conversion factors were 0.3 (Malawi), 0.5 (Tanzania), 0.2 (Uganda) and 0.2 (Zimbabwe). The conversion factor implies that a US dollar buys twice as many goods and services in Tanzania as implied by the official exchange rate to the US dollar. 1987 cohort for Uganda is actually 1988.

**Appendix Table 7.3: Total monthly income for graduates in wage employment by discipline**

|                 | 1980 & 1987 |        |       | 1994 & 1999 |        |       |
|-----------------|-------------|--------|-------|-------------|--------|-------|
|                 | Male        | Female | Total | Male        | Female | Total |
| <b>MALAWI</b>   |             |        |       |             |        |       |
| Accountancy     | 1001        | 1090   | 1022  | 642         | 956    | 705   |
| <i>n</i>        | 13          | 4      | 17    | 24          | 6      | 30    |
| Agriculture     | 662         | 1032   | 727   | 435         | 419    | 431   |
| <i>n</i>        | 14          | 3      | 17    | 22          | 6      | 28    |
| Economics       | 804         | 489    | 736   | 504         | 539    | 510   |
| <i>n</i>        | 11          | 3      | 14    | 33          | 8      | 41    |
| Education       | 383         | 528    | 406   | 328         | 347    | 333   |
| <i>n</i>        | 16          | 3      | 19    | 19          | 7      | 26    |
| Engineering     | 662         | -      | 662   | 435         | -      | 435   |
| <i>n</i>        | 17          | -      | 17    | 29          | -      | 29    |
| Medicine        | -           | -      | -     | 486         | 306    | 437   |
| <i>n</i>        |             |        |       | 16          | 6      | 22    |
| Total           | 683         | 808    | 702   | 477         | 510    | 483   |
| <i>n</i>        | 71          | 13     | 84    | 143         | 33     | 176   |
| <b>TANZANIA</b> |             |        |       |             |        |       |
| Agriculture     | 347         | 318    | 338   | 281         | 207    | 259   |
| <i>n</i>        | 27          | 11     | 38    | 29          | 12     | 41    |
| Commerce        | 473         | 389    | 448   | 375         | 315    | 358   |
| <i>n</i>        | 19          | 8      | 27    | 30          | 12     | 42    |
| Education       | 333         | 289    | 323   | 193         | 212    | 198   |
| <i>n</i>        | 26          | 7      | 33    | 28          | 9      | 37    |
| Engineering     | 482         | 209    | 472   | 335         | 360    | 340   |
| <i>n</i>        | 28          | 1      | 29    | 24          | 6      | 30    |
| Medicine        | 493         | 421    | 483   | 263         | 172    | 232   |
| <i>n</i>        | 24          | 4      | 28    | 31          | 16     | 47    |
| Total           | 422         | 340    | 405   | 289         | 238    | 275   |
| <i>n</i>        | 124         | 31     | 155   | 142         | 55     | 197   |
| <b>UGANDA</b>   |             |        |       |             |        |       |
| Agriculture     | 312         | 257    | 300   | 305         | 195    | 285   |
| <i>n</i>        | 15          | 4      | 19    | 26          | 6      | 32    |
| Commerce        | 361         | 397    | 369   | 337         | 332    | 337   |
| <i>n</i>        | 21          | 6      | 27    | 42          | 6      | 48    |
| Education       | 300         | 228    | 270   | 203         | 170    | 189   |
| <i>n</i>        | 13          | 9      | 22    | 28          | 20     | 48    |
| Engineering     | 373         | 330    | 370   | 302         | 100    | 296   |
| <i>n</i>        | 15          | 1      | 16    | 32          | 1      | 33    |
| Medicine        | 418         | 414    | 417   | 360         | 357    | 360   |
| <i>n</i>        | 25          | 5      | 30    | 23          | 3      | 26    |
| Total           | 362         | 314    | 351   | 303         | 215    | 286   |
| <i>n</i>        | 89          | 25     | 114   | 151         | 36     | 187   |
| <b>ZIMBABWE</b> |             |        |       |             |        |       |
| Accountancy     | 1124        | 1100   | 1122  | 979         | 840    | 953   |
| <i>n</i>        | 14          | 1      | 15    | 22          | 5      | 27    |
| Agriculture     | 1097        | 1100   | 1097  | 842         | 867    | 848   |
| <i>n</i>        | 10          | 1      | 11    | 11          | 3      | 14    |
| Economics       | 1094        | 983    | 1067  | 735         | 660    | 711   |
| <i>n</i>        | 12          | 4      | 16    | 22          | 10     | 32    |
| Medicine        | 1080        | 1250   | 1129  | 975         | 1022   | 981   |
| <i>n</i>        | 5           | 2      | 7     | 20          | 3      | 23    |
| Engineering     | 1213        | -      | 1213  | 611         | 700    | 614   |
| <i>n</i>        | 16          | 0      | 16    | 22          | 1      | 23    |
| Total           | 1134        | 1079   | 1127  | 824         | 780    | 816   |
| <i>n</i>        | 57          | 8      | 65    | 97          | 22     | 119   |

Note: 1987 cohort for Uganda is actually 1988.

**Appendix Table 7.4: Total monthly income for good and bad grade secondary school leavers (\$US)**

|                         | 1990      |           |           | 1995      |           |           |
|-------------------------|-----------|-----------|-----------|-----------|-----------|-----------|
|                         | Male      | Female    | Total     | Male      | Female    | Total     |
| <b>JUNIOR SECONDARY</b> |           |           |           |           |           |           |
| <b>Malawi</b>           |           |           |           |           |           |           |
| Good grade              | 170       | 259       | 198       | 166       | 150       | 162       |
| <i>n</i>                | 43        | 20        | 63        | 67        | 23        | 90        |
| Poor grade              | 131       | 108       | 119       | 85        | 113       | 98        |
| <i>n</i>                | 27        | 26        | 53        | 50        | 44        | 94        |
| <b>Tanzania</b>         |           |           |           |           |           |           |
| Good grade              | 112       | 102       | 108       | 70        | 116       | 84        |
| <i>n</i>                | 51        | 29        | 80        | 34        | 15        | 49        |
| Poor grade              | 118       | 114       | 116       | 70        | 89        | 81        |
| <i>n</i>                | 60        | 63        | 123       | 61        | 78        | 139       |
| <b>Uganda</b>           |           |           |           |           |           |           |
| Good grade              | 88        | 83        | 87        | 49        | 48        | 48        |
| <i>n</i>                | 28        | 6         | 34        | 33        | 29        | 62        |
| Poor grade              | 58        | 40        | 53        | 43        | 36        | 41        |
| <b><i>n</i></b>         | <b>55</b> | <b>24</b> | <b>79</b> | <b>62</b> | <b>31</b> | <b>93</b> |
| <b>Zimbabwe</b>         |           |           |           |           |           |           |
| Good grade              | 357       | 332       | 350       | 265       | 292       | 275       |
| <i>n</i>                | 89        | 38        | 127       | 73        | 42        | 115       |
| Poor grade              | 209       | 132       | 178       | 123       | 83        | 108       |
| <i>n</i>                | 52        | 35        | 87        | 56        | 34        | 90        |
| <b>SENIOR SECONDARY</b> |           |           |           |           |           |           |
| <b>Tanzania</b>         |           |           |           |           |           |           |
| Good grade              | 153       | 153       | 153       | 102       | 170       | 127       |
| <i>n</i>                | 68        | 35        | 103       | 17        | 10        | 27        |
| Poor grade              | 62        | 161       | 126       | 37        | 80        | 66        |
| <i>n</i>                | 9         | 17        | 26        | 7         | 15        | 22        |
| <b>Uganda</b>           |           |           |           |           |           |           |
| Good grade              | 86        | 119       | 94        | 63        | 64        | 63        |
| <i>n</i>                | 23        | 8         | 31        | 32        | 17        | 49        |
| Poor grade              | 173       | 71        | 122       | 63        | 54        | 60        |
| <i>n</i>                | 4         | 4         | 8         | 16        | 8         | 24        |
| <b>Zimbabwe</b>         |           |           |           |           |           |           |
| Good grade              | 585       | 675       | 596       | 320       | 305       | 316       |
| <i>n</i>                | 14        | 2         | 16        | 10        | 4         | 14        |
| Poor grade              | -         | 70        | 70        | 350       | -         | 350       |
| <i>n</i>                | -         | 1         | 1         | 1         | -         | 1         |

*Notes:* Data for table taken from Appendix Table 5.1. In Tanzania and Uganda a good grade is defined as a Division I-III pass on the form IV secondary school examination, in Malawi a credit or an ordinary pass and in Zimbabwe obtaining four or more 'O' levels. Approximately 50 per cent of the sample in each country obtains a good grade and 50 per cent a poor grade.

**Appendix Table 7.5: Total monthly income by degree classification (\$US)**

|                 | 1980 & 1987 |        |       | 1994 & 1999 |        |       |
|-----------------|-------------|--------|-------|-------------|--------|-------|
|                 | Male        | Female | Total | Male        | Female | Total |
| <b>MALAWI</b>   |             |        |       |             |        |       |
| Distinction     | 659         | 706    | 669   | 582         | -      | 582   |
| <i>n</i>        | 4           | 1      | 5     | 3           |        | 3     |
| Credit          | 614         | 641    | 618   | 513         | 438    | 495   |
| <i>n</i>        | 23          | 4      | 27    | 38          | 12     | 50    |
| Pass            | 668         | 825    | 693   | 453         | 668    | 484   |
| <i>n</i>        | 49          | 9      | 58    | 83          | 14     | 97    |
| Honours         | -           | -      | -     | 508         | 384    | 477   |
| <i>n</i>        |             |        |       | 3           | 1      | 4     |
| Total           | 652         | 764    | 669   | 475         | 555    | 489   |
| <i>n</i>        | 76          | 14     | 90    | 127         | 27     | 154   |
| <b>TANZANIA</b> |             |        |       |             |        |       |
| First class     | -           | 314    | 314   | 485         | 342    | 414   |
| <i>n</i>        | 0           | 1      | 1     | 1           | 1      | 2     |
| Upper second    | 372         | 343    | 364   | 286         | 276    | 283   |
| <i>n</i>        | 42          | 16     | 58    | 45          | 18     | 63    |
| Lower second    | 382         | 295    | 369   | 260         | 252    | 258   |
| <i>n</i>        | 61          | 11     | 72    | 65          | 20     | 85    |
| Pass            | 521         | -      | 521   | 424         | 271    | 398   |
| <i>n</i>        | 6           | 0      | 6     | 10          | 2      | 12    |
| Qualify         | 458         | 421    | 453   | 262         | 172    | 231   |
| <i>n</i>        | 27          | 4      | 31    | 30          | 16     | 46    |
| Total           | 400         | 335    | 388   | 280         | 239    | 269   |
| <i>n</i>        | 136         | 32     | 168   | 151         | 57     | 208   |

Note: 1987 cohort for Uganda is actually 1988.

**Appendix Table 7.6: Monthly wage in public and private wage employment: university graduates**

|                 | 1980 & 1987 |        |       | 1994 & 1999 |        |       |
|-----------------|-------------|--------|-------|-------------|--------|-------|
|                 | Male        | Female | Total | Male        | Female | Total |
| <b>MALAWI</b>   |             |        |       |             |        |       |
| Public          | 492         | 504    | 494   | 396         | 396    | 396   |
| <i>n</i>        | 41          | 7      | 48    | 67          | 20     | 87    |
| Private         | 865         | 1016   | 893   | 485         | 601    | 503   |
| <i>n</i>        | 26          | 6      | 32    | 74          | 13     | 87    |
| <b>TANZANIA</b> |             |        |       |             |        |       |
| Public          | 365         | 316    | 354   | 225         | 183    | 211   |
| <i>n</i>        | 84          | 24     | 108   | 73          | 37     | 110   |
| Private         | 421         | 414    | 420   | 314         | 319    | 315   |
| <i>n</i>        | 38          | 6      | 44    | 68          | 17     | 85    |
| <b>UGANDA</b>   |             |        |       |             |        |       |
| Public          | 310         | 280    | 303   | 268         | 202    | 255   |
| <i>n</i>        | 69          | 21     | 90    | 94          | 24     | 118   |
| Private         | 343         | 256    | 328   | 294         | 214    | 280   |
| <i>n</i>        | 19          | 4      | 23    | 56          | 12     | 68    |
| <b>ZIMBABWE</b> |             |        |       |             |        |       |
| Public          | 1014        | 1020   | 1015  | 711         | 700    | 709   |
| <i>n</i>        | 35          | 5      | 40    | 55          | 15     | 70    |
| Private         | 1073        | 967    | 1060  | 862         | 786    | 851   |
| <i>n</i>        | 22          | 3      | 25    | 42          | 7      | 49    |

Note: 1987 cohort for Uganda is actually 1988.

**Appendix Table 7.7: Monthly wage in public and private wage employment: secondary school leavers**

|                         | 1990 |        |       | 1995 |        |       |
|-------------------------|------|--------|-------|------|--------|-------|
|                         | Male | Female | Total | Male | Female | Total |
| <b>JUNIOR SECONDARY</b> |      |        |       |      |        |       |
| <b>Malawi</b>           |      |        |       |      |        |       |
| Public                  | 146  | 149    | 147   | 147  | 70     | 110   |
| <i>n</i>                | 29   | 27     | 56    | 29   | 26     | 55    |
| Private                 | 153  | 219    | 177   | 137  | 176    | 150   |
| <i>n</i>                | 31   | 17     | 48    | 68   | 35     | 103   |
| <b>Tanzania</b>         |      |        |       |      |        |       |
| Public                  | 99   | 111    | 106   | 91   | 112    | 101   |
| <i>n</i>                | 29   | 37     | 66    | 15   | 13     | 28    |
| Private                 | 150  | 130    | 140   | 101  | 91     | 94    |
| <i>n</i>                | 35   | 32     | 67    | 22   | 56     | 78    |
| <b>Uganda</b>           |      |        |       |      |        |       |
| Public                  | 59   | 37     | 54    | 40   | 37     | 38    |
| <i>n</i>                | 34   | 10     | 44    | 42   | 31     | 73    |
| Private                 | 51   | 38     | 46    | 40   | 39     | 40    |
| <i>n</i>                | 13   | 9      | 22    | 16   | 21     | 37    |
| <b>Zimbabwe</b>         |      |        |       |      |        |       |
| Public                  | 328  | 313    | 324   | 313  | 424    | 347   |
| <i>n</i>                | 30   | 9      | 39    | 16   | 7      | 23    |
| Private                 | 328  | 247    | 301   | 196  | 158    | 182   |
| <i>n</i>                | 64   | 31     | 95    | 66   | 37     | 103   |
| <b>SENIOR SECONDARY</b> |      |        |       |      |        |       |
| <b>Tanzania</b>         |      |        |       |      |        |       |
| Public                  | 113  | 204    | 144   | 71   | 162    | 110   |
| <i>n</i>                | 23   | 12     | 35    | 4    | 3      | 7     |
| Private                 | 235  | 162    | 195   | 133  | 116    | 122   |
| <i>n</i>                | 26   | 31     | 57    | 9    | 17     | 26    |
| <b>Uganda</b>           |      |        |       |      |        |       |
| Public                  | 67   | 89     | 75    | 67   | 62     | 66    |
| <i>n</i>                | 7    | 4      | 11    | 7    | 3      | 10    |
| Private                 | 96   | 114    | 102   | 63   | 55     | 59    |
| <i>n</i>                | 11   | 6      | 17    | 26   | 20     | 46    |
| <b>Zimbabwe</b>         |      |        |       |      |        |       |
| Public                  | 540  | 350    | 508   | 450  | 500    | 470   |
| <i>n</i>                | 5    | 1      | 6     | 3    | 2      | 5     |
| Private                 | 497  | 535    | 503   | 230  | 110    | 206   |
| <i>n</i>                | 10   | 2      | 12    | 8    | 2      | 10    |

**Appendix Table 7.8: Proportion of total income represented by secondary income for those reporting secondary income: Secondary school leavers (both waged and self-employed) (%)**

|                         | 1990 |        |       | 1995 |        |       |
|-------------------------|------|--------|-------|------|--------|-------|
|                         | Male | Female | Total | Male | Female | Total |
| <b>JUNIOR SECONDARY</b> |      |        |       |      |        |       |
| Malawi                  | 35   | 26     | 32    | 27   | 33     | 29    |
| <i>n</i>                | 24   | 11     | 35    | 28   | 11     | 39    |
| Tanzania                | 28   | 24     | 26    | 37   | 37     | 37    |
| <i>n</i>                | 21   | 14     | 35    | 7    | 12     | 19    |
| Uganda                  | 36   | 32     | 35    | 33   | 36     | 34    |
| <i>n</i>                | 45   | 12     | 57    | 45   | 16     | 61    |
| Zimbabwe                | 22   | 24     | 23    | 27   | 32     | 29    |
| <i>n</i>                | 65   | 23     | 8     | 63   | 25     | 88    |
| <b>SENIOR SECONDARY</b> |      |        |       |      |        |       |
| Tanzania                | 41   | 50     | 43    | 19   | 24     | 22    |
| <i>n</i>                | 6    | 2      | 8     | 2    | 4      | 6     |
| Uganda                  | 33   | 22     | 30    | 26   | 35     | 28    |
| <i>n</i>                | 16   | 5      | 21    | 15   | 5      | 20    |
| Zimbabwe                | 21   | -      | 21    | 18   | -      | 18    |
| <i>n</i>                | 4    | 0      | 4     | 4    | 0      | 4     |

**Appendix Table 7.9: Secondary income as a percentage of total income for university graduates in wage employment**

|                 | 1980 & 1987 |        |       | 1994 & 1999 |        |       |
|-----------------|-------------|--------|-------|-------------|--------|-------|
|                 | Male        | Female | Total | Male        | Female | Total |
| <b>Malawi</b>   |             |        |       |             |        |       |
| public          | 26          | 18     | 25    | 32          | 36     | 33    |
| <i>n</i>        | 19          | 4      | 23    | 28          | 6      | 34    |
| private         | 13          | 13     | 13    | 13          | 18     | 14    |
| <i>n</i>        | 8           | 3      | 11    | 16          | 6      | 22    |
| <b>Tanzania</b> |             |        |       |             |        |       |
| public          | 22          | 24     | 22    | 27          | 39     | 30    |
| <i>n</i>        | 36          | 6      | 42    | 20          | 9      | 29    |
| private         | 19          | -      | 19    | 21          | 3      | 20    |
| <i>n</i>        | 14          | 0      | 14    | 24          | 1      | 25    |
| <b>Uganda</b>   |             |        |       |             |        |       |
| public          | 19          | 21     | 19    | 19          | 23     | 20    |
| <i>n</i>        | 44          | 11     | 55    | 38          | 5      | 43    |
| private         | 16          | 20     | 17    | 18          | 7      | 17    |
| <i>n</i>        | 11          | 1      | 12    | 20          | 1      | 21    |
| <b>Zimbabwe</b> |             |        |       |             |        |       |
| public          | 17          | 12     | 16    | 14          | 11     | 13    |
| <i>n</i>        | 21          | 2      | 23    | 26          | 7      | 33    |
| private         | 16          | 21     | 16    | 16          | 14     | 16    |
| <i>n</i>        | 7           | 1      | 8     | 10          | 4      | 14    |

Note: 1987 cohort for Uganda is actually 1988.

**Appendix Table 8.1: 1995 junior secondary school leavers' responses to statements on curriculum relevance and teacher competence and commitment (%)**

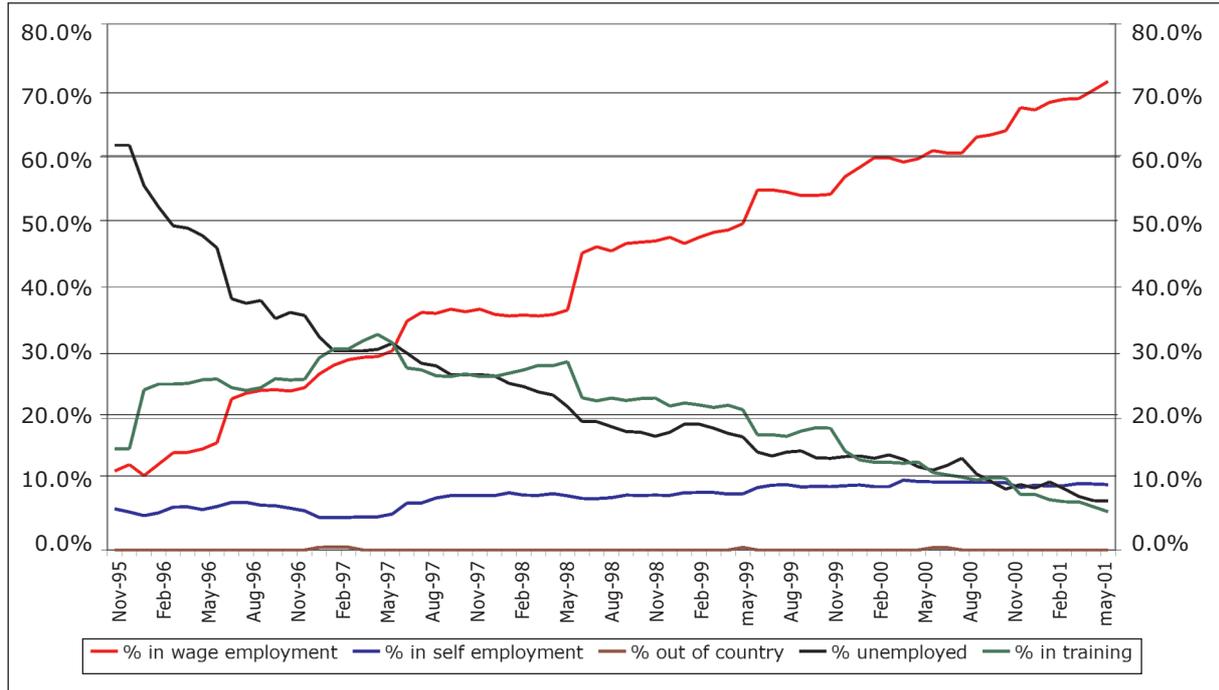
|                                     | Curriculum<br>relevance | Teacher<br>competence | Teacher<br>commitment |
|-------------------------------------|-------------------------|-----------------------|-----------------------|
| <b>MALAWI</b>                       |                         |                       |                       |
| Strongly agree                      | 20                      | 25                    | 30                    |
| Agree                               | 34                      | 41                    | 43                    |
| Not sure/disagree/strongly disagree | 43                      | 32                    | 25                    |
| <i>n</i>                            | 244                     | 244                   | 244                   |
| <b>TANZANIA</b>                     |                         |                       |                       |
| Strongly agree                      | 4                       | 17                    | 17                    |
| Agree                               | 35                      | 57                    | 58                    |
| Not sure/disagree/strongly disagree | 62                      | 27                    | 25                    |
| <i>n</i>                            | 285                     | 283                   | 286                   |
| <b>UGANDA</b>                       |                         |                       |                       |
| Strongly agree                      | 6                       | 9                     | 10                    |
| Agree                               | 48                      | 43                    | 51                    |
| Not sure/disagree/strongly disagree | 45                      | 47                    | 39                    |
| <i>n</i>                            | 198                     | 199                   | 200                   |
| <b>ZIMBABWE</b>                     |                         |                       |                       |
| Strongly agree                      | 16                      | 12                    | 16                    |
| Agree                               | 60                      | 54                    | 51                    |
| Not sure/disagree/strongly disagree | 25                      | 34                    | 33                    |
| <i>n</i>                            | 373                     | 374                   | 374                   |

**Appendix Table 8.2: 1994 and 1999 graduate responses to curriculum relevance and lecturer competence and commitment statements (%)**

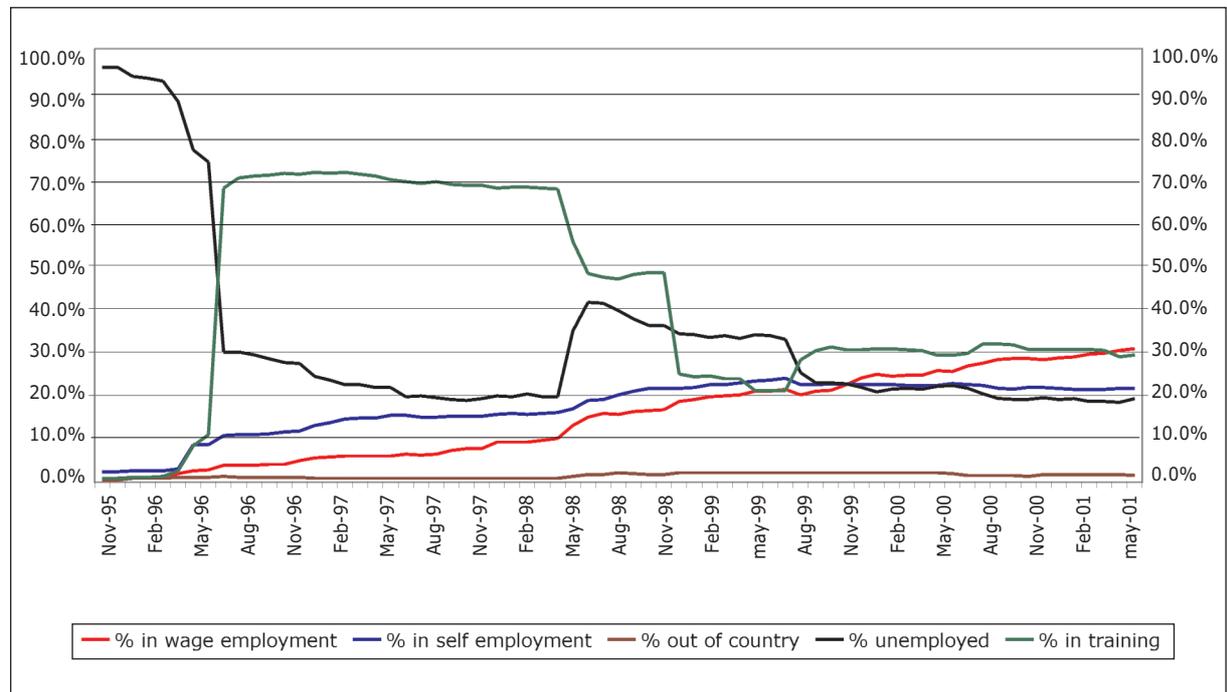
|                                     | Curriculum<br>relevance | Teacher<br>competence | Teacher<br>commitment |
|-------------------------------------|-------------------------|-----------------------|-----------------------|
| <b>MALAWI</b>                       |                         |                       |                       |
| Strongly agree                      | 18                      | 24                    | 21                    |
| Agree                               | 49                      | 58                    | 62                    |
| Not sure/disagree/strongly disagree | 33                      | 18                    | 17                    |
| <i>n</i>                            | 190                     | 191                   | 191                   |
| <b>TANZANIA</b>                     |                         |                       |                       |
| Strongly agree                      | 15                      | 35                    | 30                    |
| Agree                               | 58                      | 52                    | 46                    |
| Not sure/disagree/strongly disagree | 27                      | 12                    | 24                    |
| <i>n</i>                            | 225                     | 225                   | 224                   |
| <b>UGANDA</b>                       |                         |                       |                       |
| Strongly agree                      | 15                      | 26                    | 19                    |
| Agree                               | 52                      | 53                    | 54                    |
| Not sure/disagree/strongly disagree | 34                      | 21                    | 28                    |
| <i>n</i>                            | 200                     | 198                   | 200                   |
| <b>ZIMBABWE</b>                     |                         |                       |                       |
| Strongly agree                      | 13                      | 13                    | 9                     |
| Agree                               | 47                      | 58                    | 55                    |
| Not sure/disagree/strongly disagree | 41                      | 30                    | 35                    |
| <i>n</i>                            | 128                     | 128                   | 128                   |

## APPENDIX FIGURES

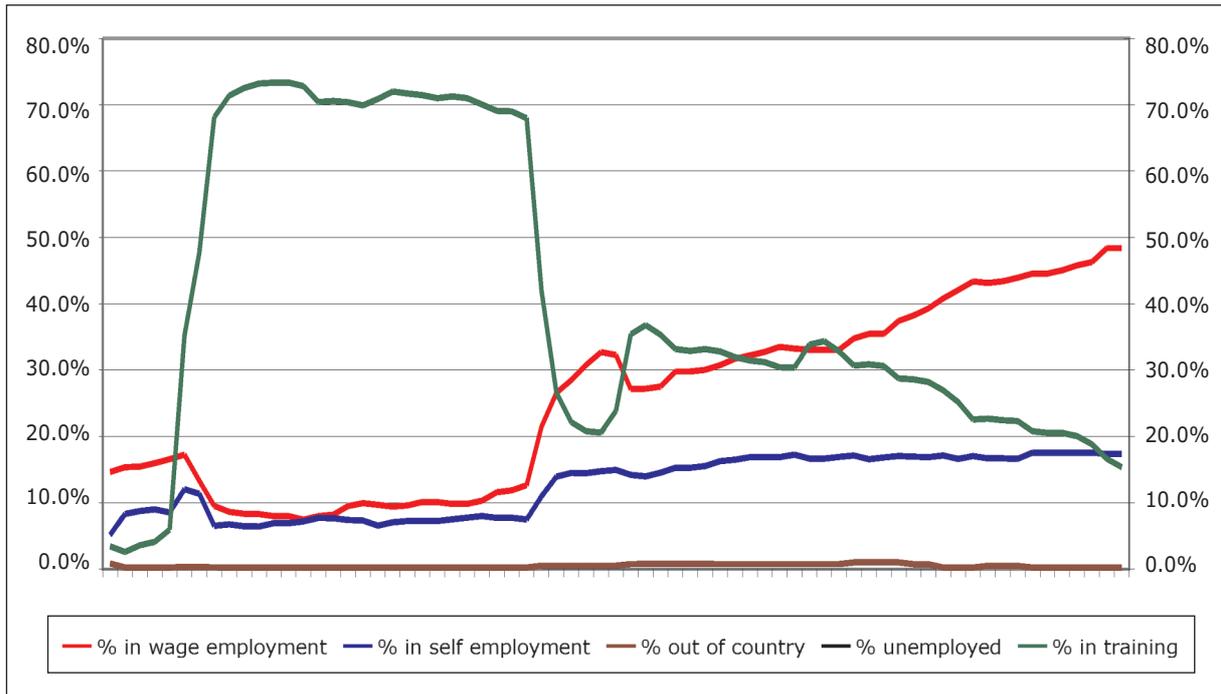
**Appendix Figure 3.1: Activity profile for 1995 secondary school leavers in Malawi**



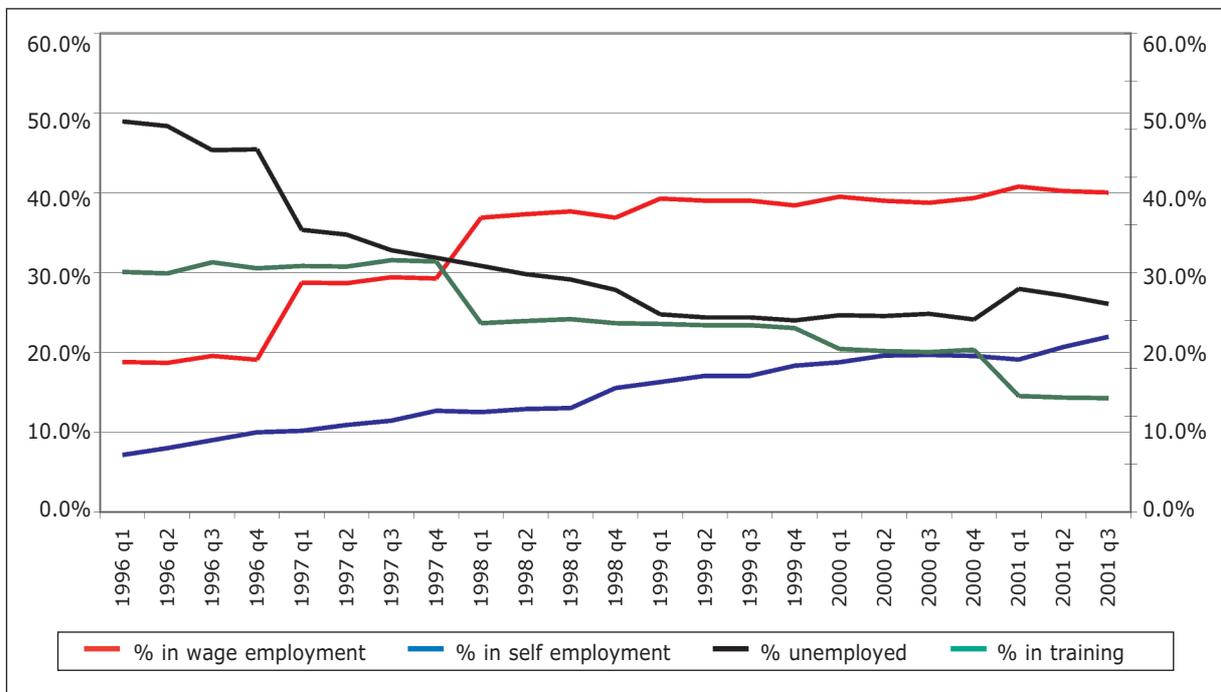
**Appendix Figure 3.2: Activity profile for 1995 secondary school leavers in Tanzania**



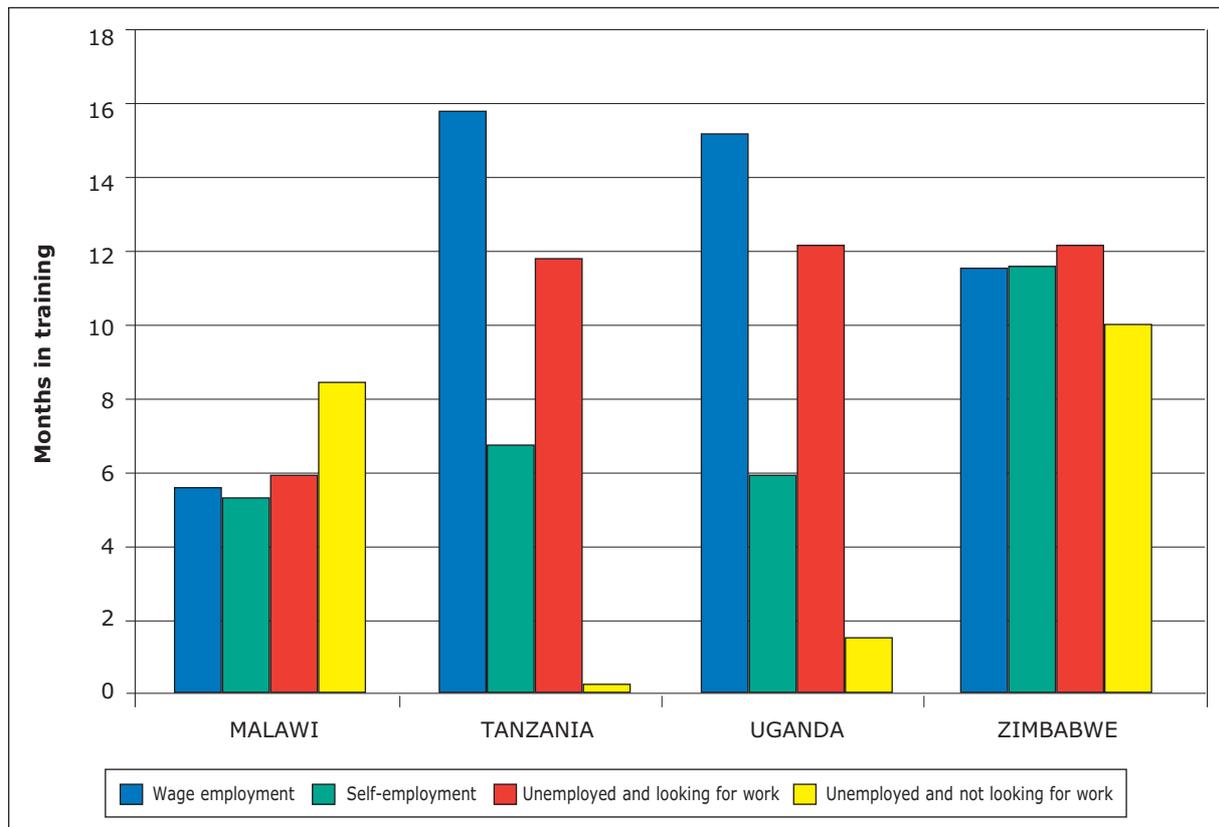
**Appendix Figure 3.3: Activity profile for 1995 secondary school leavers in Uganda**



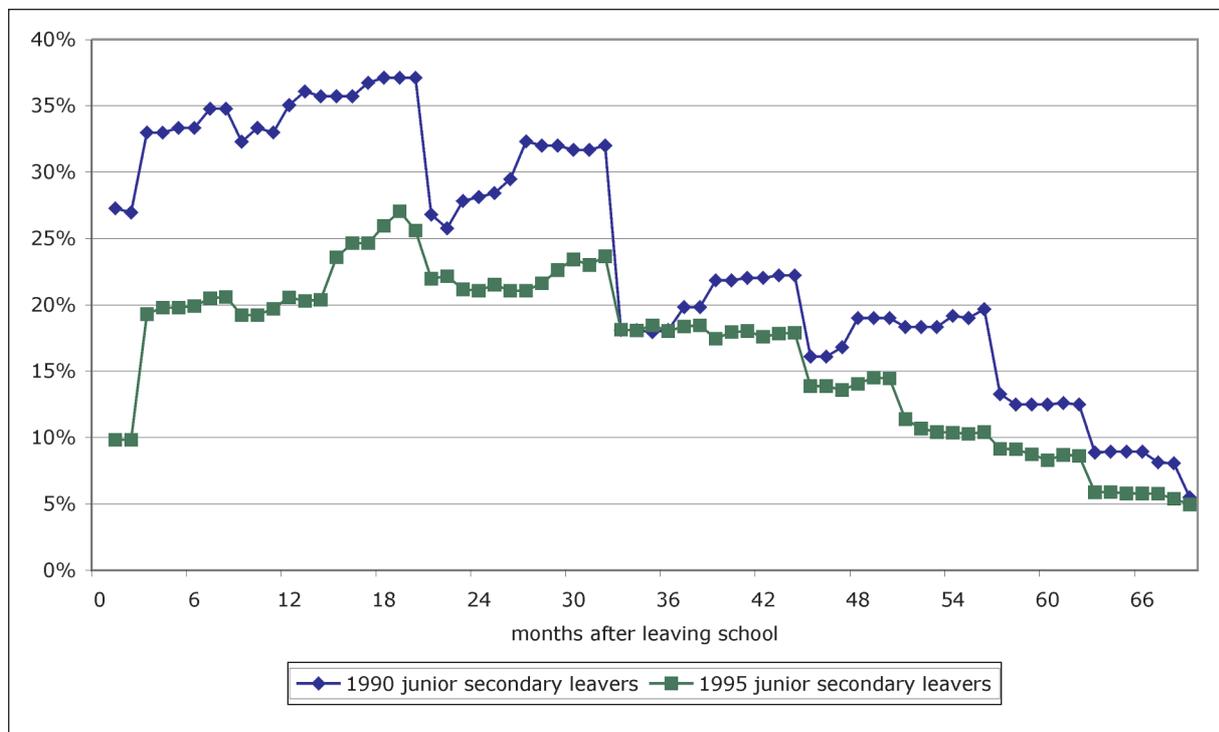
**Appendix Figure 3.4: Activity profile for 1995 secondary school leavers in Zimbabwe**



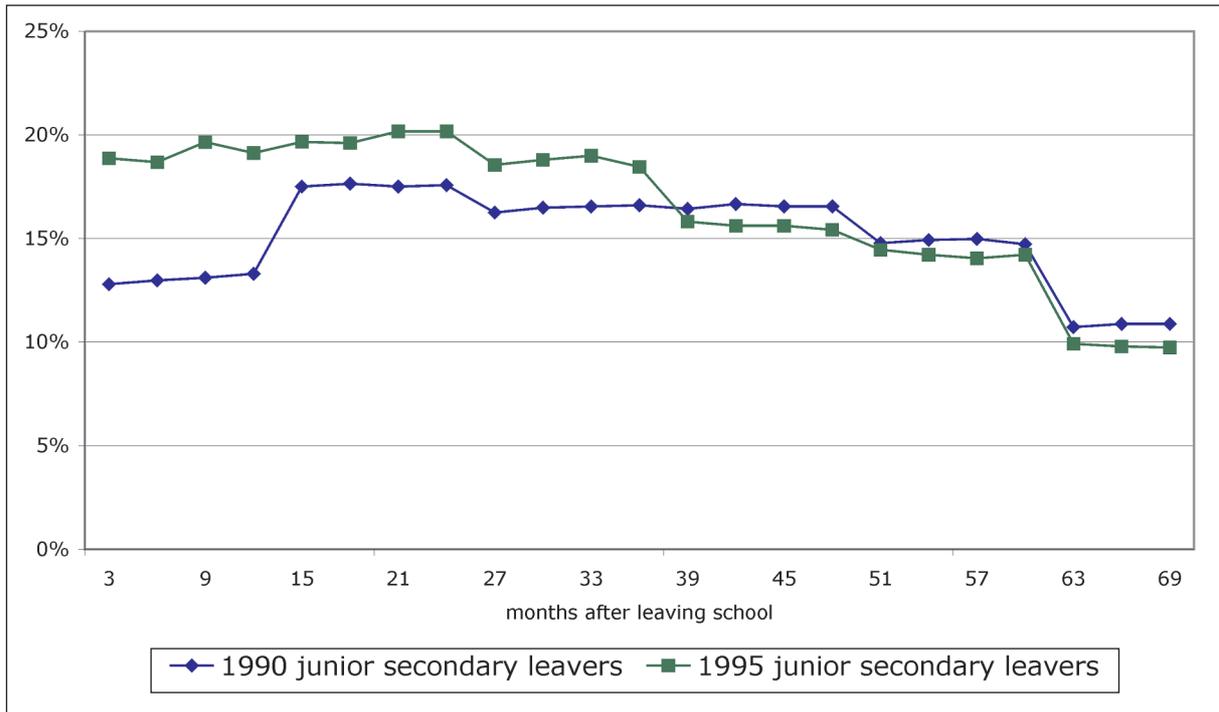
**Appendix Figure 4.1: Average months spent in full-time education and training by 1995 junior secondary school leavers by current activity**



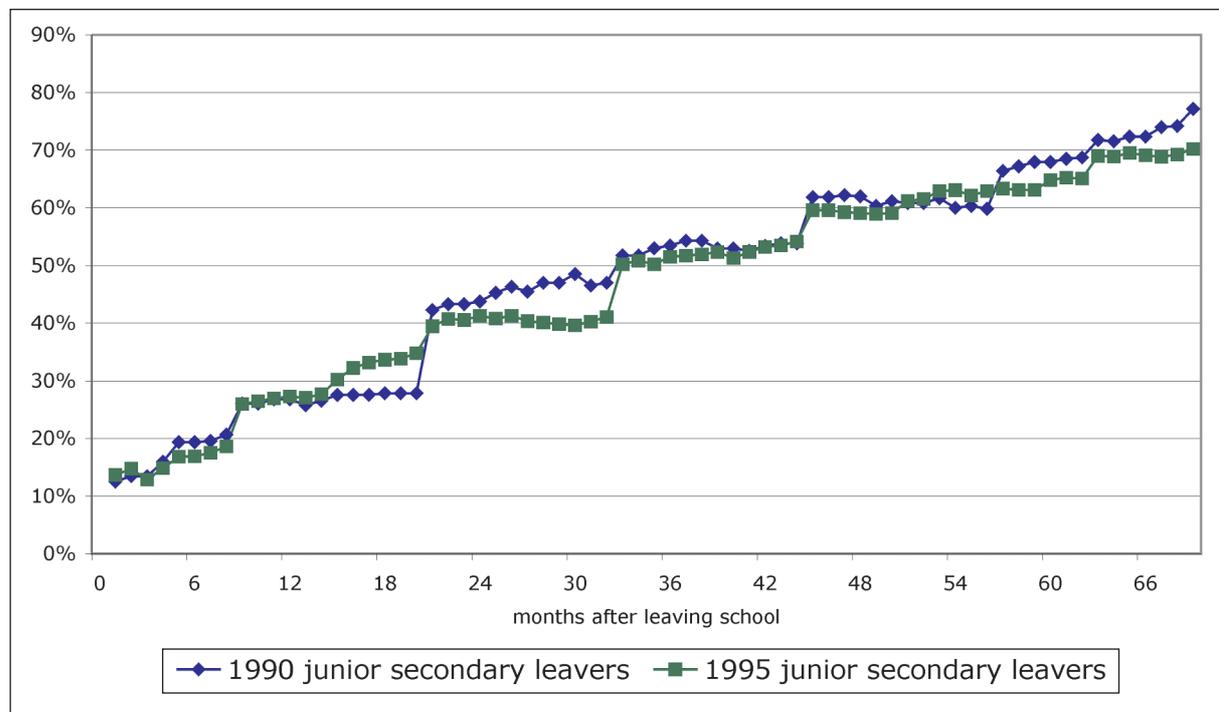
**Appendix Figure 4.2: Proportion of Malawian junior secondary school leavers in full-time education and training by months after leaving school**



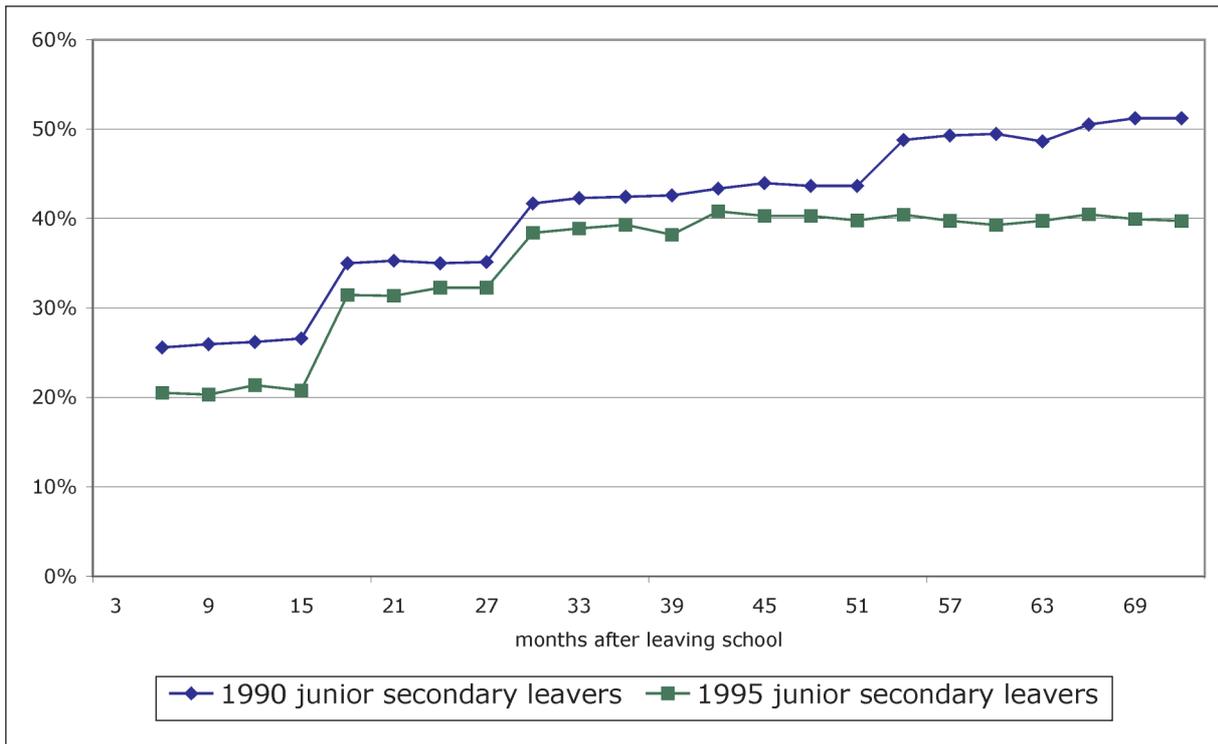
**Appendix Figure 4.3: Proportion of Zimbabwean junior secondary school leavers in full-time education and training by months after leaving school**



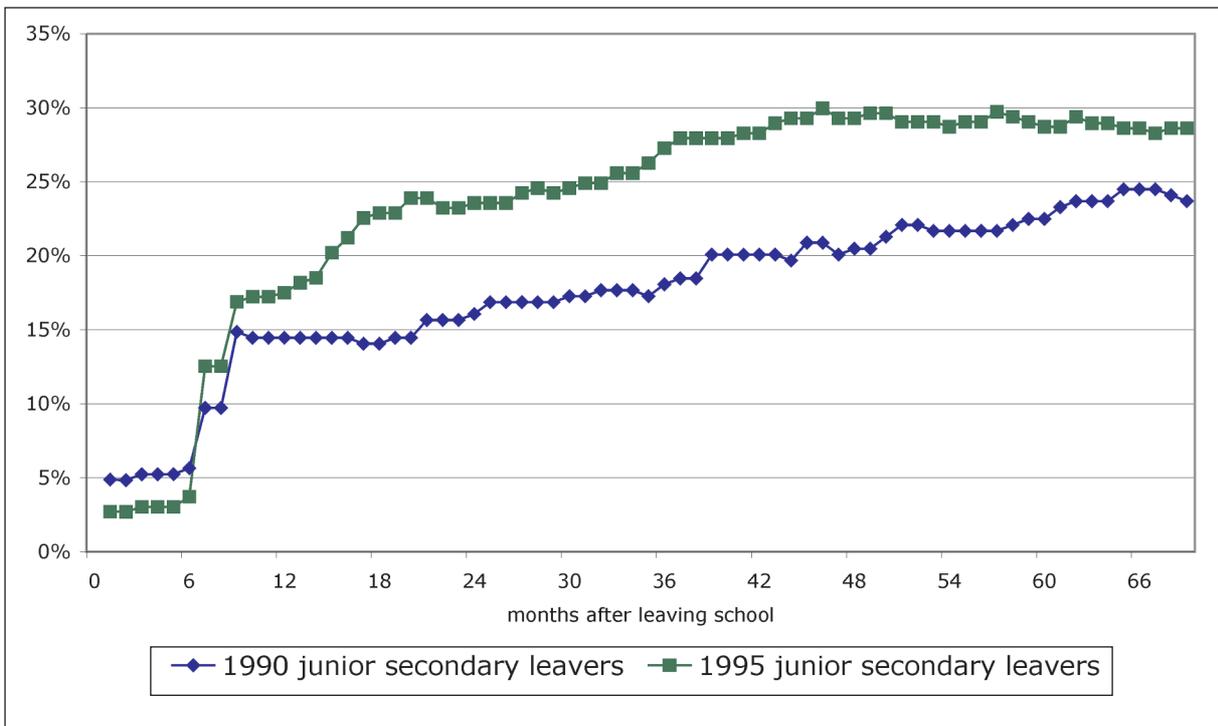
**Appendix Figure 5.1: Proportion of Malawian secondary school leavers in wage employment by months after leaving school**



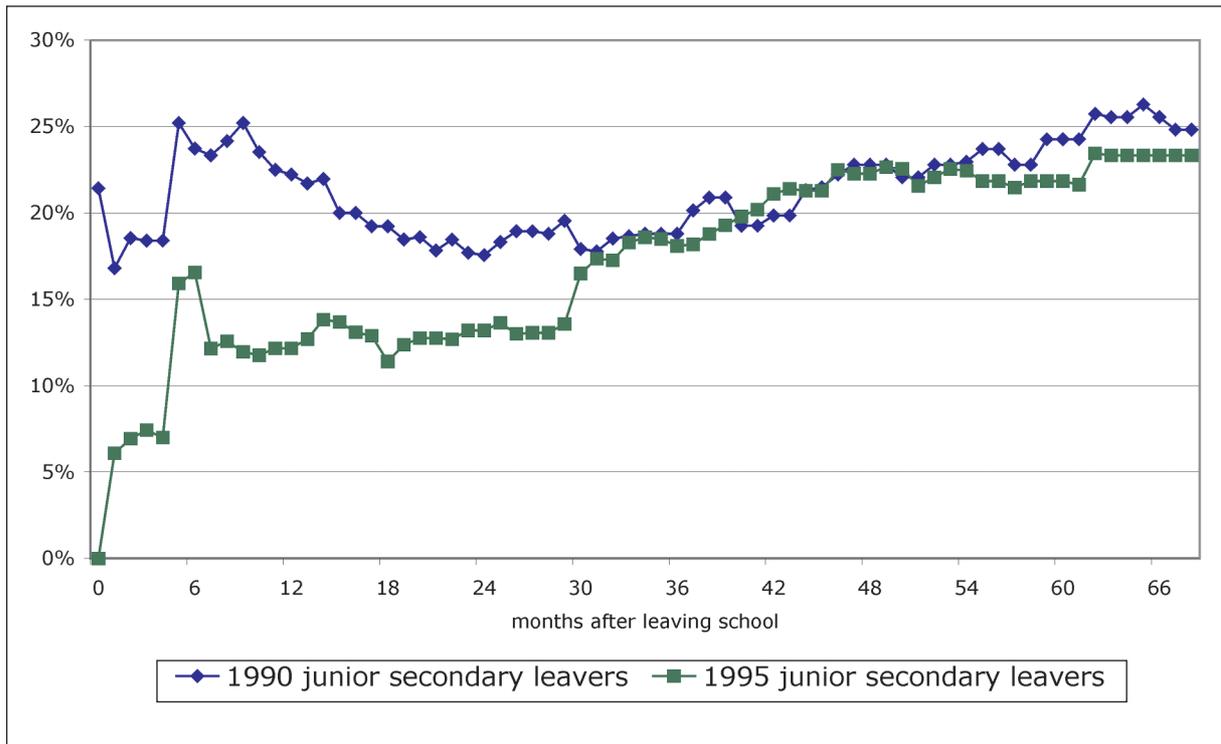
**Appendix Figure 5.2: Proportion of Zimbabwean junior secondary school leavers in wage employment by months after leaving school**



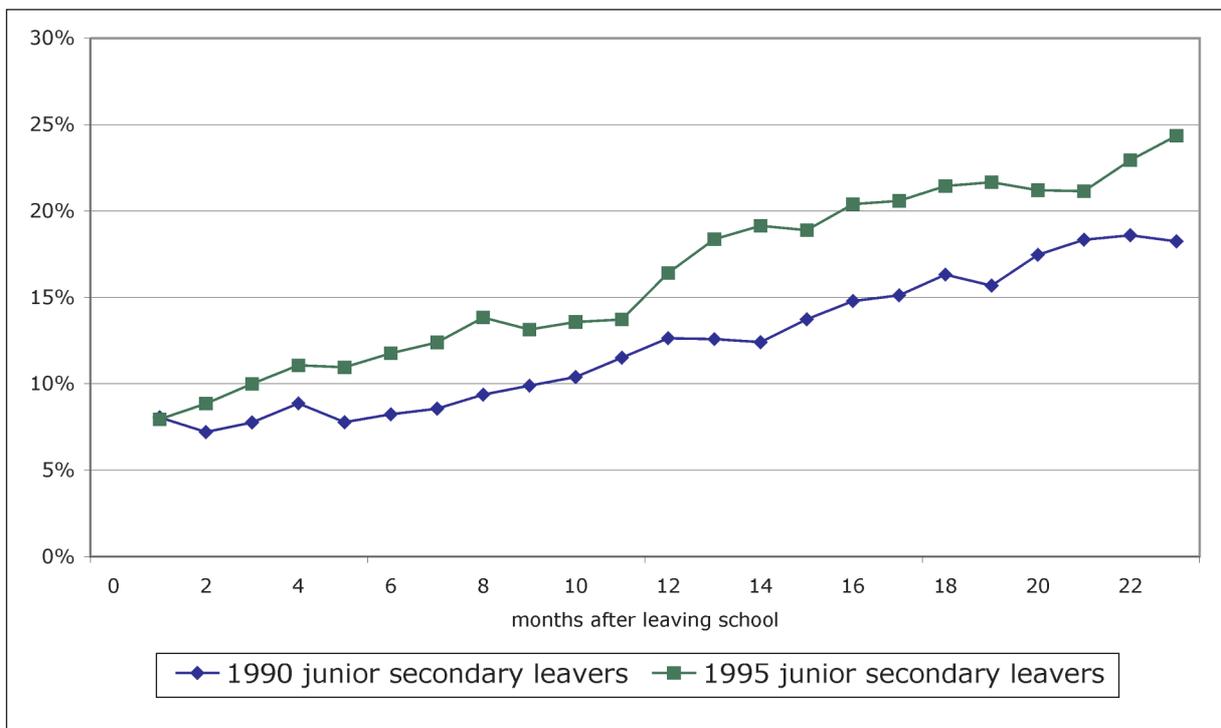
**Appendix Figure 5.3: Proportion of Tanzanian junior secondary school leavers in self-employment by months after leaving school**



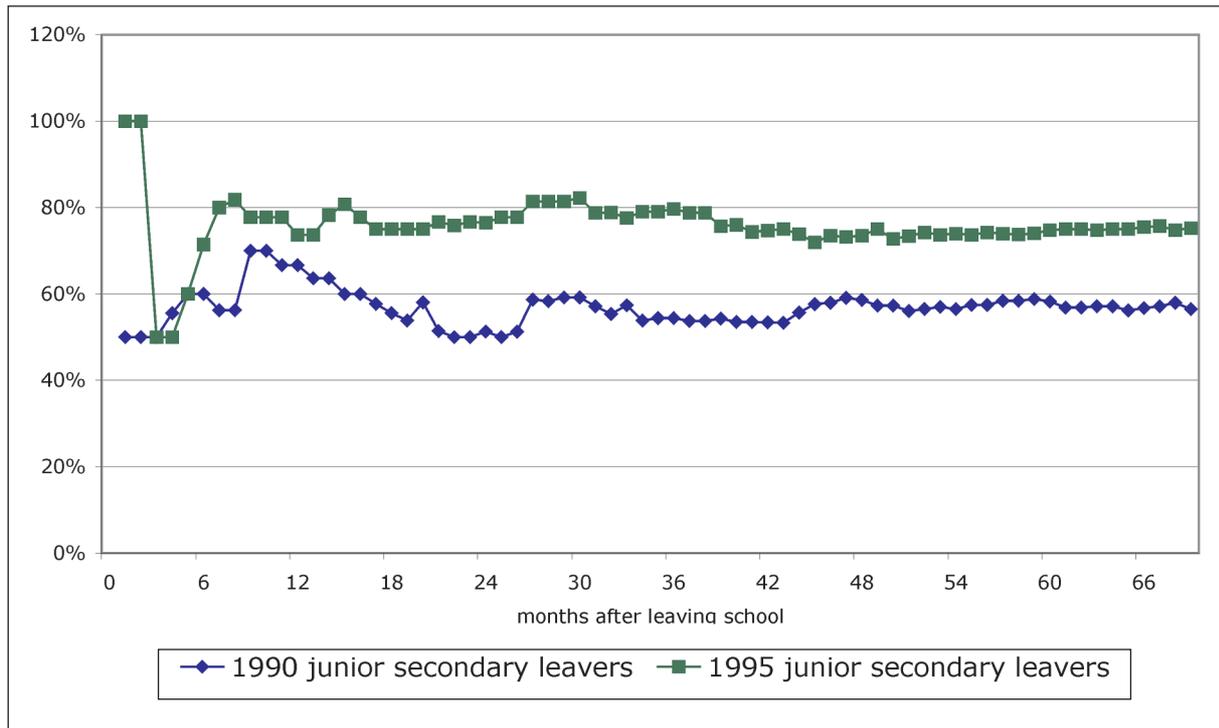
**Appendix Figure 5.4: Proportion of Ugandan junior secondary school leavers in self-employment by months after leaving school**



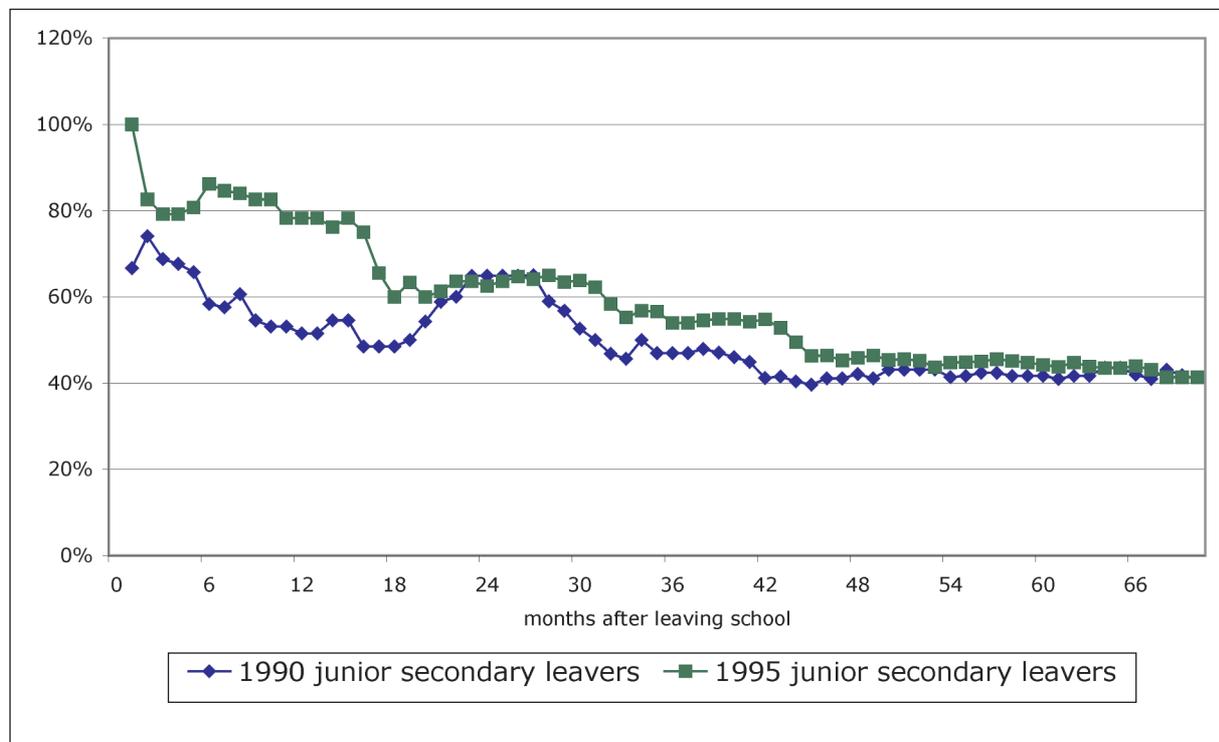
**Appendix Figure 5.5: Proportion of Zimbabwean junior secondary school leavers in self-employment by months after leaving school**



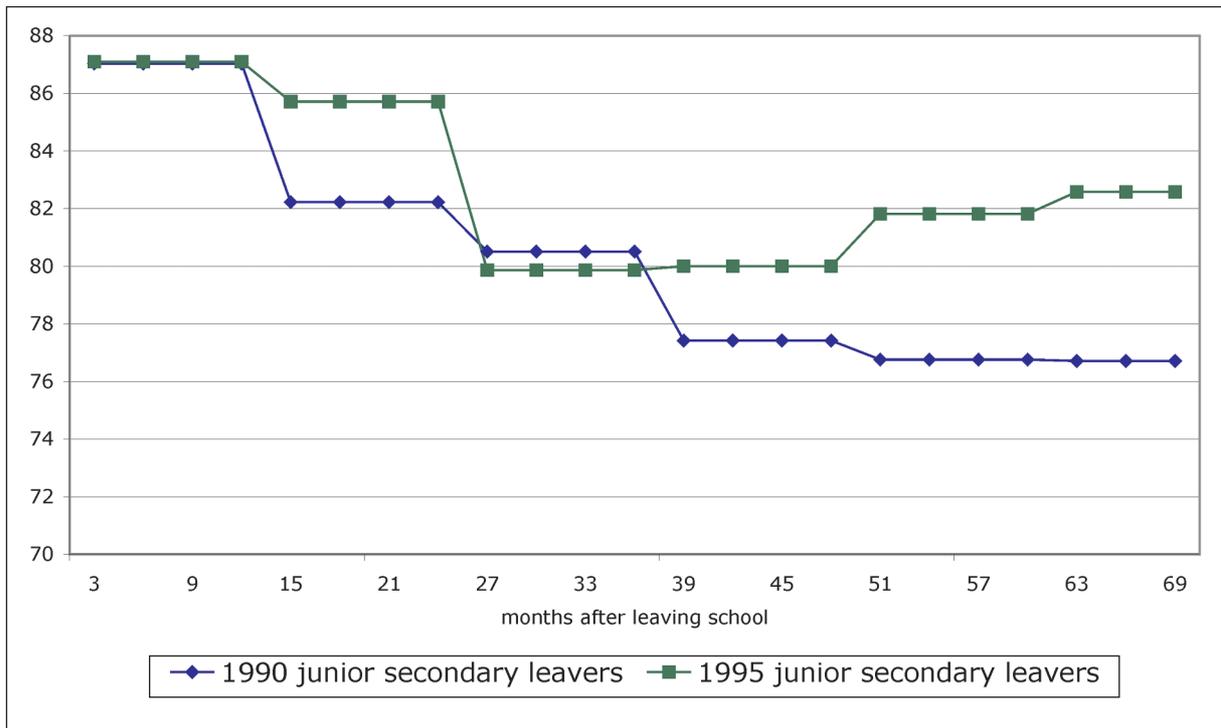
**Appendix Figure 5.6: Private wage employment as a percentage of total wage employment by months after leaving school: Tanzania junior secondary school leavers**



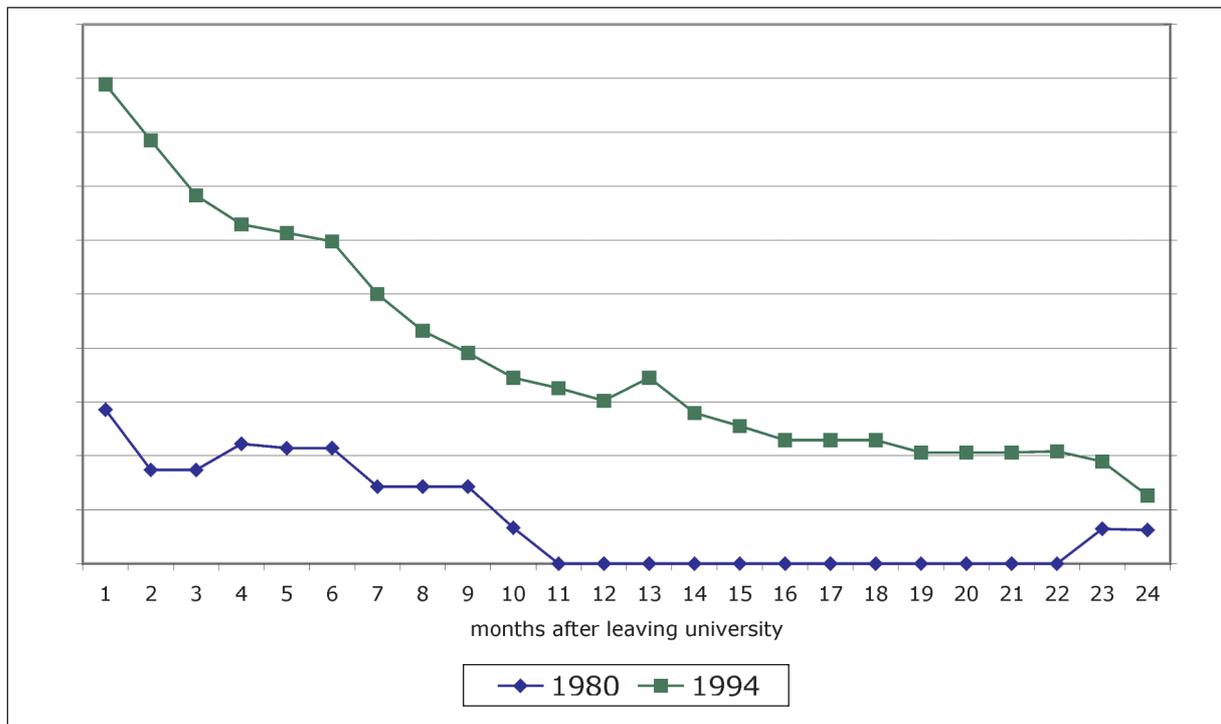
**Appendix Figure 5.7: Private wage employment as a percentage of total wage employment by months after leaving school: Uganda junior secondary school leavers**



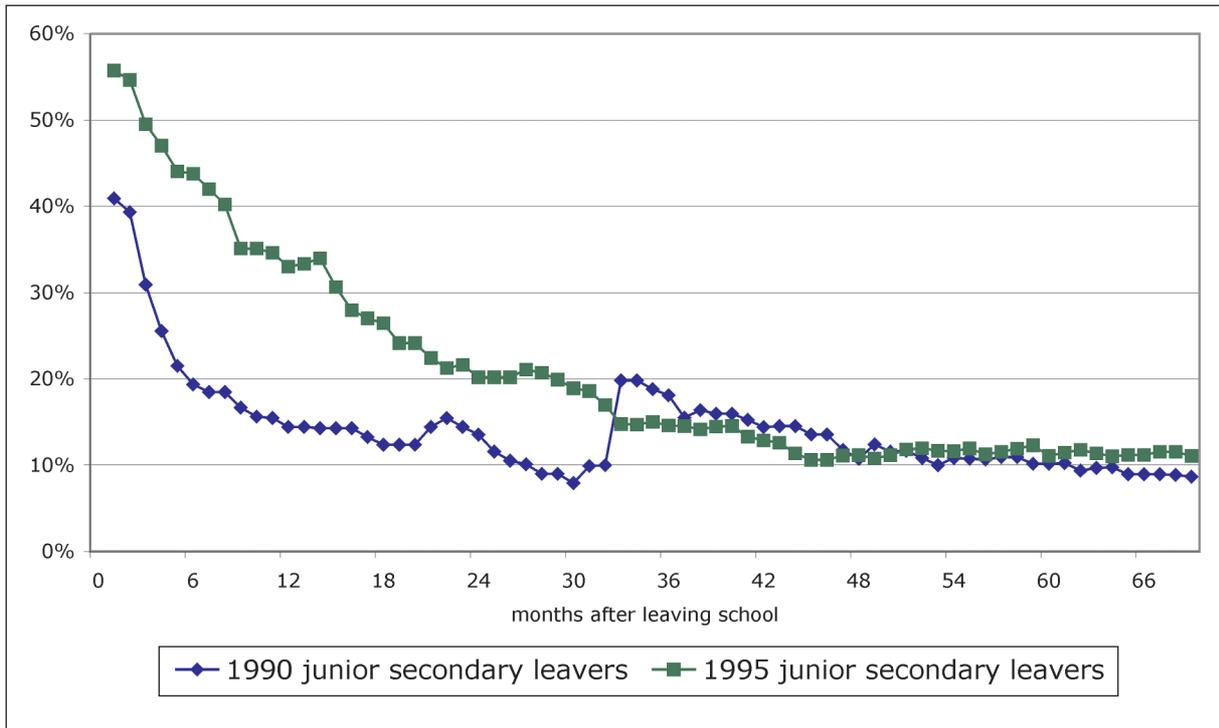
**Appendix Figure 5.8: Private wage employment as a percentage of total wage employment by months after leaving school: Zimbabwe junior secondary school leavers**



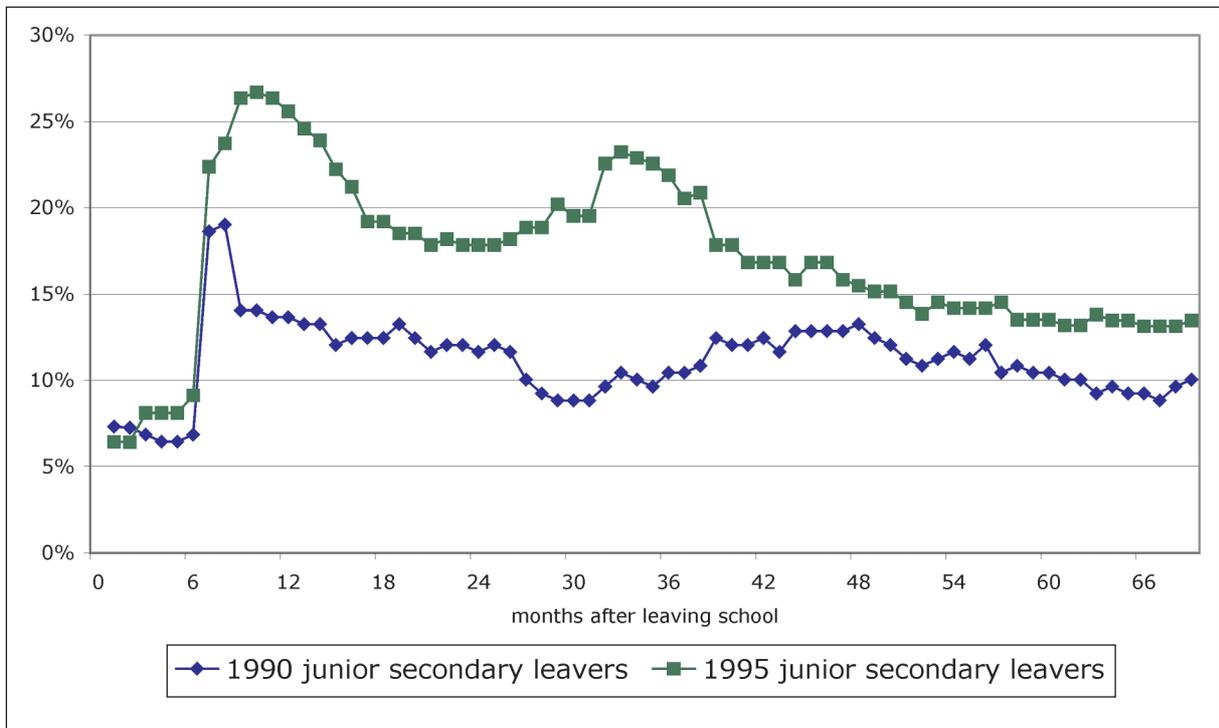
**Appendix Figure 6.1: Percentage of 1980 and 1994 university graduates unemployed and looking for work by months after leaving school: Uganda**



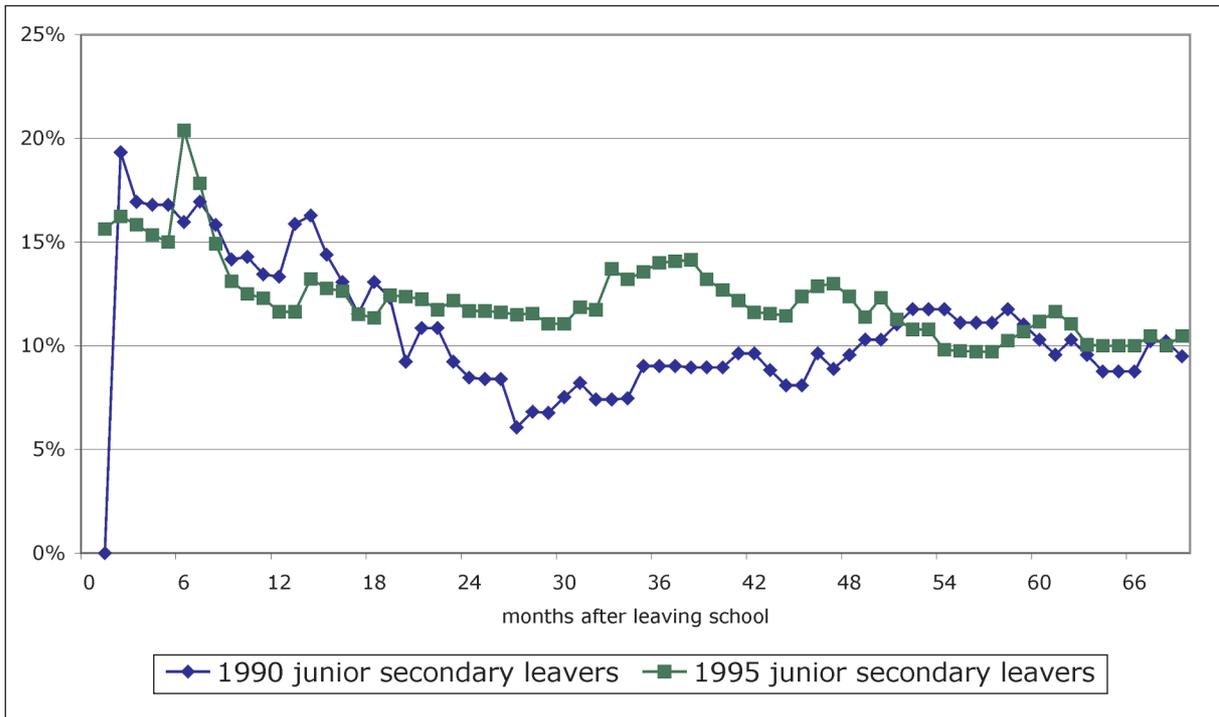
**Appendix Figure 6.2: Percentage of 1990 and 1995 junior secondary school leavers unemployed and looking for work by months after leaving school: Malawi**



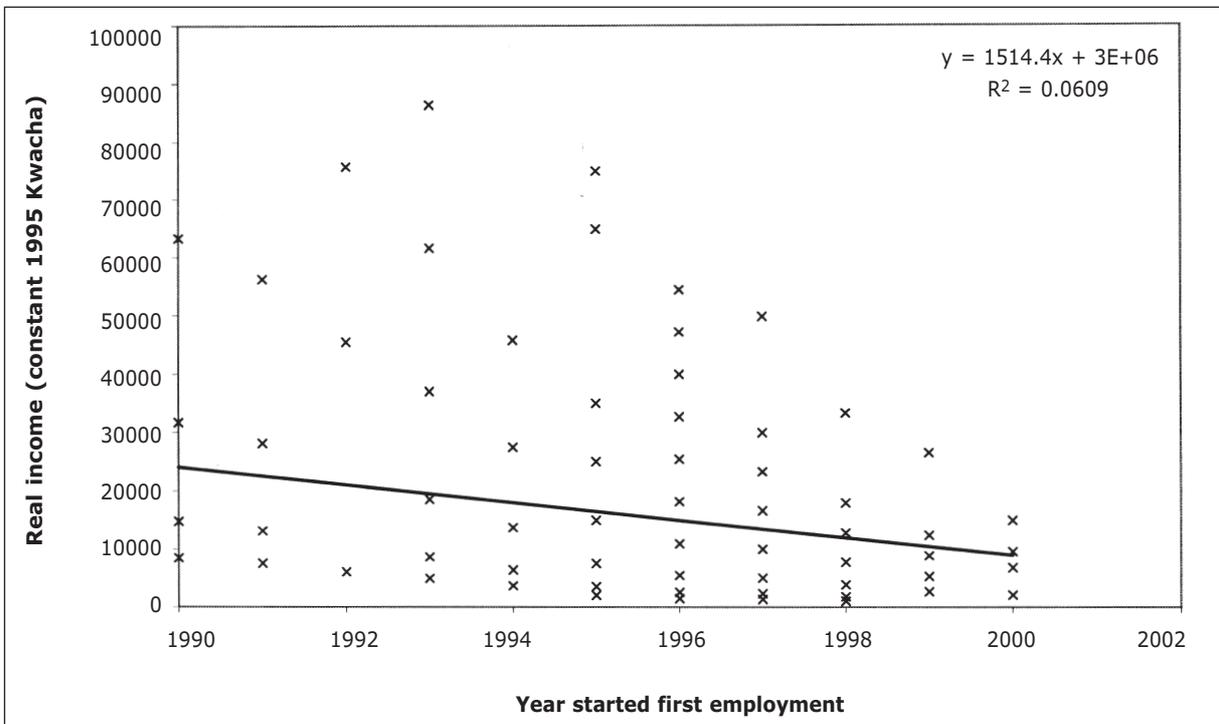
**Appendix Figure 6.3: Percentage of 1990 and 1995 junior secondary school leavers unemployed and looking for work by months after leaving school: Tanzania**



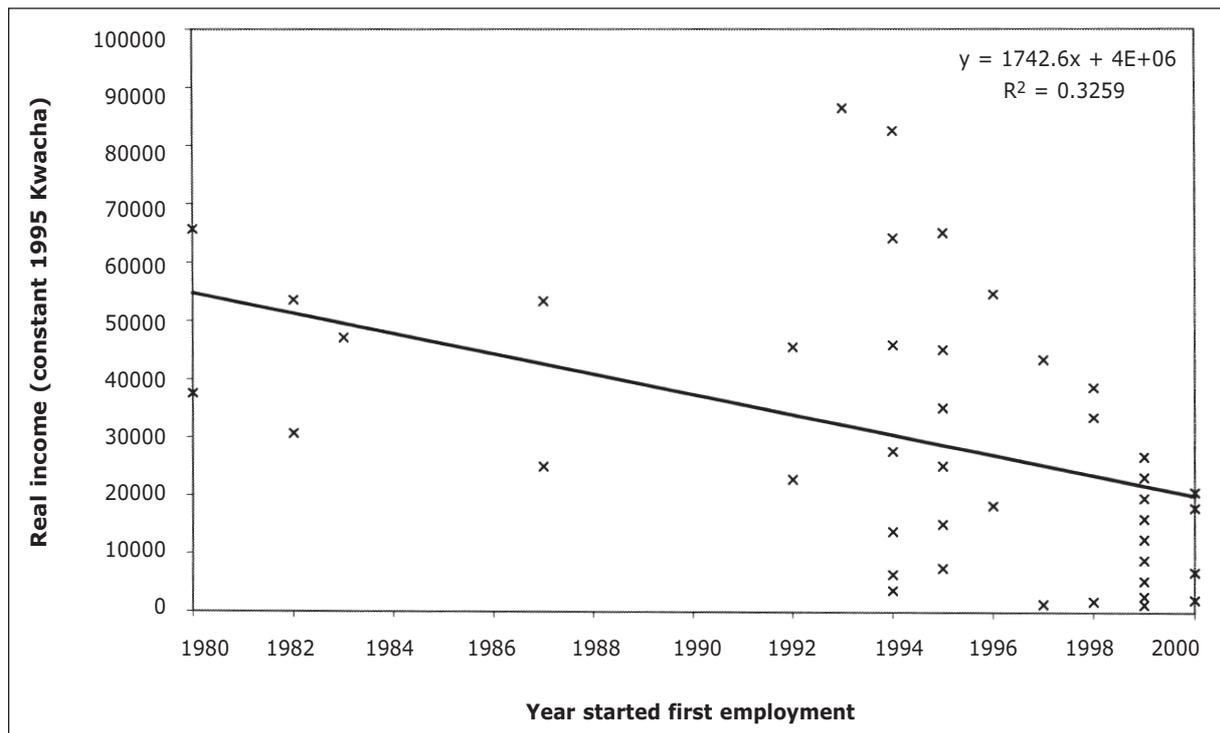
**Appendix Figure 6.4: Percentage of 1990 and 1995 junior secondary school leavers unemployed and looking for work by months after leaving school: Uganda**



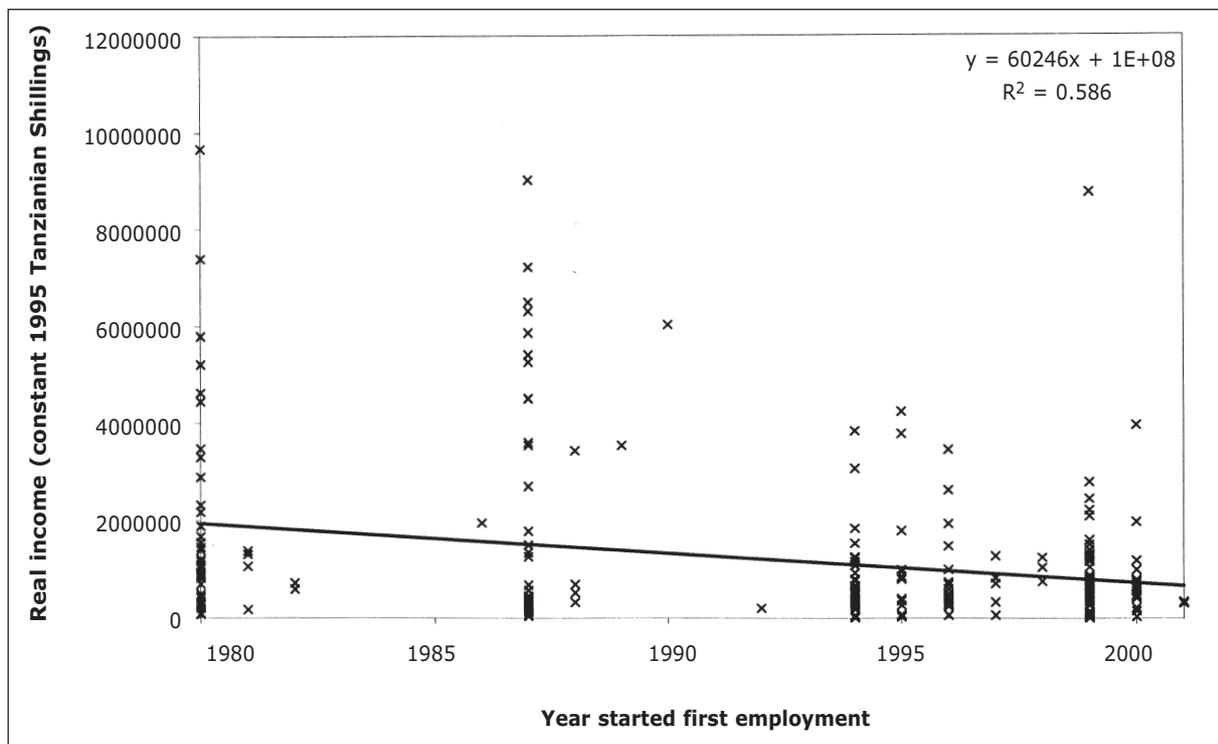
**Appendix Figure 7.1: Real wages for first job taken by junior secondary school leavers after leaving school in Malawi**



**Appendix Figure 7.2: Real wages for first job taken by university graduates after leaving university in Malawi**



**Appendix Figure 7.3: Real wages for first job taken by university graduates after leaving university in Tanzania**





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